THESIS

A PROTOTYPE MODEL FOR AUTOMATING NURSING DIAGNOSIS, NURSE CARE PLANNING AND PATIENT CLASSIFICATION

by

Gary R. Harmeyer

March 1986

Thesis Advisor: N. R. Lyons
Co-Advisor: Tung Bui

Approved for public release; distribution is unlimited.
This project serves as a prototype of an automated nursing care system. The project contains three main components: nursing diagnosis, nursing care plans, and patient classification. The objective of this project is to marry the above three nursing elements into a single integrated system.

The program requires validation for access and patient admission capability. Doctor’s orders and nurse’s orders comprise major inputs for determining the elements of patient care. Patient care functions carry weighted qualifiers which input to calculate the patient classification.

The project uses dBase III to manage the database functions and Exsys to calculate patient classification.
Approved for public release: distribution is unlimited.

A Prototype Model for Automating Nursing Diagnosis, Nurse Care Planning and Patient Classification

by

Gary Richard Harmeyer
Lieutenant Commander, United States Navy
B.S., University of Iowa 1975
M.A., Webster College 1981

Submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN INFORMATION SYSTEMS

from the

NAVAL POSTGRADUATE SCHOOL
March 1986

Author: Gary Richard Harmeyer

Approved by: N. R. Lyons, Thesis Advisor

T. Bui, Co-Advisor

W. R. Greer, Jr., Chairman,
Department of Administrative Sciences

Kneale T. Marshall,
Dean of Information and Policy Sciences
ABSTRACT

This project serves as a prototype of an automated nursing care system. The project contains three main components: nursing diagnosis, nursing care plans, and patient classification. The objective of this project is to marry the above three nursing elements into a single integrated system.

The program requires validation for access and patient admission capability. Doctor’s orders and nurse’s orders comprise major inputs for determining the elements of patient care. Patient care functions carry weighted qualifiers which input to calculate the patient classification.

The project uses dBase III to manage the database functions and Exsys to calculate patient classification.
TABLE OF CONTENTS

I. INTRODUCTION -------------------------------------- 6

II. PROJECT INITIATION ACTIVITIES AND BACKGROUND --- 8
   A. SCOPE ----------------------------------------- 8
   B. COMPUTER/COMPUTING CONSTRAINTS -------------- 9
       1. Hardware ---------------------------------- 9
       2. Software ---------------------------------- 9
       3. Intended User ----------------------------- 9
   C. DEFINITIONS ----------------------------------- 10
       1. The Nursing Care Plan -------------------- 10
       2. The Nursing Diagnosis ------------------- 12
       3. Patient Classification ------------------- 13
       4. Expert System ----------------------------- 14

III. REQUIREMENTS DEFINITION AND ANALYSIS STAGE ----- 15
    A. PATIENT ADMISSIONS ------------------------- 15
    B. NURSING CARE PLAN AND PATIENT ORDERS ------ 15
    C. TRACING USERS AND PROGRAM SAFEGUARDS ------ 18
    D. USING AN EXPERT SYSTEM FOR DETERMINING
       PATIENT CLASSIFICATION LEVEL ------------- 19

IV. DESIGN STAGE -------------------------------------- 20
    A. PATIENT ADMISSION CRITERIA ------------------ 20
    B. NURSING CARE PLAN --------------------------- 20
    C. DOCTOR ORDER CRITERIA ---------------------- 21
    D. PATIENT ORDERS ----------------------------- 22
    E. USER INFORMATION ----------------------------- 23
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>F.</td>
<td>EXPERT SYSTEM</td>
<td>24</td>
</tr>
<tr>
<td>G.</td>
<td>SCREEN FORMAT</td>
<td>25</td>
</tr>
<tr>
<td>H.</td>
<td>SOFTWARE SELECTION</td>
<td>25</td>
</tr>
<tr>
<td>V.</td>
<td>PROGRAMMING STAGE</td>
<td>28</td>
</tr>
<tr>
<td>A.</td>
<td>TRACING USERS AND PROGRAM SAFEGUARDS</td>
<td>29</td>
</tr>
<tr>
<td>B.</td>
<td>PATIENT ADMISSIONS</td>
<td>32</td>
</tr>
<tr>
<td>C.</td>
<td>DOCTOR ORDER SECTION</td>
<td>33</td>
</tr>
<tr>
<td>D.</td>
<td>NURSING CARE PLAN AND PATIENT CLASSIFICATION FUNCTION</td>
<td>36</td>
</tr>
<tr>
<td>E.</td>
<td>INFORMATION SYSTEM</td>
<td>41</td>
</tr>
<tr>
<td>F.</td>
<td>PROGRAM TESTING</td>
<td>41</td>
</tr>
<tr>
<td>VI.</td>
<td>IMPLICATIONS FOR FUTURE STUDIES</td>
<td>43</td>
</tr>
<tr>
<td>VII.</td>
<td>CONCLUSION</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>LIST OF REFERENCES</td>
<td>49</td>
</tr>
<tr>
<td>APPENDIX A</td>
<td>[DATA DICTIONARY]</td>
<td>51</td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>[STRUCTURE CHART]</td>
<td>62</td>
</tr>
<tr>
<td>APPENDIX C</td>
<td>[USER'S MANUAL]</td>
<td>65</td>
</tr>
<tr>
<td>APPENDIX D</td>
<td>[CRITICAL INDICATOR, QUALIFIERS/VALUES AND RULES]</td>
<td>93</td>
</tr>
<tr>
<td>APPENDIX E</td>
<td>[PROGRAM LISTINGS]</td>
<td>148</td>
</tr>
<tr>
<td>APPENDIX F</td>
<td>[PROGRAM SCREENS]</td>
<td>363</td>
</tr>
<tr>
<td>APPENDIX G</td>
<td>[DATABASE STRUCTURES]</td>
<td>400</td>
</tr>
<tr>
<td>INITIAL DISTRIBUTION LIST</td>
<td>402</td>
<td></td>
</tr>
</tbody>
</table>
I. **INTRODUCTION**

The appropriate time to assess the nurse's automation needs is when a hospital-wide system is being proposed. The Navy Nurse Corps is currently in this unique position. A Mission Element Needs Statement proposed the creation of the Composite Health Care System in 1979. A formal Request For Proposal allowed vendors to bid for the implementation of the system in 1985. The Composite Health Care System calls for a phased implementation process with phase one scheduled to begin in 1986. Inpatient activities, including the areas addressed in this project, occur in phase two. The Navy Nurse Corps faces a system implementation imminently. Timing dictates that the Nurse Corps seek prototypes of automated systems that best serve its needs.

This project serves as a prototype of an automated nursing care system. The project contains three main components: nursing diagnosis, nursing care plans, and patient classification. The objective of this project is to marry the above three nursing elements into a single integrated system. Meeting the objective necessitates the inclusion of the doctor's orders. The doctor's orders, in combination with the nurses's orders, reflect the independent, dependent and interdependent activities of
nursing. The combined orders serve as the foundation for the nursing care plan and the patient classification system. Departmental interfaces demand inclusion in the design of any nursing care software package.

To provide a realistic setting, the program requires validation for access and patient admission capability. The validation for entry is a necessity to safeguard patient information from unauthorized access and invasion of privacy. Patient admission capability allows for identifying and testing different patient scenarios.

This prototype project gives a partial operational solution to the planning model proposed by Rieder and Norton in "An Integrated Nursing Information System - A Planning Model." Rieder and Norton state,

the processing step of classifying patients could be fully automated. The computer could process patient information and determine each patient's acuity category from the Critical Indicator parameters stored within the system. As orders and plans of care change, the computer also will update each patient's acuity category and display the results on demand. [1:78]

This program plans to show one way of automating the patient classification system using nursing diagnosis and patient care plans.
II. PROJECT INITIATION ACTIVITIES AND BACKGROUND

This software project follows the outline presented by Pressman [2] and found in the GSA Office of Software Development publication "Establishing A Software Engineering Technology (SET)." In this publication, the Federal Software Testing Center describes SET as:

Software engineering is sometimes referred to as the discipline that brings order to the software development process. [3:3]

This software development effort concentrates on the first three of six software life cycle stages outlined by SET. These steps are requirement definition and analysis, design, and programming. The final three stages of validation, operation and review remain for a follow-on project.

A. SCOPE

This software product limits its application to an in-hospital medical-surgical environment. The emphasis is on automating the nursing care plan activities driven by nursing diagnosis. The patient classification system uses an expert system for automation. Automating the nursing care plan activity holds potential for improving documentation, resulting in better patient care.

Automating the patient classification system provides for consistency and accuracy in assigning points for all
patient care parameters. This provides for easy, rapid classification of patients giving the decision makers necessary and timely information to make effective staffing assignments.

B. COMPUTER/COMPUTING CONSTRAINTS

1. **Hardware**

   The computer hardware chosen for this project is the IBM-PC or IBM-compatible machine. Nurse Corps Officers testing the prototype model operate available Zenith-150 microcomputers located within the nursing service departments. These microcomputers are configured with two floppy disk drives. The capacity of floppy disks to hold data delineates the maximum size of the project.

2. **Software**

   This project uses off-the-shelf software. However, no current product on the market provides for both the automation of a nursing care plan and for patient classification. A versatile, multipurpose programming software package adaptable to the project design provides the means to integrate the nursing activities.

3. **Intended User**

   Navy Nurse Corps functions are currently not highly automated. It is a goal of the software product development to make the system user-friendly and understandable even to the novice nurse. The system designed is for use as a tool for the professional nurse.
Stringent programming measures reduce the understanding required of the inner workings of a computer.

C. DEFINITIONS

1. The Nursing Care Plan

The nurse is a manager of time, energy and resources. Conscientious planning occurs throughout the many levels of a nurse's job. The nursing care plan is at the heart of what a nurse should get accomplished for a patient. The nursing care plan allows the nurse to approach each patient with a documented plan of action. The care plan needs to contain sufficient information on the patient to make it pertinent without making it lengthy and unwieldy.

Currently, the writing of nursing care plans is not a popular activity. [4-6] Nurses agree that patient care planning is necessary. They disagree on how best to implement the documentation of nursing care plans. Education and practice direct nurses to prioritize energies on administering patient care. This is an admirable goal to strive toward, but one often infringed upon by non-patient care requirements. Animosity exists between the need to provide the necessary nursing care and the time spent documenting the care. Manual documentation currently eats up 40 per cent of a nurse's time. [7:26]

Various approaches to encourage, enable and persuade nurses to complete nursing care plans have been
tried. The Joint Commission on Accreditation of Hospitals (JCAH) requires a documented plan of care for every patient. Texts have been published to inform nurses about suggested care planning methods. Many hospitals establish nursing committees to provide standardized care plans. Standardized care plans attempt to save nurses the time and energy necessary to develop original care plans. They still allow individualization of plans. These attempts to simplify care plan writing activities have not succeeded. What often results is a nursing care plan written precursory to assessing the true needs of the patient. The plan rapidly outdates itself. Plans frequently need updating. The care plans lack consistency from one practitioner to another. Patient care plans written to meet JCAH requirements, fall short of matching the spirit behind them.

A possible solution to the above care planning dilemma is beginning to appear in nursing literature. In many instances that solution is a successfully implemented automated nursing system. Where a successful automated system exists, more nurses actively develop care plans for their patients. Nurses perceive the automated plans as helpful and pertinent to the care delivered. The speed and ease of entering care plans pays dividends of better nursing care documentation. Their timely output encourages active use of the plans.
2. **The Nursing Diagnosis**

One accepted method for formulating a nursing care plan commences with a nursing diagnosis. A nursing diagnosis, as stated by Carpenito, is:

*a statement that describes a health state or an actual or potential alteration in one's life processes (physiological, psychological, sociocultural, developmental, and spiritual). The nurse uses the nursing process to identify and synthesize clinical data and to order nursing interventions to reduce, eliminate, or prevent [health promotion] health alterations which are in the legal and educational domain of nursing.* [13:4]

Automation was one of the catalysts behind the First National Conference on Classification of Nursing Diagnoses. Since the first conference, 52 of the most pertinent nursing diagnoses (through the Sixth National Conference of the North America Nursing Diagnosis Association), have been identified. Nursing diagnoses, along with delineating the etiology and interventions appropriate to each, has produced a national effort aimed at unifying activities in nursing. [14:xi] The nursing diagnosis approach has received broad support from the nursing community. The nursing diagnosis drives this computer project.

Numerous texts provide sample or generic statements initiated by nursing diagnosis. Many hospitals interested in implementing automated nursing care planning use standard texted plans. This program extracts examples from Doenges [15] and Crosley [16].
A nursing diagnosis is multileveled. A nursing diagnosis can be any one of the 52 approved nursing diagnoses. Each diagnosis has an assessment level. Assessment levels are defining characteristics observed by the nurse or subjectively stated by the patient. The nurse's observation or the patient's statement is relational to some etiology or underlying cause. The underlying cause statement helps the nurse evaluate realistic goals for the patient to achieve. Goal setting is the fourth level of nursing diagnosis. The final level is selecting nursing actions or nurse's orders directed toward achieving the stated goal.

3. **Patient Classification**

Patient classification is:

the grouping of patients according to an assessment of their nursing care requirements over a specified period of time. [17:8]

A valid patient classification tool enables proper staffing evaluation. This program will adopt the Navy Nurse Corps' Workload Management System for Nursing. This method of classifying patients exists in all inpatient Navy facilities. The Nurse Corps has established solid criteria-based critical indicators which this program will exploit for deriving a classification level. The classification level equates an amount of nursing time required to give patient care.
The Navy Nurse Corps is ahead of its civilian counterparts in its use of a sophisticated tool to measure patient classification level. The use of the Workload Management System worldwide has given the Nurse Corps excellent data to improve its system. The continual drawback that many manual tools have, including this one, is subjectivity and inconsistency across users. With inservice training and auditing, the Nurse Corps attempts to keep the reliability of its model high. Automating such an activity would enhance consistency and accuracy.

4. Expert System

This program will introduce an expert system limited to the patient classification documentation. Ryan defines an expert system as a system capable of operating with a large knowledge database, processing information on expert level. She continues with

benefits of expert systems are that they can capture, replicate, and distribute expertise. [18:77]

As a large standardized nursing knowledge database accumulates, the application of expert systems will increase in importance.

For this project, patient classification adapts well to an expert system approach. The critical indicators and their associated value can easily fit the if-then format of most expert systems. The expert system will extract from a patient’s orders the applicable critical indicator values and calculate a classification level.
III. REQUIREMENTS DEFINITION AND ANALYSIS STAGE

The first stage of software development is the requirements definition and analysis stage. This stage defines the purpose of the system and examines the different components that ultimately make the whole. The prototype system provides the nurse with a tool to assist in the documentation of the nursing care plan and calculation of a patient classification level.

A. PATIENT ADMISSIONS

Nurses cannot exercise their skills without patients. The ability to bring patients into the system (admission), and have them exit the system (discharge) provides a realistic situation. The varying population number necessitates an expandable capacity for holding patient information.

B. NURSING CARE PLAN AND PATIENT ORDERS

A patient occupies a specific bed in a numbered room located on one of several nursing wards. After the patient arrives on the ward, doctors write orders. The nurse interviews the patient and develops a nursing care plan. The care plan consists of one or more nursing diagnoses. Each nursing diagnosis has one or more assessments, related factors, patient goals and nursing orders. The initial
doctor's and nurse's orders comprise the patient care requirements. The patient care requirements determine the patient classification level.

The orders determine the patient care requirements. Both doctor's and nurse's orders dictate nursing care activities. The calculation of a patient classification hinges on the analysis of the patient orders for relevant critical indicators.

A patient order consists of the date, the time, the order, the frequency of the order, and the practitioner initiating the order. Date and time dependency is critical for patient orders. An order's date and time determines whether the order is current or due for deletion. The order date is also important for patient classification determination. Patient orders prescribed for a specific number or repetitions (i.e., x 3 or x 12) are nonrecurring orders. Nonrecurring orders input to patient classification calculation only on the date they were issued.

The purpose of the critical indicators is to easily translate patient orders to a patient classification level in a manual system. Only those orders that closely parallel the critical indicators in the Nurse Corps' Workload Management System for Nursing need consideration.
A need exists for the user to identify a patient then move on to select patient orders. The indexing of orders to allow for logical progression aids the process.

Individual orders will need to be linked to a relevant critical indicator. Many critical indicators are time or frequency dependent. The program should tie these factors together. Patients frequently require several doctor's orders from the same section. The program would need to accommodate for some type of looping to handle multiple order entry for a single subcategory.

The practitioner is a doctor or a nurse qualified to enter patient orders. The program should have an internal check to assure that a practitioner has limited ordering access pertinent to their qualifications.

The patient's condition is dynamic. The program will need to provide an easy method to modify changes. Nursing care plans vary in length and content. Some patients have multiple nursing diagnoses, while others have only one. The program would have to accommodate for these variations.

Some method would need to be available for communicating modifications to staff members. This communication process is best if the output is in a printed format. Printed output allows for the information transmittal to staff members even when away from the computer location.
A number of nursing diagnoses in the system is desirable. Patient needs cannot be anticipated. A variety of diagnoses allows for specific selection. Because a nursing diagnosis requires documentation of assessments, related factors, goals and nurses’ orders, these functions require inclusion.

C. TRACKING USERS AND PROGRAM SAFEGUARDS

Some input information should distinguish for the system that the current user is either a doctor or a nurse. A doctor will want to choose a ward for patient admission, identify the patient and select orders. A nurse will want to select a ward and patient but then either select a nursing diagnosis or calculate a patient classification. The doctor/nurse functions, although related by patient selection are different in nature. When users enter the system the program should identify whether they are doctors or nurses, and direct their attention to the appropriate branch of the program.

The program selectively allows access to program information to eliminate unauthorized access. The program contains hypothetical patient information. Nevertheless, addressing the privacy of sensitive patient information is relevant even in a prototype setting. Safeguards built into the system reduce the chance of successful unauthorized entry.
D. USING AN EXPERT SYSTEM FOR DETERMINING PATIENT CLASSIFICATION LEVEL

A self-imposed requirement of the system is to use an expert system to determine the patient classification level. This expert system should interpret the patient order as to which critical indicator applies and the frequency of its performance. The expert system then translates that information into patient care points which then calculates a patient classification level.

The use of an expert system would allow a user the option of reviewing rules used in calculating the patient classification. The patient classification tool is continually evolving. By monitoring rules and their underlying critical indicators, the user gets a visual output of the points and how they were derived.
IV. DESIGN STAGE

The design stage attempts to answer how the system will accomplish the requirements outlined in the requirements definition and analysis stage.

A. PATIENT ADMISSION CRITERIA

The need analysis pointed out the requirement for handling varying numbers of patients with set criteria on each patient. Two options to meet this requirement are an automated file system or a database system. Generalized patient data that would need to be included are: patient's first, middle and last names; their rate or rank; their family member prefix concatenated with their social security number giving a unique identifier; birthdate; age; sex; admission date; hospital registration number; medical diagnosis; physician; prognosis; allergies; as well as their nursing ward, room and bed assignments. (See Appendix A, Data Dictionary; Appendix B, Structure Chart; and Appendix C, User’s Manual for additional information.)

B. NURSING CARE PLAN

A representative four of the 52 approved nursing diagnoses were selected due to the floppy disk capacity constraint. To some degree, every patient experiences self-care deficit when admitted to the hospital. Other diagnoses
are more applicable to some specific area in nursing. The three other nursing diagnoses reflect diagnoses frequently seen in a military hospital setting. These diagnoses are: comfort, alteration in: pain; communication, impaired: verbal; and impaired physical mobility.

Critical indicators that fall under the independent and interdependent roles of nursing need to be identified. After identification, these indicators require incorporation into the nursing order screens for selection. These critical indicators need to be back-chained to one of the four nursing diagnoses, to provide for their selection.

The critical indicators on the Patient Classification Critical Indicators [19:10] list that were identified as independent or interdependent nursing functions were: all activities of daily living except turning frame; spoon feeding adult and children patients; accompany patient off ward, other activities requiring nurse's time and special procedures; range of motion exercises; and all items listed under teaching and emotional support. This is an initial grouping, conservatively chosen.

Multiple nursing diagnoses, with their corresponding assessments, related factors, goals and nursing orders, can be handled with either a file system or a database system.

C. DOCTOR ORDER CRITERIA

The criteria to include doctor order categories will be to meet critical indicator requirements and provide a
representative model of patient orders. An admission section monitors the patient flow. This satisfies the critical indicators of admitting and transferring patients. An activity section captures the mobility level of a patient. A diet section captures the dietary requirements of a patient. A section provides selections of intravenous and blood products that a patient might require. Laboratory and pharmacy sections allow orders for lab tests and medications. A monitoring section allows options for monitor orders. A radiology section captures radiology test orders. A respiratory therapy and vital sign section allows orders that relate to those areas. Finally, a ward routine section captures the nursing care activities normally restricted to the ward setting.

These categories would allow for the dependent and interdependent functions of nursing, which the critical indicator list includes. Either a file or a database implementation would satisfy these requirements.

D. PATIENT ORDERS

Microcomputers have the ability to maintain an internal clock upon entry of the current date and time. The program would need to pick up this data from the system’s clock to attach it to patient orders. The actual order length would need limitation to a number that would best suit a screen presentation format. The number of options for
time/frequency would need to include those commonly found in a medical environment.

The design should accomplish the looping for multiple orders in a single subcategory. Once selected, an order is activated and placed in an order file or database. The program returns for another order or to have the user select to move on.

E. USER INFORMATION

The use of a user chosen password to access the program would accommodate all of the identified requirements. Utilizing a user information database would provide for users to be added or deleted from the program. The database carries their status within the organization and provides an access level for legal entry into the program. A doctor or nurse, by signing on to the system and entering their valid password, would dictate which branch the program should route them through. The password would also limit those not authorized to use the system from entering the program.

To provide for a degree of user specialization, the design proposes four areas of access. The first is for admissions personnel. In a hospital, the admissions department is physically separate from the ward. Admissions personnel are responsible for the input of patient information. The second group is the nurses who develop the nursing care plan and determine the patient classification. The
third group is the physicians who select doctor's orders.
The fourth group is the information systems personnel. Their role would be to add new users and delete obsolete ones.
Access level assignments occur during routine check-in procedures of personnel. The actual assigned level would depend upon the employing department and the job position. Additionally a fifth group exists for the prototype model. This is a group of users, with passwords allowing access to all areas to aid in the testing and integration of the software model.

F. EXPERT SYSTEM

The expert system calls for special input consideration. A patient order consists of the order and the frequency. Major order headings (i.e. vital signs) can be categorized as a qualifier. Listed under each qualifier is its potential values (i.e. QID or less, q4h or x 6, q2h or x 12, q1h or x 24). From this system of qualifier and value, rules can be derived (i.e. vital signs QID or less receives a value of 1 patient point). By splitting the critical indicators into qualifiers and values, thus setting up conditions, the formulated rules allow the system to derive a patient classification level. (See Appendix D.)
G. SCREEN FORMAT

User friendliness is a goal many programs strive to achieve. This program will follow many of the suggestions of Monk's text on Fundamentals of Human-Computer Interaction. [20] The program will rely on consistent screen formats which locate user instructions in the same place on each screen. After patient identification, the patient information is put on every screen so the user has no question which patient he has selected. The program will provide the user with consistent input locations. Screens are uncluttered and easy to follow. The screen color is white lettering on blue background. Although speed is not a prime consideration for this model, it influences the selection of the method of screen projection. A software utility called Flashcode creates the screen projections. Where possible, the user returns to a previous screen, or to a home base to reorient themselves. A rudimentary help facility allows on-line assistance. The help facility demonstrates its function rather than providing indepth assistance with this prototype model. (See Appendix E and Appendix F.)

H. SOFTWARE SELECTION

With hardware choice set by the constraints of the user, software compatibility is the remaining issue. Numerous software packages exist for IBM-compatible microcomputers. Information in a database format provides
increased data flexibility and maneuverability. Some advanced programming tools provided by database software producers simplify the task of programming. These are major incentives to choose a database orientation. The database language, dBase III, has user-friendly features and the capability for meeting most of the identified requirements. An area for which dBase III can only provide a partial solution is the expert system. The dBase III program has the ability to calculate patient point totals and derive a patient classification level. It lacks the option of allowing the user to see why it calculated its results in a specific way.

The expert system chosen is Exsys. Exsys is an off-the-shelf expert system that can accommodate the number of critical indicators outlined in the Navy's Nurse Corps' Workload Management System for Nursing. This software product can also do the necessary calculations required to arrive at a patient classification level.

The information format coming into Exsys requires the statement of qualifiers and values. The dBase III language accommodates for this by including the qualifier and value with each order selected. A salient feature of Exsys, that makes it especially appropriate for this design, is its ability to import data from an output file. Exsys operates as an interactive independent program using the same conditions and rules. This option is useful because of the
iterative nature of both the critical indicator development and that envisioned for this system. In addition, Exsys does allow the user to view rules used to derived a classification. A visual check of the applied rules against the individual patient order allows the achievement of greater reliability. [See Appendix D.]
V. PROGRAMMING STAGE

The programming stage constructs a product for the user. The software product incorporates details identified in the analysis and design stages to produce a workable solution. The product's overview is presented in Figure 1.

Figure 1  Nursing Prototype Product Overview

Box 1  Coordinating Module
Box 1.1  Patient Admissions
Box 1.2  Select Ward and Patient
Box 1.2.1  Select Doctor Orders
Box 1.2.2  Select Nursing Diagnosis, Nursing Orders and Patient Classification
Box 1.3  Patient Classification
(-----)  Expert System [Exsys]

A modular approach was used for programming. Appendix B displays the design modular structure of the prototype system—a detailed version of Figure 1. This structure was used as a guide in program development. Programming
modularity allows the programmer to work with smaller more manageable units. This enables the programmer to easily test and debug a module before integrating it into the system. The use of comments throughout the programming effort attempts to improve the maintainability of the program. (See Appendix E for program listings.)

A. TRACKING USERS AND PROGRAM SAFEGUARDS

In programming modules the author has tried to minimize the number of steps required for the user to move between modules. Whenever possible, the system automatically advances the program to the next screen.

Screens are used in this chapter to demonstrate the method used to convert design details to workable solutions.

The program opens with an introductory screen (Figure 2). The screen gives information on the organizations supporting the program and identifies the author. Depressing any key advances the program to a screen requesting a password (Figure 3). Advancing beyond the second screen requires a valid password. The program compares the entered password against a database of user's passwords. If the password is a match, the user moves forward to the main branching module of the program. Incorrect passwords deny access with the opportunity to re-enter a password.
A PROTOTYPE PROJECT
FOR THE
NAVY NURSE CORPS

BY
GARY R. HARMEYER
LCDR NC USN
MARCH 1986
NAVAL POSTGRADUATE SCHOOL
MONTEREY, CALIFORNIA
RELEASE 1

PRESS ANY KEY TO BEGIN

Figure 2 Introductory Screen

*** Please Sign On By Entering Password ***

** Password:

Figure 3 Validation Screen
As a result of entering a valid password, the system now recognizes the user by name and access level (See Figure 4).

** Prototype Master Screen **

---

*** Select the Desired Option ***

1) Admission's Department  
2) Doctor's Master  
3) Nursing Master  
4) System Administration  
0) Sign-Off

Current User:  
Select one number (0-4) ----> *

---

** Figure 4 ** Prototype Master Screen

The four user access levels available in this program are admissions personnel, nurses, doctors, and administrative personnel. The current user's name appears in the bottom left corner of each screen. Since the system now recognizes a user by name and access level, the main branching module restricts the user's entry to a branch corresponding to that access level.

The main branching module provides five options for selection. The first option, which appears on essentially every screen, is to sign-off from the system. This ends the current user's session, and returns the program to the introductory module. The other four options relate to the main sections of the program.
B. PATIENT ADMISSIONS

The selection of admission's department advances the program to an admit/discharge option module. The admit option moves the user to a patient data input screen (Figures 5,6). Admitting a patient requires the user to input patient data to a patient information database. (See Appendix C for the User's Manual.) From this database, the program uses the patient's name, family member prefix-social security number (fnmp-ssn), ward, room and bed. After entering the patient data, the user returns to the admit/discharge module.

The selection of discharge a patient moves the user to the discharge module. The user reviews and selects patients for discharge. Upon leaving the discharge module,

*** SELECT ADMIT / DISCHARGE OPTION ***

1) Admit A Patient

2) Discharge A Patient

0) Sign-Off

Current User: Select one number (0-2) ----> .

Figure 5 Admit/Discharge Screen
Patient Admission Form

| Last Name: | Registration No: |
| First Name: | Medical Diagnosis: |
| Mid Initial: | Physician: |
| Rank/Rank: | Prognosis: |
| FMP-SSN: | Allergies: |
| Birthdate: | Nursing Ward: |
| Age: | Room Number: |
| Sex: | Bed: |
| Admit Date: | |

Figure 6 Patient Admission Screen

the program purges all patient records flagged for discharge. The program also purges any patient data in other databases with identical fmp-ssn identifiers. [See Appendix G.]

This module limits itself to handling primitive admit/discharge situations. Although limited, this module allows the nurse user to test a number of patient scenarios while working with the prototype system.

C. DOCTOR ORDER SECTION

The doctor option of the main branching module advances the physician to the nursing ward selection module. The doctor chooses between one of two nursing wards (Figure 7). A surgical and medical ward option reflects the major divisions of patients in a hospital. Options to return to
the main branching module or to sign-off the system are also provided.

A ward selection moves the program to one of two nursing wards containing six beds (Figure 8).

<table>
<thead>
<tr>
<th><strong>Nurse's Station Selection</strong></th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Select Nursing Unit to Display Patients</strong>*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) 2E Surgical ward  
2) 3E Medical ward

<table>
<thead>
<tr>
<th><strong>Sign-Off</strong></th>
<th><strong>Master Screen</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current User:</td>
<td>Select one number (0-3) ———&gt; *</td>
</tr>
</tbody>
</table>

**Figure 7** Nurse's Station Selection Screen

<table>
<thead>
<tr>
<th><strong>Patient Selection</strong></th>
<th>Ward</th>
<th>2E Surgical</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Select Patient</strong>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RM BED</th>
<th>PATIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 1 A</td>
<td></td>
</tr>
<tr>
<td>2) 1 B</td>
<td></td>
</tr>
<tr>
<td>3) 2 A</td>
<td></td>
</tr>
<tr>
<td>4) 2 B</td>
<td></td>
</tr>
<tr>
<td>5) 3 A</td>
<td></td>
</tr>
<tr>
<td>6) 3 B</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Sign-Off</strong></th>
<th><strong>Master Screen</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current User:</td>
<td>Select one number (0-7) ———&gt; *</td>
</tr>
</tbody>
</table>

**Figure 8** Patient Selection Screen
Patients' names, listed in the patient information database, appear in their ward, room and bed assignments. Valid options include: sign-off, return to main branching module, and selection of a patient assigned to an occupied bed.

A patient selection advances the physician to the doctor's branching module (Figure 9).

<table>
<thead>
<tr>
<th>Word</th>
<th>Room</th>
<th>Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>

*** DOCTOR'S MASTER SCREEN ***

1) Order Entry
2) Admit / Transfer / Discharge Patient
3) Review Medical Orders
4) Print Medical Orders
5) Discontinue An Order

0) Sign-Off
6) Master Screen

Current User: 

Select one number (0-6) ----> *

Figure 9  Doctor's Master Screen

The doctor's menu provides options for deciding on the next activity. With the exception of output forms (i.e. review of the doctor orders on screen or printed), any selection results in menu modules for doctor's orders (Figure 10). Many orders request additional order information moving the program to a time/frequency module. The doctor's order with the frequency determines a qualifier and value listing in the patient's order.
database. Qualifier and value information transfers to the expert system. In addition, a patient point value appears in the patient order database. This number provides the option of dBase III calculating its own internal patient classification level. (See Appendix G.)

D. NURSING CARE PLAN AND PATIENT CLASSIFICATION FUNCTION

At the main branching module, the nursing option advances the program to the nursing ward selection module (Figure 6,7). This module, and the patient selection modules are identical to those presented to the physician. The program sets an internal flag to indicate the access level of the user. After patient selection, the nurse automatically tracks to the nursing branching module (Figure 11).
The nurse branching module provides a menu for direction for the user to proceed. Options include the selection of a new nursing care plan, modifying an existing care plan, reviewing or printing patient care requirements (consisting of all active patient orders), reviewing or printing the nursing care plan information, and determining the patient classification system.

After the nursing care plan option selection, the program advances to a module allowing for a new care plan entry or a modification of an existing care plan. The choice of a new nursing care plan provides the option of the four selected care plans (Figure 12).

All patients require a minimum of one care plan (self-care deficit). All diagnoses, assessments, goals and
nursing generated orders enter into a nursing care database (Figure 13). In addition to the nursing care database, nurse generated orders are also placed in the patient order database for inclusion in the calculation of the patient classification. (See Appendix F for additional screens.)

---

**Figure 12 Nursing Diagnosis Screen**

<table>
<thead>
<tr>
<th>Word Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>*** SELECT NURSING DIAGNOSIS ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Comfort, Alteration In: Pain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Communication, Impaired: Verbal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Impaired Physical Mobility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Self-Care Deficit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Nurse's Master Screen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Master Screen</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current user: Select one number (0-6) ----> *

**Figure 13 Nursing Order Screen**

<table>
<thead>
<tr>
<th>Word Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>** SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>** COMMUNICATES: PAIN FREE, EXPERIENCES LESS/TOLERABLE PAIN OR OTHER GOAL **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Assess Pain Factors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Assess &amp; Evaluate Pain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Encour Pt to Use Coping Strategy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Give Info &amp; Explain Proc &amp; Tests</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Other Nursing Orders: [.................................]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Offer PRN Medications</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Provide Emotional Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Schedule &quot;Quiet Times&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Teach Alt Coping Strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10) Utilize Diversional Activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current user: Select one number (01-10) ---->
If the option selected inactivates a portion of the nursing care plan, the user moves to a module for review of existing care plan entries. If an entry is inactivated, the program purges all portions related to that specific entry including the order in the patient order database.

The selection to review or print the patient care requirements consists of all active patient orders. Active orders consist of previously selected orders, and those orders selected for a specific frequency (i.e. x 2) on the date of their selection. The same criteria applies when determining patient classification (Figure 14).

---

Press -- Ctrl and S -- Keys To Pause The Scrolling If Necessary

Page No. 1
01/12/86

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Order</th>
<th>Frequency</th>
<th>Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11/86</td>
<td>10:06:20</td>
<td>Teach Alt Coping Strategies</td>
<td></td>
<td>G. Hormeyer RN</td>
</tr>
<tr>
<td>01/11/86</td>
<td>12:08:07</td>
<td>Assist Bed To Wheelchair</td>
<td>TID</td>
<td>N. Lyons MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>13:10:15</td>
<td>Self/Minimum Care</td>
<td></td>
<td>G. Hormeyer RN</td>
</tr>
<tr>
<td>01/11/86</td>
<td>13:10:53</td>
<td>Keep Commode @ Bedside</td>
<td>TID</td>
<td>G. Hormeyer RN</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:13:47</td>
<td>Up in Chair w/ Assist</td>
<td>TID</td>
<td>N. Lyons MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:14:23</td>
<td>Diabetic Diet</td>
<td></td>
<td>N. Lyons MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:14</td>
<td>Chloride</td>
<td>Daily @ 0600</td>
<td>T. Bul MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:40</td>
<td>Sodium</td>
<td>Daily</td>
<td>T. Bul MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:00</td>
<td>Amylase</td>
<td></td>
<td>T. Bul MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:26</td>
<td>Potassium</td>
<td>Daily @ 0600</td>
<td>T. Bul MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:56</td>
<td>CO2</td>
<td>Daily @ 0600</td>
<td>T. Bul MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:26</td>
<td>CBC</td>
<td>Daily @ 0600</td>
<td>T. Bul MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:54</td>
<td>Platlets</td>
<td>Daily @ 0600</td>
<td>T. Bul MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:20:18</td>
<td>Glucose</td>
<td>Daily @ 0600</td>
<td>T. Bul MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:22:02</td>
<td>Intake &amp; Output</td>
<td>TID</td>
<td>T. Bul MD</td>
</tr>
</tbody>
</table>

---

Figure 14: Patient Requirement Screen

The nurse can also select to review only the nursing care plan portion of the patient record. This enables review of the nursing care plan to determine if modifications or updating is necessary.
Two options for determining patient classification exist. The first option keeps the user in the current program, and generates a number with a corresponding patient classification level (Figure 15).

Patient: Mary Miser
Is In: Category II
Point Value Is: 27

Figure 15 Patient Classification Screen
Each order receives a point value based upon the order selected and the frequency for that order. Then dBase III sums these points and assigns a patient classification level. The program does not explain how this number was calculated. A less user-friendly method results when selecting the second option—that of external calculation of the patient classification. The user exits the dBase program, changes floppy disks, and runs Exsys. The patient point value and level would not change, but the expert system program displays rules used to derive the classification level.
E. INFORMATION SYSTEM

The information system section of the program is a parallel development of the admission's department. User's of the program must have the appropriate access level to advance beyond the main branching module (Figure 3). The program limits transactions to adding another user to the system or deleting a current user (Figures 16, 17).

--- SELECT ADD / DELETE A USER ---

1) Add A User

2) Delete A User

0) Sign-Off

<table>
<thead>
<tr>
<th>Current user</th>
<th>Select one number (0-2) ----&gt;</th>
</tr>
</thead>
</table>

Figure 16 Add / Delete A User Screen

F. PROGRAM TESTING

Testing is an aspect of the programming stage. Testing criteria are three-fold. First, procedural testing of separate modules (white-box testing) takes place as modules are completed. Next, integration testing assures modular interfaces are smooth from one program to another (black-box testing). Finally, independent use by a third party tests the program in a simulation performance. Where
testing uncovered mistakes, program modifications correct the errors.

USER INFORMATION

*** THIS INFORMATION IS CONFIDENTIAL ***

First Initial:
Middle Initial:
Last Name:
Category of Requestor:
Password:
Access Level:

Figure 17 User Information Screen
VI. IMPLICATIONS FOR FUTURE STUDIES

Creating a hospital information system model is a time-consuming methodical process. A program using nursing diagnosis to drive nursing care plans produces a logical product. The major implications of this program center on the automation of the patient classification system.

Tying critical indicators to patient orders is an arduous task that required many iterations. The program makes assumptions about orders. This program assumes the physician knows the difference between a simple and complex dressing change (see Figure 10). The distinction between a 15 minute dressing change and 30 minute dressing change can be very subjective. Frequency of patient orders relates to almost all the critical indicators. This program separates the time/frequency options into prn (as necessary), once a day, twice a day, 3, 4, 6, 12 and 24 times a day. The latter seven options divide further into recurring orders (i.e. twice a day) versus nonrecurring orders (x 12). Recurring orders continually count toward the patient classification level until discontinued. The nonrecurring orders count only on the day ordered. Nurses calculate classification levels daily at 1400. Many nonrecurring orders are completed by that time and should not be calculated. The program counts these orders.
Duplicate orders result in duplicate point calculations. For example, if a doctor and a nurse each order passive range of motion exercises for a patient TID, the patient point total would be 8 vice the correct total of 4. The program tallies 2 points for isolation precautions regardless of the number of gown and glove changes. The correct assignment gives 2 points for every eight gown and glove changes.

In the current manual system, doctors and nurses assume that new orders supersede previous orders. If doctors and nurses hold to that assumption, this program produces inaccurate results. For example, if a patient's condition improves, the doctor writes an order for vital signs Q4h (with a patient point value of 2) without deleting the original order of vital signs Q2h (patient point value of 4). The program totals vital signs points as 6 instead of 2.

Some critical indicators do not readily convert to a patient point value. The program accommodates for three of these critical indicator exceptions. The critical indicator for apnea monitor, temperature monitor, etc. is not additive and as such translates indirectly from patient orders. The critical indicator for specific gravity, Guiac, etc. is additive across orders resulting in a point total assignment. The classification listing limits emotional support to a maximum total point value of 10.
Assigning a patient point value to these patient orders requires an intermediate variable. The calculation occurs first for the intermediate variable. This amount then feeds into the sum of other patient point values.

Medication and laboratory critical indicators presented difficulty in program translation. The program assigns points for medication and laboratory samples on a per order basis rather than on a per trip basis. The intended critical indicator for both factors assesses points on a per trip basis. The nurse actually delivers all the medications for a specific time in one trip. The nurse draws numerous lab tests with one venipuncture. The program calculates point values based on individual medication or laboratory test order. Aggregating nonintravenous medications and laboratory tests into time groups would provide accurate results. However, the effort required to program in time groups was counterproductive for this project.

The program overlooks patient situations requiring more than one staff member. Currently, all critical indicators except turning frame, which explicitly includes two staff members, calculate on a one staff member per patient basis.

To accommodate for patient orders not currently listed on the nursing order screen, an "other orders" option exists (see Figure 13). The option allows any nursing order entry. Entries in this category result in no patient points awarded to those orders. Despite their critical
indicator value, the program lacks the refinement necessary to assign a value to this order.

Many of the areas addressed can be corrected by going into the expert system's interactive mode. In this mode the program calculates entries in a more thorough manner. The trade-off for accuracy is user subjectivity in selecting applicable critical indicators. Another trade-off is the time required to traverse 85 qualifiers in a real time setting.
VII. CONCLUSION

Automated systems exist that combine nursing diagnoses with the nursing care planning function. No automated system on the market integrates nursing diagnoses, nursing care plans and patient classification. The Navy Nurse Corps has a sophisticated patient classification tool. The tool lists critical indicators which adapt readily to automation to produce a classification level.

This thesis project is a programming effort producing a prototype software product marrying three nursing activities—nursing diagnosis, nursing care plans, and patient classification. This project demonstrates one possibility for integrating the nursing care plan using nursing diagnosis and the Navy Nurse Corps' patient classification system. The program extracts points for critical indicators from patient orders.

The greatest incentive for marrying nursing diagnosis, nursing care planning and patient classification is to improve patient care. Improved patient care results from precise documentation and uniform staffing. Nurses acknowledge the need to document plans of care to serve as a guide for all staff members. Nursing is a seven day a week, 24 hour a day profession. Care plans provide a consistent, comprehensive method for delivery of patient care.
care. Without this plan of care, valuable nursing time disappears while continually redefining basic patient care requirements. Successfully implemented automated systems have improved documentation by making it easier, less time-consuming, and more user gratifying.

Patient care is also enhanced through better staffing of nursing units. Staffing levels relate directly to patient care requirements determined by patient classification. The program automates the patient classification process to calculate an accurate and objective measure of patient care requirements. Staffing to a level that can be objectively quantified is a goal. Such a level assures nursing administrators their scarce nursing resources are properly utilized while at the same time providing staffing levels in keeping with safe standards of care.
LIST OF REFERENCES


11. Little, Dolores E. and Carnevali, Doris L., *Nursing Care Planning*


APPENDIX A
DATA DICTIONARY

[Local looping variables omitted]

Module: Intro.Prg
Variable Name: Flash
Aliases: None
Format Of Data: Character
Allowable Value: Chr(145)
Files Variable Used: All modules
Comment: Flash Code specified variable, use in conjunction to displaying screens.

Module: Valid.Prg
Variable Name: Xusepass
Aliases: None
Format Of Data: Character
Allowable Value: String of S characters
Files Variable Used: Valid.Prg
Comments: A concatenation of Xusepas1 through XusepasS (single characters) to form the individual’s password entry. Xusepass is compared with those in the Useinfo.Dbf to determine if the entry received is a valid password.

Module: Valid.Prg
Variable Name: Curuser
Aliases: None
Format Of Data: Characters
Allowable Value: String of up to 23 characters
Files Variable Used: All modules except Intro, Pt_Info and Useinfo
Comments: A concatenation of UFinitial and trim Ulname. Is displayed on the screen based on password entered and name associated with that password in the Useinfo.Dbf. Curuser is also entered as the practitioner or nurse in the Orders.Dbf or Ncaredb.Dbf.

Module: Valid.Prg
Variable Name: Useacc
Aliases: None
Format Of Data: Numeric
Allowable Value: 0 - 4
Files Variable Used: Master.Prg
Comments: When a new user is entered into the system an access level is assigned. This access level allows for privacy and security in the program.

Module: Master.Prg
Variable Name: Omodule
Aliases: None
Format Of Data: Character
Allowable Value: D or N
Files Variable Used: Ward2 and Ward3.Prg
Comments: Serves as a flag when exiting the Ward2 or Ward3.Prg indicating which module called, those pertaining to the physician staff or the nursing staff.

Module: Pt_Info.Prg
Variable Name: Xplname
Aliases: Xdciname, Plname
Format Of Data: Character
Allowable Value: 20 characters for patient's last name
Files Variable Used: All files except Intro, Valid, Master, Ward and Useinfo.Prg.

Module: Pt_Info.Prg
Variable Name: Xpfname
Aliases: XdcFname, PFname
Format Of Data: Character
Allowable Value: 12 characters for patient's first name
Files Variable Used: See description above for Xplname.
Comments: See description above for Xplname.

Module: Pt_Info.Prg
Variable Name: Xpmname
Aliases: Xdcmname, Pmname
Format Of Data: Character
Allowable Value: Up to 3 character string.
Files Variable Used: Pt_Info and Dischargin.Prg.
Comments: Represents the patient's middle initials.

Module: Pt_Info.Prg
Variable Name: Xfmpssan
Aliases: XdcFssn, Fmpssan, Ptfmpssn, Mptfmpssn
<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Aliases</th>
<th>Module</th>
<th>Format Of Data</th>
<th>Allowable Value</th>
<th>Files Variable Used</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xpregno</td>
<td>Pregno, Ptregno and Xpt1regno... Xpt12regno (Ward2/Ward3.Prg)</td>
<td>Pt_Info.Prg</td>
<td>Character</td>
<td>Numeric 8 digit number</td>
<td>Represents the hospital registration number. Variables with an &quot;X&quot; prefix indicate they are ward, room and bed dependent.</td>
<td></td>
</tr>
<tr>
<td>XpphW</td>
<td>Xdcpphy, Pphy and Xdcprac</td>
<td>Pt_Info.Prg</td>
<td>Character</td>
<td>Up to 24 characters</td>
<td>Represents the patient's physician.</td>
<td></td>
</tr>
<tr>
<td>Xpward</td>
<td>Pward</td>
<td>Pt_Info.Prg</td>
<td>Character</td>
<td>&quot;2E&quot; or &quot;3E&quot;</td>
<td>Represents a ward assignment.</td>
<td></td>
</tr>
<tr>
<td>Xprm</td>
<td>Prm</td>
<td>Pt_Info.Prg</td>
<td>Character</td>
<td>&quot;1&quot;, &quot;2&quot; or &quot;3&quot;</td>
<td>Represents rooms on the ward.</td>
<td></td>
</tr>
</tbody>
</table>
Module: PtInfo
Variable Name: Xpbed
Aliases: Pbed
Format Of Data: Character
Allowable Value: "A" or "B"
Files Variable Used: See description above for Xplname.
Comments: See description above for Xplname.
Represented beds in a room.

Module: Discharg.Prg
Variable Name: Xppack
Aliases: None
Format Of Data: Logical
Allowable Value: .T. or .F.
Files Variable Used: Discharg.Prg
Comments: Flag to indicate if a patient had been discharged. If .T. Pt_Info.Dbf has discharged patient's database purged.

Module: Ward.Prg
Variable Name: Ourpt
Aliases: Xpt1...Xpt12 (Ward2/Ward3.Prg)
Format Of Data: Character
Allowable Value: Xpname + Xplname
Files Variable Used: All modules except Intro, Valid, Pt_Info, Useinfo, Master and Ward.
Comments: Signifies which patient from the Pt_Info.Dbf has been selected by the user. The variables with an "X" prefix indicate they are ward, room and bed dependent.

Module: Ward.Prg
Variable Name: Ofreq
Aliases: Xdcfreq, NFreq
Format Of Data: Character
Allowable Value: Blank, options in Time.Prg or options in IVC.Prg.
Files Variable Used: All order modules [Transfer, Activity, IVA, Lab, Monitor, Pham1, Pham2, Xray, Xray, Diet, Lung, Routine, US and all Norder*.Prg]
Comments: Indicates frequency of any ordered action.

Module: Ward.Prg
Variable Name: Passdata
Aliases: None
Format Of Data: Character
Allowable Value: "Q" number space number
Files Variable Used: All order modules [see Ofreq]
Comments: Used to pass data to the external expert system. Indicates qualifier and value to be used.

Module: Ward.Prg
Variable Name: Ptpoint
Aliases: Xpoints
Format Of Data: Numeric
Allowable Value: Positive integers >= 0
Files Variable Used: All order modules [see Ofreq]
Comments: Assigns points to orders selected by user to be used in determining the patient classification system.

Module: Ward.Prg
Variable Name: Todayonly
Aliases: None
Format Of Data: Logical
Allowable Value: .T. or .F.
Files Variable Used: All order modules [see Ofreq]
Comments: Assigns a .T. for orders of one day frequency for the patient classification system.

Module: Ward.Prg
Variable Name: Monpoint
Aliases: Xmonpt
Format Of Data: Numeric
Allowable Value: Integers 0 or 6
Files Variable Used: All order modules [see Ofreq]
Comments: Used to evaluate orders in the Monitor.Prg but included in the Orders.Dbf to determine patient classification.

Module: Ward.Prg
Variable Name: Emopoint
Aliases: Xemopt
Format Of Data: Numeric
Allowable Value: Positive integers >= 0
Files Variable Used: All order modules [see Ofreq]

Module: Ward.Prg
Variable Name: Roupoint
Aliases: Xroupt
Format Of Data: Numeric
Allowable Value: Positive integers $\geq 0$

Files Variable Used: All order modules (see Ofreq)

Comments: Used to evaluate orders in the Routine .Prg but included in the Orders.Dbf to determine patient classification.

Module: Ward.Prg
Variable Name: Ptselect
Aliases: None
Format Of Data: Character
Allowable Value: Prm + Pbed + [Xpt1 or Xpt2 ... Xpt12]
Files Variable Used: All modules except Intro, Valid, Pt_Info, Useinfo and Master.

Comments: Signifies which patient, the room and bed for screen headers.

Module: Ward.Prg
Variable Name: Morder
Aliases: Order, Xdcorder, Nord
Format Of Data: Character
Allowable Value: Character string up to 27
Files Variable Used: All order modules (see Ofreq)

Comments: Patient orders requiring action on the part of the hospital staff.

Module: Doctor.Prg
Variable Name: Omenu
Aliases: None
Format Of Data: Character
Allowable Value: "1" or ""
Files Variable Used: Doctor, Doc_Menu and all order modules (exc. Norder*.Prg).

Comments: Flag to indicate if a return is to the Master.Prg module or to a doctor level module.

Module: Time.Prg
Variable Name: Timeopt
Aliases: None
Format Of Data: Numeric
Allowable Value: 1 - 41
Files Variable Used: All order modules (see Ofreq) except Transfer.Prg

Comments: Used to determine frequency of order.

Module: Time.Prg
Variable Name: Xtimetime
Aliases: None
Format Of Data: Character
Allowable Value: Character string of 4
Files Variable Used: Time.Prg
aliases: None
format of data: character
allowable value: character string of 19
files variable used: Emosup and Teach.Prg
comments: Receives input for Ncaredb.Dbf related to the teaching and emotional requirements of the patient.

module: N_Diag.Prg
variable name: Nrelate
aliases: None
format of data: character
allowable value: character string of 25
files variable used: Relate_1...Relate_4.Prg
comments: Receives input for Ncaredb.Dbf related to why the patient has the nursing diagnosis chosen.

module: N_Diag.Prg
variable name: Ngoal
aliases: None
format of data: character
allowable value: character string 38
files variable used: Goal_1...Goal_4.Prg
comments: Receives input for Ncaredb.Dbf related to goal achievable by the patient.

module: N_Diag.Prg
variable name: Nassess
aliases: None
format of data: character
allowable value: character string of 27
files variable used: Assess_1...Assess_4.Prg
comments: Receives input for Ncaredb.Dbf relating objective observations and subjective information to the nursing diagnosis selected.

module: N_Diag.Prg
variable name: Assoth
aliases: None
format of data: character
allowable value: character string of 27
files variable used: Assess_1...Assess_4.Prg
comments: Allows an assessment of the patient not currently provided on the screen to be entered.

module: N_Diag.Prg
variable name: Reloth
aliases: None
format of data: character
allowable value: character string of 27
files variable used: Assess_1...Assess_4.Prg
comments: Receives input for Ncaredb.Dbf relating objective observations and subjective information to the nursing diagnosis selected.
Comments: Provides an option for a time of day that is not provided on the screen.

Module: IVA.Prg  
Variable Name: Morderl  
Aliases: None  
Format Of Data: Character  
Allowable Value: "Start IV of"  
"Alternate IV w/"  
"Follow IV w/"  
"Interrupt IV for"  
"Start 2nd IV of"  

Files Variable Used: IVA and IVB.Prg  
Comments: Initial portion of the patient order for IV therapy.

Module: IVB.Prg  
Variable Name: Blood  
Aliases: None  
Format Of Data: Logical  
Allowable Value: .T. or .F.  
Files Variable Used: IVB and IVC.Prg  
Comments: Flag to indicate whether blood was ordered or not. Significant in the determining of patient classification points.

Module: Lung.Prg  
Variable Name: Xliter  
Aliases: None  
Format Of Data: Character  
Allowable Value: "@ 1-2 1/m"  
"@ 3-4 1/m"  
"@ 5-6 1/m"  
"@ 7-8 1/m"  
"@ 9-10 1/m"  

Files Variable Used: Lung.Prg  
Comments: Xliter is concatenated with the screen selection to indicate oxygen flow rate for the patient.

Module: Discont.Prg  
Variable Name: Xdcdate  
Aliases: Odate  
Format Of Data: Date  
Allowable Value: Date of the medical order  
Files Variable Used: Discont.Prg  
Comments: Allows user to review date of an order to determine if medical order should be discontinued.
Module: Discont.Prg  
Variable Name: Xordpack  
Aliases: None  
Format Of Data: Logical  
Allowable Value: .T. or .F.  
Files Variable Used: Discont.Prg  
Comments: Flag to indicate if medical orders are to be discontinued. If .T., deleted orders are purged from the Orders.Dbf.

Module: Nurse.Prg  
Variable Name: Nmenu  
Aliases: None  
Format Of Data: Character  
Allowable Value: "1" or " "  
Files Variable Used: Nurse, Nursel, and N_Diag.Prg  
Comments: Flag to indicate if a return is to the Master.Prg module or to Nurse.Prg module.

Module: Nurse.Prg  
Variable Name: Xlevel  
Aliases: None  
Format Of Data: Character  
Allowable Value: "Category I"  
"Category II"  
"Category III"  
"Category IV"  
"Category V"  
"Category VI"  
Files Variable Used: Nurse.Prg  
Comments: Indicates patient classification level.

Module: N_Diag.Prg  
Variable Name: Nursdiag  
Aliases: None  
Format Of Data: Character  
Allowable Value: "Comfort, Alteration In: Pain"  
"Communication, Impaired: Verbal"  
"Impaired Physical Mobility"  
"Self-Care Deficit"  
Files Variable Used: N_Diag.Prg  
Comments: Nursdiag is one of the four values indicated, and directs which branch the program will follow.
Aliases: None
Format Of Data: Character
Allowable Value: Character string of 25
Files Variable Used: Relate.1...Relate.4.Prg
Comments: Allows a related factor not currently
provided on the screen to be
entered.

Module: N_Diag.Prg
Variable Name: Goaath
Aliases: None
Format Of Data: Character
Allowable Value: Character string 38
Files Variable Used: Goal.1...Goal.4.Prg
Comments: Allows a patient's goal not currently
provided on the screen to be
entered.

Module: N_Diag.Prg
Variable Name: Ordoth
Aliases: None
Format Of Data: Character
Allowable Value: Character string 27
Files Variable Used: Norder*.Prg
Comments: Allows for a nursing order not cur-
rently provided on the screen to be
entered.

Module: Useinfo
Variable Name: Xufinicial
Format Of Data: Character
Allowable Value: Any first initial of user
Files Variable Used: All modules (except Intro and Valid) as a
concatenation with Xulname.

Module: Useinfo.Prg
Variable Name: Xulname
Aliases: Xdlulname
Format Of Data: Character
Allowable Value: Character string of length 20
Files Variable Used: All modules (except Intro and Valid)
as a concatenation with Xufinicial.
Comment: Character string representing the
user's last name. Used as a concat-
enation with Xufinicial to form
Curuser.

Module: Useinfo
Variable Name: Xcodeword
Format Of Data: Character
Allowable Value: Any 5 characters representing a user's password
Files Variable Used: Valid.Prg

Module: Useinfo
Variable Name: Xaccess
Format Of Data: Numeric
Allowable Value: 0, 1, 2, 3, or 4
Files Variable Used: Master.Prg
Legend for Structure Chart

* -- Box labelled 1
Box Description: Do Introduction/Validate User

* -- Box labelled 2
Box Description: Choose Path

* -- Box labelled 3
Box Description: Do Admission Department

* -- Box labelled 3.1
Box Description: Admit Patient

* -- Box labelled 3.2
Box Description: Discharge Patient

* -- Box labelled 4/5
Box Description: Select Ward

* -- Box labelled 4.1/5.1
Box Description: Select Patient

* -- Box labelled 4.1.1
Box Description: Select Doctor Option

* -- Box labelled 4.1.1.1
Box Description: Select Medical Orders

* -- Box labelled 4.1.1.2
Box Description: Discontinue Order

* -- Box labelled 4.1.1.3
Box Description: Admit/Transfer/Discharge Patient

* -- Box labelled 4.1.1.4
Box Description: Print/Review Orders

* -- Box labelled 5.1.1
Box Description: Select Nursing Option

* -- Box labelled 5.1.1.1
Box Description: Select Nursing Care Plan

* -- Box labelled 5.1.1.2
Box Description: Review/Print Nursing Care Plan
• -- Box labelled 5.1.1.3
  Box Description: Review/Print Patient Care Requirements

• -- Box labelled 5.1.1.4
  Box Description: Determine Patient Classification Level

• -- Box labelled 6
  Box Description: Do Data Processing Department

• -- Box labelled 6.1
  Box Description: Add New User

• -- Box labelled 6.2
  Box Description: Delete User
This software product is a prototype model for the Navy Nurse Corps. The user's manual, as well as the software product, presupposes a working knowledge of medicine and the normal functioning of a hospital. The user's manual and the software product require a working knowledge of the nursing process using the nursing diagnosis and the patient classification system.

This manual contains four subdivisions: the admission's department section, the physician section, the nursing section and the system's administration section. The admission's department section allows patients to be admitted or discharged. Admission of a patient allows the selection of doctor's and nursing orders. Admission of a patient also initiates the determination of the patient classification. The system administration section allows users access to all or only one of the program sections.

I. Beginning the Program

To begin the program insert disk A:1 into drive A (normally the left sided drive, or the top drive) of your IBM, or compatible, personal computer. The computer should have 640K of internal memory. Next insert disk B:1 into drive B. Turn on the power for the monitor, disk drives [the computer], and printer [for written reports]. The first prompt is for the date. The date format of 4-1-86 is acceptable. The computer also accepts a date format of 4-1-1986. Follow this with <enter>. The next prompt is for time. The format of 14:45 is the least number of keystrokes, however the computer accepts seconds as well [ie. 14:45:30] <enter>. An A> prompt then appears. To begin the program, type b:proto [capital, mixed or small letters] <enter>.

A manufacturer's introductory screen appears with a prompt of: "Insert System Disk 2 and press ENTER or type CTL-C to abort". Remove disk A:1 and insert disk A:2 into drive A and press <enter>. Another manufacturer's introductory screen temporarily flashes on the monitor. A screen with a Nurse Corps oakleaf and background information, Figure 1, replaces this screen.
Figure 1

Program Passwords

To begin the program press any key to move to Figure 1a which requires the input of a five letter password. Sample passwords for this program are: level 0 -- mouse, level 1 -- Lyons, level 2 -- flyup, level 3 -- littl, and level 4 -- getgo. The password allows access further into the program, and level indicates which area a user may enter. Regardless of password used (provided it is an acceptable password, see System's Administration section) the next screen is Figure 2.
**Prototype Master Screen**

***Select the Desired Option***

1) Admission's Department
2) Doctor's Master
3) Nursing Master
4) System Administration
0) Sign-Off

Current User: [Blank]

Select one number (0-4) ----> *

---

**Figure 2**

This screen, the Prototype Master Screen provides a branching point to the four major areas. Depending upon the password used and option chosen, the program moves to Figure 3, 4, 5 or 6. Sign-Off is an option given on most screens to return to Figure 1.

II. Admission's Department Personnel

Access level 0 or 1 will allow access to the Admit/Discharge screen (Figure 3).
Figure 3

A patient can be admitted or discharged, depending on the option selected. Selecting option 1 moves the user to Figure 3.1. This information creates a patient database file.

The Patient Admission Form

The Patient Admission Form (Figure 3.1) consists of 17 input areas.
Patient Admission Form

<table>
<thead>
<tr>
<th>Last Name:</th>
<th>Registration No:</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name:</td>
<td>Medical Diagnosis:</td>
</tr>
<tr>
<td>Mid Initial:</td>
<td>Physician:</td>
</tr>
<tr>
<td>Rate/Rank:</td>
<td>Prognosis:</td>
</tr>
<tr>
<td>FMP-SSN:</td>
<td>Allergies:</td>
</tr>
<tr>
<td>Birthdate:</td>
<td>Nursing Word:</td>
</tr>
<tr>
<td>Age:</td>
<td>Room Number:</td>
</tr>
<tr>
<td>Sex:</td>
<td>Bed:</td>
</tr>
<tr>
<td>Admit Date:</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3.1

After typing each category, press <enter> to move to the next category. The amount of information and the acceptable inputs are as follows:

Last Name: Allows up to 20 letters in the patient's last name and automatically capitalizes the first letter.
First Name: Allows up to 12 letters in the patient's first name and automatically capitalizes the first letter.
Mid Initial: Allows up to 3 letters in the patient's middle name to accommodate for No Middle Name (NMN). Capitalizes all letters entered.
Rank/Rate: Accepts up to 11 letters and capitalizes all letters entered. Typical formats would include MS3/N/AD, COL/AF/RET or CIVHUM.
FMP-SSN: Family Member Prefix (FMP) Code includes the sponsor’s Social Security Number (SSN). Valid FMP code numbers and relationships are:
01 Sponsor’s oldest child (includes stepchildren)
02 Sponsor’s next oldest child
03,04, etc. Sponsor’s third oldest, etc.
20 Sponsor (active duty, reserve and retired uniformed services personnel: Army, Navy, Air Force, Marine Corps, Coast Guard, Public Health Service
and National Oceanic and Atmospheric Administration

30 Sponsor's spouse
40 Sponsor's dependent mother
45 Sponsor's dependent father
50 Sponsor's dependent mother-in-law
55 Sponsor's dependent father-in-law
60, 61, etc. Other authorized sponsor's dependents
00 All other authorized personnel (foreign nationals, including foreign military, civilian humanitarians, etc.)

Birthdate: Use the format 08/25/50.
Age: Allows up to 3 letters or numbers. Mixing numbers and letters is possible to accommodate for 11M (11 months old) or 15D (15 days old). Age denotes years unless M or D are filling the third input space.

Sex: Allows one letter input. Valid letters are:
M = Male
F = Female
U = Unknown

Admit Date: Use the format 12/13/85.
Registration No: The local hospital sequential number of in-patients admitted during a specified period of time.

Medical Diagnosis: Diagnosis listed by the admitting physician and listed on the admission authorization form. Enter up to 24 letters.

Physician: Patient's assigned physician, not necessarily the admitting practitioner. Enter up to 24 letters.

Prognosis: Allows entry of up to 3 letters. Allowable prognosis codes and descriptions are:
E Excellent
F Fair
G Good
U Unknown
GRD Guarded
P Poor

Allergies: Patient's allergies as stated in the health record, or by the patient. Enter up to 24 letters.

Nursing Ward: Two words are possible: 2E (a surgical ward) or 3E (a medical ward).

Room Number: Room number is tentatively assigned by the admission department, pending confirmation by the ward personnel. Room number options are 1, 2, or 3.
Bed: Actual bed assignment combines a room number and a bed letter. Bed letter is tentatively assigned by the admission department, pending confirmation by the ward personnel. Bed letter options vary between A and B. Once the patient file is complete, the program returns to Figure 3 for another selection.

Discharging a Patient

Selection 2 (Figure 3) moves the user to Figure 3.2 (Discharge A Patient Screen). A patient is uniquely identified by listing of FMP-SSN. The screen displays one patient's FMP-SSN, name and practitioner at a time so the user can decide which patient to discharge. The user can discharge more than one patient before returning to the Admit/Discharge Screen (Figure 3).

III. Physician Personnel

Figure 2 (Prototype Master Screen) has two valid choices for the physician, 0 (Sign-Off) and 2 (Doctor's Master). Option 0 returns the physician to the Introductory Screen (Figure 1). This selection implies intent to leave the computer session.

Selecting a Patient

Selection 2 (Doctor's Master) advances the physician to Figure 4 (Nurse's Station Selection). The physician is able to choose patient ward or return to the previous screen (Figure 2).
**Nurse's Station Selection**

***Select Nursing Unit to Display Patients***

1) 2E Surgical Ward
2) 3E Medical Ward

0) Sign-Off  3) Master Screen

Current User: Select one number (0-3)  

---

**Figure 4**

***Patient Selection***

**Word 2E Surgical**

***Select Patient***

<table>
<thead>
<tr>
<th>RM BED</th>
<th>PATIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: 1 A</td>
<td></td>
</tr>
<tr>
<td>2: 1 B</td>
<td></td>
</tr>
<tr>
<td>3: 2 A</td>
<td></td>
</tr>
<tr>
<td>4: 2 B</td>
<td></td>
</tr>
<tr>
<td>5: 3 A</td>
<td></td>
</tr>
<tr>
<td>6: 3 B</td>
<td></td>
</tr>
</tbody>
</table>

0) Sign-Off  7) Master Screen

Current User: Select one number (0-7)  

---

**Figure 4.1a**

Selection 1 (Figure 4) follows with Figure 4.1a (Patient Selection for Ward 2E). Patients assigned to Ward 2E by the admissions department appear in their room and bed assignments. Choosing any one of the six patients advances the user to Figure 4.1.1, the Doctor's Master Screen.
Word, room, bed, patient and registration number appears on the second line of each of the screens to assure proper patient identification is present. The identical sequence follows for selection 2 (Patient Selection for ward 3E). Master Screen is an option on most screens and differs slightly from the Sign-Off option. Sign-Off is the appropriate selection if the computer session is over. Master Screen allows the user to select a different patient to enter orders on without requiring the physician to redo the user identification process.

Doctor Selection Categories

Figure 4.1.1 (Doctor's Master Screen) is a branching screen. Selection 1 advances the user to Figure 4.1.1.1 (Doctor's Order Menu). This option allows the physician to enter patient orders associated with medical treatment. Selection 2 moves the user to Figure 4.1.1.2 (Admit/Transfer/Discharge Screen). These orders impact the admission's department as well as the patient care areas. The admissions department must enter the patient into the computer system prior to their selection by the physician for order entry. The selection of ADMIT officially enters the patient admission status in the doctor's orders.
<table>
<thead>
<tr>
<th>Word Room Bed</th>
<th>Patient</th>
<th>Key #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>

*** DOCTOR'S ORDER MENU ***

1) Activity
2) Diet
3) IV's / Blood
4) Laboratory Tests
5) Monitoring
6) Pharmacy
7) Radiology
8) Respiratory Therapy
9) Vital Signs
10) Word Routines
11) Doctor's Master Screen
12) Master Screen

Current user: [Blank]

Select one number (00-12) ***

---

**Figure 4.1.1.1**

**Reviewing Patient Orders**

Selection 3 and 4 of the Doctor's Master Screen vary only in the location of their output. Selection 3 displays patient medical orders on the monitor screen. Figure 4.1.1.3 is a screen output to review medical orders.
Patient Orders For: Mary Miser

Press -- Ctrl and 5 -- Keys to Pause The Scrolling If Necessary

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Order</th>
<th>Frequency</th>
<th>Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11/86</td>
<td>14:13:47</td>
<td>Up in Chair w/ Assist</td>
<td>TID</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:14:23</td>
<td>Diabetic Diet</td>
<td>N. Lyon MD</td>
<td></td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:15:41</td>
<td>Start IV of .45 NaCl</td>
<td>Infuse a Bkr N. Lyon MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:14</td>
<td>Claride</td>
<td>Daily @ 0600 N. Lyon MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:40</td>
<td>Sodium</td>
<td>N. Lyon MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:00</td>
<td>Amylase</td>
<td>N. Lyon MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:26</td>
<td>Potassium</td>
<td>Daily @ 0600 N. Lyon MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:56</td>
<td>CO2</td>
<td>Daily @ 0600 N. Lyon MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:26</td>
<td>CBC</td>
<td>Daily @ 0600 N. Lyon MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:54</td>
<td>Platlets</td>
<td>Daily @ 0600 N. Lyon MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:20:18</td>
<td>Glucose</td>
<td>Daily @ 0600 N. Lyon MD</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.1.1.3

Selection 4 provides the same medical order output on the printer. Selection 5 (Discontinue An Order) advances the physician to Figure 4.1.1.4. The screen displays each medical order on the selected patient with the option to discontinue any obsolete orders.

Selecting Doctor's Orders

The Doctor's Order Menu (Figure 4.1.1.1) provides a menu to select a medical treatment category. A rudimentary selection list of medical orders follows each of the ten major headings. Selection 1 (Figure 4.1.1.1) moves the program to Figure 4.1.1.1a.
<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ambulate ad lib</td>
</tr>
<tr>
<td>2</td>
<td>Ambulate w/ Assistance</td>
</tr>
<tr>
<td>3</td>
<td>Strict Bedrest</td>
</tr>
<tr>
<td>4</td>
<td>Bedrest w/ BPR</td>
</tr>
<tr>
<td>5</td>
<td>Bedside Commode</td>
</tr>
<tr>
<td>6</td>
<td>QOB to Stretcher w/ Assist</td>
</tr>
<tr>
<td>7</td>
<td>Gangle Legs</td>
</tr>
<tr>
<td>8</td>
<td>Keep on Back</td>
</tr>
<tr>
<td>9</td>
<td>May Shower</td>
</tr>
<tr>
<td>10</td>
<td>Turn Patient</td>
</tr>
<tr>
<td>11</td>
<td>Turning Frame</td>
</tr>
<tr>
<td>12</td>
<td>Up in Chair w/ Assist</td>
</tr>
<tr>
<td>13</td>
<td>Sign-Off</td>
</tr>
<tr>
<td>14</td>
<td>Doctor's Order Screen</td>
</tr>
<tr>
<td>15</td>
<td>Master Screen</td>
</tr>
</tbody>
</table>

**Figure 4.1.1.1a**

Twelve selection criteria follow. When entering a number less than 10, enter either 03 or 3 <enter> to advance the program. Some selections request a time or frequency. These selections are 2, 6, 7, 10, 11, and 12, which move the program to Figure 4.1.1.1b (Select Time/Frequency Option). A list of 39 options follow. Selection 40 is a brief on-line help facility (Figure 4.1.1.1c). A selection of 41 returns the program to the previous screen with no frequency indicated for that order. Options 5, 8, 9, 24, 29, 33, 35, 37 and 39 are one time selections. All other options are ongoing until discontinued.
### SELECT TIME/FREQUENCY OPTION ###

<table>
<thead>
<tr>
<th>Selection</th>
<th>Option</th>
<th>Time</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) PRN</td>
<td>* Daily *</td>
<td>2200</td>
<td>30) 2 Shift</td>
<td></td>
</tr>
<tr>
<td>2) 0 1-2 Hr PRN</td>
<td>10) 0200</td>
<td>21) 2400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) 0 2-3 Hr PRN</td>
<td>11) 0400</td>
<td>22) BID</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) 0 3-4 Hr PRN</td>
<td>12) 0600</td>
<td>23) 0 12 Hr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) On Call</td>
<td>13) 0800</td>
<td>24) x 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) OD</td>
<td>14) 1000</td>
<td>25) x 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) HS</td>
<td>15) 1200</td>
<td>26) x 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) x 1</td>
<td>16) 1400</td>
<td>27) x 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Today *</td>
<td>17) 1600</td>
<td>28) x 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18) 1800</td>
<td>29) x 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>19) 2000</td>
<td>30) x 24</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Figure 4.1.1.1b**

Selection 2 from the Doctor's Order Menu (Figure 4.1.1.1) provides possible diet options for the selected patient. Options 17 and 18 move the program to Figure 4.1.1.1b (Select Time/Frequency Option). Selection 17 requires the number of bags per 24 hours for continuous tube feedings. Selection 18 requires a frequency for bolus tube feedings.

Selection 3 from the Doctor's Order Menu (Figure 4.1.1.1) provides possible intravenous/blood options. The screen design varies from other medical treatment order screens, to accommodate for the unique characteristics of this order line. Select IV Order (Figure 4.1.1.1e) is the first screen of a series of three. Select IV Order has up to 10 selections. Selections 6 through 8 are one time orders which then returns to the program for another selection. Selection 1 through 5 moves the program to Select IV Solution (Figure 4.1.1.1f). This requires a selection from options 1 through 8. The program moves to Select Infusion Rate (Figure 4.1.1.1g) for the user to select the desired fluid infusion rate. Following the selection of infusion rate, the program returns to Select IV Order (Figure 4.1.1.1e).

Selection 4 from the Doctor's Order Menu (Figure 4.1.1.1) displays laboratory test options. For each selection on the Select Laboratory Test (Figure 4.1.1.1h), the program moves to the Select Time/Frequency Option.
Selection 5 from the Doctor's Order Menu (Figure 4.1.1.1) provides possible monitoring options. For some selections on the Select Monitoring Requirements screen (Figure 4.1.1.11), the program moves to the Select Time/Frequency Option (Figure 4.1.1.1b) for additional information. The selections requiring time or frequency information include 3, 5, 6, 7, 8, 9, 11, 12, 12, and 15. Other selections are continuous.

Selection 6 from the Doctor's Order Menu (Figure 4.1.1.1) provides pharmacy options. For all selections on the Select Desired Medication / Dosage screens (Figure 4.1.1.1j and Figure 4.1.1.1k), the program moves to the Select Time/Frequency Option (Figure 4.1.1.1b) for frequency of dosage. Each screen contains divisions of major drug categories, of individual drugs, and dosage. A help facility follows (Figure 4.1.1.1l) clarifying route abbreviations used on the screen.

Selection 7 from the Doctor's Order Menu (Figure 4.1.1.1) provides radiology options. For all selections on the Select Xray screen (Figure 4.1.1.1m), the program moves to the Select Time/Frequency Option (Figure 4.1.1.1b) for additional scheduling information.

Selection 8 from the Doctor's Order Menu (Figure 4.1.1.1) provides possible respiratory therapy options. For each selection on the Select Respiratory Therapy Options screen (Figure 4.1.1.1n), except 7 (Ventilator is continuous), the program moves to the Select Time/Frequency Option (Figure 4.1.1.1b). After selecting a route (option 9 through 13), a flow rate (letter A-E) selection follows.

Selection 9 from the Doctor's Order Menu (Figure 4.1.1.1) provides possible vital signs options. For some selections on the Select Vital Sign Option screen (Figure 4.1.1.1o), the program moves to the Select Time/Frequency Option (Figure 4.1.1.1b). Time/Frequency Option screen provides selections for additional information with options 1 and 5 through 11. Departmental policy defines selections 2 through 4.

Selection 10 from the Doctor's Order Menu (Figure 4.1.1.1) provides ward routine selection. For many selections on the Select Ward Routine screen (Figure 4.1.1.1p), the program moves to the Select Time/Frequency
Option (Figure 4.1.1.1b) for added information. Selections advancing the program to the Time/Frequency screen are: 3, 4, 6, 8, 16, 20-23, 28 and 29. Selections regarded as one time only orders are: 2, 5, 7, 12-14 and 24-27. All other selections are ongoing until discontinued (selection 1, 9-11, 15 and 17-19). In the context of this software project, option 4 (Complex Drsg Change) is a dressing change requiring 30 minutes or more to complete. A dressing change requiring less time is a simple dressing change (option 20).

IV. Nursing Personnel

Figure 2 (Prototype Master Screen) has two valid choices for nurses, 0 (Sign-Off) and 3 (Nursing Master). Option 0 returns the nurse to the introductory screen (Figure 1). Option 0 implies intent to leave the computer session.

Patient Selection

Selection 3 (Nursing Master) advances the nurse to Figure 5 (Nurse's Station Selection). The nurse selects the desired ward or returns to the previous screen (Figure 2).

Selection 1 (Figure 5) follows with Figure 5.1a (Patient Selection For Ward 2E). Patients assigned to Ward 2E by the admission's department appear in their room and bed assignments.
Choosing any one of the six patients advances the user to Figure 5.1.1, the Nursing Master Screen. Ward, room, bed, patient and registration number appear on the second line of each of the screens to assure proper patient identification. The identical sequence follows for selection 2, Patient Selection for Ward 2E (Figure 5.1b).
Master Screen is an option on some screens and differs slightly from the Sign-Off option. Sign-Off is the appropriate selection if the computer session is over. Master Screen allows the user to select a different patient to enter a care plan on without requiring the nurse to redo the user identification process.

Nursing's Category Options

Figure 5.1.1 [Nursing Master Screen] is a branching screen.

<table>
<thead>
<tr>
<th>word room bed</th>
<th>Patient</th>
<th>Key</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>

*** NURSING MASTER SCREEN ***

1. Enter/Inactivate Nursing Care Plan
2. Review Nursing Care Plan
3. Print Nursing Care Plan
4. External Patient Classification
5. Review Patient Care Requirements
6. Print Patient Care Requirements
7. Master Screen

Current user: [Select one number (0-8) ----> *]

Figure 5.1.1

Selection 1 advances the program to Figure 5.1.1.1 (Select The Desired Nursing Care Plan Function). This option allows the nurse to enter or inactivate a patient's care plan.

Selection 2 and 3, on the Nursing Master Screen vary only in the location of their output. Selection 2 displays the nursing care plan on the screen. Figure 5.1.1.2, is a screen output for Review Nursing Care Plan. Selection 3 provides the same nursing care plan information on the printer. Selection 4 (External Patient Classification) requires the nurse to leave this portion of the prototype project (see Expert System Supplement).
Selection 5, of the Nursing Master Screen (Figure 5.1.1), Review Patient Care Requirements, displays all active orders on the patient. Patient Care Requirements are the total active medical and nursing care orders for a particular patient. Figure 5.1.1.3 is a screen output for Review Patient Care Requirements.

Press -- Ctrl and S -- Keys To Pause The Scrolling If Necessary

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Order</th>
<th>Frequency</th>
<th>Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11/86</td>
<td>10:06:20</td>
<td>Teach Alt Coping Strategies</td>
<td></td>
<td>G. Hormeyer RN</td>
</tr>
<tr>
<td>01/11/86</td>
<td>12:08:07</td>
<td>Assist Bed To Wheeclchair</td>
<td>TID</td>
<td>N. Lyons MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>13:10:15</td>
<td>Self/Minimum Care</td>
<td></td>
<td>G. Hormeyer RN</td>
</tr>
<tr>
<td>01/11/86</td>
<td>13:10:53</td>
<td>Keep Commode @ Bedside</td>
<td>TID</td>
<td>G. Hormeyer RN</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:13:47</td>
<td>Up in Chair w/ Assist</td>
<td>TID</td>
<td>N. Lyons MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:14:23</td>
<td>Diabetic Diet</td>
<td></td>
<td>N. Lyons MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:14</td>
<td>Chloride</td>
<td>Daily @ 0600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:40</td>
<td>Sodium</td>
<td></td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:03</td>
<td>Amylase</td>
<td></td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:25</td>
<td>Potassium</td>
<td>Daily @ 0600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:56</td>
<td>CO2</td>
<td>Daily @ 0600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:26</td>
<td>CBC</td>
<td>Daily @ 0600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:54</td>
<td>Platelets</td>
<td>Daily @ 0600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:20:19</td>
<td>Glucose</td>
<td>Daily @ 0600</td>
<td>T. Bui MD</td>
</tr>
<tr>
<td>01/13/86</td>
<td>10:23:02</td>
<td>Intake &amp; Output</td>
<td>TID</td>
<td>T. Bui MD</td>
</tr>
</tbody>
</table>

Figure 5.1.1.3

Selection 6 provides the same information on the printer. Selection 7 (Internal Patient Classification), gives the patient classification level and point value -- Figure 5.1.1.6 (Appendix F)
Patient: Mary Miser
Is in: Category II
Point Value Is: 27

Figure 5.1.1.6

Nursing Diagnosis

Selection 1 on the Nursing Master Screen advances the program to Figure 5.1.1.1 (Select The Desired Nursing Care Plan Function). The nurse has two major choices: selection 1 -- Enter New Care Plan and selection 2 -- Inactivate Portions of Care Plans. Selection 1 advances the program to Figure 5.1.1.1a (Select Nursing Diagnosis).
**SELECT NURSING DIAGNOSIS**

1) Comfort, Alteration In: Pain
2) Communication, Impaired: Verbal
3) Impaired Physical Mobility
4) Self-Care Deficit

0) Sign-Off  5) Nurse’s Master Screen  6) Master Screen

Current user:  Select one number (0-6) ----> 

---

**Figure 5.1.1.1a**

Of the 52 nursing diagnoses approved through the 5th and 6th National Conferences of the North American Nursing Diagnosis Association a representative four were chosen.

**Patient Assessment**

Following the selection of one of the diagnoses, the nurse advances to one of the four assessment screens (Figure 5.1.1.1b, 5.1.1.1k, 5.1.1.1q, 5.1.1.1y).
## NURSING ASSESSMENTS FOR A PATIENT WITH COMFORT ALTERATION IN PAIN

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Altered Time Perception</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Alteration Muscle Tone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Autonomic Response</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Distraction Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Facial Mask</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Other Assessment: [..................]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Guarding Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Impaired Thought Process</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Narrowing Focus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Pacing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Patient Report</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Self-Focusing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Talkative</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Verbal Complaint</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Vocal Complaint (Moans, Crying)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Withdrawal From Social Contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Current user:**

Select one number (01-16) --->

**Figure 5.1.1.1b**

Assessments, related factors, goals and nursing orders used are not an inclusive list, but rather generic options to build on. Any assessment, related factor, goal or order can be changed to better reflect the individual nature of their hospital setting. To select any number less than 10, enter either 03 or 3 <enter> to advance the program.

**Related Factors and Patient Goals**

Following the assessment selection, the program moves to the related factor associated with the diagnosis (Figure S.1.1.1c, S.1.1.11, S.1.1.1r, S.1.1.1z). The patient goal screen follows (Figure S.1.1.1d, S.1.1.1m, S.1.1.1s, S.1.1.1oa).
NURSING DIAGNOSIS OF COMFORT ALTERATION IN: PAIN

1) Altered Sensation
2) Disease / Condition
3) Emotional State
4) Other: [.......................]
5) Surgical Procedure
6) Trauma
7) Treatment Regime

NURSING GOALS

1) Communicates Pain Free
2) Communicates Experiences Less Pain
3) Communicates Experience of Pain More Tolerable
4) Demonstrates Skills & Knowledge to Achieve Pt Goals
5) Other Goals: [.................................]

Nursing Orders

The patient goal selected, triggers the appropriate patient order screen. If patient diagnosis selection is
comfort alteration in: pain, and the goal selected from Figure 5.1.1.1d is 1, 2, 3, or 5. Figure 5.1.1.1e appears. To obtain additional information on some of the nursing orders, the program may advance the nurse to Select Time / Frequency Option (Figure 5.1.1.1g) with its help facility (Figure 5.1.1.1h); a teaching module (Figure 5.1.1.1i) to illicit the type of teaching necessary; or an emotional support screen to determine the type of emotional support required (Figure 5.1.1.1j). With the selection of goal 4, the program displays Figure [5.1.1.1f].

<table>
<thead>
<tr>
<th>Word Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS</strong></td>
<td><strong>COMMUNICATES: PAIN FREE, EXPERIENCES LESS/TOLERABLE PAIN OR OTHER GOAL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Assess Pain Factors</td>
<td>6) Offer PRN Medications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Assess &amp; Evaluate Pain</td>
<td>7) Provide Emotional Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Encour Pt to Use Coping Strategy</td>
<td>8) Schedule &quot;Quiet Times&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Give Info &amp; Explain Proc &amp; Tests</td>
<td>9) Teach Alt Coping Strategies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Other Nursing Orders:</td>
<td>10) Utilize Diversional Activities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: Select one number (01-10) ===

Figure 5.1.1.1e
**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
**DEMONSTRATES SKILLS & KNOWLEDGE TO ACHIEVE GOALS **

- Teach Stress Reduction Techniques
  1) Deep Breathing
  2) Progressive Relaxation
  3) Relaxation Response
  4) Diversional Activity
  5) Other: [-----------------------]

Current User: | Select one number (1-5) ---->

- Figure 5.1.1.1f

Each of the four nursing diagnoses follows the same sequence: assessment, related factor, goal and nursing order with generic type responses. The only variation lies in the goal section of the Self-Care Deficit diagnosis (Figure 5.1.1.1a). Levels C through E are self care levels as defined in COMPUTERIZED NURSING CARE PLANNING UTILIZING NURSING DIAGNOSIS and referenced in the main text of the thesis. Current level of care required is also asked for. Current level of care enters into the patient classification determination.

A caveat exists regarding the use of the "other order" option provided by each of the nursing order screens. Many nursing orders are directly linked to the internal processing of the patient classification system. The use of the "other order" may give a more accurate order, but will not enter points into the patient's classification level. If orders are identified that need to be added, and affect the patient classification, they should be incorporated into the program, rather than being typed in.

Inactivate Portion of Care Plan

In addition to selection 1 on the Select Desired Nursing Care Plan Function screen (Figure 5.1.1.1), the nurse can choose to inactivate a portion of the care plan by
selecting option 2. Figure 5.1.1.1a displays nursing care plan information for review and inactivation as needed.

V. System Administration Personnel

Access level 0 or 2 will allow the user access to the System Administration section of the program. The target user group for this section is the department responsible for issuing access levels and recording user’s information. Figure 6.1 provides the format used to enter user’s information.

*** SELECT ADD / DELETE A USER ***

1: Add A User

2: Delete A User

3: Sign-Off

Current user: | Select one number (0-2) ------ >

Figure 6
The User Information screen consists of 6 input areas. After inputting the information, press enter to move to the next category. The amount of information and the acceptable inputs are as follows:

First Initial: Allows only one character to be entered, automatically capitalizes it, places a period after the letter and advances the user to the next field.

Middle Initial: Parameters are identical to First Initial.

Last Name: Allows entry of up to 20 letters, capitalizes the first letter and advances the user to the next field.

Category of: A three letter field for a coded category.

Requestor: Could include rate, rank or educational background. Used for user information only and is not otherwise incorporated into the program.

Password: A 5 letter or number code selected by the user to log into the system.

Access Level: Authorizes a person to enter different sections of the software project. Five levels of access are available:

0 Unlimited access to all sections of the software project.

1 Restricted to the admission's section of the software project.
2 Restricted to the database section of the software project.
3 Restricted to the doctor section of the software project.
4 Restricted to the nursing section of the software project.

Expert System Supplement

There are two ways for the nurse to obtain a patient classification, externally or internally (selection L and 7 respectively on Figure 5.1.1 -- Nurse's Master Screen). Selection 4 loads a qualifier and value number for each patient order that corresponds to a critical indicator. This is the expert system information to calculate the patient classification level.

To calculate the external patient classification system choose selection 4, Figure 5.1.1. A manufacturer's sign-off message appears at the bottom of the screen indicating that you are leaving dBase III. Remove disk A:2 and insert disk A:3. Type b:expert <enter>. The expert program loads into memory the necessary information to calculate the patient classification. The program asks some preliminary questions (three) which require no response except <enter>. The expert system program gives the user an opportunity to see the rules used to arrive at the classification level.

Selection 7 of Figure 5.1.1 works in a similar manner to selection 4, without leaving the main program. Selection 7 provides a much quicker patient classification level, but is not able to provide the user with the information on how the classification was derived.

During the programming phase of this project, medical orders that corresponded to critical indicators were tied to their corresponding medical order, i.e., vital signs QD receives a patient point value of 1, apnea monitor receives a monitor point value of 6. The reason vital signs has a patient point value and apnea monitor has a monitor point value is because the vital sign's critical indicator relates directly to critical indicator points. This is not true of an order for an apnea, cardiac or pressure monitor. In the latter case the patient point total would remain at 6 even if three monitors were ordered. Where point totals are not additive or do not directly translate to patient points -- the cardiac, apnea, temp and pressure monitors;
S&A, SpGr, Guiac and spin HCT; and emotional support -- special point totals are calculated prior to their translation to a patient point totals.

Listed in Appendix F are qualifiers and their values used to derive the expert system's rules. Through the use of 382 rules, the patient classification level is derived.
APPENDIX D

PATIENT CLASSIFICATION CRITICAL INDICATORS

VITAL SIGNS (MANUAL TPR, BP)

1. Vital signs Qd or less
2. Vital signs q6h or x 6
3. Vital signs q12h or x 12
4. Vital signs q24h or x 24

MONITORING

5. Urine output q8h or x 3
6. Urine output q2h or x 12
7. Circulation or fundus checks q2h or x 12
8. Heart checks q4h or x 8
9. Neuro checks q2h or x 12
10. CVP or ICP (in mmHg) q2h or x 12

CARDIOVASCULAR PHYSIOLOGY (venous return, heart size, etc.)

11. Cardiac findings (physical examination, auscultatory...)
12. Transcutaneous monitor...
13. A-lines or ICP monitoring or Swan-Ganz catheter...
14. Attenuation or ICP monitoring reading q4h or x 12
15. PA/PAP wedge reading q4h or x 6
16. PA/PAP wedge reading q2h or x 12
17. Cardiac output TID or x 3

ACTIVITIES OF DAILY LIVING

18. Infusion/masquerade - one bag change
19. Tube feed (oral) + oral or nasoenteral tube feeding
20. Tube feed (oral) + oral or nasoenteral feeding
21. Adult meals = 5 years (surgery and feed x 2)
22. Child meals = 5 years (surgery and feed x 2)

TREATMENTS/PROCEDURES/MEDICATIONS

Surgical procedures = 15 and = 30 Minutes Total
(1) Start IV or NG insertion or Foley insertion or EKG
(2) Sternal or diaphragm or aortic balloon occlusion
(3) Simple dressing x 2, or tube care x 2 (exclude trach, Foley
   cath x 2)
(4) Sternal or diaphragm or aortic balloon occlusion
(5) Simple dressing x 2, or tube care x 2 (exclude trach, Foley
   cath x 2)
(6) Sternal or diaphragm or aortic balloon occlusion
(7) Simple dressing x 2, or tube care x 2 (exclude trach, Foley
   cath x 2)
(8) Stoma care

RESEARCH THERAPY

(1) Oxygen therapy or nebulizer
(2) Intravenous opium or CALD q4h
(3) IPPB or maximum IDD or x 2
(4) IPPB or maximum IDD or x 2
(5) IPPB or maximum IDD or x 2
(6) IPPB or maximum IDD or x 2
(7) IPPB or maximum IDD or x 2
(8) IPPB or maximum IDD or x 2

RESPIRATORY THERAPY

(1) Chest physical therapy IDD or x 2
(2) Chest physical therapy IDD or x 2
(3) Chest physical therapy IDD or x 2
(4) Chest physical therapy IDD or x 2
(5) Chest physical therapy IDD or x 2
(6) Chest physical therapy IDD or x 2
(7) Chest physical therapy IDD or x 2

IV THERAPY

(1) No IV change bottle IDD or x 3
(2) No IV change bottle IDD or x 3
(3) No IV change bottle IDD or x 3
(4) No IV change bottle IDD or x 3
(5) No IV change bottle IDD or x 3
(6) No IV change bottle IDD or x 3
(7) No IV change bottle IDD or x 3
(8) No IV change bottle IDD or x 3

TEACHING AND EMOTIONAL SUPPORT

(1) Teaching
(2) Group teaching
(3) Preparative teaching
(4) Structural teaching i.e. diabetes, cardiac, cataract surgery, etc.

EMOTIONAL SUPPORT (in excess of 30 minutes to 1 hour)

(1) Emotional support i.e. anxiety, came, loneliness, etc.
(2) Modification of anxiety i.e. new preceptor, body image.
(3) Behavioral modification, etc.
(4) Sensory deprivation i.e. restricted, deaf, blind, language
   barrier, bilateral eye patches, confused, testosterone, etc.

QUALIFIERS

1. Vital signs order is:

QID or less
q4h or x 6
q2h or x 12
q1h or x 24
Not ordered

Used in rules: 1-5

2. Rectal or axillary temp order is:

Rectal temps less than QID
Axillary temps less than QID
Rectal temps QID or more
Axillary temps QID or more
Not ordered

Used in rules: 6-10

3. Patient order for apical pulse is:

Apical pulse less than QID
Apical pulse QID or more
Not ordered

Used in rules: 11-13

4. Patient order for femoral pulse is:

Femoral pulses are less than q4h
Femoral pulses q4h or more
Not ordered

Used in rules: 14-16

5. Patient order for pedal pulse is:

Pedal pulses less than q4h
Pedal pulses q4h or more
Not ordered

Used in rules: 17-19
6. Patient order for FHT is:

- FHT less than q'4h
- FHT q'4h or more
- Not ordered

Used in rules: 20-22

7. Patient order for tilt test is:

- Tilt test less than q'4h
- Tilt test q'4h or more
- Not ordered

Used in rules: 23-25

8. Patient order for postop/post partum/post-newborn vital signs is:

- Post op vital signs
- Post-partum vital signs
- Post-newborn vital signs
- Not ordered

Used in rules: 26-29

9. Patient order for intake & output is:

- Intake & output less than q8h or x 3
- Intake & output at least q8h (x 3) but less than q'4h [x6]
- Intake & output q'4h or x 6
- Intake & output q2h or x 12
- Intake & output q1h or x 24
- Not ordered

Used in rules: 30-35

10. Patient order for circulation checks is:

- Circulation checks less than q2h or x 12
- Circulation checks q2h or x 12
- Circulation checks q1h or x 24
- Not ordered

Used in rules: 36-39
11. Patient orders for neuro checks is:

- Neuro checks less than q4h or x 6
- Neuro checks q4h or x 6
- Neuro checks q2h or x 12
- Neuro checks q1h or x 24

Not ordered

Used in rules: 40-44

12. Patient order for CUP manual readings is:

- CUP manual readings less than q2h or x 12
- CUP manual readings q2h or x 12
- CUP manual readings q1h or x 24

Not ordered

Used in rules: 45-48

13. Patient order for ICP manual readings is:

- ICP manual readings less than q2h or x 12
- ICP manual readings q2h or x 12
- ICP manual readings q1h or x 24

Not ordered

Used in rules: 49-52

14. Patient order for fundus checks is

- Fundus checks less than q2h or x 12
- Fundus checks q2h or x 12
- Fundus checks q1h or x 24

Not ordered

Used in rules: 53-56

15. Patient order for transcutaneous monitor is:

- Transcutaneous monitor

Not ordered

Used in rules: 57, 58

16. Patient order for an A-line set-up is

- A-line set-up

Not ordered

Used in rules: 59, 60
17. Patient order for an ICP monitor set-up is:

ICP monitor set-up
Not ordered

Used in rules: 61, 62

18. Patient order for Swan-Ganz set-up is:

Swan Ganz set-up
Not ordered

Used in rules: 63, 64

19. Patient order for A-line reading is:

A-line reading less than q2h or x 12
A-line reading q2h or x 12
A-line reading q1h or x 24
Not ordered

Used in rules: 65-68

20. Patient order for ICP monitor reading is:

ICP monitor reading less than q2h or x 12
ICP monitor reading q2h or x 12
ICP monitor reading q1h or x 24
Not ordered

Used in rules: 69-72

21. Patient order for PAP/PA wedge reading is:

PAP/PA wedge reading less than q4h or x 6
PAP/PA wedge reading q4h or x 6
PAP/PA wedge reading q2h or x 12
PAP/PA wedge reading q1h or x 24
Not ordered

Used in rules: 73-77

22. Patient order for cardiac output is:

Cardiac output less than TID or x 3
Cardiac output less than TID (x 3) but less than q4h (x 6)
Cardiac output q4h or x 6
Cardiac output q2h or x 12
Cardiac output q1h or × 24
Not ordered
Used in rules: 78-83

23. Patient order for ADL is:

- Infant/toddler care (≤ 5 years)
- Self/minimal care (adult or child > 5 years)
- Assisted care (≥ 5 years) positions self
- Complete care (≥ 5 years) assist with positioning
- Total care (≥ 5 years) position and skin care q2h

Used in rules: 84-88

24. Patient order for extra linen change and partial bath is:

- Extra linen change and partial bath less than 2x per shift
- Extra linen change and partial bath 2x per shift (or 6x per day)
- Extra linen change and partial bath 4x per shift (or 12x per day)
- Extra linen change and partial bath 8x per shift (or 24x per day)
- Not ordered

Used in rules: 89-93

25. Patient order for turning frame is:

- Turning frame less than q2h
- Turning frame q2h or × 12
- Turning frame q1h or × 24
- Not ordered

Used in rules: 94-97

26. Patient order for peds recreation/observation is:

- Peds recreation/observation - 0-12 yrs (exc NBN)
- Not ordered

Used in rules: 98, 99

27. Patient order for tube feedings is:

- Tube feedings continuous -- less than 1 bag per 24 hours
- Tube feedings continuous -- 1 bag per 24 hours
Tube feedings continuous -- 2 bag per 24 hours
Tube feedings continuous -- 3 bag per 24 hours
Tube feedings continuous -- 4 bag per 24 hours
Tube feedings continuous -- 6 bag per 24 hours
Tube feedings continuous -- 12 bag per 24 hours
Tube feedings (bolus) less than q4h or x 6
Tube feedings (bolus) q4h or x 6
Tube feedings (bolus) q2h or x 12
Tube feedings (bolus) q1h or x 24
Not ordered

Used in rules: 100-112

28. Patient order for spoon feeding is:

Adult meals > 5 (spoon feed x 3)
Child meals <= 5 years (spoon feed x 3)
Not ordered

Used in rules: 113-115

29. Patient order for infant/neonate bottled feeding is:

Infant/neonate bottle x 1 feeding
Infant/neonate bottle q4h or x 6
Infant/neonate bottle q2h or x 12
Not ordered

Used in rules: 116-119

30. Patient order for IV insertion is:

IV insertion
Not ordered

Used in rules: 120, 121

31. Patient order for NG insertion is:

NG insertion
Not ordered

Used in rules: 122, 123

32. Patient order for foley insertion / straight catheterization is:

Foley insertion
Straight catheterization of less than 4
Straight catheterization of 4 or more
Not ordered
Used in rules: 124-127

33. Patient order for EKG strip is:

EKG rhythm strip
Not ordered
Used in rules: 128, 129

34. Patient order for surgical prep is:

Surgical prep
Not ordered
Used in rules: 130, 131

35. Patient order for enemas is:

Enemas
Not ordered
Used in rules: 132, 133

36. Patient order for ace wrap/elastic stockings is:

Ace wrap
Elastic stockings
Not ordered
Used in rules: 134-136

37. Patient order for dressings change is:

Simple dressing change less than x 2 or BID
Simple dressing change x 2 or BID
Simple dressing change x 3 or TID
Simple dressing change x 4 or QID
Simple dressing change x 6 or q4h
Simple dressing change x 12 or q2h
Simple dressing change x 24 or q1h
Complex dressing change x 1 or QD
Complex dressing change x 2 or BID
Complex dressing change x 3 or TID
Complex dressing change x 4 or QID
Complex dressing change x 6 or q4h
Complex dressing change x 12 or q2h
Complex dressing change x 24 or qlh
Not ordered

Used in rules: 137-151

38. Patient order for tube care [excluding trach] is:

- Tube care less than x 2 or BID
- Tube care x 2 or BID
- Tube care x 3 or TID
- Tube care x 4 or QID
- Tube care x 6 or q4h
- Tube care x 12 or q2h
- Tube care x 24 or qlh

Not ordered

Used in rules: 152-159

39. Patient order for Foley care is:

- Foley care less than x 2 or BID
- Foley care x 2 or BID
- Foley care x 3 or TID
- Foley care x 4 or QID
- Foley care x 6 or q4h
- Foley care x 12 or q2h
- Foley care x 24 or qlh

Not ordered

Used in rules: 160-167

40. Patient order for S & S is:

- S & A x 1 or QD
- S & A x 2 or BID
- S & A x 3 or TID
- S & A x 4 or QID
- S & A x 6 or q4h
- S & A x 12 or q2h
- S & A x 24 or qlh

Not ordered

Used in rules: 168-175

41. Patient order for SpGr is:

- SpGr x 1 or QD
- SpGr x 2 or BID
- SpGr x 3 or TID
- SpGr x 4 or QID
SpGr x 6 or q4h  
SpGr x 12 or q2h  
SpGr x 24 or q1h  
Not ordered  

Used in rules: 176-183

42. Patient order for Guiac is:

Guiac stools x 1 or QD  
Guiac stools x 2 or BID  
Guiac stools x 3 or TID  
Guiac stools x 4 or QID  
Guiac stools x 6 or q4h  
Guiac stools x 12 or q2h  
Guiac stools x 24 or q1h  
Not ordered  

Used in rules: 184-191

43. Patient order for spin HCT is:

Spin HCT x 1 or QD  
Spin HCT x 2 or BID  
Spin HCT x 3 or TID  
Spin HCT x 4 or QID  
Spin HCT x 6 or q4h  
Spin HCT x 12 or q2h  
Spin HCT x 24 or q1h  
Not ordered  

Used in rules: 192-199

44. Patient order for lab studies is:

Lab studies less than x 6  
Lab studies x 6 or q4h  
Lab studies x 12 or q2h  
Lab studies x 24 or q1h  
Not ordered  

Used in rules: 200-204

45. Patient order for ABG stick is:

ABG sticks, less than 3  
ABG sticks, at least 3 but less than 6  
ABG sticks x 6  
ABG sticks x 12
ABG sticks x 24
Not ordered

Used in rules: 205-210

46. Patient order for blood cultures is:

- Blood cultures less than x 3
- Blood cultures at least x 3 but less than x 6
- Blood cultures x 6
- Blood cultures x 12
- Blood cultures x 24
- Not ordered

Used in rules: 211-216

47. Patient order for medications is:

- Medications less than q8h [excluding IV]
- Medications q3h - q8h [excluding IV] - up to 12 trips
- Medications q2h or more [excluding IV] - > 12 trips
- Not ordered

Used in rules: 217-220

48. Patient order for irrigations is:

- Irrigation x 4 (QID) or less
- Irrigation x 6 or q4h
- Irrigation x 12 or q2h
- Irrigation x 24 or q1h
- Not ordered

Used in rules: 221-225

49. Patient order for instillations is:

- Instillations x 4 (QID) or less
- Instillations x 6 or q4h
- Instillations x 12 or q2h
- Instillations x 24 or q1h
- Not ordered

Used in rules: 226-230

50. Patient order for restraints is:

- 2-point
- 4-point
Posey
Not ordered
Used in rules: 231-234

51. Patient order of assist to chair / stretcher is:

- Assist to chair and return less than x 3 or TID
- Assist to stretcher and return less than x 3 or TID
- Assist to stretcher at least x 3 but less than x 6
- Assist to stretcher x 6 or q4h
- Assist to stretcher x 12 or q2h
- Assist to stretcher x 24 or q1h
- Assist to chair at least x 3 but less than x 6
- Assist to chair x 6 or q4h
- Assist to chair x 12 or q2h
- Assist to chair x 24 or q1h
- Ambulate with assistance x 1
- Ambulate with assistance x 2
- Ambulate with assistance x 3
- Ambulate with assistance x 4
- Ambulate with assistance x 6
- Ambulate with assistance x 12
- Ambulate with assistance x 24
- Not ordered

Used in rules: 236-252

52. Patient order for infant circumcision care is:

- Infant circumcision care
- Not ordered

Used in rules: 253, 254

53. Patient order for phototherapy is:

- Phototherapy
- Not ordered

Used in rules: 255, 256

54. Patient order for isolation is:

- Isolation (change gown and gloves < x 8)
- Isolation (change gown and gloves x 8 or more)
- Not ordered

Used in rules: 257-259
55. Patient order for accompany patient off ward is:

Accompany patient off ward for less than 15 min
Accompany patient off ward for 15 to 30 min
Accompany patient off ward for greater than 30 min
Not ordered

Used in rules: 260-263

56. Patient order for other activities is:

Other activities requiring less than 15 minutes
Other activities requiring 15 to 30 minutes
Other activities requiring 30 min to 1 hr
Special procedures > 1 hr < 2 hr (requiring continuous staff attendance)
Not ordered

Used in rules: 264-268

57. Patient order for chest tube insertion is:

Chest tube insertion
Not ordered

Used in rules: 269, 270

58. Patient order for lumbar puncture is:

Lumbar puncture
Not ordered

Used in rules: 271, 272

59. Patient order for thoracentesis is:

Thoracentesis
Not ordered

Used in rules: 273, 274

60. Patient order for paracentesis is:

Paracentesis
Not ordered

Used in rules: 275, 276
61. Patient order for range of motion is:

- Range of motion exercises less than x 3 or TID
- Range of motion exercises at least x 3 but less than x 6
- Range of motion exercises x 6 or q4h
- Range of motion exercises x 12 or q2h
- Range of motion exercises x 24 or q1h

Not ordered

Used in rules: 277-282

62. Patient order to transfer in-house or new admission is:

- Transfer in-house [assess and orient]
- New admission [assess and orient]

Not ordered

Used in rules: 283-285

63. Patient order for O2 therapy or oxyhood is:

- Oxygen therapy
- Oxyhood

Not ordered

Used in rules: 286-288

64. Patient order for incentive spirometer is:

- Incentive spirometer less than q4h
- Incentive spirometer q4h
- Incentive spirometer q2h
- Incentive spirometer q1h

Not ordered

Used in rules: 289-293

65. Patient order for C&OB is:

- C & OB less than q4h
- C & OB q4h
- C & OB q2h
- C & OB q1h

Not ordered

Used in rules: 294-298

66. Patient order for IPPB or maximist is:

- IPPB or maximist less than BID or x 2
IPPB or maximist BID or x 2
IPPB or maximist TID or x 3
IPPB or maximist q6h, x 4 or QID
IPPB or maximist q4h, x 6
IPPB or maximist q2h, x 12
IPPB or maximist qlh, x 24
Not ordered

Used in rules: 299-306

67. Patient order for croup tent or mist tent is:

Croup tent
Mist tent
Not ordered

Used in rules: 307-309

68. Patient order for chest pulmonary therapy is:

Chest pulmonary therapy less than BID or x 2
Chest pulmonary therapy BID or x 2
Chest pulmonary therapy TID or x 3
Chest pulmonary therapy QID or x 4
Chest pulmonary therapy q4h or x 6
Chest pulmonary therapy q2h or x 12
Chest pulmonary therapy qlh or x 24
Not ordered

Used in rules: 310-317

69. Patient order for suctioning is:

Suctioning less than q4h or x 6
Suctioning q4h or x 6
Suctioning q2h or x 12
Suctioning qlh or x 24
Not ordered

Used in rules: 318-322

70. Patient order for trach care is:

Trach care < x 3 or less than TID
Trach care at least TID (x 3) but less than q4h (x 6)
Trach care x 6 or q4h
Trach care x 12 or q2h
Trach care x 24 or qlh
Not ordered

Used in rules: 323-328
71. Patient order for ventilator is:

Ventilator
Not ordered

Used in rules: 329, 330

72. Patient order for hanging IV bottles is:

KVO (change bottle BID or less)
Simple (change bottle TID or QID)
Complex (change bottle q4h or more, two or more sites, or multilumen tube)
Not ordered

Used in rules: 331-334

73. Patient order for heparin lock or Broviac catheter is:

Heparin lock
Broviac catheter
Not ordered

Used in rules: 335-337

74. Patient order for IV medication is:

IV medication of less than q8h or x 3
IV medication q8h or x 3
IV medication q6h or x 4
IV medication q4h or x 6
IV medication q2h or x 12
IV medication q1h or x 24
Not ordered

Used for rules: 338-344

75. Patient order for blood products is:

Blood products x 1 unit
Blood products x 2 unit
Blood products x 3 unit
Blood products x 4 unit
Blood products x 6 unit
Blood products x 12 unit
Blood products x 24 unit
Not ordered

Used in rules: 345-352
76. Patient order for group teaching is:

Group teaching
Not ordered

Used in rules: 353, 354

77. Patient order for preoperative teaching is:

Preoperative teaching
Not ordered

Used in rules: 355, 356

78. Patient order for structured teaching is:

Structured teaching (i.e. diabetic, cardiac, colostomy care, post partum first 24 hr, newborn care, discharge)
Not ordered

Used in rules: 357, 358

79. Patient order for emotional support is:

Patient/family support (i.e. anxiety, denial, loneliness)
Not ordered

Used in rules: 359, 360

80. Patient order for modification of lifestyle is:

Emotional support for modification of lifestyle (i.e. new prothesis, body image, behavior modification)
Not ordered

Used in rules: 361, 362

81. Patient order for sensory deprivation is:

Emotional support for sensory deprivation (i.e. retarded, blind, deaf, language barrier, bilateral eye patches, confused, combative, etc.)
Not ordered

Used in rules: 363, 364
82. Patient order for cardiac monitor is:

Cardiac monitor
Not ordered

Used in rules: 365, 366

83. Patient order for apnea monitor is:

Apnea monitor
Not ordered

Used in rules: 367, 368

84. Patient order for temp monitor is:

Temp monitor
Not ordered

Used in rules: 369, 370

85. Patient order for pressure monitor is:

Pressure monitor
Not ordered

Used in rules: 371, 372

86. Patient category is:

I Self Care/Minimal Care
II Moderate Care
III Acute Care (1 staff to 3 patients)
IV Intensive Care (1 staff to 2 patients)
V Continuous Care (1 staff to 1 patient)
VI Critical Care (1 staff to 1 patient)

Used in rules: 377-382
RULES

Rule Number: 1
   IF: Vital signs order is: QID or less
   THEN: [ptpoint] is given the value [ptpoint] + 1

Rule Number: 2
   IF: Vital signs order is: q4h or x 6
   THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 3
   IF: Vital signs order is: q2h or x 12
   THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 4
   IF: Vital signs order is: q1h or x 24
   THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 5
   IF: Vital signs order is: Not ordered
   THEN: [ptpoint] is given the value: no points awarded

Rule Number: 6
   IF: Rectal or axillary temp order is: Rectal temps less than QID
   THEN: [ptpoint] is given the value: no points awarded

Rule Number: 7
   IF: Rectal or axillary temp order is: Axillary temps less than QID
   THEN: [ptpoint] is given the value: no points awarded

Rule Number: 8
   IF: Rectal or axillary temp order is: Rectal temps QID or more
   THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 9
   IF: Rectal or axillary temp order is: Axillary temps QID or more
   THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 10
   IF: Rectal or axillary temp order is: Not ordered
   THEN: [ptpoint] is given the value: no points awarded
Rule Number: 11
IF: Patient order for apical pulse is: Apical pulse less than QID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 12
IF: Patient order for apical pulse is: Apical pulse QID or more
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 13
IF: Patient order for apical pulse is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 14
IF: Patient order for femoral pulse is: Femoral pulses less than q4h
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 15
IF: Patient order for femoral pulse is: Femoral pulses q4h or more
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 16
IF: Patient order for femoral pulse is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 17
IF: Patient order for pedal pulses is: Pedal pulses less than q4h
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 18
IF: Patient order for pedal pulses is: Pedal pulses q4h or more
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 19
IF: Patient order for pedal pulses is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 20
IF: Patient order for FHT is: FHT less than q4h
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 21
IF: Patient order for FHT is: FHT q4h or more
THEN: [ptpoint] is given the value [ptpoint] + 2
Rule Number: 22  
**IF:** Patient order for FHT is: Not ordered  
**THEN:** [ptpoint] is given the value: no points awarded

Rule Number: 23  
**IF:** Patient order for tilt test is: Tilt test less than q'4h  
**THEN:** [ptpoint] is given the value: no points awarded

Rule Number: 24  
**IF:** Patient order for tilt test is: Tilt test q'4h or more  
**THEN:** [ptpoint] is given the value [ptpoint] + 2

Rule Number: 25  
**IF:** Patient order for tilt test is: Not ordered  
**THEN:** [ptpoint] is given the value: no points awarded

Rule Number: 26  
**IF:** Patient order for post-op/post-partum/post-newborn vital signs is: Post-op  
**THEN:** [ptpoint] is given the value [ptpoint] + 6

Rule Number: 27  
**IF:** Patient order for post-op/post-partum/post-newborn vital signs is: Post-partum  
**THEN:** [ptpoint] is given the value [ptpoint] + 6

Rule Number: 28  
**IF:** Patient order for post-op/post-partum/post-newborn vital signs is: Post-newborn  
**THEN:** [ptpoint] is given the value [ptpoint] + 6

Rule Number: 29  
**IF:** Patient order for post-op/post-partum/post-newborn vital signs is: Not ordered  
**THEN:** [ptpoint] is given the value: no points awarded

Rule Number: 30  
**IF:** Patient order for intake & output is: Intake & output less than q8h or x 3  
**THEN:** [ptpoint] is given the value: no points awarded

Rule Number: 31  
**IF:** Patient order for intake & output is: Intake & output at least q8h (x 3), but less than q4h (x 6)  
**THEN:** [ptpoint] is given the value [ptpoint] + 2
Rule Number: 32
IF: Patient order for intake & output is: Intake & output q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 33
IF: Patient order for intake & output is: Intake & output q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 34
IF: Patient order for intake & output is: Intake & output q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 35
IF: Patient order for intake & output is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 36
IF: Patient order for circulation checks is: Circulation checks less than q2h or x 12
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 37
IF: Patient order for circulation checks is: Circulation checks q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 38
IF: Patient order for circulation checks is: Circulation checks q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 39
IF: Patient order for circulation checks is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 40
IF: Patient order for neuro checks is: Neuro checks less than q4h or x 6
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 41
IF: Patient order for neuro checks is: Neuro checks q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 3
Rule Number: 42
IF: Patient order for neuro checks is: Neuro checks q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 43
IF: Patient order for neuro checks is: Neuro checks q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 44
IF: Patient order for neuro checks is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 45
IF: Patient order for CUP manual readings is: CUP manual readings less than q2h or x 12
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 46
IF: Patient order for CUP manual readings is: CUP manual readings q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 47
IF: Patient order for CUP manual readings is: CUP manual readings q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 48
IF: Patient order for CUP manual readings is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 49
IF: Patient order for ICP manual readings is: ICP manual readings less than q2h or x 12
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 50
IF: Patient order for ICP manual readings is: ICP manual readings q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 51
IF: Patient order for ICP manual readings is: ICP manual readings q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 4
Rule Number: 52
IF: Patient order for ICP manual readings is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 53
IF: Patient order for fundus checks is: Fundus checks less than q2h or x 12
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 54
IF: Patient order for fundus checks is: Fundus checks q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 55
IF: Patient order for fundus checks is: Fundus checks q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 56
IF: Patient order for fundus checks is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 57
IF: Patient order for transcutaneous monitor is: transcutaneous monitor
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 58
IF: Patient order for transcutaneous monitor is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 59
IF: Patient order for an A-line set-up is: A-line set-up
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 60
IF: Patient order for an A-line set-up is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 61
IF: Patient order for an ICP monitor set-up is: ICP monitor set-up
THEN: [ptpoint] is given the value [ptpoint] + 4
Rule Number: 62
IF: Patient order for an ICP monitor set-up is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 63
IF: Patient order for Swan Ganz set-up is: Swan Ganz set-up
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 64
IF: Patient order for Swan Ganz set-up is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 65
IF: Patient order for A-line reading is: A-line reading less than q2h or x 12
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 66
IF: Patient order for A-line reading is: A-line reading q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 67
IF: Patient order for A-line reading is: A-line reading q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 68
IF: Patient order for A-line reading is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 69
IF: Patient order for ICP monitor reading is: ICP monitor reading less than q2h or x 12
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 70
IF: Patient order for ICP monitor reading is: ICP monitor reading q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 71
IF: Patient order for ICP monitor reading is: ICP monitor reading q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 4
Rule Number: 72
IF: Patient order for ICP monitor reading is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 73
IF: Patient order for PAP/PA wedge reading is: PAP/PA wedge reading of less than q4h or x 6
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 74
IF: Patient order for PAP/PA wedge reading is: PAP/PA wedge reading of q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 75
IF: Patient order for PAP/PA wedge reading is: PAP/PA wedge reading of q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 76
IF: Patient order for PAP/PA wedge reading is: PAP/PA wedge reading of q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 77
IF: Patient order for PAP/PA wedge reading is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 78
IF: Patient order for cardiac output is: Cardiac output less than TID or x 3
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 79
IF: Patient order for cardiac output is: Cardiac output at least TID [x 3] but less than q4h [x 6]
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 80
IF: Patient order for cardiac output is: Cardiac output q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 81
IF: Patient order for cardiac output is: Cardiac output q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 8
Rule Number: 82
IF: Patient order for cardiac output is: Cardiac output q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 83
IF: Patient order for cardiac output is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 84
IF: Patient order for ADL is: Infant/toddler care
[<= 5 years]
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 85
IF: Patient order for ADL is: Self/minimal care (adult or child > 5 years)
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 86
IF: Patient order for ADL is: Assisted care (> 5 years)
positions self
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 87
IF: Patient order for ADL is: Complete care (> 5 years)
assists with positioning
THEN: [ptpoint] is given the value [ptpoint] + 14

Rule Number: 88
IF: Patient order for ADL is: Total care (> 5 years)
position and skin care q2h
THEN: [ptpoint] is given the value [ptpoint] + 32

Rule Number: 89
IF: Patient order for extra linen change and partial bath is: Extra linen and partial bath less than 2x per shift
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 90
IF: Patient order for extra linen change and partial bath is: Extra linen and partial bath 2x per shift
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 91
IF: Patient order for extra linen change and partial bath is: Extra linen and partial bath 4x per shift
THEN: [ptpoint] is given the value [ptpoint] + 8
Rule Number: 92
IF: Patient order for extra linen change and partial
bath is: Extra linen and partial bath 8x per shift
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 93
IF: Patient order for extra linen change and partial
bath is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 94
IF: Patient order for turning frame is: Turning frame
less than q2h
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 95
IF: Patient order for turning frame is: Turning frame
q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 14

Rule Number: 96
IF: Patient order for turning frame is: Turning frame
q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 28

Rule Number: 97
IF: Patient order for turning frame is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 98
IF: Patient order for peds recreation/observation is:
Peds recreation/observation - 0-12 yrs (exc NBN)
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 99
IF: Patient order for peds recreation/observation is:
Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 100
IF: Patient order for tube feedings is: Tube feedings
continuous -- less than 1 bag per 24 hours
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 101
IF: Patient order for tube feedings is: Tube feedings
continuous -- 1 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 2
Rule Number: 102
IF: Patient order for tube feedings is: Tube feedings continuous -- 2 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 103
IF: Patient order for tube feedings is: Tube feedings continuous -- 3 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 104
IF: Patient order for tube feedings is: Tube feedings continuous -- 4 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 105
IF: Patient order for tube feedings is: Tube feedings continuous -- 6 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 106
IF: Patient order for tube feedings is: Tube feedings continuous -- 12 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 107
IF: Patient order for tube feedings is: Tube feedings continuous -- 24 bag per 24 hours
THEN: [ptpoint] is given the value [ptpoint] + 48

Rule Number: 108
IF: Patient order for tube feedings is: Tube feedings (bolus) less than q4h or x 6
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 109
IF: Patient order for tube feedings is: Tube feedings (bolus) q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 5

Rule Number: 110
IF: Patient order for tube feedings is: Tube feedings (bolus) q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 10

Rule Number: 111
IF: Patient order for tube feedings is: Tube feedings (bolus) q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 20
Rule Number: 112
IF: Patient order for tube feedings is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 113
IF: Patient order for spoon feedings is: Adult meals > 5 years [spoon feed x 3]
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 114
IF: Patient order for spoon feedings is: Child meals ≤ 5 years [spoon feed x 3]
THEN: [ptpoint] is given the value [ptpoint] + 10

Rule Number: 115
IF: Patient order for spoon feedings is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 116
IF: Patient order for infant/neonate bottle feeding is: Infant/neonate bottle x 1 feeding
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 117
IF: Patient order for infant/neonate bottle feeding is: Infant/neonate bottle q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 118
IF: Patient order for infant/neonate bottle feeding is: Infant/neonate bottle q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 119
IF: Patient order for infant/neonate bottle feeding is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 120
IF: Patient order for IV insertion is: IV insertion
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 121
IF: Patient order for IV insertion is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 122
IF: Patient order for NG insertion is: NG insertion
THEN: [ptpoint] is given the value [ptpoint] + 2
Rule Number: 123
IF: Patient order for NG insertion is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 124
IF: Patient order for foley insertion/straight catheterization is: Foley insertion
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 125
IF: Patient order for foley insertion/straight catheterization is: straight catheterization of less than 3
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 126
IF: Patient order for foley insertion/straight catheterization is: straight catheterization of 4 or more
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 127
IF: Patient order for foley insertion/straight catheterization is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 128
IF: Patient order for EKG rhythm strip is: EKG rhythm strip
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 129
IF: Patient order for EKG rhythm strip is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 130
IF: Patient order for surgical prep is: Surgical prep
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 131
IF: Patient order for surgical prep is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 132
IF: Patient order for enemas is: Enemas
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 133
IF: Patient order for enemas is: Not ordered
THEN: [ptpoint] is given the value: no points awarded
Rule Number: 134
IF: Patient order for ace wrap/elastic stockings is: Ace wrap
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 135
IF: Patient order for ace wrap/elastic stockings is: Elastic stockings
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 136
IF: Patient order for ace wrap/elastic stockings is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 137
IF: Patient order for dressing change is: Simple dressing change less than x 2 or BID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 138
IF: Patient order for dressing change is: Simple dressing change x 2 or BID
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 139
IF: Patient order for dressing change is: Simple dressing change x 3 or TID
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 140
IF: Patient order for dressing change is: Simple dressing change x 4 or QID
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 141
IF: Patient order for dressing change is: Simple dressing change x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 142
IF: Patient order for dressing change is: Simple dressing change x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 143
IF: Patient order for dressing change is: Simple dressing change x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 24
Rule Number: 144
IF: Patient order for dressing change is: Complex dressing change x 1
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 145
IF: Patient order for dressing change is: Complex dressing change x 2 or q12h
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 146
IF: Patient order for dressing change is: Complex dressing change x 3 or TID
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 147
IF: Patient order for dressing change is: Complex dressing change x 4 or QID
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 148
IF: Patient order for dressing change is: Complex dressing change x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 149
IF: Patient order for dressing change is: Complex dressing change x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 48

Rule Number: 150
IF: Patient order for dressing change is: Complex dressing change x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 96

Rule Number: 151
IF: Patient order for dressing change is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 152
IF: Patient order for tube care (not trach) is: Tube care less than x 2 or BID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 153
IF: Patient order for tube care (not trach) is: Tube care x 2 or BID
THEN: [ptpoint] is given the value [ptpoint] + 2
Rule Number: 154
IF: Patient order for tube care (not trach) is: Tube care x 3 or TID
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 155
IF: Patient order for tube care (not trach) is: Tube care x 4 or QID
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 156
IF: Patient order for tube care (not trach) is: Tube care x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 157
IF: Patient order for tube care (not trach) is: Tube care x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 158
IF: Patient order for tube care (not trach) is: Tube care x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 159
IF: Patient order for tube care (not trach) is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 160
IF: Patient order for Foley care is: Foley care less than x 2 or BID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 161
IF: Patient order for Foley care is: Foley care x 2 or BID
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 162
IF: Patient order for Foley care is: Foley care x 3 or TID
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 163
IF: Patient order for Foley care is: Foley care x 4 or QID
THEN: [ptpoint] is given the value [ptpoint] + 4
Rule Number: 164
IF: Patient order for Foley care is: Foley care × 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 165
IF: Patient order for Foley care is: Foley care × 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 166
IF: Patient order for Foley care is: Foley care × 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 167
IF: Patient order for Foley care is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 168
IF: Patient order for S & A is: S & A × 1 or QO
THEN: [roupoint] is given the value [roupoint] + 1

Rule Number: 169
IF: Patient order for S & A is: S & A × 2 or BID
THEN: [roupoint] is given the value [roupoint] + 2

Rule Number: 170
IF: Patient order for S & A is: S & A × 3 or TID
THEN: [roupoint] is given the value [roupoint] + 3

Rule Number: 171
IF: Patient order for S & A is: S & A × 4 or QID
THEN: [roupoint] is given the value [roupoint] + 4

Rule Number: 172
IF: Patient order for S & A is: S & A × 6 or q4h
THEN: [roupoint] is given the value [roupoint] + 6

Rule Number: 173
IF: Patient order for S & A is: S & A × 12 or q2h
THEN: [roupoint] is given the value [roupoint] + 12

Rule Number: 174
IF: Patient order for S & A is: S & A × 24 or q1h
THEN: [roupoint] is given the value [roupoint] + 24

Rule Number: 175
IF: Patient order for S & A is: Not ordered
THEN: [roupoint] is given the value: no points awarded
Rule Number: 176
IF: Patient order for Sp Gr is: Sp Gr x 1 or QD
THEN: [routpoint] is given the value [routpoint] + 1

Rule Number: 177
IF: Patient order for Sp Gr is: Sp Gr x 2 or BID
THEN: [routpoint] is given the value [routpoint] + 2

Rule Number: 178
IF: Patient order for Sp Gr is: Sp Gr x 3 or TID
THEN: [routpoint] is given the value [routpoint] + 3

Rule Number: 179
IF: Patient order for Sp Gr is: Sp Gr x 4 or Q4h
THEN: [routpoint] is given the value [routpoint] + 4

Rule Number: 180
IF: Patient order for Sp Gr is: Sp Gr x 6 or q2h
THEN: [routpoint] is given the value [routpoint] + 6

Rule Number: 181
IF: Patient order for Sp Gr is: Sp Gr x 12 or q2h
THEN: [routpoint] is given the value [routpoint] + 12

Rule Number: 182
IF: Patient order for Sp Gr is: Sp Gr x 24 or q1h
THEN: [routpoint] is given the value [routpoint] + 24

Rule Number: 183
IF: Patient order for Sp Gr is: Not ordered
THEN: [routpoint] is given the value: no points awarded

Rule Number: 184
IF: Patient order for Guiac stools is: Guiac stools x 1 or QD
THEN: [routpoint] is given the value [routpoint] + 1

Rule Number: 185
IF: Patient order for Guiac stools is: Guiac stools x 2 or BID
THEN: [routpoint] is given the value [routpoint] + 2

Rule Number: 186
IF: Patient order for Guiac stools is: Guiac stools x 3 or TID
THEN: [routpoint] is given the value [routpoint] + 3

Rule Number: 187
IF: Patient order for Guiac stools is: Guiac stools x 4
or QID
THEN: [roupoint] is given the value [roupoint] + 4

Rule Number: 188
IF: Patient order for Guiac stools is: Guiac stools x 6 or q4h
THEN: [roupoint] is given the value [roupoint] + 6

Rule Number: 189
IF: Patient order for Guiac stools is: Guiac stools x 12 or q2h
THEN: [roupoint] is given the value [roupoint] + 12

Rule Number: 190
IF: Patient order for Guiac stools is: Guiac stools x 24 or q1h
THEN: [roupoint] is given the value [roupoint] + 24

Rule Number: 191
IF: Patient order for Guiac stools is: Not ordered
THEN: [roupoint] is given the value: no points awarded

Rule Number: 192
IF: Patient order for spin HCT is: Spin HCT x 1 or QD
THEN: [roupoint] is given the value [roupoint] + 1

Rule Number: 193
IF: Patient order for spin HCT is: Spin HCT x 2 or BID
THEN: [roupoint] is given the value [roupoint] + 2

Rule Number: 194
IF: Patient order for spin HCT is: Spin HCT x 3 or TID
THEN: [roupoint] is given the value [roupoint] + 3

Rule Number: 195
IF: Patient order for spin HCT is: Spin HCT x 4 or QID
THEN: [roupoint] is given the value [roupoint] + 4

Rule Number: 196
IF: Patient order for spin HCT is: Spin HCT x 6 or q4h
THEN: [roupoint] is given the value [roupoint] + 6

Rule Number: 197
IF: Patient order for spin HCT is: Spin HCT x 12 or q2h
THEN: [roupoint] is given the value [roupoint] + 12

Rule Number: 198
IF: Patient order for spin HCT is: Spin HCT x 24 or q1h
THEN: [roupoint] is given the value [roupoint] + 24
Rule Number: 199
IF: Patient order for spin HCT is: Not ordered
THEN: [roupoint] is given the value: no points awarded

Rule Number: 200
IF: Patient order for lab studies is: Lab studies less than x 6
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 201
IF: Patient order for lab studies is: Lab studies x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 202
IF: Patient order for lab studies is: Lab studies x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 203
IF: Patient order for lab studies is: Lab studies x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 204
IF: Patient order for lab studies is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 205
IF: Patient order for ABG sticks is: ABG sticks, less than x 3
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 206
IF: Patient order for ABG sticks is: ABG sticks, at least x 3, but less than x 6
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 207
IF: Patient order for ABG sticks is: ABG sticks x 6
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 208
IF: Patient order for ABG sticks is: ABG sticks x 12
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 209
IF: Patient order for ABG sticks is: ABG sticks x 24
THEN: [ptpoint] is given the value [ptpoint] + 16
Rule Number: 210
IF: Patient order for ABG sticks is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 211
IF: Patient order for blood cultures is: Blood cultures less than x 3
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 212
IF: Patient order for blood cultures is: Blood cultures at least x 3 but less than x 6
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 213
IF: Patient order for blood cultures is: Blood cultures x 6
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 214
IF: Patient order for blood cultures is: Blood cultures x 12
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 215
IF: Patient order for blood cultures is: Blood cultures x 24
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 216
IF: Patient order for blood cultures is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 217
IF: Patient order for medications is: Medications less than q6h [exclude IV]
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 218
IF: Patient order for medications is: Medications q3h - q8h [exclude IV] - up to 12 trips
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 219
IF: Patient order for medications is: Medications q2h or more [exclude IV] - > 12 trips
THEN: [ptpoint] is given the value [ptpoint] + 4
Rule Number: 220
IF: Patient order for medications is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 221
IF: Patient order for irrigations is: Irrigations x 4 (QID) or less
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 222
IF: Patient order for irrigations is: Irrigations x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 223
IF: Patient order for irrigations is: Irrigations x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 224
IF: Patient order for irrigations is: Irrigations x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 225
IF: Patient order for irrigations is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 226
IF: Patient order for instillations is: Instillations x 4 (QID) or less
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 227
IF: Patient order for instillations is: Instillations x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 228
IF: Patient order for instillations is: Instillations x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 229
IF: Patient order for instillations is: Instillations x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 12
Rule Number: 230
IF: Patient order for instillations is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 231
IF: Patient order for restraints is: 2 point
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 232
IF: Patient order for restraints is: 4 point
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 233
IF: Patient order for restraints is: Posey
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 234
IF: Patient order for restraints is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 235
IF: Patient order for assist to chair/stretcher is:
  Assist to chair less than x 3
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 236
IF: Patient order for assist to chair/stretcher is:
  Assist to stretcher less than x 3
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 237
IF: Patient order for assist to chair/stretcher is:
  Assist to stretcher by at least 3 but less than 6
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 238
IF: Patient order for assist to chair/stretcher is:
  Assist to stretcher x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 239
IF: Patient order for assist to chair/stretcher is:
  Assist to stretcher x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 240
IF: Patient order for assist to chair/stretcher is:
  Assist to stretcher x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 16
Rule Number: 241
IF: Patient order for assist to chair/stretcher is:
   Assist to chair at least x 3 but less than x 6
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 242
IF: Patient order for assist to chair/stretcher is:
   Assist to chair x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 243
IF: Patient order for assist to chair/stretcher is:
   Assist to chair x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 244
IF: Patient order for assist to chair/stretcher is:
   Ambulate with assistance x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 245
IF: Patient order for assist to chair/stretcher is:
   Ambulate with assistance x 1
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 246
IF: Patient order for assist to chair/stretcher is:
   Ambulate with assistance x 2
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 247
IF: Patient order for assist to chair/stretcher is:
   Ambulate with assistance x 3
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 248
IF: Patient order for assist to chair/stretcher is:
   Ambulate with assistance x 4
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 249
IF: Patient order for assist to chair/stretcher is:
   Ambulate with assistance x 6
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 250
IF: Patient order for assist to chair/stretcher is:
   Ambulate with assistance x 12
THEN: [ptpoint] is given the value [ptpoint] + 24
Rule Number: 251
IF: Patient order for assist to chair/stretcher is: Ambulate with assistance x 24
THEN: [ptpoint] is given the value [ptpoint] + 48

Rule Number: 252
IF: Patient order for assist to chair/stretcher is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 253
IF: Patient order for infant circumcision care is: Infant circumcision care
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 254
IF: Patient order for infant circumcision care is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 255
IF: Patient order for phototherapy is: Phototherapy
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 256
IF: Patient order for phototherapy is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 257
IF: Patient order for isolation is: Isolation (change gown and gloves less than x 8)
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 258
IF: Patient order for isolation is: Isolation (change gown and gloves x 8 or more)
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 259
IF: Patient order for isolation is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 260
IF: Patient order for accompany patient off ward is: Accompany patient off ward for less than 15 min
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 261
IF: Patient order for accompany patient off ward is:
Accompany patient off ward for 15 to 30 min
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 262
IF: Patient order for accompany patient off ward is: Accompany patient off ward for greater than 30 min
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 263
IF: Patient order for accompany patient off ward is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 264
IF: Patient order for other activities is: Other activities requiring less than 15 minutes
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 265
IF: Patient order for other activities is: Other activities requiring 15 to 30 minutes
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 266
IF: Patient order for other activities is: Other activities requiring 30 min to 1 hour
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 267
IF: Patient order for other activities is: Special procedures > 1 hr < 2 hr (requiring continuous staff attendance)
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 268
IF: Patient order for other activities is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 269
IF: Patient order for chest tube insertion is: Chest tube insertion
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 270
IF: Patient order for chest tube insertion is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 271
IF: Patient order for lumbar puncture is: Lumbar
puncture
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 272
IF: Patient order for lumbar puncture is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 273
IF: Patient order for thoracentesis is: Thoracentesis ordered
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 274
IF: Patient order for thoracentesis is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 275
IF: Patient order for paracentesis is: Paracentesis
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 276
IF: Patient order for paracentesis is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 277
IF: Patient order for range of motion is: Range of motion exercises less than x 3 or TID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 278
IF: Patient order for range of motion is: Range of motion exercises at least x 3 but less than x 6
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 279
IF: Patient order for range of motion is: Range of motion exercises x 6 or q4h
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 280
IF: Patient order for range of motion is: Range of motion exercises x 12 or q2h
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 281
IF: Patient order for range of motion is: Range of motion exercises x 24 or q1h
THEN: [ptpoint] is given the value [ptpoint] + 32
Rule Number: 282
IF: Patient order for range of motion is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 283
IF: Patient order to transfer in-house or new admission is: Transfer in-house [assess and orient]
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 284
IF: Patient order to transfer in-house or new admission is: New admission (assess and orient)
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 285
IF: Patient order to transfer in-house or new admission is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 286
IF: Patient order for O2 therapy or oxyhood is: Oxygen therapy
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 287
IF: Patient order for O2 therapy or oxyhood is: Oxyhood
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 288
IF: Patient order for O2 therapy or oxyhood is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 289
IF: Patient order for incentive spirometer is: Incentive spirometer less than q4h
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 290
IF: Patient order for incentive spirometer is: Incentive spirometer q4h
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 291
IF: Patient order for incentive spirometer is: Incentive spirometer q2h
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 292
IF: Patient order for incentive spirometer is: Incentive
spirometer q1h
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 293
IF: Patient order for incentive spirometer is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 294
IF: Patient order for C&DB is: C&DB less than q4h
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 295
IF: Patient order for C&DB is: C&DB q4h
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 296
IF: Patient order for C&DB is: C&DB q2h
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 297
IF: Patient order for C&DB is: C&DB q1h
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 298
IF: Patient order for C&DB is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 299
IF: Patient order for IPPB or maximist is: IPPB or maximist less than BID or x 2
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 300
IF: Patient order for IPPB or maximist is: IPPB or maximist BID or x 2
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 301
IF: Patient order for IPPB or maximist is: IPPB or maximist TID or x 3
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 302
IF: Patient order for IPPB or maximist is: IPPB or maximist QID or x 4
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 303
IF: Patient order for IPPB or maximist is: IPPB or
maximist q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 304
IF: Patient order for IPPB or maximist is: IPPB or maximist q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 305
IF: Patient order for IPPB or maximist is: IPPB or maximist q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 306
IF: Patient order for IPPB or maximist is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 307
IF: Patient order for croup tent or mist tent is: Croup tent
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 308
IF: Patient order for croup tent or mist tent is: Mist tent
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 309
IF: Patient order for croup tent or mist tent is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 310
IF: Patient order for chest pulmonary therapy is: Chest pulmonary therapy less than BID or x 2
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 311
IF: Patient order for chest pulmonary therapy is: Chest pulmonary therapy BID or x 2
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 312
IF: Patient order for chest pulmonary therapy is: Chest pulmonary therapy TID or x 3
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 313
IF: Patient order for chest pulmonary therapy is: Chest
pulmonary therapy QID or x 4
THEN: Eptpoint is given the value Eptpoint + 4

Rule Number: 314
IF: Patient order for chest pulmonary therapy is: Chest 
pulmonary therapy q4h or x 6
THEN: Eptpoint is given the value Eptpoint + 6

Rule Number: 315
IF: Patient order for chest pulmonary therapy is: Chest 
pulmonary therapy q2h or x 12
THEN: Eptpoint is given the value Eptpoint + 12

Rule Number: 316
IF: Patient order for chest pulmonary therapy is: Chest 
pulmonary therapy q1h or x 24
THEN: Eptpoint is given the value Eptpoint + 24

Rule Number: 317
IF: Patient order for chest pulmonary therapy is: Not 
ordered
THEN: Eptpoint is given the value: no points awarded

Rule Number: 318
IF: Patient order for suctioning is: Suctioning less 
than q4h or x 6
THEN: Eptpoint is given the value: no points awarded

Rule Number: 319
IF: Patient order for suctioning is: Suctioning q4h or 
x 6
THEN: Eptpoint is given the value Eptpoint + 2

Rule Number: 320
IF: Patient order for suctioning is: Suctioning q2h or 
x 12
THEN: Eptpoint is given the value Eptpoint + 4

Rule Number: 321
IF: Patient order for suctioning is: Suctioning q1h or 
x 24
THEN: Eptpoint is given the value Eptpoint + 8

Rule Number: 322
IF: Patient order for suctioning is: Not ordered
THEN: Eptpoint is given the value: no points awarded

Rule Number: 323
IF: Patient order for trach care is: Trach care less
than x 3 or TID
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 324
IF: Patient order for trach care is: Trach care at least TID (or x 3) but less than q4h (x 6)
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 325
IF: Patient order for trach care is: Trach care q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 326
IF: Patient order for trach care is: Trach care q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 16

Rule Number: 327
IF: Patient order for trach care is: Trach care q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 32

Rule Number: 328
IF: Patient order for trach care is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 329
IF: Patient order for ventilator is: Ventilator
THEN: [ptpoint] is given the value [ptpoint] + 10

Rule Number: 330
IF: Patient order for ventilator is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 331
IF: Patient order for hanging IV bottles is: KVO (change bottle BID or less)
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 332
IF: Patient order for hanging IV bottles is: Simple (change bottle TID or QID)
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 333
IF: Patient order for hanging IV bottles is: Complex (change bottle q4h or more, two or more sites, or multilumen tube)
THEN: [ptpoint] is given the value [ptpoint] + 8
Rule Number: 334
IF: Patient order for hanging IV bottles is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 335
IF: Patient order for heparin lock or Broviac catheter is: Heparin lock
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 336
IF: Patient order for heparin lock or Broviac catheter is: Broviac catheter
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 337
IF: Patient order for heparin lock or Broviac catheter is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 338
IF: Patient order for IV medications is: IV medications of less than q8h or x 3
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 339
IF: Patient order for IV medications is: IV medications of q8h or x 3
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 340
IF: Patient order for IV medications is: IV medications of q6h or x 4
THEN: [ptpoint] is given the value [ptpoint] + 3

Rule Number: 341
IF: Patient order for IV medications is: IV medications of q4h or x 6
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 342
IF: Patient order for IV medications is: IV medications of q2h or x 12
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 343
IF: Patient order for IV medications is: IV medications of q1h or x 24
THEN: [ptpoint] is given the value [ptpoint] + 16
Rule Number: 344
IF: Patient order for IV medications is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 345
IF: Patient order for blood products is: Blood products x 1 unit
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 346
IF: Patient order for blood products is: Blood products x 2 unit
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 347
IF: Patient order for blood products is: Blood products x 3 unit
THEN: [ptpoint] is given the value [ptpoint] + 6

Rule Number: 348
IF: Patient order for blood products is: Blood products x 4 unit
THEN: [ptpoint] is given the value [ptpoint] + 8

Rule Number: 349
IF: Patient order for blood products is: Blood products x 6 unit
THEN: [ptpoint] is given the value [ptpoint] + 12

Rule Number: 350
IF: Patient order for blood products is: Blood products x 12 unit
THEN: [ptpoint] is given the value [ptpoint] + 24

Rule Number: 351
IF: Patient order for blood products is: Blood products x 24 unit
THEN: [ptpoint] is given the value [ptpoint] + 48

Rule Number: 352
IF: Patient order for blood products is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 353
IF: Patient order for group teaching is: Group teaching
THEN: [ptpoint] is given the value [ptpoint] + 2

Rule Number: 354
IF: Patient order for group teaching is: Not ordered
THEN: [ptpoint] is given the value: no points awarded
Rule Number: 355
IF: Patient order for preoperative teaching is:
     Preoperative teaching
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 356
IF: Patient order for preoperative teaching is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 357
IF: Patient order for structured teaching is: Structured teaching [i.e. diabetic, cardiac, colostomy care, post partum first 24 hr, newborn care, discharge]
THEN: [ptpoint] is given the value [ptpoint] + 4

Rule Number: 358
IF: Patient order for structured teaching is: Not ordered
THEN: [ptpoint] is given the value: no points awarded

Rule Number: 359
IF: Patient order for emotional support is: Patient/family support [i.e. anxiety, denial, loneliness, etc.]
THEN: [emopoint] is given the value [emopoint] + 4

Rule Number: 360
IF: Patient order for emotional support is: Not ordered
THEN: [emopoint] is given the value: no points awarded

Rule Number: 361
IF: Patient order for modification of lifestyle is: Emotional support for modification of lifestyle [i.e. new prothesis, body image, behavior modification, etc.]
THEN: [emopoint] is given the value [emopoint] + 4

Rule Number: 362
IF: Patient order for modification of lifestyle is: Not ordered
THEN: [emopoint] is given the value: no points awarded

Rule Number: 363
IF: Patient order for sensory deprivation is: Emotional support for sensory deprivation [i.e. retarded, blind, deaf, language barrier, bilateral eye patches, confused, combative, etc.]
THEN: [emopoint] is given the value [emopoint] + 6
Rule Number: 364
IF: Patient order for sensory deprivation is: Not ordered
THEN: [emopoint] is given the value: no points awarded

Rule Number: 365
IF: Patient order for cardiac monitor is: Cardiac monitor
THEN: [monpoint] is given the value: [monpoint] + 6

Rule Number: 366
IF: Patient order for cardiac monitor is: Not ordered
THEN: [monpoint] is given the value: no points awarded

Rule Number: 367
IF: Patient order for apnea monitor is: Apnea monitor
THEN: [monpoint] is given the value: [monpoint] + 6

Rule Number: 368
IF: Patient order for apnea monitor is: Not ordered
THEN: [monpoint] is given the value: no points awarded

Rule Number: 369
IF: Patient order for temp monitor is: Temp monitor
THEN: [monpoint] is given the value: [monpoint] + 6

Rule Number: 370
IF: Patient order for temp monitor is: Not ordered
THEN: [monpoint] is given the value: no points awarded

Rule Number: 371
IF: Patient order for pressure monitor is: Pressure monitor
THEN: [monpoint] is given the value: [monpoint] + 6

Rule Number: 372
IF: Patient order for pressure monitor is: Not ordered
THEN: [monpoint] is given the value: no points awarded

Rule Number: 373
IF: [monpoint] > 0
THEN: [ptpoint] is given the value: [ptpoint] + 6

Rule Number: 374
IF: [roupoint] > 5
THEN: [ptpoint] is given the value: [ptpoint] + [roupoint]

Rule Number: 375
IF: [emopoint] > 0 and [emopoint] < 11
THEN: \([\text{ptpoint}] \) is given the value \([\text{ptpoint}] + [\text{emopoint}]\)

Rule Number: 376  
IF: \([\text{emopoint}] > 10\)  
THEN: \([\text{ptpoint}] \) is given the value \([\text{ptpoint}] + 10\)

Rule Number: 377  
IF: \([\text{ptpoint}] \geq 0 \) and \([\text{ptpoint}] < 13\)  
THEN: Patient category is: I Self Care/Minimal Care

Rule Number: 378  
IF: \([\text{ptpoint}] > 12 \) and \([\text{ptpoint}] < 32\)  
THEN: Patient category is: II Moderate Care

Rule Number: 379  
IF: \([\text{ptpoint}] > 31 \) and \([\text{ptpoint}] < 64\)  
THEN: Patient category is: III Acute Care \([1 \text{ staff to } 3 \text{ patients}]\)

Rule Number: 380  
IF: \([\text{ptpoint}] > 63 \) and \([\text{ptpoint}] < 96\)  
THEN: Patient category is: IV Intensive Care \([1 \text{ staff to } 2 \text{ patients}]\)

Rule Number: 381  
IF: \([\text{ptpoint}] > 95 \) and \([\text{ptpoint}] < 146\)  
THEN: Patient category is: V Continuous Care \([1 \text{ staff to } 1 \text{ patients}]\)

Rule Number: 382  
IF: \([\text{ptpoint}] > 145\)  
THEN: Patient category is: VI Critical Care \([1 \text{ staff to } 1 \text{ patients}]\)
APPENDIX E

PROGRAM LISTINGS

**** INTRO.PRG ****************************

* Author: Gary R. Hormeyer LCDR NC USN
* Date: 26 November 1985
* Screen Generated By: The Software Bottling Company Of New York, c1985
* Purpose: Introductory screen for the prototype model.
* Input Files Used: Intro.Scr and Procfile.Prg
* Output Files Used: None
* Calling Routine: None
* Routine Called: Valid.Prg
* Modification Date: 18 February 1986

-- Screen Input Program For Intro --

Set Procedure To B:Procfile
Do Setup
Public Flash
Flash = Chr(145)

Do While .T.

* -- Screen display B:Intro.Scr --

Set Procedure To B:Procfile
Set Color To W+/B, /
Clear
?? Flash+"S.B:Intro.Scr/"
Set Color To W+/B, /W
@ 24,0
Set Console Off
Wait
Set Console On
Do B:Valid

Enddo
***** PROCFILE.PRG ****************************

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 1 December 1985
* Purpose: See comments above each procedure.
* Input Files Used: None
* Output Files Used: Orders and Ncaredb.Dbf
* Calling Routine: All modules
* Routine Called: None
* Modification Date: 18 February 1986

* -- Screen headers after patient selection --

Procedure Headings

@ 2,3 Say Ptselect
@ 2,42 Say Ptregno
@ 2,56 Say Date()
@ 2,65 Say Time()
@ 22,3 Say Curuser
Return

* -- Used to reset pointer and put data from variable
* -- names into Orders.Dbf --

Procedure Reload

Store DTDC(Date()) To Now
Use B:Orders
Do While .Not. EOF()
    Skip
Enddo
Append Blank
Replace Order With Morder
Replace Fmpssn With PtFmpssn
Replace Freq With OFreq
Replace Otime With Time()
Replace Odate With Now
Replace Proc With Curuser
Replace Expertsys With Passdata
Replace Onlytoday With Todayonly
Replace Critical With Ptpoint
Replace Module With Omodule
Replace Monpt With Monpoint
Replace Emopt With Emopoint
Replace Roupt With Roupoint
Return
* -- Used to reset pointer and put data from variable
* -- names into Ncaredb.Dbf --

Procedure Repnord

Use B:Ncaredb
Do While .Not. EOF()
  Skip
Enddo
Append Blank
Replace Nfmpssn With Ptfmpssn
Replace Nord With Morder
Replace Ntime With Time()
Replace Ndate With Date()
Replace Nurse With Curruser
Replace Ndiag With Nursdiag
Replace Assess With Nasses
Replace Relate With Nrelate
Replace Goal With Ngoal
Replace Nfreq With OFreq
Replace Emotea With Emoteach
Return

* -- Determine the current nursing care level --

Procedure Current

Xgoa4cur = "B"
@ 23,67 Get Xgoa4cur Pict "!
Read
Do While .Not. (Xgoa4cur = "A" .Or. Xgoa4cur = "B" .Or.;
  Xgoa4cur = "C" .Or. Xgoa4cur = "D" .Or. Xgoa4cur = "E")
  @ 23,67 Clear
  Store "" To Xgoa4cur
  @ 24,0 Say "Re-Enter Letter A, B, C, D or E"
  @ 23,67 Get Xgoa4cur Pict "!
  Read
Enddo

* -- Assign value to letter selected --

Do Case
  Case Xgoa4cur = "A"
    Morder = "Infant/Toddler Care"
    Passdata = "023 1"
    Ptpoint = 6
  Case Xgoa4cur = "B"
    Morder = "Self/Minimum Care"

150
Passdata = "Q23 2"
Ptpoint = 2
Case Xgao4cur = "C"
    Morder = "Assisted Care"
    Passdata = "Q23 3"
Ptpoint = 6
Case Xgao4cur = "D"
    Morder = "Complete Care"
    Passdata = "Q23 4"
Ptpoint = 14
Case Xgao4cur = "E"
    Morder = "Total Care"
    Passdata = "Q23 5"
Ptpoint = 32
Endcase
Return

* -- Used to evaluate the proper value to pass to the
* -- expert system for oral, IM or subq medication
* -- category options --

Procedure Regmeds

Do Case
    Case [Timeopt < 25 .Or. Timeopt = 41]
        * -- Less than x 3 or TID
        Passdata = "Q47 1"
Ptpoint = 0
    Case [Timeopt > 24 .And. Timeopt < 36]
        * -- X 3 or TID up to x 12 trips
        Passdata = "Q47 2"
Ptpoint = 2
    Case [Timeopt > 35 .And. Timeopt < 40]
        * -- More than 12 trips
        Passdata = "Q47 3"
Ptpoint = 4
Endcase
Return

* -- Used to evaluate the proper value to pass to the
* -- expert system for laboratory category options --

Procedure Labcount

Do Case
    Case [Timeopt < 34 .Or. Timeopt = 41]
        Passdata = "Q44 1"
Ptpoint = 0
**Case** (Timeopt = 34 .Or. Timeopt = 35)

Passdata = "044 2"
Pt point = 2

**Case** (Timeopt = 36 .Or. Timeopt = 37)

Passdata = "044 3"
Pt point = 4

**Case** (Timeopt = 38 .Or. Timeopt = 39)

Passdata = "044 4"
Pt point = 8

Endcase

Return

* -- Determine the liter flow rate of oxygen --*

**Procedure Liter**

Xliteropt = "A"
@ 23,66 Get Xliteropt Pict "!"

Read

Do While .Not. (Xliteropt = "A" .Or. Xliteropt = "B".Or.;
Xliteropt = "C".Or. Xliteropt = "D".Or. Xliteropt = "E")
@ 23,66 Clear

Store " " To Xliteropt
@ 24,0 Say "Re-Enter Letter A, B, C, D or E"
@ 23,66 Get Xliteropt Pict "!"

Read

Enddo

* -- Assign value to letter selected --*

Do Case

Case Xliteropt = "A"

Xliter = "@ 1-2 l/m"

Case Xliteropt = "B"

Xliter = "@ 3-4 l/m"

Case Xliteropt = "C"

Xliter = "@ 5-6 l/m"

Case Xliteropt = "D"

Xliter = "@ 7-8 l/m"

Case Xliteropt = "E"

Xliter = "@ 9-10 l/m"

Endcase

Return

* -- Used to evaluate the proper value to pass to the ex-
* -- pert system for IV medication category options --*
Procedure IVmeds

Do Case
Case (Timeopt < 25 .Or. Timeopt = 41)
  * -- Less than Q8h or TID
  Passdata = "Q74 1"
  Ptpoint = 0
Case (Timeopt > 24 .And. Timeopt < 31)
  * -- Q8h or TID
  Passdata = "Q74 2"
  Ptpoint = 2
Case (Timeopt > 30 .And. Timeopt < 34)
  * -- Q6h or x 4
  Passdata = "Q74 3"
  Ptpoint = 3
Case (Timeopt = 34 .Or. Timeopt = 35)
  * -- Q4h or x 6
  Passdata = "Q74 4"
  Ptpoint = 4
Case (Timeopt = 36 .Or. Timeopt = 37)
  * -- Q2h or x 12
  Passdata = "Q74 5"
  Ptpoint = 8
Case (Timeopt = 38 .Or. Timeopt = 39)
  * -- Q1h or x 24
  Passdata = "Q74 6"
  Ptpoint = 16
Endcase
Return

* -- Initialize variables in the order modules --

Procedure Startup

Ofreq = " "
Ptpoint = 0
Passdata = " "
Todayonly = "F"
Emopoint = 0
Monpoint = 0
Roupoint = 0
Return

* -- Used to evaluate the proper value to pass to the
* -- expert system for range of motion category --
Procedure Range

Do Case
  Case [Timeopt < 25 .Or. Timeopt = 41]
    * -- Less than x 3
    Passdata = "Q61 1"
    Ptpoint = 0
  Case [Timeopt > 24 .And. Timeopt < 34]
    * -- X 3 or less than x 6
    Passdata = "Q61 2"
    Ptpoint = 4
  Case [Timeopt = 34 .Or. Timeopt = 35]
    * -- X 6 or Q4h
    Passdata = "Q61 3"
    Ptpoint = 8
  Case [Timeopt = 36 .Or. Timeopt = 37]
    * -- X 12 or Q2h
    Passdata = "Q61 4"
    Ptpoint = 16
  Case [Timeopt = 38 .Or. Timeopt = 39]
    * -- X 24 or Q1h
    Passdata = "Q61 5"
    Ptpoint = 32
  Endcase
Return

* -- Used to evaluate the proper value to pass to the
* -- expert system for cough and deep breathe category
* -- option --

Procedure Cough

Do Case
  Case [Timeopt < 34 .Or. Timeopt = 41]
    * -- Less than Q4h or x 6
    Passdata = "Q65 1"
    Ptpoint = 0
  Case [Timeopt = 34 .Or. Timeopt = 35]
    * -- Q4h or x 6
    Passdata = "Q65 2"
    Ptpoint = 2
  Case [Timeopt = 36 .Or. Timeopt = 37]
    * -- Q2h or x 12
    Passdata = "Q65 3"
    Ptpoint = 4
  Case [Timeopt = 38 .Or. Timeopt = 39]
    * -- Q1h or x 24
Passedata = "QDS 4"
Ptpoint = 8
Endcase
Return

• -- Sets up the initial environment for each module --

Procedure Setup

Clear
Set Escape On
Set Talk Off
Set Echo Off
Return

• -- Used to evaluate the proper value to pass to the
• -- expert system for S&A, specific gravity, Guiac
• -- and spin Hct category option --

Procedure Routine

Do Case
    Case (Timeopt < 5 .Or. Timeopt = 41)
        * -- No specific frequency ordered
        Roupoint = 0
    Case (Timeopt > 5 .And. Timeopt < 22)
        * -- X 1 or QD
        Roupoint = 1
    Case (Timeopt > 21 .And. Timeopt < 25)
        * -- X 2 or BID
        Roupoint = 2
    Case (Timeopt > 24 .And. Timeopt < 31)
        * -- X 3 or TID
        Roupoint = 3
    Case (Timeopt > 30 .And. Timeopt < 34)
        * -- X 4 or Q1D
        Roupoint = 4
    Case (Timeopt = 34 .Or. Timeopt = 35)
        * -- X 6 or Q4h
        Roupoint = 6
    Case (Timeopt = 36 .Or. Timeopt = 37)
        * -- X 12 or Q2h
        Roupoint = 12
    Case (Timeopt = 38 .Or. Timeopt = 39)
        * -- X 24 or Q1h
        Roupoint = 24
Endcase
Return
--- VALID.PRG ---

**Author:** Gary R. Harmeyer LCDR NC USN

**Date:** 2 December 1985

**Screen Generated By:** The Software Bottling Company of New York, c1985

**Purpose:** Evaluate the validity of the password used.

**Input Files Used:** Valid.Scr and Procfile.Prg

**Output Files Used:** Useinfo.Dbf

**Calling Routine:** Intro.Prg

**Routine Called:** Master.Prg

**Modification Date:** 10 February 1986

--- Screen Input Program For Valid ---

Do Setup
Public Xusepass,Curuser,Useacc
Use B:Useinfo
Xusepass = Space(5)
Xusepass1 = Space(1)
Xusepass2 = Space(1)
Xusepass3 = Space(1)
Xusepass4 = Space(1)
Xusepass5 = Space(1)

Do While .T.

- **Screen Display A: Valid.Scr**

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Valid.Scr/"
Set Color To W+/B,W+/B
@ 13,43

- Places an "X" on the screen to mask the password entered

Set Console Off
Wait To Xusepass1
@ 13,43 Say 'X'
Wait To Xusepass2
@ 13,45 Say 'X'
Wait To Xusepass3
@ 13,47 Say 'X'
Wait To Xusepass4
@ 13,49 Say 'X'
Wait To Xusepass5
@ 13,51 Say 'X'
Xusepass =;
   Upper(Xusepass1+Xusepass2+Xusepass3+Xusepass4+Xusepass5)
Set Console On

* -- Evaluates the password entered -- *

Locate For Xusepass = Codeword
If [Xusepass <> Codeword].And. EOF()
   @ 24,15 Say "INVALID PASSWORD -- HIT ANY KEY"
   @ 24,51 Say "AND RE-ENTER"
   Set Console Off
   Wait
   Set Console On
   Loop
Endif
Store Ufinal + ' ' + Trim(Uluname) To Curuser
Store Access To Useacc
   @ 24,0
   @ 23,80 Clear
   @ 24,7 Say "Your Password Has Been Accepted -- "
   @ 24,42 Say "Please Press A Key To Continue"
   Set Console Off
   Wait
   Set Console On
Do B:Master
Enddo
MASTER.PRG

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 26 November 1985
* Screen Generated By: The Software Bottling Company
  Of New York, c1985
* Purpose: Menu program to branch between the admission's department, the database administration and the patient care personnel.
* Input Files Used: Master.Scr and Procfile.Prg
* Output Files Used: None
* Calling Routine: Valid.Prg
* Routine Called: Admit, Ward or Addelete.Prg
* Modification Date: 4 February 1986

-- Screen Input Program For Master --

Do Setup
Public Xmasopt,Omodule
Omodule = Space[1]

Do While .T.

-- Screen Display B:Master.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Master.Scr/"
Set Color To W+/B,W+/B
Xmasopt = 0
@ 2,56 Say Date()
@ 2,65 Say Time()
@ 22,3 Say Curuser
@ 22,67 Get Xmasopt Pict "9" Range 0,4
Read

-- Evaluate action based on the option selected --

-- Validate user's access to area selected --

Do Case

Case Xmasopt = 0
  * -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

153
Case Xmasopt - 1
  * -- Admission's Department
  Do Case
    Case Useacc = 2 .Or. Useacc = 3 .Or. Useacc = 4
      @ 24,16 Say "Access Not Allowed -- Press "
      @ 24,44 Say "Any Key To Continue"
      Set Console Off
      Wait
      Set Console On
      Loop
    Case Useacc = 0 .Or. Useacc = 1
      Do B:Admit
    Endcase
  Endcase

Case Xmasopt - 2
  * -- Doctor Master
  Do Case
    Case Useacc = 1 .Or. Useacc = 2 .Or. Useacc = 3
      @ 24,16 Say "Access Not Allowed -- Press "
      @ 24,44 Say "Any Key To Continue"
      Set Console Off
      Wait
      Set Console On
      Loop
    Case Useacc = 0 .Or. Useacc = 4
      Omodule = "D"
      Do B:Ward
    Endcase

Case Xmasopt - 3
  * -- Nursing Master
  Do Case
    Case Useacc = 1 .Or. Useacc = 2 .Or. Useacc = 4
      @ 24,16 Say "Access Not Allowed -- Press "
      @ 24,44 Say "Any Key To Continue"
      Set Console Off
      Wait
      Set Console On
      Loop
    Case Useacc = 0 .Or. Useacc = 3
      Omodule = "N"
      Do B:Ward
    Endcase

Case Xmasopt - 4
  * -- System Administration
  Do Case
    Case Useacc = 1 .Or. Useacc = 3 .Or. Useacc = 4
      @ 24,16 Say "Access Not Allowed -- Press "
      @ 24,44 Say "Any Key To Continue"
Set Console Off
Wait
Set Console On
Loop
Case Useacc = 0  Or. Useacc = 2
   Do B:Addelete
Endcase
Endcase
Release Xmasopt
Enddo
**** ADMIT.PRG ****************************

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 9 January 1986
* Screen Generated By: The Software Bottling Company
  Of New York, c1985
* Purpose: Allows the admitting personnel to
  choose to admit or discharge a
  patient.
* Input Files Used: Admit.Scr and Procfile.Prg
* Output Files Used: None
* Calling Routine: Master.Prg
* Routine Calls: Pt_Info or Discharg.Prg
* Modification Date: 25 January 1986

* -- Screen Input Program For Admit -- *

Do Setup
Public Xadmitopt

Do While .T.

* -- Screen Display B:Admit.Scr --

    Set Color To W+/B,W+/B
    Clear
    ?? Flash+"S.B:Admit.Scr/"
    Set Color To W+/B,W+/B
    Xadmitopt = 0
    @ 22,3 Say Curuser
    @ 22,67 Get Xadmitopt Pict "9" Range 0,2
    Read

* -- Evaluate action based on the option selected --

Do Case

    Case Xadmitopt = 0
    * -- Sign-Off
        Close Databases
        Release All
        Close Procedure
        Return To Master
    Case Xadmitopt = 1
    * -- Admit A Patient
        Do B:Pt_Info
        Loop
Case Xadmitopt = 2
   * -- Discharge A Patient
   Do B:Discharg
   Loop

Endcase
Release Xadmitopt

Enddo
***** PT_INFO.PRG ****************************

• Author: Gary R. Harmeyer LCDR NC USN  
• Date: 29 November 1985  
• Screen Generated By: The Software Bottling Company  
• Of New York, c1985  
• Purpose: Add a patient to the patient database file.  
• Input Files Used: Pt_Info.Scr and Procfile.Prg  
• Output Files Used: Pt_Info.DbF  
• Calling Routine: Admit.Prg  
• Routine Called: None  
• Modification Date: 26 January 1986

-- Screen Input Program for Pt_Info --

Do Setup
Public XpLname,XpFname,XpMname,Xraterank,Xfmpssan
Public Xpbdate,Xpage,Xpsex,Xpadmdate,Xpregno
Public Xpmmeddiag,XpPHY,Xpprog,Xpall,Xpward,Xprm,Xpbed
XpLname = Space(20)  
XpFname = Space[12]  
XpMname = Space[3]  
Xraterank = Space[11]  
Xfmpssan = "" + Space[9]  
Xpbdate = Date()  
Xpage = Space[3]  
Xpsex = Space[1]  
Xpadmdate = Date()  
Xpregno = Space[8]  
Xpmmeddiag = Space[24]  
XpPHY = Space[24]  
Xpprog = Space[3]  
Xpall = Space[24]  
Xpward = Space[2]  
Xprm = Space[1]  
Xpbed = Space[1]

Do While .T.

-- Screen Display B:Pt_Info.Scr --

Set Color To W+/B,W+/B  
Clear  
?? Flash+"S.B:Pt_Info.Scr/"
Set Color To W+/B,W+/B
@ 5,14 Get XpLname Pict "XXXXXXXXXXXXXXXXXXXXXXXXX"
@ 7,14 Get XpFname Pict "XXXXXXXXXXXXX"
@ 9,14 Get XpMname Pict "XX"
@ 11,14 Get Xraterank Pict "!!!!!!!!!!"
@ 13,14 Get Xfmpssan Pict "99-999999999"
@ 15,14 Get Xpbdate;
    Range CTOD("01/01/00"),CTOD("12/31/99")
@ 17,14 Get Xpage Pict "XXX"
@ 19,14 Get Xpsex Pict "!
@ 21,14 Get Xpdmdate;
    Range CTOD("01/01/00"),CTOD("12/31/99")
@ 5,55 Get Xpregno Pict "999999999"
@ 7,55 Get Xpmeddiag Pict "!XXXXXXXXXXXXXXXXXXXXXXX"
@ 9,55 Get Xphy Pict "!XXXXXXXXXXXXXXXXXXXXXXX"
@ 11,55 Get Xpprog Pict "!!!"
@ 13,55 Get Xpall Pict "!XXXXXXXXXXXXXXXXXXXXXXX"
*  -- Validate input for ward, room and bed assignment --
@ 15,55 Get Xpward Pict "9!"
Read
Do While .Not. [Xpward = "2E" .Or. Xpward = "3E"]
    Xpward = Space(2)
    @ 24,0 Say "Re-Enter Either 2E or 3E"
    @ 15,55 Get Xpward Pict "9!"
    Read
Enddo
@ 24,0 Clear
@ 17,55 Get Xprm Pict "9"
Read
Do While .Not. [Xprm = "1" .Or. Xprm = "2" .Or.;
    Xprm = "3"]
    Xprm = Space(1)
    @ 24,0 Say "Re-Enter Either 1 or 2 or 3"
    @ 17,55 Get Xprm Pict "9"
    Read
Enddo
@ 24,0 Clear
@ 19,55 Get Xpbed PICT "!"
Read
Do While .Not. [Xpbed = "A" .Or. Xpbed = "B"]
    Xpbed = Space(1)
    @ 24,0 Say "Re-Enter Either A or B"
    @ 19,55 Get Xpbed Pict "!
    Read
Enddo
@ 24,0 Clear
*  -- Put data from variable names into Dbf file --
Use B:Pt_Info
Do While .Not. EOF()
Skip
Enddo
Append Blank

Replace Pname With Xplname
Replace PFname With Xpfname
Replace Pmname With Xpmname
Replace Raterank With Xraterank
Replace Fmpssan With XFmpssan
Replace Pbdate With Xpbdate
Replace Page With Xpage
Replace Psex With Xpsex
Replace Padmdate With Xpadmdate
Replace Pregna With Xpregno
Replace Pmeddiag With Xpmeddiag
Replace Pphy With Xpphy
Replace Pprog With Xpprog
Replace Poll With Xpall
Replace Pward With Xpward
Replace Prm With Xprm
Replace Pbed With Xpbed

Return
Release Xplname, Xpfname, Xpmname, Xraterank, XFmpssan
Release Xpbdate, Xpage, Xpsex, Xpadmdate, Xpregno
Release Xpmeddiag, Xpphy, Xpprog, Xpall, Xpward, Xprm, Xpbed

Enddo
--- DISCHARG.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 9 January 1986
* Screen Generated By: The Software Bottling Company Of New York, c1985
* Purpose: Discharge a patient.
* Input Files Used: Discharg.Scr and Procfile.Prg
* Output Files Used: Pt_Info, Orders and Ncaredb Dbf
* Calling Routine: Admit.Prg
* Routine Calls: None
* Modification Date: 18 February 1986

-- Screen Input Program For Discharg --

Do Setup
Public Xdischopt,Xdcfssn,Xdclname,Xdcfname
Public Xdcmname,Xdcpphy,Xmdfmpssn,Xppack
Xppack = .F.
Select A
Use B:Pt_Info
Select B
Use B:Orders
Select C
Use B:Ncaredb

Do While .T.

* -- Store data from Dbf file into variable names --

Select A
Xdcfssn = Fmpssan
Xdclname = Plname
Xdcfname = Pfname
Xdcmname = Pmname
Xdcpphy = Pphy

* -- Screen Display B:Discharg.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+'S.B:Dischorg.Scr'/
Set Color To W+/B,W+/B
Xdischopt = 1
@ 22,3 Say Curuser
@ 13,2 Say Xdcfssn
@ 13,17 Say Xdclname
@ 13,38 Say Xdcfname
@ 13,51 Say Xdcmname
@ 13,55 Say Xdcpphy

166
@22,67 Get Xdischopt Pict "9" Range 0,3
Read
* -- Evaluate action based on the option selected --

Do Case

Case Xdischopt = 0
* -- Sign-Off
  If Xppack = .T.
    Pack
  Endif
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xdischopt = 1
* -- Next Patient
  Skip
  If EOF() then
  @24,15 Say "No Additional Patients -- Press "
  @24,47 Say "Any Key To Continue"
  Set Console Off
  Wait
  Set Console On
  If Xppack = .T.
    Pack
  Endif
  Close Databases
  Return
Else
  Loop
Endif

Case Xdischopt = 2
* -- Discharge patient
  Xppack = .T.
  Store "" + Xdcfssn + "" To Xmdfmpssn

* -- Eliminate patient data from database files
Select B
Do While .Not. EOF()
  Locate For Fmpssn = &Xmdfmpssn
  If .Not. EOF()
    Delete
    Skip
  Endif
Enddo
Pack
Select C
  Do While .Not. EOF()
    Locate For NFmpssn = &Xmdfmpssn
    If .Not. EOF()
      Delete
      Skip
    Endif
  Enddo
  Pack
Select A
  Delete
  Skip
  If EOF()
    @ 24,15 Say "No Additional Patients -- Press "
    @ 24,47 Say "Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
    Pack
    Close Databases
    Return
  Else
    Loop
  Endif
Case Xdischopt = 3
  * -- Admit/Discharge Screen
  If Xppack = .T.
    Pack
  Endif
  Close Databases
  Return
Endcase
Release Xdischopt,Xdcfssn,Xdclname,Xdcfname
Release Xdcnname,Xdcphy,Xmdfmpssn,Xppack
Enddo
--- WARD.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 26 November 1985
* Screen Generated By: The Software Bottling Company
* Of New York, c1985
* Purpose: Determine ward selection.
* Input Files Used: Ward.Scr and Procfile.Prg
* Output Files Used: None
* Calling Routine: Master.Prg
* Routine Called: Ward2 or Ward3.Prg
* Modification Date: 4 February 1986

--- Screen Input Program For Ward ---

Do Setup
Public Xwardopt, Durpt, Ofreq, Passdata, Ptpoint, Todayonly
Public Monpoint, Emopoint, Roupoint, Ptselect, Morder, Now
Public PtFmpssn, Ptregno
Ofreq = Space(1)
Passdata = Space(6)
Ptpoint = 0
Todayonly = "F"
Monpoint = 0
Emopoint = 0
Roupoint = 0
Morder = Space(27)
Now = Space(8)

Do While .T.

* -- Screen Display B:Ward.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Ward.Scr/"
Set Color To W+/B,W+/B
Xwardopt = 3
@ 2,56 Say Date()
@ 2,65 Say Time()
@ 22,3 Say Curuser
@ 22,67 Get Xwardopt Pict "9" Range 0,3
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xwardopt = 0
  * -- Sign-Off
Close Databases
Close Procedure
Release All
Return To Master

Case Xwardopt = 1
  • -- 2E Surgical Ward
  Do B:Ward2
  Return

Case Xwardopt = 2
  • -- 3E Medical Ward
  Do B:Ward3
  Return

Case Xwardopt = 3
  • -- Master Screen
  Return

Endcase
Release Xwardopt

Enddo
*** WARD2.PRG  **************************************

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 26 November 1985
- Screen Generated By: The Software Bottling Company
- Of New York, c1985
- Purpose: Displays patients assigned to ward 2E, for patient selection.
- Output Files Used: Pt_Info.Dbf
- Calling Routine: Master.Prg
- Routine Called: Doctor or Nurse.Prg
- Modification Date: 4 February 1986

Do Setup
Public Xwd2opt,Xpt1regno,Xpt2regno,Xpt3regno,Xpt4regno
Public Xpt5regno,Xpt6regno,Xpt1,Xpt2,Xpt3,Xpt4,Xpt5
Public Xpt1fmpssn,Xpt2fmpssn,Xpt3fmpssn,Xpt6
Public Xpt4fmpssn,Xpt5fmpssn,Xpt6fmpssn

-- Store specific data from Dbf file into variable
-- names --

Use B:Pt_Info
Locate For Prm = '1' .And. Pbed = 'A' .And. Pward = '2'
    Xpt1 = Pfname - (' ' +Plname)
    Xpt1regno = Pregno
    Xpt1fmpssn = Fmpssan
Locate For Prm = '1' .And. Pbed = 'B' .And. Pward = '2'
    Xpt2 = Pfname - (' ' +Plname)
    Xpt2regno = Pregno
    Xpt2fmpssn = Fmpssan
Locate For Prm = '2' .And. Pbed = 'A' .And. Pward = '2'
    Xpt3 = Pfname - (' ' +Plname)
    Xpt3regno = Pregno
    Xpt3fmpssn = Fmpssan
Locate For Prm = '2' .And. Pbed = 'B' .And. Pward = '2'
    Xpt4 = Pfname - (' ' +Plname)
    Xpt4regno = Pregno
    Xpt4fmpssn = Fmpssan
Locate For Prm = '3' .And. Pbed = 'A' .And. Pward = '2'
    Xpt5 = Pfname - (' ' +Plname)
    Xpt5regno = Pregno
    Xpt5fmpssn = Fmpssan
Locate For Prm = '3' .And. Pbed = 'B' .And. Pward = '2'
    Xpt6 = Pfname - (' ' +Plname)
    Xpt6regno = Pregno
    Xpt6fmpssn = Fmpssan
Do While .T.

* -- Screen Display B:Ward2.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Ward2.Scr/
Set Color To W+/B,W+/B
Xwd2opt = 7
@ 2,56 Say Date()
@ 2,65 Say Time()
@ 9,39 Say Xpt1
@ 10,39 Say Xpt2
@ 12,39 Say Xpt3
@ 13,39 Say Xpt4
@ 15,39 Say Xpt5
@ 16,39 Say Xpt6
@ 22,3 Say Curuser
@ 22,67 Get Xwd2opt Pict "9" Range 0,7
Read

* -- Evaluate action based on the option selected --
* -- Store data from Dbf file into variable names --

Do Case

Case Xwd2opt = 0
* -- Sign-Off
Close Databases
Close Procedure
Release All
Return To Master

Case Xwd2opt = 1
* -- Patient in room 1 bed A
Locate For Prm = '1'.And. Pbed = 'A'.And. Pward = '2'
Ptregno = Xptlregno
Ptselect =;
  Pward -[ ' +Prm]-[ ' +Pbed]-[ ' +Xptl]
Ourpt = Xptl
Ptfmsgsn = Xpt1fmsgsn
IF Ourpt = " "
@ 24,9 Say "Sorry No Patient In That Bed -- \\
@ 24,41 Say "Please Press Any Key To Continue"
Set Console Off
Wait
Set Console On
Loop
Endif
If Omodule = "D"
    Do B:Doctor
    Return
Else
    Do B:Nurse
    Return
Endif
Return
Case Xwd2opt = 2
* -- Patient in room 1 bed B
Locate For Prm = '1'.And. Pbed = 'B'.And. Pward = '2'
Ptrengno = Xpt2trengno
Ptselect =;
    Pward -['+Prm] -['+Pbed] -['+Xpt2]
Ourpt = Xpt2
Ptfmpssn = Xpt2tfmpssn
If Ourpt = " "
    @ 24,9 Say "Sorry No Patient In That Bed -- "
    @ 24,41 Say "Please Press Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
    Loop
Endif
If Omodule = "D"
    Do B:Doctor
    Return
Else
    Do B:Nurse
    Return
Endif
Return
Case Xwd2opt = 3
* -- Patient in room 2 bed A
Locate For Prm = '2'. And. Pbed = 'A'. And. Pward = '2'
Ptrengno = Xpt3trengno
Ptselect =;
    Pward -['+Prm] -['+Pbed] -['+Xpt3]
Ourpt = Xpt3
Ptfmpssn = Xpt3tfmpssn
If Ourpt = " "
    @ 24,9 Say "Sorry No Patient In That Bed -- "
    @ 24,41 Say "Please Press Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
    Loop
Endif

173
If Omodule = "D"
   Do B:Doctor
   Return
Else
   Do B:Nurse
   Return
Endif
Return

Case Xwd2opt = 4
   * -- Patient in room 2 bed B
   Locate For Prm= '2'.And. Pbed= 'B'.And. Pward= '2'
   Ptregno = Xpt4\frregno
   Ptselect =
      Pward -[' +Prm]-[' +Pbed]-[' +Xpt4]
   Ourpt = Xpt4
   Ptfmpssn = Xpt4f\mpssn
   If Ourpt = " "
      @ 24,9 Say "Sorry No Patient In That Bed -- "
      @ 24,41 Say "Please Press Any Key To Continue"
      Set Console Off
      Wait
      Set Console On
      Loop
   Endif
   If Omodule = "D"
      Do B:Doctor
      Return
   Else
      Do B:Nurse
      Return
   Endif
   Return

Case Xwd2opt = 5
   * -- Patient in room 3 bed A
   Locate For Prm= '3'.And. Pbed= 'A'.And. Pward= '2'
   Ptregno = Xpt5\frregno
   Ptselect =
      Pward -[' +Prm]-[' +Pbed]-[' +Xpt5]
   Ourpt = Xpt5
   Ptfmpssn = Xpt5f\mpssn
   If Ourpt = " "
      @ 24,9 Say "Sorry No Patient In That Bed -- "
      @ 24,41 Say "Please Press Any Key To Continue"
      Set Console Off
      Wait
      Set Console On
      Loop
   Endif
If Omodule = "D"
  Do B: Doctor
  Return
Else
  Do B: Nurse
  Return
Endif
Return

Case Xwd2opt = 6
  * -- Patient in room 3 bed B
Locate For Prm= '3'.And. Pbed= 'B'.And. Pward= '2'
Ptregno = Xpt6regno
Ptselect =
  Pward -(' ' + Prm) -(' ' + Pbed) -(' ' + Xpt6)
Ourpt = Xpt6
PtFmpssn = Xpt6Fmpssn
If Ourpt = " "
  @ 24,9 Say "Sorry No Patient In That Bed -- "
  @ 24,41 Say "Please Press Any Key To Continue"
  Set Console OFF
  Wait
  Set Console ON
  Loop
Endif
If Omodule = "D"
  Do B: Doctor
  Return
Else
  Do B: Nurse
  Return
Endif
Return

Case Xwd2opt = 7
  * -- Master Screen
Return
Endcase
Release Xwd2opt, Xpt1regno, Xpt2regno, Xpt3regno
Release Xpt5regno, Xpt6regno, Xpt5Fmpssn, Xpt6Fmpssn
Release Xpt1Fmpssn, Xpt2Fmpssn, Xpt3Fmpssn, Xpt4Fmpssn
Release Xpt4regno, Xpt1, Xpt2, Xpt3, Xpt4, Xpt5, Xpt6
Enddo
--- WARD3.PRG ---

**Author:** Gary R. Harmeyer LCDR NC USN

**Date:** 11 January 1986

**Screen Generated By:** The Software Bottling Company

**Purpose:** Displays patients assigned to ward 3E, for patient selection.

**Input Files Used:** Ward3.Scr and Procfile.Prg

**Output Files Used:** Pt_Info.Dbfn

**Calling Routine:** Master.Prg

**Routine Called:** Doctor or Nurse.Prg

**Modification Date:** 3 March 1986

--- Screen input program for Ward3 ---

Do Setup

```
Public Xwd3opt,Xpt7,Xpt8,Xpt9,Xpt10,Xpt11,Xpt12
Public Xpt7regno,Xpt8regno,Xpt9regno,Xpt10regno
Public Xpt11regno,Xpt12regno,Xpt11fmpssn,Xpt12fmpssn
Public Xpt7fmpssn,Xpt8fmpssn,Xpt9fmpssn,Xpt10fmpssn
```

--- Store specific data from Dbf file into variable names ---

```
Use B:Pt_Info
Locate For Prm - '1'.And. Pbed - 'A'.And. Pward - '3'
  Xpt7 = Pfname - (' ' +Plname)
  Xpt7regno = Pregno
  Xpt7fmpssn = Fmpssn
Locate For Prm - '1'.And. Pbed - 'B'.And. Pward - '3'
  Xpt8 = Pfname - (' ' +Plname)
  Xpt8regno = Pregno
  Xpt8fmpssn = Fmpssn
Locate For Prm - '2'.And. Pbed - 'A'.And. Pward - '3'
  Xpt9 = Pfname - (' ' +Plname)
  Xpt9regno = Pregno
  Xpt9fmpssn = Fmpssn
Locate For Prm - '2'.And. Pbed - 'B'.And. Pward - '3'
  Xpt10 = Pfname - (' ' +Plname)
  Xpt10regno = Pregno
  Xpt10fmpssn = Fmpssn
Locate For Prm - '3'.And. Pbed - 'A'.And. Pward - '3'
  Xpt11 = Pfname - (' ' +Plname)
  Xpt11regno = Pregno
  Xpt11fmpssn = Fmpssn
Locate For Prm - '3'.And. Pbed - 'B'.And. Pward - '3'
  Xpt12 = Pfname - (' ' +Plname)
  Xpt12regno = Pregno
  Xpt12fmpssn = Fmpssn
```

176
Do While .T.

* -- Screen Display B:Ward3.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Ward3.Scr/"
Set Color To W+/B,W+/B
Xwd3opt = 7
@ 2,56 Say Date()
@ 2,65 Say Time()
@ 9,39 Say Xpt7
@ 10,39 Say Xpt8
@ 12,39 Say Xpt9
@ 13,39 Say Xpt10
@ 15,39 Say Xpt11
@ 16,39 Say Xpt12
@ 22,3 Say Curuser
@ 22,67 Get Xwd3opt Pict "9" Range 0,7
Read

* -- Evaluate action based on the option selected --
* -- Store data from Dbf file into variable names --

Do Case

Case Xwd3opt = 0
* -- Sign-Off
Close Databases
Close Procedure
Release All
Return To Master

Case Xwd3opt = 1
* -- Patient in room 1 bed A
Locate For Prm='1'.And. Pbed='A'.And. Pward='3'
Ptreign = Xpt7treign
Ptselect =;
Pward -( ' +Prm)-( ' +Pbed)-( 'Pward)-( ' +Xpt7)
Ourpt = Xpt7
Ptfmpssn = Xpt7fmpssn
If Ourpt = " "
   Wait "Sorry No Patient In That Bed --
   - Please Press A Key To Continue"
   Loop
Endif
If Omodule = "D"
   Do B:Doctor
   Return
Else
   Do B:Nurse
   Return
Endif
Return

Case Xwd3opt = 2
   * -- Patient in room 1 bed B
   Locate For Prm= '1'.And. Pbed= 'B'.And. Pward= '3'
   Ptregno = Xpt8regno
   Ptselect;
      Pward -[' ' +Prm]-[' ' +Pbed]-[' ' +Xpt8]
   Ourpt = Xpt8
   Ptfmpssn = Xpt8fmpssn
   IF Ourpt = " "
      Wait "Sorry No Patient In That Bed --
      - Please Press A Key To Continue"
   Loop
Endif
IF Omodule = "D"
   Do B:Doctor
   Return
Else
   Do B:Nurse
   Return
Endif
Return

Case Xwd3opt = 3
   * -- Patient in room 2 bed A
   Locate For Prm= '2'.And. Pbed= 'A'.And. Pward= '3'
   Ptregno = Xpt9regno
   Ptselect =;
      Pward -[' ' +Prm]-[' ' +Pbed]-[' ' +Xpt9]
   Ourpt = Xpt9
   Ptfmpssn = Xpt9fmpssn
   IF Ourpt = " "
      Wait "Sorry No Patient In That Bed --
      - Please Press A Key To Continue"
   Loop
Endif
IF Omodule = "D"
   Do B:Doctor
   Return
Else
   Do B:Nurse
   Return
Endif
Return
Case Xwd3opt = 4
* -- Patient in room 2 bed B
Locate For Prm= '2'.And. Pbed= 'B'.And. Pward= '3'
Ptregno = Xpt10regno
Ptselect =;
Pward=('+Prm)('-'Pbed)('-'Xpt10)
Ourpt = Xpt10
Ptfmpssn = Xpt10fmpssn
If Ourpt = " "
   Wait "Sorry No Patient In That Bed -;
   - Please Press A Key To Continue"
Loop
Endif
If Omodule = "D"
   Do B:Doctor
   Return
Else
   Do B:Nurse
   Return
Endif
Return

Case Xwd3opt = 5
* -- Patient in room 3 bed A
Locate For Prm= '3'.And. Pbed= 'A'.And. Pward= '3'
Ptregno = Xpt11regno
Ptselect =;
Pward=('+Prm)('-'Pbed)('-'Xpt11)
Ourpt = Xpt11
Ptfmpssn = Xpt11fmpssn
If Ourpt = " "
   Wait "Sorry No Patient In That Bed -;
   - Please Press A Key To Continue"
Loop
Endif
If Omodule = "D"
   Do B:Doctor
   Return
Else
   Do B:Nurse
   Return
Endif
Return

Case Xwd3opt = 6
* -- Patient in room 3 bed B
Locate For Prm= '3'.And. Pbed= 'B'.And. Pward= '3'
Ptregno = Xpt12regno
Ptselect =;
Pward=('+Prm)('-'Pbed)('-'Xpt12)
OuOpt = Xpt12
Ptfmtpsn = Xpl2fmpssn
If OuOpt = " "
   Wait "Sorry No Patient In That Bed -;
      - Please Press A Key To Continue"
   Loop
Endif
If Omodule = "D"
   Do B:Doctor
   Return
Else
   Do B:Nurse
   Return
Endif
Return
Case Xwd3opt = 7
   * -- Master Screen
   Return
Endcase
Release Xwd3opt, Xpt7, Xpt8, Xpt9, Xpt10, Xpt11, Xpt12
Release Xpt7regno, Xpt8regno, Xpt9regno, Xpt10regno
Release Xpt11regno, Xpt12regno, Xpl1fmpssn, Xpl2fmpssn
Release Xpt7fmpssn, Xpt8fmpssn, Xpt9fmpssn, Xpt10fmpssn
Enddo
***** DOCTOR.PRG ****************************

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 27 November 1985
* Screen Generated By: The Software Bottling Company
* Of New York, c1985
* Purpose: Menu for selecting, viewing or modifying the doctor's orders.
* Input Files Used: Doctor.Prg and Procfile.Prg
* Output Files Used: Orders.DbF
* Calling Routine: Ward2 or Ward3.Prg
* Routine Calls: Doc_menu, Transfer or Discont.Prg
* Modification Date: 4 February 1986

* -- Screen Input Program For Doctor -- *

Do Setup
Public Xdocopt,Xmptfmpssn,Dmenu
Dmenu = Space(1)

Do While .T.

* -- Screen Display A:Doctor.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash"S.A:Doctor.Scr/
Set Color To W+/B,W+/B
Xdocopt = 6
Do Headings
@ 22,67 Get Xdocopt Pict "9" Range 0,6
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xdocopt = 0
* -- Sign-Off
Close Databases
Close Procedure
Release All
Return To Master

Case Xdocopt = 1
* -- Order Entry
Do B:Doc_Menu
If Dmenu = "1"
  Loop
Else
Return
Endif

Case Xdocopt = 2
* -- Admit / Transfer / Discharge Patient
Do B:Transfer
If Dmenu = "1"
  Loop
Else
  Return
Endif

Case Xdocopt = 3
* -- Review Medical Orders
Clear
Set Color To W+/B,W+/B
@ 1,22 Say "Patient Orders For:"
@ 1,42 Say Ourpt
@ 3,10 Say "Press -- Ctrl and S -- Keys to Pause"
@ 3,47 Say "The Scrolling If Necessary"
Use B:Orders
Store ""' + Ptfmpssn + ""' To Xmptfmpssn
Report Form B:Ord For Fmpssn = &Xmptfmpssn .And.;
  Module # 'N'
Wait
Loop

Case Xdocopt = 4
* -- Print Medical Orders
@ 24,0 Say "Turn On Your Printer,"
@ 24,22 Say "Then Hit Any Key To Print"
Set Console Off
Wait
Set Console On
Clear
@ 12,30 Say "Printing, Please Wait"
Set Console Off
Set Device To Print
@ 1,22 Say "Patient Orders For:"
@ 1,42 Say Ourpt
Set Device To Screen
Use B:Orders
Store ""' + Ptfmpssn + ""' To Xmptfmpssn
Report Form B:Ord Noeject To Print For;
  Fmpssn = &Xmptfmpssn .And. Module # 'N'
Set Console On
@ 24,0 Say "Finished Printing,"
@ 24,19 Say "Hit Any Key To Continue"
Set Console Off
Wait
Set Console On
Loop

Case Xdocopt = 5
  * -- Discontinue An Order
  Do B:Discont
   If Omenu = "1"
    Loop
   Else
    Return
   Endif

Case Xdocopt = 6
  * -- Master Screen
  Return

Endcase
Release Xdocopt,Xmptfmpssn

Enddo
***** DOC_MENU.PRG ****************************

* Author:    Gary R. Harmeyer LCDR NC USN
* Date:      27 November 1985
* Screen Generated By: The Software Bottling Company
*         Of New York, c1985
* Purpose:   Menu of ten order categories for
doctor to choose from.
* Input Files Used: Doc_Menu.Scr and Drproc.Prg
* Output Files Used: None
* Calling Routine: Doctor.Prg
* Routine Called: Activity, Diet, IVA, Lab, Monitor, Phaml
*         Xray, Lung, US or Routine.Prg
* Modification Date: 4 February 1986

* -- Screen Input Program For Doc_Menu --

Do Setup
Public Xdocmenopt

Do While .T.

* -- Screen Display A:Doc_Menu.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Doc_Menu.Scr/"
Set Color To W+/B,W+/B
Xdocmenopt = 11
Do Headings
@ 22,66 Get Xdocmenopt Pict "99" Range 0,12
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xdocmenopt = 0
* -- Sign-Off
Close Databases
Close Procedure
Release All
Return To Master

Case Xdocmenopt = 1
Do B:Activity
If Dmenu = "1"
    Loop
Else
Return
Endif

Case Xdocmenopt = 2
Do B:Diet
  If Dmenu = "1"
    Loop
  Else
    Return
  Endif

Case Xdocmenopt = 3
Do B:IVA
  If Dmenu = "1"
    Loop
  Else
    Return
  Endif

Case Xdocmenopt = 4
Do B:Lab
  If Dmenu = "1"
    Loop
  Else
    Return
  Endif

Case Xdocmenopt = 5
Do B:Monitor
  If Dmenu = "1"
    Loop
  Else
    Return
  Endif

Case Xdocmenopt = 6
Do B:Phami
  If Dmenu = "1"
    Loop
  Else
    Return
  Endif

Case Xdocmenopt = 7
Do B:Xray
  If Dmenu = "1"
    Loop
  Else
    Return
  Endif
Case Xdocmenopt = 8
  Do B:Lung
    If Dmenu = "1"
      Loop
    Else
      Return
    Endif
  Case Xdocmenopt = 9
  Do B:VS
    If Dmenu = "1"
      Loop
    Else
      Return
    Endif
  Case Xdocmenopt = 10
  Do B:Routine
    If Dmenu = "1"
      Loop
    Else
      Return
    Endif
  Case Xdocmenopt = 11
    -- Doctor's Master Screen
    Dmenu = "1"
    Return
  Case Xdocmenopt = 12
    -- Master Screen
    Store ' ' To Dmenu
    Return
Endcase
Release Xdocmenopt
Enddo
*Author: Gary R. Harmeyer LCDR NC USN
*Date: 29 November 1985
*Screen Generated By: The Software Bottling Company Of New York, c1985
*Purpose: Determine activity orders of the patient.
*Input Files Used: Activity.Scr and Procfile.Prg
*Output Files Used: Orders.Db
*Calling Routine: Doc_Menu.Prg
*Routine Called: Time.Prg
*Modification Date: 4 February 1986

-- Screen Input Program For Activity --

Do Setup
Public Xactopt

Do While .T.

-- Screen Display A:Activity.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Activity.Scr/"
Set Color To W+/B,W+/B
Xactopt = 13
Do Headings
Do Startup
@ 22,66 Get Xactopt Pict "99" Range 0,14
Read

-- Evaluate action based on the option selected --

Do Case

Case Xactopt = 0
  * -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xactopt = 1
  Morder = "Ambulate ad lib"
  Do Reploard
  Loop
Case Xactopt = 2
Morder = "Ambulate w/ Assistance"
Do B: Time

Do Case
  Case (Timeopt < 5 Or. Timeopt = 41)
    * -- No precise frequency given
    Passdata = "051 18"
    Ptpoint = 0
  Case (Timeopt > 4 And. Timeopt < 22)
    * -- X 1
    Passdata = "051 11"
    Ptpoint = 2
  Case (Timeopt > 21 And. Timeopt < 25)
    * -- X 2 or BID
    Passdata = "051 12"
    Ptpoint = 4
  Case (Timeopt > 24 And. Timeopt < 31)
    * -- X 3 or TID
    Passdata = "051 13"
    Ptpoint = 6
  Case (Timeopt > 30 And. Timeopt < 34)
    * -- X 4 or QID
    Passdata = "051 14"
    Ptpoint = 8
  Case (Timeopt = 34 Or. Timeopt = 35)
    * -- X 6 or Q4h
    Passdata = "051 15"
    Ptpoint = 12
  Case (Timeopt = 36 Or. Timeopt = 37)
    * -- X 12 or Q2h
    Passdata = "051 16"
    Ptpoint = 24
  Case (Timeopt = 38 Or. Timeopt = 39)
    * -- X 24 or Q1h
    Passdata = "051 17"
    Ptpoint = 48
Endcase

Do Reploord
Loop

Case Xactopt = 3
Morder = "Strict Bedrest"
Do Reploord
Loop

Case Xactopt = 4
Morder = "Bedrest w/ BRP"
Do Reploord
Loop

Case Xactopt = 5
  Morder = "Bedside Commode"
  Do Reploord
  Loop

Case Xactopt = 6
  Morder = "008 to Stretcher w/ Assist"
  Do B:Time

  Do Case
    Case (Timeopt < 25 .Or. Timeopt = 41)
      * -- Less than x 3 or T1D
      Passdata = "QS1 2"
      Ptpoint = 0
    Case (Timeopt > 24 .And. Timeopt < 34)
      * -- X 3 or less than Q4h (x 6)
      Passdata = "QS1 3"
      Ptpoint = 2
    Case (Timeopt = 34 .Or. Timeopt = 35)
      * -- X 6 or Q4h
      Passdata = "QS1 4"
      Ptpoint = 4
    Case (Timeopt = 36 .Or. Timeopt = 37)
      * -- X 12 or Q2h
      Passdata = "QS1 5"
      Ptpoint = 8
    Case (Timeopt = 38 .Or. Timeopt = 39)
      * -- X 24 or Q1h
      Passdata = "QS1 6"
      Ptpoint = 16
  Endcase

  Do Reploord
  Loop

Case Xactopt = 7
  Morder = "Dangle Legs"
  Do B:Time
  Do Reploord
  Loop

Case Xactopt = 8
  Morder = "Keep on Back"
  Do Reploord
  Loop
Case Xactopt = 9
Morder = "May Shower"
Do Replaord
Loop

Case Xactopt = 10
Morder = "Turn Patient"
Do B:Time
Do Replaord
Loop

Case Xactopt = 11
Morder = "Turning Frame"
Do B:Time

Do Case
Case [Timeopt < 36 .Or. Timeopt = 41]
  * -- Less than Q2h
  Passdata = "Q25 1"
  Ptpoint = 0
Case [Timeopt = 36 .Or. Timeopt = 37]
  * -- Q2h or x 12
  Passdata = "Q25 2"
  Ptpoint = 14
Case [Timeopt = 38 .Or. Timeopt = 39]
  * -- Q1h or x 24
  Passdata = "Q25 3"
  Ptpoint = 28
Endcase
Do Replaord
Loop

Case Xactopt = 12
Morder = "Up in Chair w/ Assist"
Do B:Time

Do Case
Case [Timeopt < 25 .Or. Timeopt = 41]
  * -- Less than x 3 or TID
  Passdata = "Q51 1"
  Ptpoint = 0
Case [Timeopt > 24 .And. Timeopt < 34]
  * -- X 3 or less than Q4h (x 6)
  Passdata = "Q51 7"
  Ptpoint = 2
Case [Timeopt = 34 .Or. Timeopt = 35]
  * -- X 6 or Q4h
  Passdata = "Q51 8"
  Ptpoint = 4

190
Case (Timeopt = 35 Or. Timeopt = 37)
  
  * -- X 12 or Q2h
  Passdata = "Q51 9"
  Ptpoint = 8

Case (Timeopt = 38 Or. Timeopt = 39)
  * -- X 24 or Q1h
  Passdata = "Q51 10"
  Ptpoint = 16
Endcase

Do Repeat
Loop

Case Xactopt = 13
  * -- Doctor's Order Screen
  Dmenu = 'I'
  Return

Case Xactopt = 14
  * -- Master Screen
  Dmenu = 'I'
  Return
Endcase

Release Xactopt

Enddo
A PROTOTYPE MODEL FOR AUTOMATING NURSING DIAGNOSIS IN NURSE CARE PLANNING AND PATIENT CLASSIFICATION

UNCLASSIFIED
**TIME.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 29 November 1985
- **Screen Generated By:** The Software Bottling Company of New York, c1985
- **Purpose:** Determine the time of orders for the patient.
- **Input Files Used:** Time.Scr and Procfile.Prg
- **Output Files Used:** None
- **Calling Routine:** All Orders and Ncaredb.Db modules.
- **Routine Called:** Timehelp.Prg
- **Modification Date:** 4 February 1986

-- Screen Input Program For Time --

Do Setup
Public Timeopt,Xtimetime
Xtimetime = Space(4)

Do While .T.

-- Screen Display A:Time.Scr --

Set Color To W+/B, W+/B
Clear
?? Flash+"S.A:Time.Scr/"
Set Color To W+/B, W+/B
Timeopt = 41
Do Headings
@ 22,66 Get Timeopt Pict "99" Range 1,41
Read

-- Evaluate action based on the option selected --

Do Case

Case Timeopt = 1
  Ofreq = "PRN"
  Return

Case Timeopt = 2
  Ofreq = "Q 1-2 Hr PRN"
  Return

Case Timeopt = 3
  Ofreq = "Q 2-3 Hr PRN"
  Return

192
Case Timeopt = 4
  Ofreq = "Q 3-4 Hr PRN"
  Return

Case Timeopt = 5
  Ofreq = "On Call"
  Todayonly = "T"
  Return

Case Timeopt = 6
  Ofreq = "QD"
  Return

Case Timeopt = 7
  Ofreq = "HS"
  Return

Case Timeopt = 8
  Ofreq = "x 1"
  Todayonly = "T"
  Return

Case Timeopt = 9
  Of -- Today @ ----
  @ 17,8 Get Xtimetime Pict "9999" Read
  Ofreq = "Today @ " + Xtimetime
  Todayonly = "T"
  Return

Case Timeopt = 10
  Ofreq = "Daily @ 0200"
  Return

Case Timeopt = 11
  Ofreq = "Daily @ 0400"
  Return

Case Timeopt = 12
  Ofreq = "Daily @ 0600"
  Return

Case Timeopt = 13
  Ofreq = "Daily @ 0800"
  Return

Case Timeopt = 14
  Ofreq = "Daily @ 1000"
  Return
Case Timeopt = 15
  Ofreq = "Daily @ 1200"
  Return

Case Timeopt = 16
  Ofreq = "Daily @ 1400"
  Return

Case Timeopt = 17
  Ofreq = "Daily @ 1600"
  Return

Case Timeopt = 18
  Ofreq = "Daily @ 1800"
  Return

Case Timeopt = 19
  Ofreq = "Daily @ 2000"
  Return

Case Timeopt = 20
  Ofreq = "Daily @ 2200"
  Return

Case Timeopt = 21
  Ofreq = "Daily @ 2400"
  Return

Case Timeopt = 22
  Ofreq = "BID"
  Return

Case Timeopt = 23
  Ofreq = "Q 12 Hr"
  Return

Case Timeopt = 24
  Ofreq = "x 2"
  Todayonly = "T"
  Return

Case Timeopt = 25
  Ofreq = "TID"
  Return

Case Timeopt = 26
  Ofreq = "AC"
  Return
Case Timeopt = 27
  Ofreq = "PC"
  Return

Case Timeopt = 28
  Ofreq = "Q 8 Hr"
  Return

Case Timeopt = 29
  Ofreq = "x 3"
  Todayonly = "T"
  Return

Case Timeopt = 30
  Ofreq = "Q Shift"
  Return

Case Timeopt = 31
  Ofreq = "QID"
  Return

Case Timeopt = 32
  Ofreq = "Q 6 Hr"
  Return

Case Timeopt = 33
  Ofreq = "x 4"
  Todayonly = "T"
  Return

Case Timeopt = 34
  Ofreq = "Q 4 Hr"
  Return

Case Timeopt = 35
  Ofreq = "x 6"
  Todayonly = "T"
  Return

Case Timeopt = 36
  Ofreq = "Q 2 Hr"
  Return

Case Timeopt = 37
  Ofreq = "x 12"
  Todayonly = "T"
  Return
Case Timeopt = 38
  Ofreq = "Q 1 Hr"
  Return

Case Timeopt = 39
  Ofreq = "x 24"
  Todayonly = "T"
  Return

Case Timeopt = 40
  * -- Help
  Do B:Timehelp
  Loop

Case Timeopt = 41
  * -- Return to Calling Screen
  Return

Endcase
Release Xtime

Enddo
---- TIMEHELP.PRG ----

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 1 December 1985
* Screen Generated By: The Software Bottling Company
  Of New York, c1985
* Purpose: Brief on-line help facility for Time.Prg.
* Input Files Used: Timehelp.Scr and Procfile.Prg
* Output Files Used: None
* Calling Routine: Time.Prg
* Routine Called: None
* Modification Date: 26 January 1986

-- Screen Input Program For Timehelp --

Do Setup

Do While .T.

  -- Screen Display A:Timehelp.Scr --

  Set Color To W+/B,W+/B
  Clear
  ?? Flash+"S.A:Timehelp.Scr/"
  @ 24,0
  @ 24,37 "Press Any Key To Continue"
  Set Console Off
  Wait
  Set Console On
  Return

Enddo
• Author: Gary R. Harmeyer LCDR NC USN
• Date: 27 November 1985
• Screen Generated By: The Software Bottling Company
  Of New York, c1985
• Purpose: Determine the diet orders of the patient.
• Input Files Used: Diet.Scr and Procfile.Prg
• Output Files Used: Orders.DbF
• Calling Routine: Doc_Menu.Prg
• Routine Called: Time.Prg
• Modification Date: 4 February 1986

Do Setup
Public Xdietopt

Do While .T.
  
  • -- Screen Display A:Diet.Scr --

  Set Color To W+/B, W+/B
  Clear
  ?? Flash+"S.A:Diet.Scr/"
  Set Color To W+/B, W+/B
  Xdietopt = 19
  Do Headings
  Do Startup
  @ 22,66 Get Xdietopt Pict "99" Range 0,20
  Read

  • -- Evaluate action based on the option selected --

  Do Case

  Case Xdietopt = 0
   • -- Sign-Off
   Close Databases
   Close Procedure
   Release All
   Return To Master

  Case Xdietopt = 1
   Morder = "Diet As Tolerated"
   Do Replaord
   Loop
Case Xdietaopt = 2
    Morder = "Clear Liquids Diet"
    Do Replaord
    Loop

Case Xdietaopt = 3
    Morder = "Diabetic Diet"
    Do Replaord
    Loop

Case Xdietaopt = 4
    Morder = "Fat-controlled Diet"
    Do Replaord
    Loop

Case Xdietaopt = 5
    Morder = "Full Liquid Diet"
    Do Replaord
    Loop

Case Xdietaopt = 6
    Morder = "Infant/Neonat Bottle x1"
    Passdata = "029 1"
    Ptpoint = 2
    Do Replaord
    Loop

Case Xdietaopt = 7
    Morder = "Infant/Neonat Bottle x6"
    Passdata = "029 2"
    Ptpoint = 12
    Do Replaord
    Loop

Case Xdietaopt = 8
    Morder = "Infant/Neonat Bottle x12"
    Passdata = "029 3"
    Ptpoint = 24
    Do Replaord
    Loop

Case Xdietaopt = 9
    Morder = "Mechanical Soft Diet"
    Do Replaord
    Loop

Case Xdietaopt = 10
    Morder = "Na Controlled Diet"
    Do Replaord
    Loop
Case Xdietopt = 11
  Morder = "NPO"
  Do Replace
  Loop

Case Xdietopt = 12
  Morder = "NPO p 2400"
  Do Replace
  Loop

Case Xdietopt = 13
  Morder = "NPO w/ Ice Chips"
  Do Replace
  Loop

Case Xdietopt = 14
  Morder = "Regular Diet"
  Do Replace
  Loop

Case Xdietopt = 15
  Morder = "Renal/Liver Disease Diet"
  Do Replace
  Loop

Case Xdietopt = 16
  Morder = "T & A Diet"
  Do Replace
  Loop

Case Xdietopt = 17
  Morder = "Continuous Tube Feedings"
  Do B:Time

Do Case
  Case [Timeopt < 6 .Or. Timeopt = 41]
    * -- Less than 1 bag per 24 hours
      Passdata = "027 1"
      Ppoint = 0
  Case [Timeopt > 5 .And. Timeopt < 22]
    * -- 1 bag per 24 hours
      Passdata = "027 2"
      Ppoint = 2
  Case [Timeopt > 21 .And. Timeopt < 25]
    * -- 2 bags per 24 hours
      Passdata = "027 3"
      Ppoint = 4
  Case [Timeopt > 24 .And. Timeopt < 31]
    * -- 3 bags per 24 hours
Passdata = "Q27 4"
Ptpoint = 6
Case [Timeopt > 30 .And. Timeopt < 34]
  * -- 4 bags per 24 hours
  Passdata = "Q27 5"
  Ptpoint = 8
Case [Timeopt = 34 .Or. Timeopt = 35]
  * -- 6 bags per 24 hours
  Passdata = "Q27 6"
  Ptpoint = 12
Case [Timeopt = 36 .Or. Timeopt = 37]
  * -- 12 bags per 24 hours
  Passdata = "Q27 7"
  Ptpoint = 24
Case [Timeopt = 38 .Or. Timeopt = 39]
  * -- 24 bags per 24 hours
  Passdata = "Q27 8"
  Ptpoint = 48
Endcase
Do Replace Loop
Case Xdietopt = 18
  Morder = "Bolus Tube Feedings"
  Do B:Time
  Do Case
    Case [Timeopt < 34 .Or. Timeopt = 41]
      * -- Less than Q4h or x 6
      Passdata = "Q27 9"
      Ptpoint = 0
    Case [Timeopt = 34 .Or. Timeopt = 35]
      * -- Q4h or x 6
      Passdata = "Q27 10"
      Ptpoint = 5
    Case [Timeopt = 36 .Or. Timeopt = 37]
      * -- Q2h or x 12
      Passdata = "Q27 11"
      Ptpoint = 10
    Case [Timeopt = 38 .Or. Timeopt = 39]
      * -- Q1h or x 24
      Passdata = "Q27 12"
      Ptpoint = 20
  Endcase
  Do Replace Loop

201
Case Xdietopt = 19
  * -- Doctor's Order Screen
  Dmenu = "1"
  Return

Case Xdietopt = 20
  * -- Master Screen
  Dmenu = ""
  Return

Endcase
Release Xdietopt

Enddo
----- IUA.PRG ----- 

* Author:    Gary R. Harmeyer LCDR NC USN  
* Date:      8 December 1985  
* Screen Generated By: The Software Bottling Company  
  Of New York, c1985  
* Purpose:   Determine first stage IV needs of  
  the patient.  
* Input Files Used: IVA.Scr and Procfile.Prg  
* Output Files Used: None  
* Calling Routine: Doc_Menu.Prg  
* Routine Called: IUB.Prg  
* Modification Date: 4 February 1986  

--- Screen Input Program For IVA ---

Do Setup
Public Xivaopt,Morder1

Do While .T.

  -- Screen Display A:IVA.Scr --

  Set Color To W+/B,W+/B
  Clear
  ?? Flash+S.A:IVA.Scr/
  Set Color To W+/B,W+/B
  Xivaopt = 09
  Do Headings
  Do Startup
  @ 22,66 Get Xivaopt Pict "99" Range 0,10
  Read

  -- Evaluate action based on the option selected --

  Do Case

  Case Xivaopt = 0
    -- Sign-Off
    Close Databases
    Close Procedure
    Release All
    Return To Master

  Case Xivaopt = 1
    Morder1 = "Start IV of"
    Passdata = "Q30 1"
    Ptpoint = 2
    Todayonly = "T"

  Case Xivaopt = 2
    -- Other cases

  Case Xivaopt = 3
    -- Other cases

  Case Xivaopt = 4
    -- Other cases

  Case Xivaopt
    -- Default case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
    -- Default case

  Case

  Case .T.
    -- Default case

  Case .F.
Do B:IVB
Loop

Case Xivaopt = 2
  Morder1 = "Alternate IV w/"
  Do B:IVB
  Loop

Case Xivaopt = 3
  Morder1 = "Follow IV w/
  Do B:IVB
  Loop

Case Xivaopt = 4
  Morder1 = "Interrupt IV for"
  Do B:IVB
  Loop

Case Xivaopt = 5
  Morder1 = "Start 2nd IV of"
  Passdata = "Q30 1"
  Ptpoint = 2
  Todayonly = "T"
  Do B:IVB
  Loop

Case Xivaopt = 6
  Morder = "Discontinue IV"
  Do Replood
  Loop

Case Xivaopt = 7
  Morder = "Heparin Lock"
  Passdata = "Q73 1"
  Ptpoint = 4
  Do Replood
  Loop

Case Xivaopt = 8
  Morder = "Multilumen Line"
  Passdata = "Q72 3"
  Ptpoint = 8
  Do Replood
  Loop

Case Xivaopt = 9
  * -- Doctor’s Order Screen
  Dmenu = "1"
  Return
Case Xivoopt = 10
* -- Master Screen
Dmenu = ""
Return
Endcase
Release Xivoopt
Enddo
--- IUB.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 8 December 1985
* Screen Generated By: The Software Bottling Company
  Of New York, c1985
* Purpose: The doctor selects an IV solution for the patient.
* Input Files Used: IUB.Scr and Procfile.Prg
* Output Files Used: None
* Calling Routine: IVA.Prg
* Routine Called: None
* Modification Date: 19 February 1986

--- Screen Input Program For IUB ---

Do Setup
Public Xivbopt,Blood
Blood = .F.

Do While .T.

* -- Screen Display A:IUB.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:IUB.Scr/"
Set Color To W+/B,W+/B
Xivbopt = 1
Do Headings
@ 22,67 Get Xivbopt Pict "9" Range 1,8
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xivbopt = 1
  Morder = Morder1 + " DS/.45 NaCl"
  Do B:IUC
  Return

Case Xivbopt = 2
  Morder = Morder1 + " RL"
  Do B:IUC
  Return

Case Xivbopt = 3
  Morder = Morder1 + " DSRL"
  Do B:IUC
  Return

End Case
Do B:IVC
Return

Case Xivbopt = 4
  Morder = Morder1 + " DSW"
  Do B:IVC
  Return

Case Xivbopt = 5
  Morder = Morder1 + " NS"
  Do B:IVC
  Return

Case Xivbopt = 6
  Morder = Morder1 + " DSNS"
  Do B:IVC
  Return

Case Xivbopt = 7
  Morder = Morder1 + " Whole Bld"
  Blood = .T.
  Do B:IVC
  Return

Case Xivbopt = 8
  Morder = Morder1 + " Packed Cells"
  Blood = .T.
  Do B:IVC
  Return

Endcase
Release Xivbopt

Enddo
**----- IVC.PRG -----**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 8 December 1985
- **Screen Generated By:** The Software Bottling Company of New York, c1985
- **Purpose:** Determine IV infusion rate for patient orders.
- **Input Files Used:** IVC.Scr and Procfile.Prg
- **Output Files Used:** None
- **Calling Routine:** IUB.Prg
- **Routine Called:** None
- **Modification Date:** 4 February 1986

**-- Screen Input Program For IVC --**

**Do Setup**
Public Xivcopt

**Do While .T.**

- **Screen Display A:IVC.Scr**

Set Color To W+/B,W+/B
Clear
?? Flash"S.A:IVC.Scr/"
Set Color To W+/B,W+/B
Xivcopt = 6
Do Headings
@ 22,67 Get Xivcopt Pict "9" Range 1,8
Read

- **Evaluate action based on the option selected**

**Do Case**

**Case Xivcopt = 1**
Ofreq = "Infuse o 30M"
If Blood = .T.
   Possdata = "075 1"
   Ptpoint = Ptpoint + 2
Else
   Possdata = "072 3"
   Ptpoint = Ptpoint + 8
Endif
Do Replaord
Return

**Case Xivcopt = 2**
Ofreq = "Infuse o 1Hr"
If Blood = .T.
    Passdata = "Q75 1"
    Ptpoint = Ptpoint + 2
Else
    Passdata = "Q72 3"
    Ptpoint = Ptpoint + 8
Endif
Do Repeat
Return

Case Xivcact = 3
    Ofreq = "Infuse o 2Hr"
    If Blood = .T.
        Passdata = "Q75 1"
        Ptpoint = Ptpoint + 2
    Else
        Passdata = "Q72 3"
        Ptpoint = Ptpoint + 8
    Endif
    Do Repeat
    Return

Case Xivcact = 4
    Ofreq = "Infuse o 4Hr"
    If Blood = .T.
        Passdata = "Q75 1"
        Ptpoint = Ptpoint + 2
    Else
        Passdata = "Q72 3"
        Ptpoint = Ptpoint + 8
    Endif
    Do Repeat
    Return

Case Xivcact = 5
    Ofreq = "Infuse o 6Hr"
    Passdata = "Q72 2"
    Ptpoint = Ptpoint + 6
    Do Repeat
    Return

Case Xivcact = 6
    Ofreq = "Infuse o 8Hr"
    Passdata = "Q72 2"
    Ptpoint = Ptpoint + 6
    Do Repeat
    Return

Case Xivcact = 7
    Ofreq = "Infuse o 12Hr"
Passdata = "072 1"
Ptpoint = Ptpoint + 4
Do Replaord
Return

Case Xivcopt = 8
Ofreq = "Infuse o 24K"
Passdata = "072 1"
Ptpoint = Ptpoint + 4
Do Replaord
Return

Endcase
Release Xivcopt, Blood

Enddo
**** LAB.PRG  

• Author: Gary R. Harmeyer LCDR NC USN  
• Date: 8 December 1985  
• Screen Generated By: The Software Bottling Company Of New York, c1985  
• Purpose: Determine laboratory orders of the patient.  
• Input Files Used: Lab.Scr and Procfile.Prg  
• Output Files Used: Orders.DbF  
• Calling Routine: Doc-Menu.Prg  
• Routine Called: Time.Prg  
• Modification Date: 4 February 1986  

** -- Screen Input Program For Lab -- **  

Do Setup  
Public Xlabopt  

Do While .T.  

• -- Screen Display A:Lab.Scr --  

Set Color To W+/B,W+/B  
Clear  
?? Flash+"S.A:Lab.Scr/"  
Set Color To W+/B W+/B  
Xlabopt = 32  
Do Headings  
Do Startup  
@ 22,66 Get Xlabopt Pict "99" Range 0,33  
Read  

• -- Evaluate action based on the option selected --  

Do Case  

Case Xlabopt = 0  
• -- Sign-Off  
Close Databases  
Close Procedure  
Release All  
Return To Master  

Case Xlabopt = 1  
Morder = "Bilirubin"  
Do B:Time  
Do Labcount  
Do Reploord  
Loop  

211
Case Xlabopt = 2
   Morder = "BUN"
   Do B:Time
   Do Labcount
   Do REPLAORD
   Loop

Case Xlabopt = 3
   Morder = "Calcium"
   Do B:Time
   Do Labcount
   Do REPLAORD
   Loop

Case Xlabopt = 4
   Morder = "Cloride"
   Do B:Time
   Do Labcount
   Do REPLAORD
   Loop

Case Xlabopt = 5
   Morder = "CO2"
   Do B:Time
   Do Labcount
   Do REPLAORD
   Loop

Case Xlabopt = 6
   Morder = "Creatinine"
   Do B:Time
   Do Labcount
   Do REPLAORD
   Loop

Case Xlabopt = 7
   Morder = "Glucose"
   Do B:Time
   Do Labcount
   Do REPLAORD
   Loop

Case Xlabopt = 8
   Morder = "Phosphate"
   Do B:Time
   Do Labcount
   Do REPLAORD
   Loop
Case Xlabopt = 9
  Morder = "Potassium"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop

Case Xlabopt = 10
  Morder = "Sodium"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop

Case Xlabopt = 11
  Morder = "Uric Acid"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop

Case Xlabopt = 12
  Morder = "Amylose"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop

Case Xlabopt = 13
  Morder = "CPK"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop

Case Xlabopt = 14
  Morder = "LDH"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop

Case Xlabopt = 15
  Morder = "SGOT"
  Do B:Time
  Do Labcount
  Do Replaard
  Loop
Case Xlabopt = 16
  Morder = "SGPT"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 17
  Morder = "CBC"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 18
  Morder = "Platlets"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 19
  Morder = "Protime"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 20
  Morder = "Sed Rate"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 21
  Morder = "ABO & Rh"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 22
  Morder = "ABG (from A-line)"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop
Case Xlabopt = 23
Morder = "ABG (stick)"
Do B:Time
Do Case
Case (Xtimeopt < 25 . Or. Xtimeopt = 41)
  * -- Less than x 3 or TID
  Passdata = "Q45 1"
  Ptpoint = 0
Case (Xtimeopt > 24 . And. Xtimeopt < 34)
  * -- X 3 (TID) or less than Q4h (x 6)
  Passdata = "Q45 2"
  Ptpoint = 2
Case (Xtimeopt = 34 . Or. Xtimeopt = 35)
  * -- Q4h or x 6
  Passdata = "Q45 3"
  Ptpoint = 4
Case (Xtimeopt = 36 . Or. Xtimeopt = 37)
  * -- Q2h or x 12
  Passdata = "Q45 4"
  Ptpoint = 8
Case (Xtimeopt = 38 . Or. Xtimeopt = 39)
  * -- Q1h or x 24
  Passdata = "Q45 5"
  Ptpoint = 16
Endcase
Do Repload
Loop
Case Xlabopt = 24
Morder = "Bld Cultures"
Do B:Time
Do Case
Case (Xtimeopt < 25 . Or. Xtimeopt = 41)
  * -- Less than x 3 or TID
  Passdata = "Q46 1"
  Ptpoint = 0
Case (Xtimeopt > 24 . And. Xtimeopt < 34)
  * -- X 3 (TID) or less than Q4h (x 6)
  Passdata = "Q46 2"
  Ptpoint = 2
Case (Xtimeopt = 34 . Or. Xtimeopt = 35)
  * -- Q4h or x 6
  Passdata = "Q46 3"
  Ptpoint = 4
Case (Xtimeopt = 36 . Or. Xtimeopt = 37)
  * -- Q2h or x 12
  Passdata = "Q46 4"
Ptpoint = 8
Case (Xtimeopt = 38 Or Xtimeopt = 39)
  * -- Q1h or x 24
  Passdata = "QH 5"
Ptpoint = 16
Endcase
Do Reploord
Loop
Case Xlabopt = 25
  Morder = "Culture & Sen"
  Do B:Time
  Do Labcount
  Do Reploord
  Loop
Case Xlabopt = 26
  Morder = "Cold Agglutins"
  Do B:Time
  Do Labcount
  Do Reploord
  Loop
Case Xlabopt = 27
  Morder = "HCG"
  Do B:Time
  Do Labcount
  Do Reploord
  Loop
Case Xlabopt = 28
  Morder = "Occ Bld in Stools"
  Do B:Time
  Do Labcount
  Do Reploord
  Loop
Case Xlabopt = 29
  Morder = "RPR"
  Do B:Time
  Do Labcount
  Do Reploord
  Loop
Case Xlabopt = 30
  Morder = "SMA 6"
  Do B:Time
  Do Labcount
Do Replaord
Loop

Case Xlabopt = 31
  Morder = "UA"
  Do B:Time
  Do Labcount
  Do Replaord
  Loop

Case Xlabopt = 32
  * -- Doctor's Order Screen
  Dmenu = '1'
  Return

Case Xactopt = 33
  * -- Master Screen
  Dmenu = ''
  Return

Endcase
Release Xlabopt

Enddo
-- Screen Input Program For Lung --

Do Setup
Public Xlungopt,Xliteropt,Xliter

Do While .T.

* -- Screen Display A:Lung.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Lung.Scr/
Set Color To W+/B,W+/B
Xlungopt = 14
Do Headings
Do Startup
@ 21,66 Get Xlungopt Pict "99" Range 0,15
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xlungopt = 0
* -- Sign-Off
Close Databases
Close Procedure
Release All
Return To Master

Case Xlungopt = 1
Morder = "Chest Pulmonary Therapy"
Do B:Time

Do Case
Case (Timeopt < 22 .Dr. Timeopt = 41)
* -- Less than BID or x 2  
  Passdata = "Q68 1"  
Ptpoint = 0  
Case [Timeopt > 21 .And. Timeopt < 25]  
  * -- BID or x 2  
  Passdata = "Q68 2"  
Ptpoint = 2  
Case [Timeopt > 24 .And. Timeopt < 31]  
  * -- TID or x 3  
  Passdata = "Q68 3"  
Ptpoint = 3  
Case [Timeopt > 30 .And. Timeopt < 34]  
  * -- QID or x 4  
  Passdata = "Q68 4"  
Ptpoint = 4  
Case [Timeopt = 34 .Or. Timeopt = 35]  
  * -- Q4h or x 6  
  Passdata = "Q68 5"  
Ptpoint = 6  
Case [Timeopt = 36 .Or. Timeopt = 37]  
  * -- Q2h or x 12  
  Passdata = "Q68 6"  
Ptpoint = 12  
Case [Timeopt = 38 .Or. Timeopt = 39]  
  * -- Q1h or x 24  
  Passdata = "Q68 7"  
Ptpoint = 24  
Endcase  
Do Replaard  
Loop  
Case Xlungopt = 2  
  Morder = "Cough & Deep Breath"  
Do B:Time  
  Do Cough  
  Do Replaard  
Loop  
Case Xlungopt = 3  
  Morder = "Incentive Spirometer"  
Do B:Time  
  Do Case  
    Case [Timeopt < 31 .Or. Timeopt = 41]  
      * -- Less than Q4h or x 6  
      Passdata = "Q64 1"  
      Ptpoint = 0  
    Case [Timeopt = 34 .Or. Timeopt = 35]  
      * -- Q4h or x 6  

219
Passdata = "064 2"
Ptpoint = 2
Case (Timeopt = 36 .Or. Timeopt = 37)
  • -- Q2h or x 12
  Passdata = "064 3"
Ptpoint = 4
Case (Timeopt = 38 .Or. Timeopt = 39)
  • -- Q1h or x 24
  Passdata = "064 4"
Ptpoint = 8
Endcase

Do Replay
Loop

Case Xlungopt = 4
  Morder = '1PP8'
  Do B:Time
  Do Case
    Case (Timeopt < 22 .Or. Timeopt = 41)
      • -- Less than BID or x 2
    Passdata = "066 1"
Ptpoint = 0
    Case (Timeopt > 21 .And. Timeopt < 25)
      • -- BID or x 2
    Passdata = "066 2"
Ptpoint = 2
    Case (Timeopt > 24 .And. Timeopt < 31)
      • -- TID or x 3
    Passdata = "066 3"
Ptpoint = 3
    Case (Timeopt > 30 .And. Timeopt < 34)
      • -- QID or x 4
    Passdata = "066 4"
Ptpoint = 4
    Case (Timeopt = 34 .Or. Timeopt = 35)
      • -- Q4h or x 6
    Passdata = "066 5"
Ptpoint = 6
    Case (Timeopt = 36 .Or. Timeopt = 37)
      • -- Q2h or x 12
    Passdata = "066 6"
Ptpoint = 12
    Case (Timeopt = 38 .Or. Timeopt = 39)
      • -- Q1h or x 24
    Passdata = "066 7"
Ptpoint = 24
Endcase


Do Replaord
Loop

Case Xlungopt = 5
  Morder = "Suctioning"
  Do B:Time
    Do Case
      Case [Timeopt < 34 .Or. Timeopt = 41]
        * -- Less than Q4h or x 6
        Passdata = "Q69 1"
        Ptpoint = 0
      Case [Timeopt = 34 .Or. Timeopt = 35]
        * -- Q4h or x 6
        Passdata = "Q69 2"
        Ptpoint = 2
      Case [Timeopt = 36 .Or. Timeopt = 37]
        * -- Q2h or x 12
        Passdata = "Q68 3"
        Ptpoint = 4
      Case [Timeopt = 38 .Or. Timeopt = 39]
        * -- Q1h or x 24
        Passdata = "Q68 4"
        Ptpoint = 8
    Endcase
  Endcase
Do Replaord
Loop

Case Xlungopt = 6
  Morder = "Trach Care"
  Do B:Time
    Do Case
      Case [Timeopt < 25 .Or. Timeopt = 41]
        * -- Less than TID or x 3
        Passdata = "Q70 1"
        Ptpoint = 0
      Case [Timeopt > 24 .And. Timeopt < 34]
        * -- TID (x 3) or less than Q4h (x 6)
        Passdata = "Q70 2"
        Ptpoint = 4
      Case [Timeopt = 34 .Or. Timeopt = 35]
        * -- Q4h or x 6
        Passdata = "Q70 3"
        Ptpoint = 8
      Case [Timeopt = 36 .Or. Timeopt = 37]
        * -- Q2h or x 12
        Passdata = "Q70 4"
        Ptpoint = 16
Case (Timeopt = 38 .0r. Timeopt = 39)
- -- Q1h or x 24
  Passdata = "Q70 5"
  Ptpoint = 32
Endcase

Do Replot
Loop

Case Xlungopt = 7
  Morder = "Ventilator"
  Passdata = "Q71 1"
  Ptpoint = 10
  Do Replot
  Loop

Case Xlungopt = 8
  Morder = "Wean from Ventilator"
  Do B:Time
  Do Replot
  Loop

Case Xlungopt = 9
  Do Liter
  Morder = "Croup Tent + Xliter"
  Do B:Time
  Passdata = "Q67 1"
  Ptpoint = 8
  Do Replot
  Loop

Case Xlungopt = 10
  Do Liter
  Morder = "Mask + Xliter"
  Do B:Time
  Passdata = "Q63 1"
  Ptpoint = 2
  Do Replot
  Loop

Case Xlungopt = 11
  Do Liter
  Morder = "Mist Tent + Xliter"
  Do B:Time
  Passdata = "Q67 2"
  Ptpoint = 8
  Do Replot
  Loop
Case Xlungopt = 12
  Do Liter
  Morder = "Nasal Prongs " + Xliter
  Do B:Time
  Passdata = "Q63 1"
  Ptpoint = 2
  Do REPLaord
  Loop

Case Xlungopt = 13
  Do Liter
  Morder = "Oxyhood " + Xliter
  Do B:Time
  Passdata = "Q63 2"
  Ptpoint = 2
  Do REPLaord
  Loop

Case Xlungopt = 14
  * -- Doctor's Order Screen
  Dmenu = '1'
  Return

Case Xlungopt = 15
  * -- Master Screen
  Dmenu = '
  Return

Endcase
Release Xlungopt,Xliteropt,Xliter
Enddo
**MONITOR.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 8 December 1985
- **Screen Generated By:** The Software Bottling Company
  - Of New York, c1985
- **Purpose:** Determine monitoring orders of the patient.
- **Input Files Used:** Monitor.Scr and Procfile.Prg
- **Output Files Used:** Orders.Obf
- **Calling Routine:** Doc_Menu.Prg
- **Routine Called:** Time.Prg
- **Modification Date:** 4 February 1986

- -- Screen Input Program For Monitor --

```
Do Setup
Public Xmonopt
Do While .T.

-- Screen Display A:Monitor.Scr --

Set Color To W+B,W+/B
Clear
?? Flash="S.A:Monitor.Scr/"
Set Color To W+/B,W+/B
Xmonopt = 19
Do Headings
Do Startup
@ 22,66 Get Xmonopt Pict "99" Range 0,20
Read

-- Evaluate action based on the option selected --

Do Case

Case Xmonopt = 0
  * -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xmonopt = 1
  Morder = "Apnea Monitor"
  Possdata = "083 1"
  Manpoint = 6
  Do Repload
  Loop
```
Case Xmonopt = 2
Morder = "A-line Set-up"
Passdata = "Q16 1"
Ptpoint = 4
Todayonly = "I"
Do Replaqrd
Loop

Case Xmonopt = 3
Morder = "A-line Readings"
Do B:Time

Do Case
  Case (Timeopt < 36 .Or. Timeopt = 41)
   * -- Less than Q2h or x 12
      Passdata = "Q19 1"
      Ptpoint = 0
  Case (Timeopt = 36 .Or. Timeopt = 37)
   * -- Q2h or x 12
      Passdata = "Q19 2"
      Ptpoint = 2
  Case (Timeopt = 38 .Or. Timeopt = 39)
   * -- Q1h or x 24
      Passdata = "Q19 3"
      Ptpoint = 4
Endcase

Do Replaqrd
Loop

Case Xmonopt = 4
Morder = "Cardiac Monitor"
Passdata = "Q82 1"
Monpoint = 6
Do Replaqrd
Loop

Case Xmonopt = 5
Morder = "Cardiac Output"
Do B:Time

Do Case
  Case (Timeopt < 25 .Or. Timeopt = 41)
   * -- Less than TID or x 3
      Passdata = "Q22 1"
      Ptpoint = 0
  Case (Timeopt > 24 .And. Timeopt < 34)
   * -- TID (x 3) and less than Q4h (x 6)
      Passdata = "Q22 2"
Ptpoint = 2
Case (Timeopt = 34 .Or. Timeopt = 35)
  * -- Q4h or x 6
  Passdata = "Q22 3"
Ptpoint = 4
Case (Timeopt = 36 .Or. Timeopt = 37)
  * -- Q2h or x 12
  Passdata = "Q22 4"
Ptpoint = 8
Case (Timeopt = 38 .Or. Timeopt = 39)
  * -- Q1h or x 24
  Passdata = "Q22 5"
Ptpoint = 16
Endcase
Do Replaord
Loop

Case Xmonopt = 6
  Morder = "Circulation Checks"
  Do B:Time

  Do Case
    Case (Timeopt < 36 .Or. Timeopt = 41)
      * -- Less than Q2h or x 12
      Passdata = "Q10 1"
Ptpoint = 0
    Case (Timeopt = 36 .Or. Timeopt = 37)
      * -- Q2h or x 12
      Passdata = "Q10 2"
Ptpoint = 2
    Case (Timeopt = 38 .Or. Timeopt = 39)
      * -- Q1h or x 24
      Passdata = "Q10 3"
Ptpoint = 4
  Endcase

  Do Replaord
  Loop

Case Xmonopt = 7
  Morder = "CVP Readings (Manually)"
  Do B:Time

  Do Case
    Case (Timeopt < 36 .Or. Timeopt = 41)
      * -- Less than Q2h or x 12
      Passdata = "Q12 1"
Ptpoint = 0
    Case (Timeopt = 36 .Or. Timeopt = 37)

Case Xmonopt = 8
   Morder = "Fundus Checks"
   Do B:Time
   Do Case
   Case (Timeopt < 36 .Or. Timeopt = 41)
   * -- Less than Q2h or x 12
   Passdata = "Q14 1"
   Ptpoint = 0
   Case (Timeopt = 36 .Or. Timeopt = 37)
   * -- Q2h or x 12
   Passdata = "Q14 2"
   Ptpoint = 2
   Case (Timeopt = 38 .Or. Timeopt = 39)
   * -- Q1h or x 24
   Passdata = "Q14 3"
   Ptpoint = 4
   Endcase
   Do Replaord
   Loop

Case Xmonopt = 9
   Morder = "Intake & Output"
   Do B:Time
   Do Case
   Case (Timeopt < 25 .Or. Timeopt = 41)
   * -- Less than Q8h or x 3
   Passdata = "Q9 1"
   Ptpoint = 0
   Case (Timeopt > 24 .And. Timeopt < 34)
   * -- Q8h (x 3) and less than Q4h (x 6)
   Passdata = "Q9 2"
   Ptpoint = 2
   Case (Timeopt = 34 .Or. Timeopt = 35)
   * -- Q4h or x 6
   Passdata = "Q9 3"
Ptpton = 4
Case (Timeopt = 36 .0r. Timeopt = 37)
  * -- Q2h or x 12
  Passdata = "Q9 4"
  Ptpton = 8
Case (Timeopt = 38 .0r. Timeopt = 39)
  * -- Q1h or x 24
  Passdata = "Q9 5"
  Ptpton = 16
Endcase

Do Replaor
Loop

Case Xmonopt = 10
  Morder = "ICP (Monitor) Set-Up"
  Passdata = "Q2 9"
  Ptpton = 4
  Todayonly = "T"
  Do Replaor
  Loop

Case Xmonopt = 11
  Morder = "Manual ICP Readings"
  Do B:Time
  Do Case
    Case (Timeopt < 36 .0r. Timeopt = 41)
      * -- Less than Q2h or x 12
      Passdata = "Q13 1"
      Ptpton = 0
    Case (Timeopt = 36 .0r. Timeopt = 37)
      * -- Q2h or x 12
      Passdata = "Q13 2"
      Ptpton = 2
    Case (Timeopt = 38 .0r. Timeopt = 39)
      * -- Q1h or x 24
      Passdata = "Q13 3"
      Ptpton = 4
  Endcase
  Do Replaor
  Loop

Case Xmonopt = 12
  Morder = "Monitor ICP Readings"
  Do B:Time
  Do Case
    Case (Timeopt < 36 .0r. Timeopt = 41)
* -- Less than Q2h or x 12
Passdata = "Q20 1"
Ptpoint = 0
Case [Timeopt = 36 .Or. Timeopt = 37]
* -- Q2h or x 12
Passdata = "Q20 2"
Ptpoint = 2
Case [Timeopt = 38 .Or. Timeopt = 39]
* -- Q1h or x 24
Passdata = "Q20 3"
Ptpoint = 4
Endcase
Do Replaord
Loop
Case Xmonopt = 13
Morder = "Neuro Checks"
Do B:Time

Do Case
Case [Timeopt < 34 .Or. Timeopt = 41]
* -- Less than Q4h or x 6
Passdata = "Q11 1"
Ptpoint = 0
Case [Timeopt = 34 .Or. Timeopt = 35]
* -- Q4h or x 6
Passdata = "Q11 2"
Ptpoint = 3
Case [Timeopt = 36 .Or. Timeopt = 37]
* -- Q2h or x 12
Passdata = "Q11 3"
Ptpoint = 6
Case [Timeopt = 38 .Or. Timeopt = 39]
* -- Q1h or x 24
Passdata = "Q11 4"
Ptpoint = 12
Endcase
Do Replaord
Loop

Case Xmonopt = 14
Morder = "Pressure Monitor"
Passdata = "QBS 1"
Monpoint = 6
Do Replaord
Loop
Case Xmonopt = 15
  Morder = "PAP/PA Wedge [Readings]"
  Do B:Time

  Do Case
    Case [Timeopt < 34 .Or. Timeopt = 41]
      • -- Less than 04h or x 6
        Passdata = "Q21 1"
        Ptpoint = 0
    Case [Timeopt = 34 .Or. Timeopt = 35]
      • -- Q4h or x 6
        Passdata = "Q21 2"
        Ptpoint = 2
    Case [Timeopt = 36 .Or. Timeopt = 37]
      • -- Q2h or x 12
        Passdata = "Q21 3"
        Ptpoint = 4
    Case [Timeopt = 38 .Or. Timeopt = 39]
      • -- Q1h or x 24
        Passdata = "Q21 4"
        Ptpoint = 8
  Endcase

  Do Replaord
  Loop

Case Xmonopt = 16
  Morder = "Swan-Ganz Set-up"
  Passdata = "Q18 1"
  Ptpoint = 4
  Todayonly = "T"
  Do Replaord
  Loop

Case Xmonopt = 17
  Morder = "Temperature Monitor"
  Passdata = "Q84 1"
  Monpoint = 6
  Do Replaord
  Loop

Case Xmonopt = 18
  Morder = "Transcutaneous Monitor"
  Passdata = "Q15 1"
  Ptpoint = 6
  Do Replaord
  Loop

Case Xmonopt = 19
  • -- Doctor's Order Screen
Dmenu = '1'
Return

Case Xmonopt = 20
  * -- Master Screen
  Dmenu = ' '
  Return

Endcase
Release Xmonopt

Enddo
--- PHAM1.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 29 November 1985
* Screen Generated By: The Software Bottling Company
* Purpose: One of two program modules used to determine pharmacy orders of the patient.
* Purpose: To determine pharmacy orders of the patient.
* Input Files Used: Monitor.Scr and Procfile.Prg
* Output Files Used: Orders.Db
* Calling Routine: Doc_Menu.Prg
* Routine Called: Time, Pham2 and Phomhelp.Prg
* Modification Date: 4 February 1986

* -- Screen Input Program For Pham1 -- *

Do Setup
Public Xphamlopt

Do While .T.

* -- Screen Display A:Pham1.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Pham1.Scr/"
Set Color To W+/B,W+/B
Xphamlopt = 26
Do Headings
Do Startup
@ 22,66 Get Xphamlopt Pict "99" Range 1,27
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xphamlopt = 1
    Morder = "Benadryl 25mg [O]"
    Do B:Time
    Do Regmeds
    Do Replaord
    Loop

Case Xphamlopt = 2
    Morder = "Benadryl 50mg [IM]"
    Do B:Time
    Do Regmeds

232
Case Xphamlopt - 3
  Morder = "Benadryl 50mg [IV]"
  Do B:Time
  Do IVmeds
  Do Replaord
  Loop

Case Xphamlopt - 4
  Morder = "Dimetapp 4mg [0]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt - 5
  Morder = "Dimetapp Elix 5mg [0]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt - 6
  Morder = "Phenergan 25mg [0]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt - 7
  Morder = "Phenergan 25mg [IM]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt - 8
  Morder = "Phenergan 25mg [SP]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt - 9
  Morder = "Ampicillin 250mg [0]"
  Do B:Time
  Do Regmeds
Do Replace
Loop

Case Xphamlopt = 10
  Morder = "Ampicillin 500mg (IM)"
  Do B:Time
  Do Regmeds
  Do Replace
  Loop

Case Xphamlopt = 11
  Morder = "Ampicillin 500mg (IV)"
  Do B:Time
  Do IVmeds
  Do Replace
  Loop

Case Xphamlopt = 12
  Morder = "Ancef .5Gm (IM)"
  Do B:Time
  Do Regmeds
  Do Replace
  Loop

Case Xphamlopt = 13
  Morder = "Ancef .5Gm (IV)"
  Do B:Time
  Do IVmeds
  Do Replace
  Loop

Case Xphamlopt = 14
  Morder = "Cefadyl 500mg (IM)"
  Do B:Time
  Do Regmeds
  Do Replace
  Loop

Case Xphamlopt = 15
  Morder = "Cefadyl 1.0Gm (IM)"
  Do B:Time
  Do Regmeds
  Do Replace
  Loop

Case Xphamlopt = 16
  Morder = "Cefadyl 1.0Gm (IV)"
  Do B:Time
  Do IVmeds
Do Replaord
Loop

Case Xphamlopt = 17
  Morder = "Erythromycin 250mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt = 18
  Morder = "Erythromycin Susp 200mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt = 19
  Morder = "Keflex 250mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt = 20
  Morder = "Keflex Susp 125mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt = 21
  Morder = "Sulfacetamine 10% Solt (0p)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt = 22
  Morder = "Tetracycline 250mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xphamlopt = 23
  Morder = "Tetracycline 500mg (IV)"
  Do B:Time
  Do IVmeds
Do Repload
Loop

Case Xphamlopt = 24
  * -- Help
  Do B:Phamhelp
  Loop

Case Xphamlopt = 25
  * -- Next Screen (More Meds)
  Do B:Pham2
  Loop

Case Xphamlopt = 26
  * -- Dr's Order Screen
  Dmenu = '1'
  Return

Case Xphamlopt = 27
  * -- Master Screen
  Dmenu = ''
  Return

Endcase
Release Xphamlopt

Enddo
--- PHAM2.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 29 Nov 1985
* Screen Generated By: The Software Bottling Company
* Of New York, c1985
* Purpose: One of two program modules to determine pharmacy orders of the patient.
* Input Files Used: Pham2.Scr and ProcFile.Prg
* Output Files Used: Orders.Dbf
* Calling Routine: Pham1.Prg
* Routine Called: Time.Prg
* Modification Date: 4 February 1986

--- Screen Input Program For Pham2 ---

Do Setup
Public Xpham2opt

Do While .T.

* -- Screen Display A:Pham2.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Pham2.Scr/
Set Color To W+/B,W+/B
Xpham2opt = 24
Do Headings
Do Startup
@ 22,66 Get Xpham2opt Pict "99" Range 1,24
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xpham2opt = 1
    Order = "Boric Acid 5% Solt [I]"
    Do B:Time

Do Case

* -- Expert system data
Case [Timeopt < 6 ,Or. Timeopt = 41]
    Passdata = "Q48 5"
    Ptpoint = 0
Case [Timeopt > 5 ,And. Timeopt < 34]
    Passdata = "Q48 1"
    Ptpoint = 2
Case (Timeopt = 34 Or. Timeopt = 35)
  Passdata = "Q48 2"
  Ptpoint = 3
Case (Timeopt = 36 Or. Timeopt = 37)
  Passdata = "Q48 3"
  Ptpoint = 6
Case (Timeopt = 38 Or. Timeopt = 39)
  Passdata = "Q48 4"
  Ptpoint = 12
Endcase
Do Replaord
Loop

Case Xpham2opt = 2
  Morder = "Atropine 0.4mg (O)"
  Do B:Time
  Do Regmeds
  Do Repluord
  Loop

Case Xpham2opt = 3
  Morder = "Atropine 0.4mg (IM)"
  Do B:Time
  Do Regmeds
  Do Repluord
  Loop

Case Xpham2opt = 4
  Morder = "Valium Smg (O)"
  Do B:Time
  Do Regmeds
  Do Repluord
  Loop

Case Xpham2opt = 5
  Morder = "Valium Smg (IM)"
  Do B:Time
  Do Regmeds
  Do Repluord
  Loop

Case Xpham2opt = 6
  Morder = "Valium Smg (IV)"
  Do B:Time
  Do IVmeds
  Do Repluord
  Loop
Case Xpham2o = 7
  Morder = "Digoxin .125mg (0)"
  Do B:Time
  Do Rgmeds
  Do Replaoard
  Loop

Case Xpham2o = 8
  Morder = "Digoxin .250mg (0)"
  Do B:Time
  Do Rgmeds
  Do Replaoard
  Loop

Case Xpham2o = 9
  Morder = "Inderal 10mg (0)"
  Do B:Time
  Do Rgmeds
  Do Replaoard
  Loop

Case Xpham2o = 10
  Morder = "Inderal 40mg (0)"
  Do B:Time
  Do Rgmeds
  Do Replaoard
  Loop

Case Xpham2o = 11
  Morder = "Inderal 1mg (IV)"
  Do B:Time
  Do IVMeds
  Do Replaoard
  Loop

Case Xpham2o = 12
  Morder = "Minipres 1mg (0)"
  Do B:Time
  Do Rgmeds
  Do Replaoard
  Loop

Case Xpham2o = 13
  Morder = "Minipres 2mg (0)"
  Do B:Time
  Do Rgmeds
  Do Replaoard
  Loop
Case Xpham2opt = 14
  Morder = "Minipres 5mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 15
  Morder = "Dilantin 100mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 16
  Morder = "Dilantin Supp 125mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 17
  Morder = "Elavil 10mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 18
  Morder = "Elavil 25mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 19
  Morder = "Elavil 50mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 20
  Morder = "Phenobarbital 15mg (0)"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop
Case Xpham2opt = 21
  Morder = "Phenobarbital 30mg [D]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 22
  Morder = "Phenobarbital 60mg [IM]"
  Do B:Time
  Do Regmeds
  Do Replaord
  Loop

Case Xpham2opt = 23
  * -- Help
  Do B:Phamhelp
  Loop

Case Xpham2opt = 24
  * -- Previous Screen
  Return

Endcase
Release Xpham2opt

Enddo
### PHAMHELP.PRG

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 29 November 1985
- **Screen Generated By:** The Software Bottling Company Of New York, c1985
- **Purpose:** Brief on-line help facility for the Pham1 and Pham2.Prg.
- **Input Files Used:** Phamhelp.Scr and Procfile.Prg
- **Output Files Used:** None
- **Calling Routine:** Pham1 or Pham2.Prg
- **Routine Called:** None
- **Modification Date:** 26 January 1986

```
Do Setup
Do While .T.

  * -- Screen Display A:Phamhelp.Scr --

    Set Color To W+/B,W+/B
    Clear
    ?? Flash+"S.A:Phamhelp.Scr/"
    @ 24,0
    @ 24,37 Say "Press Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
    Return

Enddo
```
ROUTINE.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 29 November 1985
Screen Generated By: The Software Bottling Company
Of New York, c1985
Purpose: Determine the ward routine orders of the patient.
Input Files Used: Routine.Scr and Procfile.Prg
Output Files Used: Orders.DbF
Calling Routine: Doc_Menu.Prg
Routine Called: Time.Prg
Modification Date: 19 February 1986

-- Screen Input Program For Routine --

Do Setup
Public Xrouopt

Do While .T.

-- Screen Display A:Routine.Scr --

Set Color To W+/B, W+/B
Clear
?? Flash+"S.A:Routine.Scr/"
Set Color To W+/B, W+/B
Xrouopt = 30
Do Headings
Do Startup
@ 22,66 Get Xrouopt Pict "99" Range 0,31
Read

-- Evaluate action based on the option selected --

Do Case

Case Xrouopt = 0
  -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xrouopt = 1
  Morder = "Ace Wrap Lower Ext"
  Passdata = "036 1"
  Ptpoint = 2
  Do Repload
  Loop
Case Xrouopt = 2
    Morder = "Chest Tube Insertion"
    Passdata = "Q57 1"
    Ptpoint = 4
    Todayonly = "I"
    Do REPLAORD
    LOOP

Case Xrouopt = 3
    Morder = "Circumcision Care"
    Do B:TIME
    Passdata = "Q52 1"
    Ptpoint = 2
    Do REPLAORD
    LOOP

Case Xrouopt = 4
    Morder = "Complex Dressing Change"
    Do B:TIME

    Do CASE
        Case (Timeopt < 6 Or. Timeopt = 41)
        * -- Less than one dressing
        Passdata = "Q37 1"
        Ptpoint = 0
        Case (Timeopt > 5 And. Timeopt < 22)
        * -- One dressing change
        Passdata = "Q37 8"
        Ptpoint = 4
        Case (Timeopt > 21 And. Timeopt < 25)
        * -- Two dressing changes
        Passdata = "Q37 9"
        Ptpoint = 8
        Case (Timeopt > 24 And. Timeopt < 31)
        * -- Three dressing changes
        Passdata = "Q37 10"
        Ptpoint = 12
        Case (Timeopt > 30 And. Timeopt < 34)
        * -- Four dressing changes
        Passdata = "Q37 11"
        Ptpoint = 16
        Case (Timeopt = 34 Or. Timeopt = 35)
        * -- Six dressing changes
        Passdata = "Q37 12"
        Ptpoint = 24
        Case (Timeopt = 36 Or. Timeopt = 37)
        * -- Twelve dressing changes
        Passdata = "Q37 13"
        Ptpoint = 48

    ENDCASE
Case (Timeopt = 38 Or. Timeopt = 39)
  * -- Twenty-four dressing changes
   Passdata = "Q37 14"
   Ptpoint = 96
Endcase
Do Repload
Loop

Case Xrouopt = 5
  Morder = "EKG Rhythm Strip"
  Passdata = "Q33 1"
  Ptpoint = 2
  Todayonly = "T"
  Do Repload
  Loop

Case Xrouopt = 6
  Morder = "Foley Cath Care"
  Do B:Time
  Do Case
    Case (Timeopt < 22 Or. Timeopt = 41)
      * -- Tube care less than x 2
      Passdata = "Q39 1"
      Ptpoint = 0
    Case (Timeopt > 21 And. Timeopt < 25)
      * -- Tube care x 2
      Passdata = "Q39 2"
      Ptpoint = 2
    Case (Timeopt > 24 And. Timeopt < 31)
      * -- Tube care x 3
      Passdata = "Q39 3"
      Ptpoint = 3
    Case (Timeopt > 30 And. Timeopt < 34)
      * -- Tube care x 4
      Passdata = "Q39 4"
      Ptpoint = 4
    Case (Timeopt = 34 Or. Timeopt = 35)
      * -- Tube care x 6
      Passdata = "Q39 5"
      Ptpoint = 6
    Case (Timeopt = 36 Or. Timeopt = 37)
      * -- Tube care x 12
      Passdata = "Q39 6"
      Ptpoint = 12
    Case (Timeopt = 38 Or. Timeopt = 39)
      * -- Tube care x 24
      Passdata = "Q39 7"
Ptpoint = 24
Endcase
Do Replaord
Loop

Case Xrouopt = 7
Morder = "Foley Cath Insertion"
Passdata = "032 1"
Ptpoint = 2
Todayonly = "T"
Do Replaord
Loop

Case Xrouopt = 8
Morder = "Guiac Stools"
Do B:Time
Do Routine
Do Replaord
Loop

Case Xrouopt = 9
Morder = "Respiratory Isolation"
Passdata = "054 2"
Ptpoint = 2
Do Replaord
Loop

Case Xrouopt = 10
Morder = "Reverse Isolation"
Passdata = "054 2"
Ptpoint = 2
Do Replaord
Loop

Case Xrouopt = 11
Morder = "Strict Isolation"
Passdata = "054 2"
Ptpoint = 2
Do Replaord
Loop

Case Xrouopt = 12
Morder = "Lumbar Puncture"
Passdata = "058 1"
Ptpoint = 4
Todayonly = "T"
Do Replaord
Loop
Case Xrouopt = 13
  Morder = "N-G Insertion"
  Passdata = "Q31 1"
  Ptpoint = 2
  Todayonly = "T"
  Do Replace
  Loop

Case Xrouopt = 14
  Morder = "Parencentesis"
  Passdata = "Q60 1"
  Ptpoint = 4
  Todayonly = "T"
  Do Replace
  Loop

Case Xrouopt = 15
  Morder = "Phototherapy"
  Passdata = "Q53 1"
  Ptpoint = 2
  Do Replace
  Loop

Case Xrouopt = 16
  Morder = "ROM Exercises (Passive)"
  Do B:Time
  Do Range
  Do Replace
  Loop

Case Xrouopt = 17
  Morder = "2-Point Restraints"
  Passdata = "Q50 1"
  Ptpoint = 2
  Do Replace
  Loop

Case Xrouopt = 18
  Morder = "4-Point Restraints"
  Passdata = "Q50 2"
  Ptpoint = 2
  Do Replace
  Loop

Case Xrouopt = 19
  Morder = "Posey Restraint"
  Passdata = "Q50 3"
  Ptpoint = 2
  Do Replace
  Loop
Case Xrouopt = 20
Morder = "Simple Dressing Change"
Do B:Time

Do Case
  Case (Timeopt < 22 .Or. Timeopt = 41)
    * -- Less than x 2
    Passdata = "Q37 1"
    Ptpoint = 0
  Case (Timeopt > 21 .And. Timeopt < 25)
    * -- x 2 or BID
    Passdata = "Q37 2"
    Ptpoint = 2
  Case (Timeopt > 24 .And. Timeopt < 31)
    * -- x 3 or TID
    Passdata = "Q37 3"
    Ptpoint = 3
  Case (Timeopt > 30 .And. Timeopt < 34)
    * -- x 4 or QID
    Passdata = "Q37 4"
    Ptpoint = 4
  Case (Timeopt = 34 .Or. Timeopt = 35)
    * -- x 6 or Q6h
    Passdata = "Q37 5"
    Ptpoint = 6
  Case (Timeopt = 36 .Or. Timeopt = 37)
    * -- x 12 or Q2h
    Passdata = "Q37 6"
    Ptpoint = 12
  Case (Timeopt = 38 .Or. Timeopt = 39)
    * -- x 24 or Q1h
    Passdata = "Q37 7"
    Ptpoint = 24
Endcase

Do Replaord
Loop

Case Xrouopt = 21
Morder = "Spec Gravity"
Do B:Time
Do Routine
Do Replaord
Loop

Case Xrouopt = 22
Morder = "Spin HCT"
Do B:Time
Do Routine
Do Reployd
Loop

Case Xrouopt = 23
  Morder = "Straight Cath"
  Do B:Time
    Do Case
      Case [Timeopt < 31 .Or. Timeopt = 41]
        * -- Less than x 4
          Passdata = "Q32 2"
          Ptpoint = 0
      Case [Timeopt > 30 .And. Timeopt < 41]
        * -- X 4 or more
          Passdata = "Q32 3"
          Ptpoint = 4
    Endcase
  Do Reployd
Loop

Case Xrouopt = 24
  Morder = "Surgical Shave Prep"
  Passdata = "Q34 1"
  Ptpoint = 2
  Todayonly = "I"
  Do Reployd
Loop

Case Xrouopt = 25
  Morder = "SS Enema"
  Passdata = "Q35 1"
  Ptpoint = 2
  Todayonly = "I"
  Do Reployd
Loop

Case Xrouopt = 26
  Morder = "Tap Water Enema"
  Passdata = "Q35 1"
  Ptpoint = 2
  Todayonly = "I"
  Do Reployd
Loop

Case Xrouopt = 27
  Morder = "Thoracentesis"
  Passdata = "Q59 1"
  Ptpoint = 4

249
Todayonly = "I"
Do Replaord
Loop

Case Xrouopt = 28
Morder = "Tube Care [not trach]"
Do B:Time

Do Case
  Case [Timeopt < 22 . Or. Timeopt = 41]
    * -- Tube care less than x 2
      Passdata = "038 1"
      Ptpoint = 0
  Case [Timeopt > 21 . And. Timeopt < 25]
    * -- Tube care x 2
      Passdata = "038 2"
      Ptpoint = 2
  Case [Timeopt > 24 . And. Timeopt < 31]
    * -- Tube care x 3
      Passdata = "038 3"
      Ptpoint = 3
  Case [Timeopt > 30 . And. Timeopt < 34]
    * -- Tube care x 4
      Passdata = "038 4"
      Ptpoint = 4
  Case [Timeopt = 34 . Or. Timeopt = 35]
    * -- Tube care x 6
      Passdata = "038 5"
      Ptpoint = 6
  Case [Timeopt = 36 . Or. Timeopt = 37]
    * -- Tube care x 12
      Passdata = "038 6"
      Ptpoint = 12
  Case [Timeopt = 38 . Or. Timeopt = 39]
    * -- Tube care x 24
      Passdata = "038 7"
      Ptpoint = 24
Endcase

Do Replaord
Loop

Case Xrouopt = 29
Morder = "S & A of Urine"
Do B:Time
Do Routine
Do Replaord
Loop
Case Xrouopt = 30
  •  -- Doctor's Order Screen
  Dmenu = '1'
  Return

Case Xrouopt = 31
  •  -- Master Screen
  Dmenu = '
  Return

Endcase
Release Xrouopt

Enddo
--- Screen Input Program For US ---

Do Setup
Public Xvsopt

Do While .T.

* -- Screen Display A:US.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:US.Scr/"
Set Color To W+/B,W+/B
Xvsopt = 12
Do Headings
Do Startup
@ 22,66 Get Xvsopt Pict "99" Range 0,13
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xvsopt = 0
  * -- Sign-Off
  Close Database
  Close Procedure
  Release All
  Return To Master

Case Xvsopt = 1
  Morder = "T-P-R, B/P"
  Do B:Time

  Do Case
    Case Tmeopt < 34
* -- QID or less
Passdata = "Q1 1"
Ptpoint = 1
Case (Timeopt = 34 .Or. Timeopt = 35)
* -- Q4h or x 6
Passdata = "Q1 2"
Ptpoint = 2
Case (Timeopt = 36 .Or. Timeopt = 37)
* -- Q2h or x 12
Passdata = "Q1 3"
Ptpoint = 4
Case (Timeopt = 38 .Or. Timeopt = 39)
* -- Q1h or x 24
Passdata = "Q1 4"
Ptpoint = 8
Case Timeopt = 41
* -- No frequency indicated
Passdata = "Q1 5"
Ptpoint = 0
Endcase

Do Replaard
Loop

Case Xvsopt = 2
Morder = "Post-op"
Passdata = "Q8 1"
Ptpoint = 6
Todayonly = "T"
Do Replaard
Loop

Case Xvsopt = 3
Morder = "Post Partum"
Passdata = "Q8 2"
Ptpoint = 6
Todayonly = "T"
Do Replaard
Loop

Case Xvsopt = 4
Morder = "Post Newborn"
Passdata = "Q8 3"
Ptpoint = 6
Todayonly = "T"
Do Replaard
Loop
Case Xvsopt = 5
  Morder = "FHT"
  Do B:Time

  If [Timeopt < 34 .Or. Timeopt = 41]
    * -- Less than Q4h
      Passdata = "Q6 1"
      Ptpoint = 0
  Else
    * -- Q4h or more
      Passdata = "Q6 2"
      Ptpoint = 2
  Endif

  Do Replaord
  Loop

Case Xvsopt = 6
  Morder = "Apical Pulse"
  Do B:Time

  If [Timeopt < 31 .Or. Timeopt = 41]
    * -- Less than Q1D
      Passdata = "Q3 1"
      Ptpoint = 0
  Else
    * -- Q1D or more
      Passdata = "Q3 2"
      Ptpoint = 2
  Endif

  Do Replaord
  Loop

Case Xvsopt = 7
  Morder = "Femoral Pulse"
  Do B:Time

  If [Timeopt < 34 .Or. Timeopt = 41]
    * -- Less than Q4h
      Passdata = "Q4 1"
      Ptpoint = 0
  Else
    * -- Q4h or more
      Passdata = "Q4 2"
      Ptpoint = 2
  Endif

  Do Replaord
  Loop
Case Xvsopt = 8
  Morder = "Pedal Pulse"
  Do B:Time
    If (Timeopt < 31 .Or. Timeopt = 41)
      * -- Less than Q4h
      Passdata = "Q5 1"
      Ptpoint = 0
    Else
      * -- Q4h or more
      Passdata = "Q5 2"
      Ptpoint = 2
    Endif
    Do Replaord
    Loop

Case Xvsopt = 9
  Morder = "Axillary Temps"
  Do B:Time
    If (Timeopt < 31 .Or. Timeopt = 41)
      * -- Less than Q1D
      Passdata = "Q2 2"
      Ptpoint = 0
    Else
      * -- Q1D or more
      Passdata = "Q2 3"
      Ptpoint = 2
    Endif
    Do Replaord
    Loop

Case Xvsopt = 10
  Morder = "Rectal Temps"
  Do B:Time
    If (Timeopt < 31 .Or. Timeopt = 41)
      * -- Less than Q1D
      Passdata = "Q2 1"
      Ptpoint = 0
    Else
      * -- Q1D or more
      Passdata = "Q2 3"
      Ptpoint = 2
    Endif
Do Repload
Loop

Case Xvsopt = 11
  Morder = "Tilt Test"
  Do B:Time
    If (Timeopt < 34 .Or. Timeopt = 41)
      * -- Less than Q4h
      Passdate = "Q7 1"
      Ptpoint = 0
    Else
      * -- Q4h or more
      Passdate = "Q7 2"
      Ptpoint = 2
    Endif
  Do Repload
Loop

Case Xvsopt = 12
  * -- Doctor's Order Screen
  Dmenu = '1'
  Return

Case Xvsopt = 13
  * -- Master Screen
  Dmenu = ''
  Return

Endcase
Release Xvsopt

Enddo
--- XRAY.PRG ---

• Author: Gary R. Harmeyer LCDR NC USN
• Date: 8 December 1985
• Screen Generated By: The Software Bottling Company
• Of New York, c1985
• Purpose: Determine xray orders for the patient.
• Input Files Used: Xray.Scr and Procfile.Prg
• Output Files Used: Orders.DbF
• Calling Routine: Doc_Menu.Prg
• Routine Called: Time.Prg
• Modification Date: 4 February 1986

-- Screen Input Program For Xray --

Do Setup
Public Xxrayopt

Do While .T.

-- Screen Display B:Xray.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Xray.Scr/
Set Color To W+/B,W+/B
Xxrayopt = 19
Do Headings
Do Startup
@ 22,66 Get Xxrayopt Pict "99" Range 0,20
Read

-- Evaluate action based on the option selected --

Do Case

Case Xxrayopt = 0
  * -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xxrayopt = 1
  Morder = "Abdomen Flat Plate Xray"
  Do B:Time
  Do Reploord
  Loop
Case Xxrayopt = 2
  Order = "Abdomen AP Xray"
  Do B:Time
  Do Repeat
  Loop

Case Xxrayopt = 3
  Order = "Abdomen 3-way Xray"
  Do B:Time
  Do Repeat
  Loop

Case Xxrayopt = 4
  Order = "Angiography"
  Do B:Time
  Do Repeat
  Loop

Case Xxrayopt = 5
  Order = "Arteriography"
  Do B:Time
  Do Repeat
  Loop

Case Xxrayopt = 6
  Order = "Barium Enema"
  Do B:Time
  Do Repeat
  Loop

Case Xxrayopt = 7
  Order = "Brain Scan"
  Do B:Time
  Do Repeat
  Loop

Case Xxrayopt = 8
  Order = "Chest PA Xray"
  Do B:Time
  Do Repeat
  Loop

Case Xxrayopt = 9
  Order = "Chest Lateral Xray"
  Do B:Time
  Do Repeat
  Loop

Case Xxrayopt = 10
  Order = "CT Scan"
Do B:Time
Do Replaord
Loop

Case Xxrayopt - 11
Morder = "Gallbladder Series"
Do B:Time
Do Replaord
Loop

Case Xxrayopt - 12
Morder = "IVP"
Do B:Time
Do Replaord
Loop

Case Xxrayopt - 13
Morder = "Sinus Series"
Do B:Time
Do Replaord
Loop

Case Xxrayopt - 14
Morder = "Skull Xray"
Do B:Time
Do Replaord
Loop

Case Xxrayopt - 15
Morder = "Spine Xray"
Do B:Time
Do Replaord
Loop

Case Xxrayopt - 16
Morder = "Tomography"
Do B:Time
Do Replaord
Loop

Case Xxrayopt - 17
Morder = "Upper GI Series"
Do B:Time
Do Replaord
Loop

Case Xxrayopt - 18
Morder = "Ultrasound"
Do B:Time
Do Replaord
Loop

Case Xxrayopt = 19
  * -- Doctor's Order Screen
  Dmenu = '1'
  Return

Case Xxrayopt = 20
  * -- Master Screen
  Dmenu = '
  Return

Endcase
Release Xxrayopt

Enddo
**DISCONT.PRG**

- **Author:** Gary R. Harmeyer LCOR NC USN
- **Date:** 18 December 1985
- **Screen Generated By:** The Software Bottling Company Of New York, c1985
- **Purpose:** Display patient orders to determine if any are to be discontinued.
- **Input Files Used:** Discont.Scr and Procfile.Pr6
- **Output Files Used:** Orders.Db
- **Calling Routine:** Doctor.Prg
- **Routine Calls:** None
- **Modification Date:** 18 February 1986

---

**Screen Input Program For Discont**

Do Setup
Public Xdisopt,Xdcdate,Xdcorder,Xdcprac
Public Xdcfrem,Xmptfmpssn,Xordpack
Xordpack = .F.

---

**Identify correct patient to display orders**

Use B:Orders
Store "" + Ptfrmssn + "" To Xmptfmpssn
Locate For Fmpssn = &Xmptfmpssn .And. Module # 'N'

Do While .T.

---

**Store data from Dbf file into variable names**

Xdcdate = Odate
Xdctime = Otime
Xdcorder = Order
Xdcfrem = Freq
Xdcprac = Prac

---

**Screen Display A:Discont.Scr**

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Discont.Scr/"
Set Color To W+/B,W+/B
Xdisopt = 1
Do Headings
@ 13,1 Say Xdcdate
@ 13,10 Say Xdctime
@ 13,19 Say Xdcorder
@ 13,47 Say Xdcfrem
@ 13,60 Say Xdcprac
* -- Evaluate action based on the option selected -- *

Do Case

Case Xdisopt = 0
  * -- Sign-Off
  If Xordpack = .T.
    Pack
  Endif
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xdisopt = 1
  * -- Next Order
  Skip
  Do While ([Fmpssn & Xmptfmpssn] Or [Module = "N"])
    If EOF()
      @ 24,4 Say "No Additional Medical Orders On"
      @ 24,36 Say "This Patient -- Press Any Key To"
      @ 24,69 Say "Continue"
      Set Console Off
      Wait
      Set Console On
      If Xordpack = .T.
        Pack
        Endif
        Return
      Else
        Skip
      Endif
    Enddo
  If EOF()
    @ 24,4 Say "No Additional Medical Orders On"
    @ 24,36 Say "This Patient -- Press Any Key To"
    @ 24,69 Say "Continue"
    Set Console Off
    Wait
    Set Console On
    If Xordpack = .T.
      Pack
      Endif
      Return
    Else
      Loop
  Endif
Case Xdisopt = 2
  * -- Discontinue The Order
  Xordpack = .T.
  Delete
  Skip
  Do While ([Fmpssn # &XmptFmpssn].Or.[Module = "N"])
    If EOF()
      @ 24,4 Say "No Additional Medical Orders On "
      @ 24,36 Say "This Patient -- Press Any Key To "
      @ 24,69 Say "Continue"
      Set Console Off
      Wait
      Set Console On
      Pack
      Return
    Else
      Skip
    Endif
  Enddo
  If EOF()
    @ 24,4 Say "No Additional Medical Orders On "
    @ 24,36 Say "This Patient -- Press Any Key To "
    @ 24,69 Say "Continue"
    Set Console Off
    Wait
    Set Console On
    Pack
    Return
  Else
    Loop
  Endif

Case Xdisopt = 3
  * -- Dr's Master
  If Xordpack = .T.
    Pack
  Endif
  Dmenu = "1"
  Return

Case Xdisopt = 4
  * -- Master
  If Xordpack = .T.
    Pack
  Endif
  Dmenu = " 
  Return
Endcase
Release Xdisopt, Xdcdate, Xdcorder, Xdcproc
Release Xdcfreq, Xmptfmpssn, Xordpack

Enddo
***** TRANSFER.PRG ****************************

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 9 December 1985
- Screen Generated By: The Software Bottling Company Of New York, c1985
- Purpose: Menu to determine if patient will be admitted, transferred or discharged.
- Input Files Used: Transfer.Scr and Procfile.Prg
- Output Files Used: Orders.Dbf
- Calling Routine: Doctor.Prg
- Routine Called: None
- Modification Date: 4 February 1986

-- Screen Input Program For Transfer --

Do Setup
Public Xtranopt

Do While .T.

-- Screen Display A:Transfer.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Transfer.Scr/"
Set Color To W+/B,W+/B
Xtranopt = 4
Do Headings
Do Startup
@ 22,67 Get Xtranopt Pict "9" Range 0,5
Read

-- Evaluate action based on the option selected --

Do Case

Case Xtranopt = 0
  * -- Sign-Off
  Close Databases
  Release All
  Close Procedure

Case Xtranopt = 1
  Morder = "Admit"
  Passdata = "62 2"
  Ptpoint = 12
  Todayonly = "I"

265
Do Reload
Loop

Case Xtranopt = 2
    Morder = "Transfer"
    Passdata = "62 1"
    Ptpoint = 4
    Todayonly = "T"
    Do Restart
    Loop

Case Xtranopt = 3
    Morder = "Discharge"
    Do Restart
    Loop

Case Xtranopt = 4
    * -- Doctor's Master Screen
    Dmenu = '1'
    Return

Case Xtranopt = 5
    * -- Master Screen
    Dmenu = '
    Return

Endcase
Release Xtranopt

Enddo
--- NURSE.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 20 December 1985
* Screen Generated By: The Software Bottling Company Of New York, c1985
* Purpose: Provide the nurse options of entering or reviewing nursing care plans. The module allows the nurse to determine the patient classification level either internally or externally.
* Input Files Used: Nurse.Scr and Procfile.Prg
* Output Files Used: Orders and Ncaredb.Db
* Output File Created: Return.Txt
* Calling Routine: Ward2 or Ward3.Prg
* Routine Calls: Nursel.Prg
* Modification Date: 3 March 1986

--- Screen Input Program For Nurse ---

Do Setup
Public Xnuropt,Nmenu,Xpoints,Xmonpt,Xemopt,Xroupt,Xlevel
Public Xnow,Xtoday
Nmenu = Space(1)
Xpoints = 0
Xmonpt = 0
Xemopt = 0
Xroupt = 0
Xlevel = Space(12)
Store DTOC(Date[]) To Xnow
Store "" + Xnow + "" To Xtoday

Do While .T.

* -- Screen Display A:Nurse.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Nurse.Scr/"
Set Color To W+/B,W+/B
Xnuropt = 8
Do Headings
@ 22,67 Get Xnuropt Pict "9" Range 0,8
Read

* -- Evaluate action based on the option selected --

Do Case
Case Xnuropt = 0
  * -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xnuropt = 1
  * -- Enter/Inactivate Nursing Care Plan
  Do B:Nurse1
  If Nmenu = "1"
    Loop
  Else
    Return
  Endif

Case Xnuropt = 2
  * -- Review Nursing Care Plan
  Clear
  Set Color To W+/B,W+/B
  @ 1.20 Say "Nursing Care Plan For:"
  @ 1.43 Say Ourpt
  @ 3.10 Say "Press -- Ctrl and S -- Keys "
  @ 3.38 Say "to Pause The Scrolling If Necessary"
  Use B:Ncaredb
  Store "'" + Ptffmpssn + "'" To Mptffmpssn
  Report Form B:NC For NFmpssn = &mptfmpssn
  Wait
  Loop

Case Xnuropt = 3
  * -- Print Nursing Care Plan
  @ 24.0 Say "Turn On Your Printer, "
  @ 24.22 Say "Then Hit Any Key To Print"
  Set Console Off
  Wait
  Set Console On
  Clear
  @ 12.30 Say "Printing, Please Wait"
  Set Console Off
  Set Device To Print
  @ 1.20 Say "Nursing Care Plan For:"
  @ 1.43 Say Ourpt
  Set Device To Screen
  Use B:Ncaredb
  Store "'" + Ptffmpssn + "'" To Mptffmpssn
  Report Form B:NC No eject;
    To Print For NFmpssn = &mptfmpssn
  Set Console On
  @ 24.0 Say "Finished Printing, Hit "
@ 24,22 Say "Any Key To Continue"
Set Console Off
Wait
Set Console On
Loop

Case Xnuropt = 4
* -- Determine Patient Classification Level
Use B:Orders
Store "" + Ptfmpssn + "" To Mptfmpssn
Copy To B:Return Fields Expertsys Sdf;
	Fmpssn = &mptfmpssn .And. [Onlytoday = "F" .Or.;
	[Onlytoday = "T" .And. Odate = &Xtoday]]
Close Procedure
Close Databases
Release All
* -- Exit this portion of prototype software
Quit

Case Xnuropt = 5
* -- Review Patient Care Requirements
Clear
Set Color To W+/B,W+/B
@ 1,17 Say "Patient Care Requirements For:"
@ 1,48 Say Ourpt
@ 3,10 Say "Press -- Ctrl and S -- Keys To Pause"
@ 3,47 Say "The Scrolling If Necessary"
Use B:Orders
Store "" + Ptfmpssn + "" To Mptfmpssn
Report Form B:Ord For;
	Fmpssn = &mptfmpssn .And. [Onlytoday = "F" .Or.;
	[Onlytoday = "T" .And. Odate = &Xtoday]]
Wait
Loop

Case Xnuropt = 6
* -- Print Patient Care Requirements
@ 24,0 Say "Turn On Your Printer,"
@ 24,23 Say "Then Hit Any Key To Print"
Set Console Off
Wait
Set Console On
Clear
@ 12,30 Say "Printing, Please Wait"
Set Console Off
Set Device To Print
@ 1,17 Say "Patient Care Requirements For:"
@ 1,47 Say Ourpt
Set Device To Screen
Use B:Orders
Store "'" + Ptftpssn + "'" To Mptftpssn
Report Form B:Ord No eject To Print For;
    Fmpssn = &mptftpssn .And. [Onlytoday = "F" .Or.;
    [Onlytoday = "T" .And. Odate = &Xtoday])
Set Console On
@ 24,0 Say "Finished Printing, Hit "
@ 24,23 Say "Any Key To Continue"
Set Console Off
Wait
Set Console On
Loop

Case Xnuopt = 7
    * -- Internal Patient Classification
    Clear
    Set Color To W+/B,W+/B
    @ 7,2$ Say "Please Wait While Calculating"
    Use B:Orders
    Store "'" + Ptftpssn + "'" To Mptftpssn
    Sum Critical To Xpoints For;
        Fmpssn = &mptftpssn .And. [Onlytoday = "F" .Or.;
        [Onlytoday = "T" .And. Odate = &Xtoday])
    Sum Monpt To Xmonpt For;
        Fmpssn = &mptftpssn .And. [Onlytoday = "F" .Or.;
        [Onlytoday = "T" .And. Odate = &Xtoday])
    If Xmonpt > 0
        Xpoints = Xpoints + 6
    Endif
    Sum Emopt To Xemopt For;
        Fmpssn = &mptftpssn .And. [Onlytoday = "F" .Or.;
        [Onlytoday = "T" .And. Odate = &Xtoday])
    If Xemopt >= 10
        Xpoints = Xpoints + 10
    Else
        Xpoints = Xpoints + Xemopt
    Endif
    Sum Rouppt To Xrouppt For;
        Fmpssn = &mptftpssn .And. [Onlytoday = "F" .Or.;
        [Onlytoday = "T" .And. Odate = &Xtoday])
    Do Case
        Case Xroupt < 6
            Xpoints = Xpoints + 0
        Case (Xroupt > 5 .And. Xroupt < 12)
            Xpoints = Xpoints + 2
        Case (Xroupt > 11 .And. Xroupt < 18)
            Xpoints = Xpoints + 4
        Case (Xroupt > 17 .And. Xroupt < 24)
            Xpoints = Xpoints + 6
        Else
            Xpoints = Xpoints + 6
Case Xroupt > 23
   Xpoints = Xpoints + 8
Endcase

* -- Determine patient classification level based on
* -- patient care points --
Do Case
   Case Xpoints < 13
      Xlevel = "Category I"
   Case [Xpoints > 12 .And. Xpoints < 32]
      Xlevel = "Category II"
   Case [Xpoints > 31 .And. Xpoints < 64]
      Xlevel = "Category III"
   Case [Xpoints > 63 .And. Xpoints < 96]
      Xlevel = "Category IV"
   Case [Xpoints > 95 .And. Xpoints < 146]
      Xlevel = "Category V"
   Case Xpoints > 146
      Xlevel = "Category IV"
Endcase

Clear
Set Color To W+/B,W+/B
@ 7,30 Say "Patient: "
@ 7,39 Say "Xpoints"
@ 8,30 Say "Is In: "
@ 8,37 Say Xlevel
@ 10,30 Say "Point Value Is:"
@ 10,46 Say Xpoints
@ 24,0 Say "Calculation Complete -- "
@ 24,24 Say "Press Any Key To Continue"
Set Console Off
Wait
Set Console On
Loop

Case Xnuropt = 8
* -- Master Screen
Return
Endcase
Release Xnuropt,Xpoints,Xmonpt,Xemopt,Xroupt,Xlevel
Release Xnow,Xtoday

Enddo
--- NURSE1.PRG ---

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 20 December 1985
- Screen Generated By: The Software Bottling Company Of New York, c1985
- Purpose: Enables the nurse to enter or modify a nursing care plan.
- Input Files Used: Nursel.Scr and Procfie.Prg
- Output Files Used: None
- Calling Routine: Nurse.Prg
- Routine Calls: N_Diag or Inact.Prg
- Modification Date: 4 February 1986

--- Screen Input Program For Nursel ---

Do Setup
Public Xnurslopt

Do While .T.

* -- Screen Display A:Nurse1.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Nurse1.Scr/"
Set Color To W+/B,W+/B
Xnurslopt = 4
Do Headings
@ 22,67 Get Xnurslopt Pict "9" Range 0,4
Read

* -- Evaluate action based on the option selected --

Do Case

Case Xnurslopt = 0
* -- Sign-Off
Close Databases
Close Procedure
Release All
Return To Master

Case Xnurslopt = 1
* -- Enter A New Care Plan
Do B:N_Diag
Return

Case Xnurslopt = 2
* -- Inactivate A Nursing Care Plan
Do B: Inactive
Return

Case Xnurslopt = 3
* -- Nurse's Master Screen
Nmenu = "1"
Return

Case Xnurslopt = 4
* -- Master Screen
Store ' ' To Nmenu
Return

Endcase
Release Xnurslopt

Enddo
--- N_DIAG.PRG ---

Author: Gary R. Harmeyer LCDR NC USN
Date: 20 December 1985
Screen Generated By: The Software Bottling Company
Of New York, c1985
Purpose: Allows the nurse to chose from a menu of four nursing diagnoses.
Input Files Used: N_Diag.Scr and Procfile.Prg
Output Files Used: None
Calling Routine: Nursel.Prg
Routine Called: Assess_1, Assess_2, Assess_3, or Assess_4.Prg
Modification Date: 4 February 1986

-- Screen Input Program For N_Diag --

Do Setup
Public Xndiagopt,Nursdiag,Emoteach,Nrelate,Ngoal,Nassess
Public Assoth,Reloth,Goooth,Ordoth
Nursdiag = Space[30]
Emoteach = Space[19]
Nrelate = Space[25]
Ngoal = Space[38]
Nassess = Space[27]
Assoth = Space[27]
Reloth = Space[25]
Goooth = Space[38]
Ordoth = Space[27]

Do While .T.

-- Screen Display A:N_Diag.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:N_Diag.Scr/"
Set Color To W+/B,W+/B
Xndiagopt = 5
Do Headings
Do Startup
@ 22,67 Get Xndiagopt Pict "9" Range 0,6
Read

-- Evaluate action based on the option selected --

Do Case

Case Xndiagopt = 0
-- Sign-Off
Close Databases
Close Procedure
Release All
Return To Master

Case Xndiagopt = 1
   Nursdiag = "Comfort Alteration In: Pain"
   Do B:Assess_1
   Loop

Case Xndiagopt = 2
   Nursdiag = "Communication Impaired: Verbal"
   Do B:Assess_2
   Loop

Case Xndiagopt = 3
   Nursdiag = "Impaired Physical Mobility"
   Do B:Assess_3
   Loop

Case Xndiagopt = 4
   Nursdiag = "Self-Care Deficit"
   Do B:Assess_4
   Loop

Case Xndiagopt = 5
   * -- Nurse's Master Screen
   Nmenu = "1"
   Return

Case Xndiagopt = 6
   * -- Master Screen
   Nmenu = "   "
   Return

Endcase
Release Xndiagopt

Enddo
***** ASSESS_1.PRG ****************************

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 20 December 1985
* Screen Generated By: The Software Bottling Company Of New York, c1985
* Purpose: Provides a menu for the nurse to select nursing assessments for a patient with a nursing diagnosis of comfort alteration in: pain.
* Input Files Used: Assess_1.Scr and Procfile.Prg
* Output Files Used: None
* Calling Routine: N_Diag.Prg
* Routine Called: Relate_1.Prg
* Modification Date: 3 February 1986

* -- Screen Input Program For Assess_1 -- *

Do Setup
Public Xasslopt

Do While .T.

* -- Screen Display A:Assess_1.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Assess_1.Scr/"
Set Color To W+/B,W+/B
Xasslopt = 11
Do Headings
@ 22,66 Get Xasslopt Pict "99" Range 1,16
Read

* -- Allows the nurse to document assessment of the patient --

Do Case

Case Xasslopt = 1
  Nassess = "Altered Time Perception"
  Do B:Relate_1
  Return

Case Xasslopt = 2
  Nassess = "Alteration In Muscle Tone"
  Do B:Relate_1
  Return
Case Xasslopt = 3
Nassess = "Autonomic Response"
Do B:Relate_1
Return

Case Xasslopt = 4
Nassess = "Distraction Behavior"
Do B:Relate_1
Return

Case Xasslopt = 5
Nassess = "Facial Mask"
Do B:Relate_1
Return

Case Xasslopt = 6
@ 10,24 Get Assoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
Read
Nassess = Assoth
Do B:Relate_1
Return

Case Xasslopt = 7
Nassess = "Guarding Behavior"
Do B:Relate_1
Return

Case Xasslopt = 8
Nassess = "Impaired Thought Process"
Do B:Relate_1
Return

Case Xasslopt = 9
Nassess = "Narrowing Focus"
Do B:Relate_1
Return

Case Xasslopt = 10
Nassess = "Pacing"
Do B:Relate_1
Return

Case Xasslopt = 11
Nassess = "Patient Report"
Do B:Relate_1
Return

Case Xasslopt = 12
Nassess = "Self_Focusing"
Do B:Relate_1
Return

Case Xasslopt = 13
Nassess = "Talkative"
Do B:Relate_1
Return

Case Xasslopt = 14
Nassess = "Verbal Complaint"
Do B:Relate_1
Return

Case Xasslopt = 15
Nassess = "Verbal Complaint"
Do B:Relate_1
Return

Case Xasslopt = 16
Nassess = "W/Draw From Social Contact"
Do B:Relate_1
Return

Endcase
Release Xasslopt

Enddo
--- RELATE_1.PRG -------------------------------

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 20 December 1985
- Screen Generated By: The Software Bottling Company
- Purpose: Provides a menu for the nurse to select related factors for a patient with a nursing diagnosis of comfort alteration in: pain.
- Input Files Used: Relatel.Scr and Procfile.Prg
- Output Files Used: None
- Calling Routine: Assess_1.Prg
- Routine Called: Goal_1.Prg
- Modification Date: 1 February 1986

--- Screen Input Program For Relate_1 ---

Do Setup
Public Xrellopt

Do While .T.

* --- Screen Display A:Relate_1.Scr ---

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Relate_1.Scr/
Set Color To W+/B,W+/B
Xrellopt = 2
Do Headings
@ 22,67 Get Xrellopt Pict "S" Range 1,7
Read

* --- Previous assessment is related to some cause ---

Do Case

Case Xrellopt = 1
Nrelate = "Altered Sensation"
Do B:Goal_1
Return

Case Xrellopt = 2
Nrelate = "Disease / Condition"
Do B:Goal_1
Return

Case Xrellopt = 3
Nrelate = "Emotional State"
Do B:Goal_1
Return

Case Xrellopt = 4
  Get Reloth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Nrelate = Reloth
  Do B:Goal_1
  Return

Case Xrellopt = 5
  Nrelate = "Surgical Procedure"
  Do B:Goal_1
  Return

Case Xrellopt = 6
  Nrelate = "Trauma"
  Do B:Goal_1
  Return

Case Xrellopt = 7
  Nrelate = "Treatment Regime"
  Do B:Goal_1
  Return

Endcase
Release Xrellopt

Enddo
--- GOAL_1.PRG ---

• Author: Gary R. Harmeyer LCDR NC USN
• Date: 20 December 1985
• Screen Generated By: The Software Bottling Company
• Purpose: Provides a menu for the nurse to select a patient goal for a patient with a nursing diagnosis of comfort alteration in: pain.
• Input Files Used: Goal_1.Scr and Procfile.Prg
• Output Files Used: None
• Calling Routine: Relate_1.Prg
• Routine Called: Norder1A or Norder1B.Prg
• Modification Date: 3 February 1986

--- Screen Input Program For Goal_1 ---

Do Setup
Public Xgoalopt

Do While .T.

• -- Screen Display A:Goal_1.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash"S.A:Goal_1.Scr/"
Set Color To W+/B,W+/B
Xgoalopt - 2
Do Headings
@ 22,67 Get Xgoalopt Pict "9" Range 1,5
Read

• -- Allows nurse to select specific goal attainable by this patient --

Do Case

Case Xgoalopt = 1
   Ngoal - "Communicates Pain Free"
   Do B:Norder1A
   Return

Case Xgoalopt = 2
   Ngoal - "Communicates Experiences Less Pain"
   Do B:Norder1A
   Return
Case Xgoalopt = 3
Ngoal = "Communicates Experience Tolerable Pain"
Do B:Norder1A
Return

Case Xgoalopt = 4
Ngoal = "Demos Skills/Knowledge To Achieve Goal"
Do B:Norder1B
Return

Case Xgoalopt = 5
@ 17,34 Get Ggoal;
   Pict "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
Read
Ngoal = Ggoal
Do B:Norder1A
Return

Endcase
Release Xgoalopt

Enddo
NORDER1A.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 20 December 1985
Screen Generated By: The Software Bottling Company Of New York, c1985
Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is communicates experiences less/tolerable pain or is pain free.
Input Files Used: Norder1A.Scr, Time, Emosup, Teach and Procfile.Prg
Output Files Used: Orders.Db and Ncaredb.Db
Calling Routine: Goal_1.Prg
Routine Called: None
Modification Date: 3 February 1986

-- Screen Input Program For Norder1A --

Do Setup
Public Xnord1aopt
Do While .T.
* -- Screen Display A:Norder1A.Scr --

Set Color To W+/B,W4-/B
Clear
?? Flash+"S.A:Norder1A.Scr/"
Set Color To W+/B,W4+/B
Xnord1aopt - 10
Do Headings
@ 22,66 Get Xnord1aopt Pict "99" Range 1,10
Read

* -- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders.Db files --

Do Case

Case Xnord1aopt = 1
Morder - "Assess Pain Factors"
Do B:Time
Do Reploard
Do Repnrord
Return

233
Case Xnordlaopt - 2
  Morder = "Assess/Evaluate Pain"
  Do B:Time
  Do Replaard
  Do Repnrd
  Return

Case Xnordlaopt - 3
  Morder = "Encour To Use Coping Skills"
  Do B:Time
  Do Replaard
  Do Repnrd
  Return

Case Xnordlaopt - 4
  Morder = "Explain Proc & Tests"
  Do B:Time
  Do Replaard
  Do Repnrd
  Return

Case Xnordlaopt - 5
  @ 10,10 Get Ordoth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaard
  Do Repnrd
  Return

Case Xnordlaopt - 6
  Morder = "Offer PRN Medications"
  Do B:Time
  Do Replaard
  Do Repnrd
  Return

Case Xnordlaopt - 7
  Morder = "Provide Emotional Support"
  Do B:Emosup
  Do Replaard
  Do Repnrd
  Return

Case Xnordlaopt - 8
  Morder = "Schedule Quiet Times"
  Do B:Time
  Do Replaard
Do Repnrord
Return

Case Xnordlaopt = 9
  Morder = "Teach Alt Coping Strategies"
  Do B:Teach
  Do Reploard
  Do Repnrord
  Return

Case Xnordlaopt = 10
  Morder = "Util Diversional Activities"
  Do B:Time
  Do Reploard
  Do Repnrord
  Return

Endcase
Release Xnordlaopt

Enddo
Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is demonstrates skills and knowledge to achieve goals.

Input Files Used: Norder1B.Scr, Teach & Procfile.Prg
Output Files Used: Orders.Dbf and Ncaredb.DbF
Calling Routine: Goal_1.Prg
Routine Called: None
Modification Date: 1 February 1986

-- Screen Input Program For Norder1B --

Do Setup
Public Xnord1bopt

Do While .T.

* -- Screen Display A:Norder1B.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S:A:Norder1B.Scr/
Set Color To W+/B,W+/B
Xnord1bopt = 1
Do Headings
@ 22,67 Get Xnord1bopt Pict "9" Range 1,5
Read

* -- Nursing orders are determined by evaluating the
* -- case statement, then place data into Ncaredb and
* -- Orders.Dbf files --

Do Case

Case Xnord1bopt = 1
    Morder = "Teach: Deep Breathing Exer"
    Do B:Teach
    Do Replaord
    Do Repnrd
    Return

Case Xnord1bopt = 2
    Morder = "Teach: Prog/sive Relax Exer"
Morder - "Teach: Deep Breathing Exer"
Do B:Teach
Do Replaard
Do Repnrard
Return

Case Xnord1bopt = 2
Morder - "Teach: Progressive Relax Exer"
Do B:Teach
Do Replaard
Do Repnrard
Return

Case Xnord1bopt = 3
Morder - "Teach: Relaxation Response"
Do B:Teach
Do Replaard
Do Repnrard
Return

Case Xnord1bopt = 4
Morder - "Teach: Diversional Activity"
Do B:Teach
Do Replaard
Do Repnrard
Return

Case Xnord1bopt = 5
@ 18,38 Get Ordoth;
   Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
Read
Morder - Ordoth
Do B:Teach
Do Replaard
Do Repnrard
Return

Endcase
Release Xnord1bopt

Enddo
A PROTOTYPE MODEL FOR AUTOMATING NURSING DIAGNOSIS
NURSE CARE PLANNING AND PATIENT CLASSIFICATION(U) NAVAL
POSTGRADUATE SCHOOL MONTEREY CA  G R HARNEYER MAR 86
F/G 5/1

UNCLASSIFIED

mmhhmmhmmuu
### TEACH.PRG

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company
- **Purpose:** Provides a menu to select teaching requirements of the patient.
- **Input Files Used:** Teach.Scr and Procfile.Prg
- **Output Files Used:** None
- **Calling Routine:** Norder1A, Norder1B, Norder2C, and order3E.Prg
- **Routine Called:** None
- **Modification Date:** 3 February 1986

**-- Screen Input Program For Teach --**

Do Setup
Public Xteachopt
Xteachopt = Space(1)

Do While .T.

**-- Screen Display A:Teach.Scr --**

Set Color To W+/B,W+/B
Clear
?? Flash="S.A:Teach.Scr/"
Set Color To W+/B,W+/B
@ 19,54 Get Xteachopt Pict "!"
Read

**-- Validate response --**

Do While .Not. (Xteachopt ="A" .Or. Xteachopt ="B" .Or.; Xteachopt ="C" .Or. Xteachopt="D")
@ 19,53 Clear
Store ' ' To Xteachopt
@ 24,0 Say "Re-Enter Letter A, B, C, or D"
@ 19,54 Get Xteachopt Pict "!"
Read
Enddo

**-- Determine teaching requirements by evaluating --**

**-- option selected --**

Do Case

Case Xteachopt = "A"
Emoteach = "Group Teaching"
Passdata = "076 1"
Ptpoint = 2
Return

Case Xteachopt = "B"
  Emoteach = "Pre-op Teaching"
  Passdata = "077 1"
  Ptpoint = 4
  Todayonly = "T"
  Return

Case Xteachopt = "C"
  * -- Return to previous screen
  Return

Case Xteachopt = "D"
  Emoteach = "Structured Teaching"
  Passdata = "078 1"
  Ptpoint = 4
  Return

Endcase
Release Xteachopt
Enddo
--- EMOSUP.PRG ---

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company of New York, c1985
- **Purpose:** Provides a menu to select emotional support requirements of the patient.
- **Input Files Used:** Emosup.Scr and Procfile.Prg
- **Output Files Used:** None
- **Calling Routine:** Norder1A, Norder4C, Norder4D, and Norder4E.Prg
- **Routine Called:** None
- **Modification Date:** 25 January 1986

Do Setup
Public Xesupopt
Xesupopt = Space(1)

Do While .T.

* -- Screen Display A:Emosup.Scr -- *

Set Color To W+/B,W+/B
Clear
?? Flash"S:A:Emosup.Scr/"
Set Color To W+/B,W+/B
@ 21,54 Get Xesupopt Pict "!"
Read

* -- Validate response -- *

Do While .Not. (Xesupopt ="A" .Or. Xesupopt ="B" .Or.; Xesupopt = "C" .Or. Xesupopt="D")
@ 21,53 Clear
Store '"' To Xesupopt
@ 24,0 Say "Re-Enter Letter A, B, C, or D"
@ 21,54 Get Xesupopt Pict "!"
Read
Enddo

* -- Determine emotional support requirements by evaluating the option selected -- *

Do Case
Case Xesupopt = "A"
   Emoteach = "Pt/Family Support"
   Passdata = "079 1"
   Emopoint = 4
   Return

Case Xesupopt = "B"
   Emoteach = "Modify Lifestyle"
   Passdata = "Q80 1"
   Emopoint = 4
   Return

Case Xesupopt = "C"
   Emoteach = "Sensory Deprivation"
   Passdata = "Q81 1"
   Emopoint = 6
   Return

Case Xesupopt = "D"
   * -- Return to previous screen
   Return

Endcase
Release Xesupopt

Enddo
Purpose: Provides a menu for the nurse to select nursing assessment for a patient with a nursing diagnosis of communication impairment: verbal.

Input Files Used: Assess_2.Scr and Procfile.Prg
Output Files Used: None
Calling Routine: N_Diag.Prg
Routine Called: Relate_2.Prg
Modification Date: 3 February 1986

-- Screen Input Program For Assess_2 --

Do Setup
Public Xass2opt

Do While .T.

-- Screen Display A:Assess_2.Scr --
Set Color To W+/B,W+/B
Clear
?? Flash"S.A:Assess_2.Scr/"
Set Color To W+/B,W+/B
Xass2opt = 01
Do Headings
@ 22,67 Get Xass2opt Pict "99" Range 1,13
Read

-- Allows nurse to document assessment of the patient --

Do Case

Case Xass2opt = 1
  Nassess = "Anxiety"
  Do B:Relate_2
  Return

Case Xass2opt = 2
  Nassess = "Disorientation"
  Do B:Relate_2
  Return
Case Xass2opt = 3
  Nassess = "Fear"
  Do B:Relate_2
  Return

Case Xass2opt = 4
  Nassess = "Frustration"
  Do B:Relate_2
  Return

Case Xass2opt = 5
  @ 17,24 Get Assoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Nassess = Assoth
  Do B:Relate_2
  Return

Case Xass2opt = 6
  Nassess = "Inability to Hear"
  Do B:Relate_2
  Return

Case Xass2opt = 7
  Nassess = "Inability to Speak"
  Do B:Relate_2
  Return

Case Xass2opt = 8
  Nassess = "Incomprehensible Speech"
  Do B:Relate_2
  Return

Case Xass2opt = 9
  Nassess = "Refusal to Speak"
  Do B:Relate_2
  Return

Case Xass2opt = 10
  Nassess = "Slurring"
  Do B:Relate_2
  Return

Case Xass2opt = 11
  Nassess = "Stuttering"
  Do B:Relate_2
  Return

Case Xass2opt = 12
  Nassess = "Tearfulness"
Do B:Relate_2
Return

Case Xass2opt = 13
   Nassess = "Thought Disorder"
   Do B:Relate_2
   Return

Endcase
Release Xass2opt

Enddo
**RELATE_2.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company
  - Of New York, c1985
- **Purpose:** Provides a menu for the nurse to select related factors for a patient with a nursing diagnosis of communication, impaired: verbal.
- **Input Files Used:** Relate_2.Scr and Procfile.Prg
- **Output Files Used:** None
- **Calling Routine:** Assess_2.Prg
- **Routine Called:** Goal_2.Prg
- **Modification Date:** 3 February 1986

---

Screen Input Program For Relate_2

Do Setup
Public Xrel2opt

Do While .T.

  * -- Screen Display A:Relate_2.Scr --*

  Set Color To W+/B,W+/B
  Clear
  ?? Flash+'S.A:Relate_2.Scr/'
  Set Color To W+/B,W+/B
  Xrel2opt = 01
  Do Headings
  @ 22,67 Get Xrel2opt Pict "99" Range 1,10
  Read

  * -- Previous assessment is related to some cause --*

  Do Case

  Case Xrel2opt = 1
    Nrelate = "Anatomical Impairment"
    Do B:Goal_2
    Return

  Case Xrel2opt = 2
    Nrelate = "Cultural Difference"
    Do B:Goal_2
    Return

  Case Xrel2opt = 3
    Nrelate = "Developmental Age"
Do B:Goal_2
Return

Case Xrel2opt = 4
  Nrelate = "Disease Process"
  Do B:Goal_2
  Return

Case Xrel2opt = 5
  @17,14 Get Reloth;
  - Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Nrelate = Reloth
  Do B:Goal_2
  Return

Case Xrel2opt = 6
  Nrelate = "Foreign Language"
  Do B:Goal_2
  Return

Case Xrel2opt = 7
  Nrelate = "Mental Capacity"
  Do B:Goal_2
  Return

Case Xrel2opt = 8
  Nrelate = "Sedation"
  Do B:Goal_2
  Return

Case Xrel2opt = 9
  Nrelate = "Surgical Procedure"
  Do B:Goal_2
  Return

Case Xrel2opt = 10
  Nrelate = "Treatment Regime"
  Do B:Goal_2
  Return

Endcase
Release Xrel2opt

Enddo
***** GOAL_2.PRG *****

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company
- **Of New York, c1985
- **Purpose:** Provides a menu for the nurse to select a patient goal for a patient with a nursing diagnosis of communication, impaired: verbal.
- **Input Files Used:** Goal_2.Scr and Procfile.Prg
- **Output Files Used:** None
- **Calling Routine:** Relate_2.Prg
- **Routine Called:** Norder2A, Norder2B or Norder2C.Prg
- **Modification Date:** 3 February 1986

--- Screen Input Program For Goal_2 ---

Do Setup
Public Xgoa2o2pt

Do While .T.

- **Screen Display** A:Goal_2.Scr

Set Color To W+/B, W+/B
Clear
?? Flash"S.A:Goal_2.Scr/"
Set Color To W+/B, W+/B
Xgoa2o2pt = 1
Do Headings
@ 22,67 Get Xgoa2o2pt Pict "9" Range 1,7
Read

- Allows nurse to select specific goal attainable by this patient

Do Case

Case Xgoa2o2pt = 1
Ngoal = "Communicates Needs Through Words"
Do B:Norder2A
Return

Case Xgoa2o2pt = 2
Ngoal = "Comm Needs Through Mechanical Tools"
Do B:Norder2A
Return
Case Xgoa2opt = 3
   Ngoal = "Demos Skills to Achieve Goals"
   Do B:Norder2C
   Return

Case Xgoa2opt = 4
   @ 18,21 Get Goooth;
   Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
   Read
   Ngoal = Goooth
   Do B:Norder2A
   Return

Case Xgoa2opt = 5
   Ngoal = "Reports Less Anxiety"
   Do B:Norder2B
   Return

Case Xgoa2opt = 6
   Ngoal = "Reports Less Fear"
   Do B:Norder2B
   Return

Case Xgoa2opt = 7
   Ngoal = "Reports Less Stress"
   Do B:Norder2B
   Return

Endcase
Release Xgoa2opt

Enddo
NORDER2A.PRG

- Author: Gary R. Harmeyer LCDR NC USN
- Date: 23 December 1985
- Screen Generated By: The Software Bottling Company
- Of New York, c1985
- Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is communicates needs through use of words or mechanical tools.
- Input Files Used: Norder2A.Scr, Time, Emosup and Procfile.Prg
- Output Files Used: Orders and Ncaredb.Db
- Calling Routine: Goal_2.Prg
- Routine Called: None
- Modification Date: 3 February 1986

-- Screen Input Program For Norder2A --

Do Setup
Public Xnord2aopt

Do While .T.

- -- Screen Display A:Norder2A.Scr --

  Set Color To w+/B,w+/B
  Clear
  ?? Flash+"S.A:Norder2A.Scr/"
  Set Color To w+/B,w+/B
  Xnord2aopt = 01
  Do Headings
  @ 22,67 Get Xnord2aopt Pict "99" Range 1,10
  Read

- -- Nursing orders are determined by evaluating the
- -- case statement, then place data into Ncaredb and
- -- Orders.Db files --

  Do Case

    Case Xnord2aopt = 1
      Order = "Apprise Others of Comm Prob"
      Do B:Time
      Do Replaoord
      Do Repnord
      Return
Case Xnord2aopt = 2
Morder = "Provide Emotional Support"
Do B:Emosup
Do Reploord
Do Repnrord
Return

Case Xnord2aopt = 3
Morder = "Provide Paper and Pencil"
Do B:Time
Do Reploord
Do Repnrord
Return

Case Xnord2aopt = 4
Morder = "Provide Spelling Board"
Do B:Time
Do Reploord
Do Repnrord
Return

Case Xnord2aopt = 5
@ 10,11 Get Ordoth;
Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
Read
Morder = Ordoth
Do B:Time
Do Reploord
Do Repnrord
Return

Case Xnord2aopt = 6
Morder = "Provid Translated Phase Chart"
Do B:Time
Do Reploord
Do Repnrord
Return

Case Xnord2aopt = 7
Morder = "Provide Translator"
Do B:Time
Do Reploord
Do Repnrord
Return

Case Xnord2aopt = 8
Morder = "Simple Questions w/ Y/N Ans"
Do B:Time
Do Reploord
Case Xnord2aopt = 9
  Morder = "Use Sign Language"
  Do B:Time
  Do Replaoord
  Do Repnrodrd
  Return

Case Xnord2aopt = 10
  Morder = "Use Establishd Comm for ADL"
  Do Replaoord
  Do Repnrodrd
  Return

Endcase
Release Xnord2aopt

Enddo
--- NORDER2B.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 23 December 1985
* Screen Generated By: The Software Bottling Company Of New York, c1985
* Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is reports decreased level of stress, anxiety or fear.
* Input Files Used: Norder2B.Scr, Time and Procfile.Prg
* Output Files Used: Orders and Ncaredb.Dbf
* Calling Routine: Goal_2.Prg
* Routine Called: None
* Modification Date: 5 February 1986

--- Screen Input Program For Norder2B ---

Do Setup
Public Xnord2bopt

Do While .T.

* --- Screen Display A:Norder2B.Scr ---

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder2B.Scr/"
Set Color To W+/B,W+/B
Xnord2bopt = 01
Do Headings
@22,66 Get Xnord2bopt Pict "99" Range 1,10
Read

* --- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders.Dbf files ---

Do Case

Case Xnord2bopt = 1
   Morder = "Encour Pt To Speak Slowly"
   Do B:Time
   Do Replaoord
   Do Repnroard
   Return

Case Xnord2bopt = 2
   Morder = "Encou To Util Cope Strategy"
Case Xnord2bopt = 3
  Morder = "Explain Proc & Elicit Ques"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord2bopt = 4
  Morder = "Provide Spelling Board"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord2bopt = 5
  @ 18:10 Get Ordoth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord2bopt = 6
  Morder = "Prov Translated Phase Chart"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord2bopt = 7
  Morder = "Provide Translator"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord2bopt = 8
  Morder = "Simple Questions w/ Y/N Ans"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return
Case Xnord2bopt = 9
  Morder = "Use Sign Language"
  Do B:Time
  Do Repload
  Do Repnload
  Return

Case Xnord2bopt = 10
  Morder = "Use Established Comm for ADL"
  Do Repload
  Do Repnload
  Return

Endcase
Release Xnord2bopt

Enddo
**--- NORDER2C.PRG ---**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company
- **Purpose:** Provides a menu for the nurse to select a nursing order for a patient whose goal is demonstrates skills to achieve goals.
- **Input Files Used:** Norder2C.Scr, Teach & Procfile.Prg
- **Output Files Used:** Orders and Ncaredb.DbF
- **Calling Routine:** Goal_2.Prg
- **Routine Called:** None
- **Modification Date:** 1 February 1986

--- Screen Input Program For Norder2C ---

Do Setup
Public Xnord2copt

Do While .T.

* --- Screen Display A:Norder2C.Scr --- *

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder2C.Scr/"
Set Color To W+/B,W+/B
Xnord2copt = 1
Do Headings
@ 22,67 Get Xnord2copt Pict "9" Range 1,9
Read

* --- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders.DbF files --- *

Do Case

Case Xnord2copt = 1
   Morder = "Teach: Blink 1x No, 2x Yes"
   Do B:Teach
   Do Repload
   Do Repnload
   Return

Case Xnord2copt = 2
   Morder = "Teach To Squeeze Hand 4 Y/N"
   Do B:Teach
Do Repload
Do Repnload
Return

Case Xnord2copt = 3
   Morder = "Teach Use Of Mech Device"
   Do B:Teach
   Do Repload
   Do Repnload
   Return

Case Xnord2copt = 4
   Morder = "Apprise Others of Comm Prob"
   Do B:Time
   Do Repload
   Do Repnload
   Return

Case Xnord2copt = 5
   @ 18,30 Get Ordoth;
   Pict "XXXXXXXXXXXXXXXXXXXXXXXXX"
   Read
   Morder = Ordoth
   Do B:Teach
   Do Repload
   Do Repnload
   Return

Case Xnord2copt = 6
   Morder = "Teach: Deep Breathing Exer"
   Do B:Teach
   Do Repload
   Do Repnload
   Return

Case Xnord2copt = 7
   Morder = "Teach: Diversional Activity"
   Do B:Teach
   Do Repload
   Do Repnload
   Return

Case Xnord2copt = 8
   Morder = "Teach: Prog/sive Relaxation"
   Do B:Teach
   Do Repload
   Do Repnload
   Return
Case Xnord2copt = 9
   Morder = "Teach: Relaxation Response"
   Do B:Time
   Do Repload
   Do Repnload
   Return

Endcase
Release Xnord2copt
Enddo
Purpose: Provides a menu for the nurse to select nursing assessment for a patient with a nursing diagnosis of impaired physical mobility.

Output Files Used: None
Calling Routine: N_Diag.Prg
Routine Called: Relate_3.Prg
Modification Date: 3 February 1986

--- Screen Input Program For Assess_3 ---

Do Setup
Public Xass3opt

Do While .T.

   * -- Screen Display A:Assess_3.Scr --

   Set Color To W+/B,W+/B
   Clear
   ?? Flash+"S.A:Assess_3.Scr/"
   Set Color To W+/B,W+/B
   Xass3opt = 01
   Do Headings
   @ 22,66 Get Xass3opt Pict "99" Range 1,11
   Read

   * -- Allows nurse to document assessment of the
   * -- patient --

   Do Case

   Case Xass3opt = 1
      Nassess = "Confinement Imposed"
      Do B:Relate_3
      Return

   Case Xass3opt = 2
      Nassess = "Fatigues Easily"
      Do B:Relate_3
      Return
Case Xass3opt = 3
  Nassess = "Gait Impairment"
  Do B:Relate_3
  Return

Case Xass3opt = 4
  Nassess = "Impaired Coordination"
  Do B:Relate_3
  Return

Case Xass3opt = 5
  Nassess = "Inability to Ambulate"
  Do B:Relate_3
  Return

Case Xass3opt = 6
  @ 18,13 Get Assoth;
  Pict "XXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Nassess = Assoth
  Do B:Relate_3
  Return

Case Xass3opt = 7
  Nassess = "Inability to Transfer"
  Do B:Relate_3
  Return

Case Xass3opt = 8
  Nassess = "Inability to Turn"
  Do B:Relate_3
  Return

Case Xass3opt = 9
  Nassess = "Limited Range Of Motion"
  Do B:Relate_3
  Return

Case Xass3opt = 10
  Nassess = "Reluctant To Move"
  Do B:Relate_3
  Return

Case Xass3opt = 11
  Nassess = "Use Of Assistive Devices"
  Do B:Relate_3
  Return

Endcase
Release Xass3opt
Do while .T.

- -- Screen Display A:Relate_3.Scr --

  Set Color To W+/B,W+/B
  Clear
  ?? Flash+"S.A:Relate_3.Scr/"
  Set Color To W+/B,W+/B
  Xrel3opt = 01
  Do Headings
  @ 22,67 Get Xrel3opt Pict "9" Range 1,6
  Read

- -- Previous assessment is related to some cause --

Do Case

  Case Xrel3opt = 1
    Nrelate = "Decrease Act Tolerance"
    Do B:Goal_3
    Return

  Case Xrel3opt = 2
    Nrelate = "Musculoskeletal Function"
    Do B:Goal_3
    Return

  Case Xrel3opt = 3
    Nrelate = "Neuromuscular Function"
Do B:Goal_3
Return

Case Xrel3opt = 4
    Nrelate = "Pain / Discomfort"
    Do B:Goal_3
    Return

Case Xrel3opt = 5
    Nrelate = "Treatment Regime"
    Do B:Goal_3
    Return

Case Xrel3opt = 6
    @ 18.36 Get Reloth;
    Pict "XXXXXXXXXXXXXXXXXXXXXXXXX"
    Read
    Nrelate = Reloth
    Do B:Goal_3
    Return
Endcase
Release Xrel3opt
Enddo
GOAL_3.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 23 December 1985
Screen Generated By: The Software Bottling Company Of New York, c1985
Purpose: Provides a menu for the nurse to select a patient goal for a patient with a nursing diagnosis of impaired physical mobility.

Input Files Used: Goal_3.Scr and Drproc.Prg
Output Files Used: None
Calling Routine: Relate_3.Prg
Routine Called: Norder3A, Norder3B, Norder3C, Norder3D or Norder3E.Prg
Modification Date: 3 February 1986

-- Screen Input Program For Goal_3 --

Do Setup
Public Xgoa3opt

Do While .T.

* -- Screen Display A:Goal_3.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Goal_3.Scr/
Set Color To W+/B,W+/B
Xgoa3opt = 01
Do Headings
@ 22,66 Get Xgoa3opt Pict "99" Range 1,11
Read

* -- Allows nurse to select specific goal attainable by this patient --

Do Case

Case Xgoa3opt = 1
   Ngoal = "Able To Transfer Independently"
   Do B:Norder3D
   Return

Case Xgoa3opt = 2
   Ngoal = "Able To Transfer With Assistance"
   Do B:Norder3D
   Return

312
Case Xgoa3opt = 3
  Ngoal = "Demos Skills to Achieve Goals"
  Do B:Norder3E
  Return

Case Xgoa3opt = 4
  Ngoal = "Increase Range Of Motion (ROM)"
  Do B:Norder3A
  Return

Case Xgoa3opt = 5
  Ngoal = "Maint Effective Breathing Pattern"
  Do B:Norder3A
  Return

Case Xgoa3opt = 6
  @ 10,21 Get Goaoth;
     Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Ngoal = Goaoth
  Do B:Norder3A
  Return

Case Xgoa3opt = 7
  Ngoal = "Maintains Full Range Of Motion (ROM)"
  Do B:Norder3A
  Return

Case Xgoa3opt = 8
  Ngoal = "Maintains Pattern Of Elimination"
  Do B:Norder3C
  Return

Case Xgoa3opt = 9
  Ngoal = "Maintains Skin Integrity"
  Do B:Norder3B
  Return

Case Xgoa3opt = 10
  Ngoal = "No Additional Contractures"
  Do B:Norder3A
  Return

Case Xgoa3opt = 11
  Ngoal = "Performs Activity Of Daily Living (ADL)"
  Do B:Norder3C
  Return

Endcase
Release Xgoa3opt
NORDER3A.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 23 December 1985
Screen Generated By: The Software Bottling Company
Of New York, c1985
Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is maintains full range of motion (ROM), increases ROM or no added contractures.
Input Files Used: Norder3A.Scr, Time and Drproc.Prg
Output Files Used: Orders and Ncaredb.Db
Calling Routine: Goal_3.Prg
Routine Called: None
Modification Date: 5 February 1986

-- Screen Input Program For Norder3A --

Do Setup
Public Xnord3aopt

Do While .T.

-- Screen Display A:Norder3A.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder3A.Scr/"
Set Color To W+/B,W+/B
Xnord3aopt = 1
Do Headings
@ 22,66 Get Xnord3aopt Pict "9" Range 1,10
Read

-- Nursing orders are determined by evaluating the
-- case statement, then place data into Ncaredb and
-- Orders.Db files --

Do Case

Case Xnord3aopt = 1
    Order = "Active Range Of Motion"
    Do B:Time
    Do Replord
    Do Repnord
    Return
Case Xnord3aopt = 2
  Morder = "Cough & Deep Breath"
  Do B:Time
  Do Cough
  Do Replaord
  Do Repnrdord
  Return

Case Xnord3aopt = 3
  Morder = "Encourage Independent ADL"
  Do B:Time
  Do Replaord
  Do Repnrdord
  Return

Case Xnord3aopt = 4
  Morder = "Gradual Increase ADL Activity"
  Do B:Time
  Do Replaord
  Do Repnrdord
  Return

Case Xnord3aopt = 5
  @ 18:10 Get Ordoth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnrdord
  Return

Case Xnord3aopt = 6
  Morder = "Passive Range Of Motion"
  Do B:Time
  Do Range
  Do Replaord
  Do Repnrdord
  Return

Case Xnord3aopt = 7
  Morder = "Positioning"
  Do B:Time
  Do Replaord
  Do Repnrdord
  Return

Case Xnord3aopt = 8
  Morder = "Turning"
  Do B:Time
Do Replaard
Do Repnrard
Return

Case Xnord3aopt = 9
  Morder = "Accom Pt Off Wd (>15 <30mn)"
  Passdata = "QSS 2"
  Ptpoint = 2
  Do Replaard
  Do Repnrard
  Return

Case Xnord3aopt = 10
  Morder = "Accompy Pt Off Wd (>30 min)"
  Passdata = "QSS 3"
  Ptpoint = 4
  Do Replaard
  Do Repnrard
  Return

Endcase
Release Xnord3aopt

Enddo
NORDER3B.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 23 December 1985
Screen Generated By: The Software Butting Company
Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is maintains skin integrity or selects other for the goal.
Input Files Used: Norder3B.Scr, Time and Procfile.Prg
Output Files Used: Orders and Ncoredb.Dbf
Calling Routine: Goal_3.Prg
Routine Called: None
Modification Date: 3 February 1986

-- Screen Input Program For Norder3B --

Do Setup
Public Xnord3bopt
Do While .T.

* -- Screen Display A:Norder3B.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder3B.Scr/
Set Color To W+/B,W+/B
Xnord3bopt = 01
Do Headings
@ 22,66 Get Xnord3bopt Pict "99" Range 1,11
Read

* -- Nursing orders are determined by evaluating the case statement, then place data into Ncoredb and Orders.Dbf files --

Do Case

Case Xnord3bopt = 1
  Morder = "Ambulate"
  Do B:Time
  Do Reploord
  Do Repnrord
  Return

Case Xnord3bopt = 2
  Morder = "Assist To Select Diet"
Case Xnord3bopt = 3
  Morder = "Encourage Independent AOL"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord3bopt = 4
  Morder = "Massage-Promote Circulation"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord3bopt = 5
  Morder = "Possessions w/in Reach"
  Do Replaord
  Do Repnrord
  Return

Case Xnord3bopt = 6
  @ 18,30 Get Ordoth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord3bopt = 7
  Morder = "Position"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord3bopt = 8
  Morder = "Protect Bony Prominences"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return
Case Xnord3bopt = 9
  Morder = "Protect Pressure Areas"
  Do B:Time
  Do Replaord
  Do Repnroid
  Return

Case Xnord3bopt = 10
  Morder = "Provide Safe Environment"
  Do B:Time
  Do Replaord
  Do Repnroid
  Return

Case Xnord3bopt = 11
  Morder = "Siderails"
  Do B:Time
  Do Replaord
  Do Repnroid
  Return

Endcase
Release Xnord3bopt

Enddo
**NORDER3C.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company
- **Purpose:** Provides a menu for the nurse to select a nursing order for a patient whose goal is maintains pattern of elimination or performs activities of daily living (ADL).
- **Input Files Used:** Norder3C.Scr, Time and Procfile.Prg
- **Output Files Used:** Orders and Ncaredb.DbF
- **Calling Routine:** Goal_3.Prg
- **Routine Called:** None
- **Modification Date:** 4 February 1986

**-- Screen Input Program For Norder3C --**

**Do Setup**
Public Xnord3copt

**Do While .T.**

* -- Screen Display A:Norder3C.Scr --*

Set Color To W+/B,W+/B
Clear
?? Flash+"S,A:Norder3C.Scr/

Set Color To W+/B,W+/B
Xnord3copt = 1
Do Headings
@ 22,67 Get Xnord3copt Pict "9" Range 1,8
Read

* -- Nursing orders are determined by evaluating the *  
* -- case statement, then place data into Ncaredb and *  
* -- Orders.DbF files --*

Do Case

Case Xnord3copt = 1
    Morder = "Ambulate with Assistance"
    Do B:Time

    Do Case
        Case (Timeopt < 5 .Or. Timeopt = 41)
        * -- No precise frequency given
        Passdata = "Q51 18"

320
Case (Timeopt > 4 .And. Timeopt < 22)
   * -- X 1
   Passdata = "QS1 11"
   Ptpoint = 2
Case (Timeopt > 21 .And. Timeopt < 25)
   * -- X 2 or BID
   Passdata = "QS1 12"
   Ptpoint = 4
Case (Timeopt > 24 .And. Timeopt < 31)
   * -- X 3 or TID
   Passdata = "QS1 13"
   Ptpoint = 6
Case (Timeopt > 30 .And. Timeopt < 34)
   * -- X 4 or QID
   Passdata = "QS1 14"
   Ptpoint = 8
Case (Timeopt = 34 .Or. Timeopt = 35)
   * -- X 6 or Q4h
   Passdata = "QS1 15"
   Ptpoint = 12
Case (Timeopt = 36 .Or. Timeopt = 37)
   * -- X 12 or Q2h
   Passdata = "QS1 16"
   Ptpoint = 24
Case (Timeopt = 38 .Or. Timeopt = 39)
   * -- X 24 or Q1h
   Passdata = "QS1 17"
   Ptpoint = 48
Endcase
Do Replaord
Do Repnrord
Return
Case Xnord3copt = 2
   Morder = "Increase Independ Doing ADL"
   Do Replaord
   Do Repnrord
   Return
Case Xnord3copt = 3
   Morder = "Plan For Continuing Care"
   Do Replaord
   Do Repnrord
   Return
Case Xnord3copt = 4
   Morder = "Position"
   Do B:Time
Do Replaord  
Do Repnord  
Return  

Case Xnord3copt = 5  
  @ 18.29 Get Ordoth;  
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"  
    Read  
    Morder = Ordoth  
    Do B:Time  
    Do Replaord  
    Do Repnord  
    Return  

Case Xnord3copt = 6  
  Morder = "Range Of Motion (ROM)"  
  Do B:Time  
  Do Replaord  
  Do Repnord  
  Return  

Case Xnord3copt = 7  
  Morder = "Diet To Promote GI Function"  
  Do Replaord  
  Do Repnord  
  Return  

Case Xnord3copt = 8  
  Morder = "Turn"  
  Do B:Time  
  Do Replaord  
  Do Repnord  
  Return  

Endcase  
Release Xnord3copt  

Enddo
**** NORDER3D.PRG ******************

** Author:** Gary R. Harmeyer LCDR NC USN
** Date:** 23 December 1985
** Screen Generated By:** The Software Bottling Company
** Of New York, c1985
** Purpose:** Provides a menu for the nurse to select a nursing order for a patient whose goal is able to transfer independently or with assistance.
** Input Files Used:** Norder3D.Scr, Time and Procfile.Prg
** Output Files Used:** Orders and Ncaredb.Dbf
** Calling Routine:** Goal_3.Prg
** Routine Called:** None
** Modification Date:** 4 February 1986

** -- Screen Input Program For Norder3D -- **

Do Setup
Public Xnord3dopt

Do While .T.
   ** -- Screen Display A:Norder3D.Scr -- **
   Set Color To w+/B,w+/B
   Clear
   ?? Flash+"S.\Order3D.Scr/"
   Set Color To w+/B,w+/B
   Xnord3dopt = 1
   Do Headings
   @ 22,67 Get Xnord3dopt Pict "9" Range 1,5
   Read
   ** -- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders.Dbf files -- **
   Do Case
   Case Xnord3dopt = 1
      Morder = "Assist Bed To Chair"
      Do B:Time
   Do Case
   Case (Timeopt < 25 .Or. Timeopt = 41)
      * -- Less than x 3 or TID
      Passdata = "Q51 1"
      Ptpoint = 0

323
Case (Timeopt > 24 .And. Timeopt < 34)  
  * -- X 3 or less than Q4h (x 6)  
  Passdata = "Q51 7"  
  Ptpoint = 2  
Case (Timeopt = 34 .Or. Timeopt = 35)  
  * -- X 6 or Q4h  
  Passdata = "Q51 8"  
  Ptpoint = 4  
Case (Timeopt = 36 .Or. Timeopt = 37)  
  * -- X 12 or Q2h  
  Passdata = "Q51 9"  
  Ptpoint = 8  
Case (Timeopt = 38 .Or. Timeopt = 39)  
  * -- X 24 or Q1h  
  Passdata = "Q51 10"  
  Ptpoint = 16  
Endcase  
Do Replaaord  
Do Repnraord  
Return  
Case Xnord3dopt = 2  
  Morder = "Assist Bed To Wheelchair"  
Do B:Time  
  Do Case  
  Case (Timeopt < 25 .Or. Timeopt = 41)  
    * -- Less than x 3 or TID  
    Passdata = "Q51 1"  
    Ptpoint = 0  
  Case (Timeopt > 24 .And. Timeopt < 34)  
    * -- X 3 or less than Q4h (x 6)  
    Passdata = "Q51 7"  
    Ptpoint = 2  
  Case (Timeopt = 34 .Or. Timeopt = 35)  
    * -- X 6 or Q4h  
    Passdata = "Q51 8"  
    Ptpoint = 4  
  Case (Timeopt = 36 .Or. Timeopt = 37)  
    * -- X 12 or Q2h  
    Passdata = "Q51 9"  
    Ptpoint = 8  
  Case (Timeopt = 38 .Or. Timeopt = 39)  
    * -- X 24 or Q1h  
    Passdata = "Q51 10"  
    Ptpoint = 16  
Endcase
Case Xnord3dopt = 3
  @ 10.29 Get Ordoth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do REPLACED
  Do REPLACED
  Return

Case Xnord3dopt = 4
  Morder = "Provide Helping Person"
  Do B:Time
  Do REPLACED
  Do REPLACED
  Return

Case Xnord3dopt = 5
  Morder = "Provide Mechanical Aid"
  Do B:Time
  Do REPLACED
  Do REPLACED
  Return

Endcase
Release Xnord3dopt

Enddo
Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is to achieve goals.

Author: Gary R. Harmeyer LCDR NC USN
Date: 23 December 1985
Screen Generated By: The Software Bottling Company Of New York, c1985
Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is to achieve goals.
Input Files Used: Norder3E.Scr, Time, Teach and Procfile.Prg
Output Files Used: Orders and Ncaredb Dbf
Calling Routine: Goal_3.Prg
Routine Called: None
Modification Date: 3 February 1986

--- Screen Input Program For Norder3E ---

Do Setup
Public Xnord3eopt

Do While .T.

-- Screen Display A:Norder3E.Scr --

Set Color To W+/B, W+/B
Clear
?? Flash+"S.A:Norder3E.Scr/
Set Color To J+/B, W+/B
Xnord3eopt = 1
Do Headings
@ 22,67 Get Xnord3eopt Pict "9" Range 1,6
Read

Nursing orders are determined by evaluating the case statement, then placing data into Ncaredb and Orders.DbF files --

Do Case

Case Xnord3eopt = 1
Morder = "Provide Opport To Prac Skil"
Do B:Time
Do Reploord
Do Repnord
Return

Case Xnord3eopt = 2
Morder = "Teach Factor-Impair Moblity"
Do B:Teach
Do Reploard
Do Repnord
Return

Case Xnord3eopt = 3
  Morder = "Teach Rationale For Skills"
  Do B:Teach
  Do Reploard
  Do Repnord
  Return

Case Xnord3eopt = 4
  @ 18,29 Get Ordoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Reploard
  Do Repnord
  Return

Case Xnord3eopt = 5
  Morder = "Teach Required Exercise"
  Do B:Teach
  Do Reploard
  Do Repnord
  Return

Case Xnord3eopt = 6
  Morder = "Teach Use Of Adjuncts/Aids"
  Do Reploard
  Do Repnord
  Return

Endcase
Release Xnord3eopt

Enddo
**ASSESS_4.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company Of New York, c1985
- **Purpose:** Provides a menu for the nurse to select nursing assessment for a patient with a nursing diagnosis of self-care deficit.
- **Input Files Used:** Assess_4_Scr and Procfile.Prg
- **Output Files Used:** None
- **Calling Routine:** N_Diag.Prg
- **Routine Called:** Relate_4.Prg
- **Modification Date:** 3 February 1986

---

Do Setup
Public Xass4opt

Do While .T.

* -- Screen Display A:Assess_4.Scr -- *

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Assess_4.Scr/"
Set Color To W+/B,W+/B
Xass4opt = 01
Do Headings
@ 22,66 Get Xass4opt Pict "99" Range 1,14
Read

* -- Allows nurse to document assessment of the *
* -- patient -- *

Do Case

Case Xass4opt = 1
Nassess = "Unable To Cloth Self"
Do B:Relate_4
Return

Case Xass4opt = 2
Nassess = "Unable To Cut Food"
Do B:Relate_4
Return

328
Case Xass4opt = 3
   Nassess = "Unable To Drink"
   Do B:Relate_4
   Return

Case Xass4opt = 4
   Nassess = "Unable To Fasten Clothes"
   Do B:Relate_4
   Return

Case Xass4opt = 5
   Nassess = "Unable To Feed Self"
   Do B:Relate_4
   Return

Case Xass4opt = 6
   @ 18.24 Get Assoth;
   Pict "XXXXXXXXXXXXXXXXXXXXXXXXXXX"
   Read
   Nassess = Assoth
   Do B:Relate_4
   Return

Case Xass4opt = 7
   Nassess = "Unable To Get To Bathroom"
   Do B:Relate_4
   Return

Case Xass4opt = 8
   Nassess = "Unable To Maint Appearance"
   Do B:Relate_4
   Return

Case Xass4opt = 9
   Nassess = "Unable To Select Clothes"
   Do B:Relate_4
   Return

Case Xass4opt = 10
   Nassess = "Unable To Sit On Toilet"
   Do B:Relate_4
   Return

Case Xass4opt = 11
   Nassess = "Unable To Do Toilet Hygiene"
   Do B:Relate_4
   Return

Case Xass4opt = 12
   Nassess = "Unable To Rise Off Toilet"
Do B:Relate_4
Return

Case Xass40pt = 13
Nassess = "Unable To Do Flush Toilet"
Do B:Relate_4
Return

Case Xass40pt = 14
Nassess = "Unable To Wash Self"
Do B:Relate_4
Return

Endcase
Release Xass40pt

Enddo
***** RELATE_4.PRG *****

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company
  - Of New York, c1985
- **Purpose:** Provides a menu for the nurse to select related factors for a patient with a nursing diagnosis of self care: deficit.
- **Input Files Used:** Relate_4.Scr and Procfile.Prg
- **Output Files Used:** None
- **Calling Routine:** Assess_4.Prg
- **Routine Called:** Goal_4.Prg
- **Modification Date:** 3 February 1986

Do Setup
Public Xrel4opt

Do While .T.

- **Screen Display A:Relate_4.Scr**

Set Color To W+/B,W+/B
Clear ".."
?? Flash"S.A:Relate_4.Scr/"
Set Color To W+/B,W+/B
Xrel4opt = 01
Do Headings
@ 22,66 Get Xrel4opt Pict "99" Range 1,10
Read

- **Previous assessment is related to some cause**

Do Case

Case Xrel4opt = 1
  Nrelate = "Activity Intolerance"
  Do B:Goal_4
  Return

Case Xrel4opt = 2
  Nrelate = "Depression"
  Do B:Goal_4
  Return

Case Xrel4opt = 3
  Nrelate = "Developmental Phase"

331
Do B:Goal_4
Return

Case Xrel4opt = 4
  Nrelate = "Musculoskeletal Function"
  Do B:Goal_4
  Return

Case Xrel4opt = 5
  @ 17,14 Get Reloth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Nrelate = Reloth
  Do B:Goal_4
  Return

Case Xrel4opt = 6
  Nrelate = "Neuromuscular Impairment"
  Do B:Goal_4
  Return

Case Xrel4opt = 7
  Nrelate = "Pain / Discomfort"
  Do B:Goal_4
  Return

Case Xrel4opt = 8
  Nrelate = "Perceptual Impairment"
  Do B:Goal_4
  Return

Case Xrel4opt = 9
  Nrelate = "Sensory Impairment"
  Do B:Goal_4
  Return

Case Xrel4opt = 10
  Nrelate = "Severe Anxiety"
  Do B:Goal_4
  Return

Endcase
Release Xrel4opt

Enddo
*** GOAL_4.PRG  ***************************************

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 23 December 1985
* Screen Generated By: The Software Bottling Company
  Of New York, c1985
* Purpose: Provides a menu for the nurse to select a patient goal for a
* Input Files Used: Goal_4.Scr and Procfile.Prg
* Output Files Used: None
* Calling Routine: Relate_4.Prg
* Routine Called: Norder4A, Norder4B, Norder4C,
  Norder4D or Norder4E.Prg
* Modification Date: 25 January 1986

-- Screen Input Program For Goal_4 --

Do Setup
Public Xgoa4opt,Xgoa4cur
Xgoa4cur = Space(1)

Do While .T.

  -- Screen Display A:Goal_4.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Goal_4.Scr/
Set Color To W+/B,W+/B
Xgoa4opt = 1
Do Headings
@ 21,67 Get Xgoa4opt Pict "9" Range 1,5
Read

  -- Allows nurse to select specific goal attainable
  -- by this patient and current level of care the
  -- the patient requires --

Do Case

  Case Xgoa4opt = 1
    Ngoal = "Func @ Level 0, Full Self Care"
    Do Current
    Do Reaload
    Do B:Norder4A
    Return
Case Xgoo4opt = 2
Ngoal = "Func @ Level 1, Use Of Equip/Device"
Do Current
Do Repload
Do B:Norder4B
Return

Case Xgoo4opt = 3
Ngoal = "Func @ Level 2, Needs Assist/Supervis"
Do Current
Do Repload
Do B:Norder4C
Return

Case Xgoo4opt = 4
Ngoal = "Func @ Level 3 Needs Assist/Use Device"
Do Current
Do Repload
Do B:Norder4D
Return

Case Xgoo4opt = 5
Ngoal = "Func @ Level 4 Dependent/No Participtn"
Do Current
Do Repload
Do B:Norder4E
Return

Endcase
Release Xgoo4opt,Xgoo4cur

Enddo
--- NORDER4A.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 23 December 1985
* Screen Generated By: The Software Bottling Company Of New York, c1985
* Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is functions at level 0: full self care.
* Input Files Used: Norder4A.Scr, Time and Procfile.Prg
* Output Files Used: Orders and Ncaredb.Dbf
* Calling Routine: Goal_4.Prg
* Routine Called: None
* Modification Date: 3 February 1986

--- Screen Input Program For Norder4A ---

Do Setup
Public Xnord4aopt

Do While .T.
  * -- Screen Display A:Norder4A.Scr --

  Set Color To W+/B,W+/B
  Clear
  ?? Flash"S.A:Norder4A.Scr/"
  Set Color To W+/B,W+/B
  Xnord4aopt = 1
  Do Headings
  @ 22,67 Get Xnord4aopt Pict "9" Range 1,3
  Read

  * -- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders.Dbf files --

  Do Case

  Case Xnord4aopt = 1
    Morder = "Supprt Increse Indep In ADL"
    Do Repland
    Do Repnrord
    Return

  Case Xnord4aopt = 2
    Morder = "Peds Recreation/Observation"
    Passdata = "Q26 1"
    Ptpoint = 8
Do Replaord
Do Repnord
Return

Case Xnord4aopt = 3
@ 17,42 Get Ordoth;
Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
Read
Morder = Ordoth
Do B:Time
Do Replaord
Do Repnord
Return

Endcase
Release Xnord4aopt

Enddo
--- NORDER4B.PRG ---

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company
  - Of New York, c1985
- **Purpose:** Provides a menu for the nurse to select a nursing order for a patient whose goal is functions at level 1: needs equipment or device.
- **Input Files Used:** NORDER4B.Scr, Time and Procfile.Prg
- **Output Files Used:** Orders and Ncaredb.DbF
- **Calling Routine:** Goal_4.Prg
- **Routine Called:** None
- **Modification Date:** 3 February 1986

--- Screen Input Program For NORDER4B ---

Do Setup
Public Xnord4bopt

Do While .T.
  * -- Screen Display A:NORDER4B.Scr --

    Set Color To W+/B,W+/B
    Clear
    ?? Flash+"S.A:NORDER4B.Scr/"
    Set Color To W+/B,W+/B
    Xnord4bopt = 1
    Do Headings
    @ 22,67 Get Xnord4bopt Pict "9" Range 1,8
    Read
  * -- Nursing orders are determined by evaluating the
  * -- case statement, then place data into Ncaredb and
  * -- Orders.DbF files --

Do Case

  Case Xnord4bopt = 1
    Morder = "Provide Equip For Bathing"
    Do B:Time
    Do Replord
    Do Repnord
    Return

  Case Xnord4bopt = 2
    Morder = "Provide Equip For Dressing"
Do B: Time
Do Replaord
Do Repnrord
Return

Case Xnord4bopt = 3
  Morder = "Provide Equip For Feeding"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4bopt = 4
  @ 18,11 Get Ordoth;
  Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4bopt = 5
  Morder = "Provide Equip For Toileting"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4bopt = 6
  Morder = "Peds Recreation/Observation"
  Passdata = "Q26 1"
  Ptpoint = 8
  Do Replaord
  Do Repnrord
  Return

Case Xnord4bopt = 7
  Morder = "Spoon Feed Patient"
  Passdata = "Q28 1"
  Ptpoint = 6
  Do Replaord
  Do Repnrord
  Return

Case Xnord4bopt = 8
  Morder = "Spoon Feed Child"
  Passdata = "Q28 2"
  Ptpoint = 10
  Do Replaord
Do Repnord
Return

Endcase
Release Xnord4bopt

Enddo
**NORDER4C.PRG**

- **Author:** Gary R. Harmeyer LCDR NC USN
- **Date:** 23 December 1985
- **Screen Generated By:** The Software Bottling Company of New York, c1985
- **Purpose:** Provides a menu for the nurse to select a nursing order for a patient whose goal is functions at level 2: needs assistance, supervision or other.
- **Input Files Used:** Norder4C.Scr, Time, Emosup and .Scr, Time, Emosup and Procfile.Prg
- **Output Files Used:** Orders and Ncoredb.Db
- **Calling Routine:** Goal4.Prg
- **Routine Called:** None
- **Modification Date:** 3 February 1986

**-- Screen Input Program For NORDER4C --**

**Do Setup**

Public Xnord4copt

**Do While .T.**

* -- Screen Display A:NORDER4C.Scr -- *

Set Color To W+/B, W+/B
Clear
?? Flash"S.A:NORDER4C.Scr/"
Set Color To W+/B, W+/B
Xnord4copt - 01
Do Headings
@ 22,66 Get Xnord4copt Pict "99" Range 1,16
Read

* -- Nursing orders are determined by evaluating the * case statement, then place data into Ncoredb and * Orders.Db files -- *

**Do Case**

Case Xnord4copt - 1
  Order - "Assist To Dress"
  Do B:Time
  Do Reploord
  Do Repnroid
  Return
Case Xnord4copt = 2
  Morder = "Assist To/From Bathroom"
  Do B:Time
  Do Repnord
  Do Repnord
  Return

Case Xnord4copt = 3
  Morder = "Assist With Partial Bath"
  Do B:Time
  Do Repnord
  Do Repnord
  Return

Case Xnord4copt = 4
  Morder = "Assist To Comb/Brush Hair"
  Do B:Time
  Do Repnord
  Do Repnord
  Return

Case Xnord4copt = 5
  Morder = "Dress Patient"
  Do Repnord
  Do Repnord
  Return

Case Xnord4copt = 6
  @ 18:12 Get Ordoth;
    Pict "!XXXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Repnord
  Do Repnord
  Return

Case Xnord4copt = 7
  Morder = "Feed Patient"
  Passdata = "Q28 1"
  Ptpoint = 6
  Do Repnord
  Do Repnord
  Return

Case Xnord4copt = 9
  Morder = "Give Emotional Support"
  Do B:Emosup
  Do Repnord

341
Do Repnord
Return

Case Xnord4copt = 9
Morder = "Give Complete Bath"
Do B:Time
Do Repnord
Do Repnord
Return

Case Xnord4copt = 10
Morder = "Keep Commode @ Bedside"
Do B:Time
Do Repnord
Do Repnord
Return

Case Xnord4copt = 11
Morder = "Keep Urinal/Bedpan Near"
Do B:Time
Do Repnord
Do Repnord
Return

Case Xnord4copt = 12
Morder = "Peds Recreation/Observation"
Passdata = "Q26 1"
Ptpoint = 8
Do Repnord
Do Repnord
Return

Case Xnord4copt = 13
Morder = "Set Up Food Tray"
Do B:Time
Do Repnord
Do Repnord
Return

Case Xnord4copt = 14
Morder = "Shave Patient"
Do B:Time
Do Repnord
Do Repnord
Return

Case Xnord4copt = 15
Morder = "Socialize During Meals"
Do Repnord
Do Repnord
Return

Case Xnord4copt = 16
   Morder = "Spoon Feed Child"
   Passdata = "028 2"
   Ptpoint = 10
   Do Repnord
   Do Repnord
   Return
Endcase
Release Xnord4copt

Enddo
Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is functions at level 3: needs assistance and uses equipment.

Input Files Used: Norder4C.Scr, Time, Emosup and Procfile.Prg

Output Files Used: Orders and Ncaredb.Dbf

Calling Routine: Goal_4.Prg

Routine Called: None

Modification Date: 3 February 1986

-- Screen Input Program For Norder4D --

Do Setup
Public Xnord4dopt

Do While .T.

-- Screen Display A:Norder4D.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder4D.Scr/"
Set Color To W+/B,W+/B
Xnord4dopt = 01
Do Headings
@ 22,66 Get Xnord4dopt Pict "99" Range 1,16
Read

-- Nursing orders are determined by evaluating the
-- case statement, then place data into Ncaredb and
-- Orders.Dbf files --

Do Case

Case Xnord4dopt = 1
    Morder = "Assist To Dress"
    Do B:Time
    Do Replaord
    Do Repnord
    Return
Case Xnord4dopt = 2
    Morder = "Assist To/From Bathroom"
    Do B:Time
    Do Reploord
    Do Repnroid
    Return

Case Xnord4dopt = 3
    Morder = "Assist With Partial Bath"
    Do B:Time
    Do Reploord
    Do Repnroid
    Return

Case Xnord4dopt = 4
    Morder = "Assist To Comb/Brush Hair"
    Do B:Time
    Do Reploord
    Do Repnroid
    Return

Case Xnord4dopt = 5
    Morder = "Dress Patient"
    Do Reploord
    Do Repnroid
    Return

Case Xnord4dopt = 6
    @18,12 Get Ordoth;
    Pict "XXXXXXXXXXXXXXXXXXXXXXXXXXXXX"
    Read
    Morder = Ordoth
    Do B:Time
    Do Reploord
    Do Repnroid
    Return

Case Xnord4dopt = 7
    Morder = "Feed Patient"
    Passdata = "Q28 1"
    Ptpoint = 6
    Do Reploord
    Do Repnroid
    Return

Case Xnord4dopt = 8
    Morder = "Give Emotional Support"
    Do B:Emosup
    Do Reploord
Case Xnord4dopt = 9
Morder = "Give Complete Bath"
Do B:Time
Do Reploard
Do Repnroid
Return

Case Xnord4dopt = 10
Morder = "Keep Commode @ Bedside"
Do B:Time
Do Reploard
Do Repnroid
Return

Case Xnord4dopt = 11
Morder = "Keep Urinal/Bedpan Near"
Do B:Time
Do Reploard
Do Repnroid
Return

Case Xnord4dopt = 12
Morder = "Provide Necessary Equipment"
Do B:Time
Do Reploard
Do Repnroid
Return

Case Xnord4dopt = 13
Morder = "Provide For Hygiene"
Do B:Time
Do Reploard
Do Repnroid
Return

Case Xnord4dopt = 14
Morder = "Set Up Food Tray"
Do B:Time
Do Reploard
Do Repnroid
Return

Case Xnord4dopt = 15
Morder = "Spoon Feed Child"
Passdata = "Q28 2"
Ptpoint = 10
Do Reploard
Do Repnrcd
Return

Case Xnord4dopt = 16
  Morder = "Pads Recreation/Observation"
  Passdata = "026 1"
  Ptpoint = 8
  Do Replaord
  Do Repnrcd
  Return

Endcase
Release Xnord4dopt

Enddo
NORDER4E.PRG

Purpose: Provides a menu for the nurse to select a nursing order for a patient whose goal is functions at level 4: dependent and does not participate in care.

Input Files Used: Norder4E.Scr, Time, Emosup and Procfile.Prg

Output Files Used: Orders and Ncaredb.Dbf

Calling Routine: Goal_4.Prg

Routine Called: None

Modification Date: 3 February 1986

Do Setup
Public Xnord4eopt

Do While .T.

* -- Screen Display A:Norder4E.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.A:Norder4E.Scr/
Set Color To W+/B,W+/B
Xnord4eopt = 01
Do Headings
@ 22,66 Get Xnord4eopt Pict "99" Range 1,16
Read

* -- Nursing orders are determined by evaluating the case statement, then place data into Ncaredb and Orders.Dbf files --

Do Case

Case Xnord4eopt = 1
Morder = "Assist To/From Bathroom"
Do B:Time
Do Replaord
Do Repnrord
Return
Case Xnord4eopt = 2
  Morder = "Assist To/From Commode"
  Do B:Time
  Do Repoard
  Do Repnroard
  Return

Case Xnord4eopt = 3
  Morder = "Assist To Comb/Brush Hair"
  Do B:Time
  Do Repoard
  Do Repnroard
  Return

Case Xnord4eopt = 4
  Morder = "Dress Patient"
  Do Repoard
  Do Repnroard
  Return

Case Xnord4eopt = 5
  Morder = "Feed Patient"
  Passdata = "Q20 1"
  Ptpoint = 6
  Do Repoard
  Do Repnroard
  Return

Case Xnord4eopt = 6
  @ 18,12 Get Ordoth;
    Pict "XXXXXXXXXXXXXXXXXXXXXXXXXX"
  Read
  Morder = Ordoth
  Do B:Time
  Do Repoard
  Do Repnroard
  Return

Case Xnord4eopt = 7
  Morder = "Give Complete Bath"
  Do B:Time
  Do Repoard
  Do Repnroard
  Return

Case Xnord4eopt = 8
  Morder = "Give Emotional Support"
  Do B:Emosup
  Do Repoard
Case Xnord4eopt = 9
  Morder = "Provide For Oral Hygiene"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4eopt = 10
  Morder = "Provide For Personal Hygiene"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4eopt = 11
  Morder = "Provide Urinal/Bedpan"
  Do B:Time
  Do Replaord
  Do Repnrord
  Return

Case Xnord4eopt = 12
  Morder = "Spoon Feed Child"
  Passdata = "D28 2"
  Ptpoint = 10
  Do Replaord
  Do Repnrord
  Return

Case Xnord4eopt = 13
  Morder = "Other Activity (>15 <30min)"
  Passdata = "D56 2"
  Ptpoint = 2
  Do Replaord
  Do Repnrord
  Return

Case Xnord4eopt = 14
  Morder = "Other Activity (>30min)"
  Passdata = "D56 3"
  Ptpoint = 4
  Do Replaord
  Do Repnrord
  Return

Case Xnord4eopt = 15
  Morder = "Special Procedure (>1 <2hr)"
Passdata = "Q56 4"
Ptpoint = 8
Do Replaad
Do Repnrcrd
Return

Case Xnord4eopt = 16
Morder = "Xtra Linen Chge/Partial Bath"
Do B:Time

Do Case
  Case (Timeopt < 34 .Or. Timeopt = 41)
    * -- Less than x 6 per day
    Passdata = "Q24 1"
    Ptpoint = 0
  Case (Timeopt = 34 .Or. Timeopt = 35)
    * -- x 2 per shift or x 6 per day
    Passdata = "Q24 2"
    Ptpoint = 4
  Case (Timeopt = 36 .Or. Timeopt = 37)
    * -- x 4 per shift or x 12 per day
    Passdata = "Q24 3"
    Ptpoint = 8
  Case (Timeopt = 38 .Or. Timeopt = 39)
    * -- x 8 per shift or x 24 per day
    Passdata = "Q24 4"
    Ptpoint = 16
Endcase

Do Replaad
Do Repnrcrd
Return

Endcase
Release Xnord4eopt

Enddo
--- INACTIVE.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 8 January 1986
* Screen Generated By: The Software Bottling Company
* Of New York, c1985
* Purpose: Displays the patient's nursing care plan and allows it to be modified by inactivating portions of it.
* Input Files Used: Inactive.Scr and Procfile.Prg
* Output Files Used: Ncaredb.Db
* Calling Routine: Nursel.Prg
* Routine Calls: None
* Modification Date: 4 February 1986

-- Screen Input Program For Inactive --

Do Setup
Public Xinaopt,Xidate,Xitime,Xinurse,Xnpack
Public Xiemo,Xifreq,Xmptfmpssn,Xidiag,Xmord
Public Xigoal,Xiasess,Xirelate,Xiord
Xnpack = .F.

-- Identify correct patient and isolate the nursing care plan --

Use B:Ncaredb
Store "" + Ptfmpssn + "" To Xmptfmpssn
Locate For Nfmpssn = &Xmptfmpssn

Do While .T.

-- Store data from Dbf file into variable names --

Xidate = Ndate
Xitime = Ntime
Xinurse = Nurse
Xiemo = Emotea
Xifreq = Nfreq
Xidiag = Ndiag
Xigoal = Goal
Xiasess = Assess
Xirelate = Relate
Xiord = Nord

-- Screen Display B:Inactive.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Inactive.Scr/"
Set Color To W+/B, W+/B
Do Headings
Xinaopt = 1
@ 13,1 Say Xitime
@ 13,9 Say Xidate
@ 13,18 Say Xidiag
@ 13,46 Say Xiasess
@ 14,1 Say Xirelate
@ 14,27 Say Xigoal
@ 15,1 Say Xiord
@ 15,28 Say Xifreq
@ 15,41 Say Xiemo
@ 15,61 Say Xinurse
@ 22,67 Get Xinaopt Pict "9" Range 0,4
Read
* -- Evaluate action based on the option selected --

Do Case

Case Xinaopt = 0
* -- Sign-Off
  If Xnpack = .T.
    Pack
  Endif
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xinaopt = 1
* -- Next Plan
  Skip
  Do While (Nfmpssn # &Xmptfmpssn)
    If EOF()
      Nmenu = "1"
      @ 24,5 Say "No Additional Care Plans On This "
      @ 24,38 Say "Patient -- Press Any Key To "
      @ 24,66 Say "Continue"
      Set Console Off
      Wait
      Set Console On
      If Xnpack = .T.
        Pack
      Endif
      Return
    Else
      Skip
    Endif
  Enddo
If EOF ()
    Nmenu ="1"
    @ 24,5 Say "No Additional Care Plans On This "
    @ 24,38 Say "Patient -- Press Any Key To "
    @ 24,66 Say "Continue"
    Set Console Off
    Wait
    Set Console On
    If Xnpack = .T.
        Pack
        Endif
        Return
    Else
        Loop
        Endif

Case Xinaopt = 2
    * -- Inactivate Plan
        Xnpack = .T.
        Store "'" + Xiord + "'" To Xmord
    * -- Remove corresponding order from Orders.DbF
        Use B:Orders
        Locate For [Fmpssn=&Xmptfmpssn .And. Order=&Xmord]
        Delete
        Pack
    * -- Remove nursing care plan data from Ncaredb.DbF
        Use B:Ncaredb
        Delete
        Skip
        Do While (NFmpssn # &Xmptfmpssn)
            If EOF()
                Nmenu ="1"
                @ 24,5 Say "No Additional Care Plans On This "
                @ 24,38 Say "Patient -- Press Any Key To "
                @ 24,66 Say "Continue"
                Set Console Off
                Wait
                Set Console On
                Pack
                Return
            Else
                Skip
            Endif
        Enddo
        If EOF ()
            Nmenu ="1"

354.
@ 24,5 Say "No Additional Care Plans On This "
@ 24,38 Say "Patient -- Press Any Key To"
@ 24,66 Say "Continue"
Set Console Off
Wait
Set Console On
Pack
Return
Else
Loop
Endif

Case Xinopt = 3
* -- Nurse Master
If Xnpack = .T.
  Pack
Endif
Nmenu ="1"
Return

Case Xinopt = 4
* -- Master
If Xnpack = .T.
  Pack
Endif
Nmenu ="" "
Return

Endcase
Release Xinopt,Xidate,Xitime,Xinurse,Xnpack
Release Ximo,Xifreq,Xmptfmpssn,Xidiao,Xmord
Release Xigoal,Xiasess,Xirelate,Xiord

Enddo
--- ADDELETE.PRG ---

Author: Gary R. Harmeyer LCDR NC USN
Date: 9 January 1986
Screen Generated By: The Software Bottling Company Of New York, c1985
Purpose: Allows the data processing personnel to choose to add or delete a user.

Input Files Used: Addelete.Scr and Procfile.Prg
Output Files Used: None
Calling Routine: Master.Prg
Routine Calls: Useinfo or Delete.Prg
Modification Date: 25 January 1986

--- Screen Input Program For Addelete ---

Do Setup
Public Xaddelopt

Do While .T.

* -- Screen Display B:Addelete.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"S.B:Addelete.Scr/
Set Color To W+/B,W+/B
Xaddelopt = 0
@ 22,67 Get Xaddelopt Pict "9" Range 0,2 Read

* -- Evaluate action based on the option selected --

Do Case

Case Xaddelopt = 0
  * -- Sign-Off
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xaddelopt = 1
  * -- Add A User
  Do B:Useinfo
  Loop

Case Xadmitopt = 2
  * -- Delete A User
Do B: Delete
Loop
Endcase
Release Xaddeopt
Enddo
USEINFO.PRG

Author: Gary R. Harmeyer LCDR NC USN
Date: 12 December 1985
Screen Generated By: The Software Bottling Company
Of New York, c1985
Purpose: Allow data processing personnel to add new user.
Input Files Used: Useinfo.Scr and Procfile.Prg
Output Files Used: Useinfo.Dbf
Calling Routine: Addlete.Prg
Routine Called: None
Modification Date: 4 February 1986

-- Screen Input Program For Useinfo --

Do Setup
Public Xufinitial,Xuminitial,Xulname
Public Xrequestor,Xcodeword,Xaccess
Xufinitial = "." + Space(0)
Xuminitial = Space(3)
Xulname = Space(12)
Xrequestor = Space(3)
Xcodeword = Space(5)
Xaccess = 3

Do While .T.

-- Screen Display B:Useinfo.Scr --

Set Color To W+/B,W+/B
Clear
?? Flash+"$B:Useinfo.Scr/"
Set Color To W+/B,W+/B
@ 9,43 Get Xufinitial Pict "."
@ 11,43 Get Xuminitial Pict "!!!"
@ 13,43 Get Xulname Pict "XXXXXXXXXXXX"
@ 15,43 Get Xrequestor Pict "!!!"
@ 18,43 Get Xcodeword Pict "!!!!!!"
@ 20,43 Get Xaccess Pict "9" Range 0,4
Read

Use B:Useinfo
Do While .Not. EOF()
  Skip
Enddo
Append Blank

-- Put data from variable names into Dbf file --
Replace Ufinitial With Xufinal
Replace Uminitial With Xuminitial
Replace Uname With Xulname
Replace Requestor With Xrequestor
Replace Codeword With Xcodeword
Replace Access With Xaccess

Return
Release Xufinal,Xuminitial,Xulname
Release Xrequestor,Xcodeword,Xaccess

Enddo
--- DELETE.PRG ---

* Author: Gary R. Harmeyer LCDR NC USN
* Date: 9 January 1986
* Screen Generated By: The Software Bottling Company
  Of New York, c1985
* Purpose: Delete a user.
* Input Files Used: Delete.Scr and Procfile.Prg
* Output Files Used: Useinfo.Dbf
* Calling Routine: Addelete.Prg
* Routine Calls: None
* Modification Date: 4 February 1986

**--- Screen Input Program For Delete ---**

Do Setup
Public Xdelopt,Xdluname,Xdlufinit,Xdluminit
Public Xdlreq,Xdllacc,Xusepack
Xusepack = .F.

Do While .T.

* --- Store data from Dbf file into variable names ---

Use B:Useinfo
Xdluname = Ulnome
Xdlufinit = UFinitial
Xdluminit = Uminitial
Xdlreq = Requestor
Xdllacc = Access

* --- Screen Display B:Delete.Scr ---

Set Color To W+/B,W+/B
Clear
?? Flash+"S B:Delete.Scr/
Set Color To W+/B,W+/B
Xdelopt = 1
@ 13,5 Say Xdluname
@ 13,19 Say Xdlufinit
@ 13,22 Say Xdluminit
@ 13,39 Say Xdlreq
@ 13,66 Say Xdllacc
@ 22,67 Get Xdelopt Pict "9" Range 0,3
Read

* --- Evaluate action based on the option selected ---

Do Case
Case Xdischopt = 0
  * -- Sign-Off
  If Xusepack = .T.
    Pack
  Endif
  Close Databases
  Close Procedure
  Release All
  Return To Master

Case Xdischopt = 1
  * -- Next User
  Skip
  If EOF ()
    @ 24,15 Say "No Additional Users -- Press "
    @ 24,44 Say "Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
    If Xusepack = .T.
      Pack
    Endif
    Return
  Else
    Loop
  Endif

Case Xdischopt = 2
  * -- Delete User
  Xusepack = .T.
  Delete
  Skip
  If EOF ()
    @ 24,15 Say "No Additional Users -- Press "
    @ 24,44 Say "Any Key To Continue"
    Set Console Off
    Wait
    Set Console On
    Pack
    Return
  Else
    Loop
  Endif

Case Xdischopt = 3
  * -- Return To Add/Delete Screen
  If Xusepack = .T.
    Pack
  Endif

361
Close Databases
Return

Endcase
Release Xdelopt, Xdlulname, Xdlufinit, Xdluminit
Release Xdlreq, Xdlacc, Xusepack

Enddo
APPENDIX P

PROGRAM SCREENS

A PROTOTYPE PROJECT FOR THE NAVY NURSE CORPS

BY
GARY R. HARMeyer
LCDR NC USN
MARCH 1986
NAVAL POSTGRADUATE SCHOOL
MONTEREY, CALIFORNIA
RELEASE 1

PRESS ANY KEY TO BEGIN

Figure 1
Please Sign On By Entering Password

Password:

Figure 1a

** Prototype Master Screen **

*** Select the Desired Option ***

1) Admission's Department
2) Doctor's Master
3) Nursing Master
4) System Administration
0) Sign-Off

Current User: [ ]
Select one number (0-4) [ ]

Figure 2
### Patient Admission Form

<table>
<thead>
<tr>
<th>Last Name:</th>
<th>Registration No:</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name:</td>
<td>Medical Diagnosis:</td>
</tr>
<tr>
<td>Mid Initial:</td>
<td>Physician:</td>
</tr>
<tr>
<td>Rate/Rank:</td>
<td>Prognosis:</td>
</tr>
<tr>
<td>FMP-SSN:</td>
<td>Allergies:</td>
</tr>
<tr>
<td>Birthdate:</td>
<td>Nursing Ward:</td>
</tr>
<tr>
<td>Age:</td>
<td>Room Number:</td>
</tr>
<tr>
<td>Sex:</td>
<td>Bed:</td>
</tr>
<tr>
<td>Admit Date:</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 3.1**
### DISCHARGE A PATIENT ###

FMP-SSN Patient Name Practitioner


Current User: Select one number (0-3) ----> *

Figure 3.2

---

** Nurse's Station Selection **

*** Select Nursing Unit to Display Patients ***

1] 2E Surgical Ward
2] 3E Medical Ward

0] Sign-Off 3] Master Screen

Current User: Select one number (0-3) ----> *

Figure 4

366
** Patient Selection **  Ward 2E Surgical Date Time

*** Select Patient ***

RM BED  PATIENT

1) 1 A  
2) 1 B  
3) 2 A  
4) 2 B  
5) 3 A  
6) 3 B  

0) Sign-Off  7) Master Screen

Current User:  Select one number (0-7) --->

Figure 4.1a

** Patient Selection **  Ward 3E Medical Date Time

*** Select Patient ***

RM BED  PATIENT

1) 1 A  
2) 1 B  
3) 2 A  
4) 2 B  
5) 3 A  
6) 3 B  

0) Sign-Off  7) Master Screen

Current User:  Select one number (0-7) --->

Figure 4.1b

367
*** DOCTOR'S MASTER SCREEN ***

1) Order Entry
2) Admit / Transfer / Discharge Patient
3) Review Medical Orders
4) Print Medical Orders
5) Discontinue An Order

0) Sign-Off 6) Master Screen

Current User: Select one number (0-6) ——— *

Figure 4.1.1

*** DOCTOR'S ORDER MENU ***

1) Activity 6) Pharmacy
2) Diet 7) Radiology
3) IV's / Blood 8) Respiratory Therapy
4) Laboratory Tests 9) Vital Signs
5) Monitoring 10) Ward Routines

00) Sign-Off 11) Doctor's Master Screen 12) Master Screen

Current User: Select one number (00-12) ——— **

Figure 4.1.1.1
<table>
<thead>
<tr>
<th>Activity Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Ambulate ad lib</td>
</tr>
<tr>
<td>2)</td>
<td>Ambulate w/ Assistance</td>
</tr>
<tr>
<td>3)</td>
<td>Strict Bedrest</td>
</tr>
<tr>
<td>4)</td>
<td>Bedrest w/ BRP</td>
</tr>
<tr>
<td>5)</td>
<td>Bedside Commode</td>
</tr>
<tr>
<td>6)</td>
<td>OOB to Str cher w/ Assist</td>
</tr>
<tr>
<td>7)</td>
<td>Dangle Legs</td>
</tr>
<tr>
<td>8)</td>
<td>Keep on Back</td>
</tr>
<tr>
<td>9)</td>
<td>May Shower</td>
</tr>
<tr>
<td>10)</td>
<td>Turn Patient</td>
</tr>
<tr>
<td>11)</td>
<td>Turning Frame</td>
</tr>
<tr>
<td>12)</td>
<td>Up in Chair w/ Assist</td>
</tr>
</tbody>
</table>

**SELECT TIME/FREQUENCY OPTION**

<table>
<thead>
<tr>
<th>Time/Frequency Option</th>
<th>Time/Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>01) PRN</td>
<td>* Daily @</td>
</tr>
<tr>
<td>02) Q 1-2 Hr PRN</td>
<td>0600</td>
</tr>
<tr>
<td>03) Q 2-3 Hr PRN</td>
<td>0900</td>
</tr>
<tr>
<td>04) Q 3-4 Hr PRN</td>
<td>1200</td>
</tr>
<tr>
<td>05) On Call</td>
<td>1400</td>
</tr>
<tr>
<td>06) QD</td>
<td>1600</td>
</tr>
<tr>
<td>07) HS</td>
<td>1800</td>
</tr>
<tr>
<td>08) x 1</td>
<td>2100</td>
</tr>
<tr>
<td>09) Today @</td>
<td>2400</td>
</tr>
<tr>
<td>10) 2200</td>
<td>0200</td>
</tr>
<tr>
<td>11) 2400</td>
<td>0400</td>
</tr>
<tr>
<td>12) 0600</td>
<td>0600</td>
</tr>
<tr>
<td>13) 0800</td>
<td>0800</td>
</tr>
<tr>
<td>14) 1000</td>
<td>1000</td>
</tr>
<tr>
<td>15) 1100</td>
<td>1200</td>
</tr>
<tr>
<td>16) 1400</td>
<td>1400</td>
</tr>
<tr>
<td>17) 1600</td>
<td>1600</td>
</tr>
<tr>
<td>18) 1800</td>
<td>1800</td>
</tr>
<tr>
<td>19) 2000</td>
<td>2000</td>
</tr>
</tbody>
</table>

369
HELP SCREEN FOR THE TIME MODULE

Hospital policy dictates the exact time for standardized abbreviations.

<table>
<thead>
<tr>
<th>1-4) PRN</th>
<th>31-33) Four times a day frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-21) Single dosages</td>
<td>QID -- 0900, 1300, 1700, 2100</td>
</tr>
<tr>
<td>QD -- 0900</td>
<td>Q 6 Hr -- 0600, 1200, 1800, 2400</td>
</tr>
<tr>
<td>HS -- 2200</td>
<td></td>
</tr>
<tr>
<td>22-24) Twice a day frequency</td>
<td>34-35) Six times a day frequency</td>
</tr>
<tr>
<td>BID -- 0900 &amp; 2100</td>
<td>Q 4 Hr -- 0200, 0600, 1000, 1400, 1800, 2200</td>
</tr>
<tr>
<td>Q 12 Hr -- 1200 &amp; 2400</td>
<td></td>
</tr>
<tr>
<td>25-30) Three times a day frequency</td>
<td>36-37) Twelve times a day frequency</td>
</tr>
<tr>
<td>TID -- 0900, 1400, 2100</td>
<td>Q 2 Hr -- Even hours</td>
</tr>
<tr>
<td>PC -- 0700, 1100, 1700</td>
<td></td>
</tr>
<tr>
<td>Q 8 Hr -- 0600, 1400, 2200</td>
<td>38-39) 24 times a day frequency</td>
</tr>
<tr>
<td>Q Shift -- 0900, 1700, 0200</td>
<td>Q 1 Hr -- On the hour</td>
</tr>
<tr>
<td>41) No frequency will be assigned</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4.1.1.1c

<table>
<thead>
<tr>
<th>Ward Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>*** SELECT DIET ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) As Tolerated
2) Clear Liquids
3) Diabetic
4) Fat-controlled
5) Full Liquids
6) Infant / Neonatal Bottle x1
7) Infant / Neonatal Bottle x6
8) Infant / Neonatal Bottle x12
9) Mechanical Soft
10) No Controlled
11) NPO
12) NPO p 2400
13) NPO w/ ice chips
14) Regular
15) Renal & Liver Disease
16) I & A
17) Tube Feedings (cont / bags)
18) Tube Feedings (bolus)
19) Doctor's Order Screen
20) Master Screen

Current User: Select one number (00-20) ***

Figure 4.1.1.1d
<table>
<thead>
<tr>
<th>Ward Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>*** SELECT IV ORDER ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IV ORDERS *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Start IV of</td>
</tr>
<tr>
<td>2) Alternate IV with</td>
</tr>
<tr>
<td>3) Follow Present IV w/</td>
</tr>
<tr>
<td>4) Interrupt IV for</td>
</tr>
<tr>
<td>5) Start Second IV of</td>
</tr>
<tr>
<td>6) Discontinue IV</td>
</tr>
<tr>
<td>7) Insert Heparin Lock</td>
</tr>
<tr>
<td>8) Use Multilumen Line</td>
</tr>
</tbody>
</table>

| Current User: | | Select one number (00-10) ****> ** |

Figure 4.1.1.1e

<table>
<thead>
<tr>
<th>Ward Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>*** SELECT IV SOLUTION ***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SOLUTION *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start IV of</td>
</tr>
<tr>
<td>Alternate IV with</td>
</tr>
<tr>
<td>Follow Present IV w/</td>
</tr>
<tr>
<td>Interrupt IV for</td>
</tr>
<tr>
<td>Start Second IV of</td>
</tr>
<tr>
<td>Discontinue IV</td>
</tr>
<tr>
<td>Insert Heparin Lock</td>
</tr>
<tr>
<td>Use Multilumen Line</td>
</tr>
</tbody>
</table>

| Current User: | | Select one number (1-8) ****> *

Figure 4.1.1.1f
### SELECT INFUSION RATE ###

<table>
<thead>
<tr>
<th>Start IV of</th>
<th>Alternate IV with</th>
<th>Follow Present IV w/</th>
<th>Interrupt IV for</th>
<th>Start Second IV of</th>
<th>Discontinue IV</th>
<th>Insert Heparin Lock</th>
<th>Use Multilumen Line</th>
</tr>
</thead>
<tbody>
<tr>
<td>.45 NaCl</td>
<td>Ringer's Lactate</td>
<td>DS Ringer's Lactate</td>
<td>DS Water</td>
<td>Normal Saline</td>
<td>Whole Blood</td>
<td>Packed Cells</td>
<td></td>
</tr>
</tbody>
</table>

1) Over 30 min  
2) Over 1 hr  
3) Over 2 hr  
4) Over 4 hr  
5) Over 6 hr  
6) Over 8 hr  
7) Over 12 hr  
8) Over 24 hr

Current User: Select one number (1-8) ---->

---

### SELECT LABORATORY TEST ###

<table>
<thead>
<tr>
<th>CHEMISTRY</th>
<th>ENZYMES</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Bilirubin</td>
<td>12) Amylase</td>
<td>21) ABO &amp; Rh</td>
</tr>
<tr>
<td>2) BUN</td>
<td>13) CPK</td>
<td>22) ABO (from A-line)</td>
</tr>
<tr>
<td>3) Calcium</td>
<td>14) LDH</td>
<td>23) ABO (stick)</td>
</tr>
<tr>
<td>4) Chloride</td>
<td>15) SGOT</td>
<td>24) Blood Culture</td>
</tr>
<tr>
<td>5) CO2</td>
<td>16) SGPT</td>
<td>25) Culture &amp; Sensitivity</td>
</tr>
<tr>
<td>6) Creatinine</td>
<td></td>
<td>26) Cold Agglutinin</td>
</tr>
<tr>
<td>7) Glucose</td>
<td></td>
<td>27) HCG</td>
</tr>
<tr>
<td>8) Phosphate</td>
<td></td>
<td>28) Occ Blood in Stools</td>
</tr>
<tr>
<td>9) Potassium</td>
<td></td>
<td>29) RPR</td>
</tr>
<tr>
<td>10) Sodium</td>
<td></td>
<td>30) SMA 6</td>
</tr>
<tr>
<td>11) Uric Acid</td>
<td></td>
<td>31) UA</td>
</tr>
</tbody>
</table>

00) Sign-Off  
32) Doctor's Order Screen  
33) Master Screen

Current User: Select one number (00-33) ---->

---

Figure 4.1.1.1g

---

Figure 4.1.1.1h
### SELECT MONITORING REQUIREMENTS ***

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Apnea Monitor</td>
</tr>
<tr>
<td>2</td>
<td>A-line Set-up</td>
</tr>
<tr>
<td>3</td>
<td>A-line Readings</td>
</tr>
<tr>
<td>4</td>
<td>Cardiac Monitor</td>
</tr>
<tr>
<td>5</td>
<td>Cardiac Output</td>
</tr>
<tr>
<td>6</td>
<td>Circulation Checks</td>
</tr>
<tr>
<td>7</td>
<td>CVP Readings</td>
</tr>
<tr>
<td>8</td>
<td>Fundus Checks</td>
</tr>
<tr>
<td>9</td>
<td>Intake &amp; Output</td>
</tr>
<tr>
<td>10</td>
<td>ICP (Monitor) Set-up</td>
</tr>
<tr>
<td>11</td>
<td>Manual ICP Readings</td>
</tr>
<tr>
<td>12</td>
<td>Monitor ICP Readings</td>
</tr>
<tr>
<td>13</td>
<td>Neuro Checks</td>
</tr>
<tr>
<td>14</td>
<td>Pressure Monitor</td>
</tr>
<tr>
<td>15</td>
<td>PAP/PA Wedge Readings</td>
</tr>
<tr>
<td>16</td>
<td>Swan-Ganz Set-up</td>
</tr>
<tr>
<td>17</td>
<td>Temperature Monitor</td>
</tr>
<tr>
<td>18</td>
<td>Transcutaneous Monitoring</td>
</tr>
<tr>
<td>19</td>
<td>Doctor's Order Screen</td>
</tr>
<tr>
<td>20</td>
<td>Master Screen</td>
</tr>
</tbody>
</table>

---

### SELECT DESIRED MEDICATION / DOSAGE ***

#### **ANTIHISTAMINE**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Benadryl</td>
</tr>
<tr>
<td>2</td>
<td>25 mg (O)</td>
</tr>
<tr>
<td>3</td>
<td>50 mg (IM)</td>
</tr>
<tr>
<td>4</td>
<td>50 mg (IV)</td>
</tr>
<tr>
<td>5</td>
<td>Dimetapp</td>
</tr>
<tr>
<td>6</td>
<td>4 mg (O)</td>
</tr>
<tr>
<td>7</td>
<td>5 mg Elxr (O)</td>
</tr>
<tr>
<td>8</td>
<td>Phenergan</td>
</tr>
<tr>
<td>9</td>
<td>25 mg (O)</td>
</tr>
<tr>
<td>10</td>
<td>250 mg (O)</td>
</tr>
<tr>
<td>11</td>
<td>500 mg (IM)</td>
</tr>
<tr>
<td>12</td>
<td>500 mg (IV)</td>
</tr>
</tbody>
</table>

#### **ANTI-INFECTIVE**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ampicillin</td>
</tr>
<tr>
<td>2</td>
<td>250 mg (O)</td>
</tr>
<tr>
<td>3</td>
<td>500 mg (IM)</td>
</tr>
<tr>
<td>4</td>
<td>500 mg (IV)</td>
</tr>
<tr>
<td>5</td>
<td>Ancef</td>
</tr>
<tr>
<td>6</td>
<td>500 mg (IM)</td>
</tr>
<tr>
<td>7</td>
<td>500 mg (IV)</td>
</tr>
<tr>
<td>8</td>
<td>Cefadyl</td>
</tr>
<tr>
<td>9</td>
<td>500 mg (IM)</td>
</tr>
<tr>
<td>10</td>
<td>500 mg (IV)</td>
</tr>
<tr>
<td>11</td>
<td>Keflex</td>
</tr>
<tr>
<td>12</td>
<td>250 mg (O)</td>
</tr>
<tr>
<td>13</td>
<td>200 mg Susp (O)</td>
</tr>
<tr>
<td>14</td>
<td>Sulfacetamine Na</td>
</tr>
<tr>
<td>15</td>
<td>1.0 Gm (IM)</td>
</tr>
<tr>
<td>16</td>
<td>1.0 Gm (IV)</td>
</tr>
<tr>
<td>17</td>
<td>Erythromycin</td>
</tr>
<tr>
<td>18</td>
<td>250 mg (O)</td>
</tr>
<tr>
<td>19</td>
<td>200 mg Susp (O)</td>
</tr>
<tr>
<td>20</td>
<td>125 mg Susp (O)</td>
</tr>
<tr>
<td>21</td>
<td>Tetracycline</td>
</tr>
<tr>
<td>22</td>
<td>250 mg (O)</td>
</tr>
<tr>
<td>23</td>
<td>500 mg (IV)</td>
</tr>
</tbody>
</table>

---

**Figure 4.1.1.i**

---

**Figure 4.1.1.j**

---

**Figure 4.1.1.j**

---

373
**SELECT DESIRED MEDICATION / DOSAGE***

**ANTISEPTIC**
- Boric Acid
  1) 5% Solt (I)
  7) .125 mg (O)
  8) .250 mg (O)

**CARDIOVASCULAR**
- Digoxin
  15) 100 mg (O)
- Dilantin
  16) 125 mg susp (O)

**CNS DRUGS**
- Elavil
  17) 10 mg (O)
- Phenobarbital
  20) 15 mg (O)

**AUTONOMIC**
- Atropine
  9) 10 mg (O)
  10) 40 mg (O)
  11) 1 mg (IV)
- Inderal
  18) 25 mg (O)
  19) 50 mg (O)

- Vallium
  4) 5 mg (I)
  12) 1 mg (O)
  13) 2 mg (O)
  14) 5 mg (O)

- Minipress
  20) 15 mg (O)

- Valium
  1) 5 mg (O)
  5) 5 mg (IM)
  6) 5 mg (IV)
  12) 1 mg (O)
  13) 2 mg (O)
  14) 5 mg (O)

- Minipress
  20) 15 mg (O)
  21) 30 mg (O)
  22) 60 mg (IM)

Current User: Select one number (01-24) ———>

Figure 4.1.1.1k

HELP SCREEN FOR PHARMACY MODULES

This Help Facility explains abbreviations used in parenthesis. If the user requires additional information on medications or dosages, they should consult the PHYSICIAN'S DESK REFERENCE (PDR) or contact a Pharmacy Officer. The abbreviations indicate the route of administration:

(0) Oral  (I) Irrigation
(IM) Intramuscular  (OP) Ophthalmic
(IV) Intravenous  (SQ) Subcutaneous
(Sp) Suppository

Figure 4.1.1.11
### Ward Room Bed Patient Reg # Date Time

#### SELECT X-RAY ####

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abdomen Flat Plate</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Abdomen AP</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>Abdomen 3-way</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Angiography</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>Arteriography</td>
<td>14</td>
</tr>
<tr>
<td>6</td>
<td>Barium Enema</td>
<td>15</td>
</tr>
<tr>
<td>7</td>
<td>Brain Scan</td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td>Chest PA</td>
<td>17</td>
</tr>
<tr>
<td>9</td>
<td>Chest Lateral</td>
<td>18</td>
</tr>
</tbody>
</table>

### RESPIRATORY THERAPY OPTIONS * THEN FLOW RATE FOR ROUTE ****

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chest Pulmonary Therapy</td>
<td>8</td>
<td>Mask</td>
</tr>
<tr>
<td>2</td>
<td>Cough &amp; Deep Breath</td>
<td>9</td>
<td>Croup Tent</td>
</tr>
<tr>
<td>3</td>
<td>Incentive Spirimeter</td>
<td>10</td>
<td>Oxyhood</td>
</tr>
<tr>
<td>4</td>
<td>IPPB</td>
<td>11</td>
<td>Nasal Prongs</td>
</tr>
<tr>
<td>5</td>
<td>Suctioning</td>
<td>12</td>
<td>Oxyhood</td>
</tr>
<tr>
<td>6</td>
<td>Tracheostomy Care</td>
<td>13</td>
<td>Nasal Prongs</td>
</tr>
</tbody>
</table>

### SELECT RESPIRATORY THERAPY OPTIONS * THEN FLOW RATE FOR ROUTE ****

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chest Pulmonary Therapy</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Cough &amp; Deep Breath</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Incentive Spirimeter</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>IPPB</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>Suctioning</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>Tracheostomy Care</td>
<td>13</td>
</tr>
</tbody>
</table>

---

Figure 4.1.1.1m

---

Figure 4.1.1.1n

375
### SELECT VITAL SIGN OPTION ###

<table>
<thead>
<tr>
<th>* ROUTINE *</th>
<th>* SPECIAL *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) T-P-R, B/P</td>
<td>5) FHT</td>
</tr>
<tr>
<td>2) Post-op</td>
<td>6) Pulse Apical</td>
</tr>
<tr>
<td>3) Post Partum</td>
<td>7) Pulse Femoral</td>
</tr>
<tr>
<td>4) Post Newborn</td>
<td>8) Pulse Pedal</td>
</tr>
<tr>
<td></td>
<td>9) Temp Axillary</td>
</tr>
<tr>
<td></td>
<td>10) Temp Rectal</td>
</tr>
<tr>
<td></td>
<td>11) Tilt Test</td>
</tr>
</tbody>
</table>

00) Sign-Off  12) Doctor's Order Screen  13) Master Screen

Current User: Select one number (00-13) --->

**Figure 4.1.1.1o**

### SELECT WARD ROUTINE ###

<table>
<thead>
<tr>
<th>1) Ace Wrap Lower Ext</th>
<th>12) Lumbar Puncture</th>
<th>20) Simple Drug Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2) Chest Tube Insertion</td>
<td>13) N-G Insertion</td>
<td>21) Spec Gravity</td>
</tr>
<tr>
<td>3) Circumcision Care</td>
<td>14) Parenteratasis</td>
<td>22) Spin HCT</td>
</tr>
<tr>
<td>4) Complex Drug Change</td>
<td>15) Phototherapy</td>
<td>23) Straight Cath</td>
</tr>
<tr>
<td>5) EKG Rhythm Strip</td>
<td>16) Range of Motion</td>
<td>24) Surgical</td>
</tr>
<tr>
<td>1) Foley Cath Care</td>
<td>Exercises (Passive)</td>
<td>25) Shave Prep</td>
</tr>
<tr>
<td>7) Foley Cath Insertion</td>
<td></td>
<td>26) Enema</td>
</tr>
<tr>
<td>8) Guide Stools</td>
<td>* Restraints</td>
<td>27) Tap Water Enema</td>
</tr>
<tr>
<td>9) Isolation Respiratory</td>
<td>17) 2-Point</td>
<td>28) Thoracentesis</td>
</tr>
<tr>
<td>10) Reverse</td>
<td>18) 4-Point</td>
<td>29) Tube Care (not trach)</td>
</tr>
<tr>
<td>11) Strict</td>
<td>19) Posey</td>
<td>30) Urine for S &amp; A</td>
</tr>
</tbody>
</table>

00) Sign-Off  30) Doctor's Order Screen  31) Master Screen

Current User: Select one number (00-31) --->

**Figure 4.1.1.1p**

376
<table>
<thead>
<tr>
<th>Ward Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
</table>

### ADMIT ** TRANSFER ** DISCHARGE ###

1) Admit
2) Transfer
3) Discharge

**0) Sign-Off**

**4) Doctor's Order Screen**

Select one number (0-5) =>

**5) Master Screen**

---

**Figure 4.1.1.2**

---

**Patient Orders For: Mary Misery**

Press -- Ctrl and $ -- Keys to Pause The Scrolling If Necessary

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Order</th>
<th>Frequency</th>
<th>Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11/86</td>
<td>14:13:47</td>
<td>Up in Chair w/ Assist</td>
<td>TID</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:14:23</td>
<td>Diabetic Diet</td>
<td></td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:15:41</td>
<td>Start IV of .45 NaCl</td>
<td>Infuse 6 Hr</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:14</td>
<td>Chloride</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:40</td>
<td>Sodium</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:00</td>
<td>Amylase</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:26</td>
<td>Potassium</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:56</td>
<td>CO2</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:26</td>
<td>CBC</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:54</td>
<td>Platelets</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:20:18</td>
<td>Glucose</td>
<td>Daily @ 0600</td>
<td>N. Lyon MD</td>
</tr>
</tbody>
</table>

**Figure 4.1.1.3**
Figure 4.1.1.4
Word Room Bed Patient Reg # Date Time

*** NURSING MASTER SCREEN ***

1) Enter/Inactivate Nursing Care Plan
2) Review Nursing Care Plan
3) Print Nursing Care Plan
4) External Patient Classification
5) Review Patient Care Requirements
6) Print Patient Care Requirements
7) Internal Patient Classification
8) Master Screen

Current User: [Select one number (0-8) --->]

Figure 5.1.1

---

Word Room Bed Patient Reg # Date Time

*** SELECT THE DESIRED NURSING CARE PLAN FUNCTION ***

1) Enter a New Care Plan
2) Inactivate Portions of Care Plans
3) Nurse's Master Screen
4) Master Screen

Current User: [Select one number (0-4) --->]

Figure 5.1.1.1

379
### SELECT NURSING DIAGNOSIS

1) Comfort, Alteration In: Pain  
2) Communication, Impaired: Verbal  
3) Impaired Physical Mobility  
4) Self-Care Deficit

### SELECT NURSING ASSESSMENTS FOR A PATIENT WITH COMFORT ALTERATION IN: PAIN

<table>
<thead>
<tr>
<th>1) Altered Time Perception</th>
<th>7) Guarding Behavior</th>
<th>12) Self-Focusing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2) Alteration Muscle Tone</td>
<td>8) Impaired Thought Process</td>
<td>13) Talkative</td>
</tr>
<tr>
<td>3) Autonomic Response</td>
<td>9) Narrowing Focus</td>
<td>14) Verbal Complaint</td>
</tr>
<tr>
<td>4) Distraction Behavior</td>
<td>10) Pacing</td>
<td>15) Vocal Complaints (Moans, Crying)</td>
</tr>
<tr>
<td>6) Other Assessment:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: [Select one number (0-16) ——> ]

---

**Figure 5.1.1.1a**

---

**Figure 5.1.1.1b**
** SELECT A RELATED FACTOR FOR A PATIENT WITH **
** NURSING DIAGNOSIS OF COMFORT ALTERATION IN: PAIN **

1) Altered Sensation
2) Disease / Condition
3) Emotional State
4) Other: [..............................]
5) Surgical Procedure
6) Trauma
7) Treatment Regime

Current User: Select one number (1-7) ---->

Figure 5.1.1.1c

** SELECT A PATIENT GOAL FOR A PATIENT WITH **
** NURSING DIAGNOSIS OF COMFORT ALTERATION IN: PAIN **

1) Communicates Pain Free
2) Communicates Experiences Less Pain
3) Communicates Experience of Pain More Tolerable
4) Demos Skills & Knowledge to Achieve Pt Goals
5) Other Goals: [.................................]

Current User: Select one number (1-5) ---->

Figure 5.1.1.1d
** SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
** COMMUNICATES: PAIN FREE, EXPERIENCES LESS/TOLERABLE PAIN OR OTHER GOAL **

1) Assess Pain Factors
2) Assess & Evaluate Pain
3) Encour Pt to Use Coping Strategy
4) Give Info & Explain Proc & Tests
5) Other Nursing Orders:
6) Offer PRN Medications
7) Provide Emotional Support
8) Schedule "Quiet Times"
9) Teach Alt Coping Strategies
10) Utilize Diversional Activities

Current User: Select one number (01-10) ———>

Figure 5.1.1.1e

** SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
** DEMONSTRATES SKILLS & KNOWLEDGE TO ACHIEVE GOALS **

* Teach Stress Reduction Techniques
  1) Deep Breathing
  2) Progressive Relaxation
  3) Relaxation Response
  4) Diversional Activity
  5) Other: [--------------------------]

Current User: Select one number (1-5) ———>

Figure 5.1.1.1f
<table>
<thead>
<tr>
<th>Time/Frequency Option</th>
<th>Frequency</th>
<th>Time Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) PRN</td>
<td>Daily @</td>
<td>20:2200</td>
</tr>
<tr>
<td>2) Q 1-2 Hr PRN</td>
<td></td>
<td>21:2400</td>
</tr>
<tr>
<td>3) Q 2-3 Hr PRN</td>
<td></td>
<td>3:2310</td>
</tr>
<tr>
<td>4) Q 3-4 Hr PRN</td>
<td></td>
<td>12:0600</td>
</tr>
<tr>
<td>5) On Call</td>
<td></td>
<td>14:0000</td>
</tr>
<tr>
<td>6) QD</td>
<td></td>
<td>15:1200</td>
</tr>
<tr>
<td>7) HS</td>
<td></td>
<td>16:1400</td>
</tr>
<tr>
<td>8) x 1</td>
<td></td>
<td>17:1800</td>
</tr>
<tr>
<td>9) Today @</td>
<td></td>
<td>18:1800</td>
</tr>
</tbody>
</table>

**HELP SCREEN FOR THE TIME MODULE**

Hospital policy dictates the exact time for standardized abbreviations.

- **1-43 PRN**
- **5-21) Single dosages**
  - QD -- 0500
  - HS -- 2200
- **22-24) Twice a day frequency**
  - BID -- 0900 & 2100
  - Q 12 Hr -- 1200 & 2400
- **25-30) Three times a day frequency**
  - TID -- 0900, 1400, 2100
  - AC -- 0700, 1100, 1700
  - PC -- 0900, 1300, 1900
  - Q 8 Hr -- 0600, 1400, 2200
  - Q Shift -- 0900, 1700, 0200
- **31-33) Four times a day frequency**
  - QID -- 0900, 1300, 1700, 2100
  - Q 6 Hr -- 0600, 1200, 1800, 2400
- **34-35) Six times a day frequency**
  - Q 4 Hr -- 0200, 0600, 1000, 1400, 1800, 2200
- **36-37) Twelve times a day frequency**
  - Q 2 Hr -- Even hours
  - PC -- 0900, 1300, 1900
  - Q 8 Hr -- 0600, 1400, 2200
  - Q Shift -- 0900, 1700, 0200
- **38-39) Twenty four times a day frequency**
  - Q 1 Hr -- On the hour
  - Q Shift -- 0900, 1700, 0200
- **41) No frequency will be assigned**

**Figure 5.1.1.1g**

**Figure 5.1.1.1h**

333
A PROTOTYPE MODEL FOR AUTOMATING NURSING DIAGNOSIS
NURSE CARE PLANNING AND PATIENT CLASSIFICATION (U) NAVAL
POSTGRADUATE SCHOOL MONTEREY CA  G R HARMEYER MAR 86

UNCLASSIFIED
You have identified teaching as a nursing intervention. Please specify the type of teaching that will be required. Remember to document the teaching you give to your patient.

A) Group Teaching
B) Preoperative Teaching
C) Return to Previous Screen
D) Structured Teaching
   (i.e. diabetic, cardiac, colostomy care, post partum first 24 hr, newborn care, or discharge)

Select one letter (A-D) ➔ *

Figure 5.1.1.11

You have identified emotional support as a nursing intervention. Emotional support is expected for each patient, but augmented staffing may be required for the following:

* Answer A-C only if emotional support is in excess of 30 min q24h *

A) Patient/family support (i.e. anxiety, denial, loneliness, etc.)
B) Modification of lifestyle (i.e. new prosthesis, body image, behavior modification, etc.)
C) Sensory deprivation (i.e. retarded, deaf, blind, language barrier, bilateral eye patches, confused, combative)
D) Return to previous screen

Select one letter (A-D) ➔ *

Figure 5.1.1.1j
**SELECT NURSING ASSESSMENTS FOR A PATIENT WITH**
**NURSING DIAGNOSIS OF COMMUNICATION, IMPAIRED: VERBAL**

1) Anxiety  
2) Disorientation  
3) Fear  
4) Frustration  
5) Other Assessment: [..............................]

Current User: | Select one number (01-13) ---->

---

**SELECT A RELATED FACTOR FOR A PATIENT WITH**
**NURSING DIAGNOSIS OF COMMUNICATION, IMPAIRED: VERBAL**

1) Anatomical Impairment  
2) Cultural Difference  
3) Developmental Age  
4) Disease Process  
5) Other: [..............................]  
6) Foreign Language  
7) Mental Capacity  
8) Sedation  
9) Surgical Procedure  
10) Treatment Regime

Current User: | Select one number (01-10) ---->

---

**Figure 5.1.1.1k**
SELECT A PATIENT GOAL FOR A PATIENT WITH
NURSING DIAGNOSIS OF COMMUNICATION, IMPAIRED: VERBAL

1) Communicates Needs Thru Words
2) Comm Needs Thru Mechanical Tools
3) Demo Skills to Achieve Goals
4) Other Goals: [.................................]

13 Reports Less Anxiety
23 Reports Less Fear
33 Reports Less Stress

Current User: Select one number (1-7) ---->

Figure 5.1.1.1m

SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS
COMMUNICATES NEEDS THROUGH USE OF WORDS OR MECHANICAL TOOLS

1) Apprize Others of Communication Prob
2) Provide Emotional Support
3) Provide Paper & Pencil
4) Provide Spelling Board
5) Other Nursing Order: [.................................]
6) Provtd Translated Phase Chart
7) Provide Translator
8) Simple Ques w/ Y/N Ans
9) Use Sign Language
10) Use Establish Comm For ADL

Current User: Select one number (01-10) --->

Figure 5.1.1.1n
**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**
**REPORTS DECREASED LEVEL OF STRESS, ANXIETY, OR FEAR**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Encourage Patient to Speak Slowly</td>
</tr>
<tr>
<td>2</td>
<td>Encourage To Util Coping Strategy</td>
</tr>
<tr>
<td>3</td>
<td>Explain Proc and Elicit Question</td>
</tr>
<tr>
<td>4</td>
<td>Provide Spelling Board</td>
</tr>
<tr>
<td>5</td>
<td>Other Nursing Orders: [ ]</td>
</tr>
<tr>
<td>6</td>
<td>Provide Translated Phase Chart</td>
</tr>
<tr>
<td>7</td>
<td>Provide Translator</td>
</tr>
<tr>
<td>8</td>
<td>Simple Questions w/ Y/N Answers</td>
</tr>
<tr>
<td>9</td>
<td>Use Sign Language</td>
</tr>
<tr>
<td>10</td>
<td>Use Establish Comm for ADL</td>
</tr>
</tbody>
</table>

Current User: Select one number (01-10) ——>

Figure 5.1.1.10

**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**
**DEMONSTRATES SKILLS TO ACHIEVE GOALS**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Teach Method Preop for Postop Use</td>
</tr>
<tr>
<td>2</td>
<td>Teach Stress Reduction Techniques</td>
</tr>
<tr>
<td>3</td>
<td>Blink 1x For No, 2x For Yes</td>
</tr>
<tr>
<td>4</td>
<td>Squeeze Hand For Y/N Response</td>
</tr>
<tr>
<td>5</td>
<td>Teach Proper Use of Mach Device</td>
</tr>
<tr>
<td>6</td>
<td>Deep Breathing</td>
</tr>
<tr>
<td>7</td>
<td>Diversional Activities</td>
</tr>
<tr>
<td>8</td>
<td>Apprise Others of Comm Problem</td>
</tr>
<tr>
<td>9</td>
<td>Progressive Relaxation</td>
</tr>
<tr>
<td>10</td>
<td>Relaxation Response</td>
</tr>
</tbody>
</table>

Current User: Select one number (1-9) ——>

Figure 5.1.1.1p
**SELECT NURSING ASSESSMENTS FOR A PATIENT WITH**
**NURSING DIAGNOSIS OF IMPAIRED PHYSICAL MOBILITY**

| 1) Confinement Imposed          | 7) Inability to Transfer       |
| 2) Fatigues Easily              | 8) Inability to Turn           |
| 3) Gait Impairment              | 9) Limited Range of Motion (ROM) |
| 4) Impaired Coordination        | 10) Reluctant to Move          |
| 5) Inability to Ambulate        | 11) Use of Assistive Devices   |
| 6) Other: [........................] |

Current User: | Select one number (01-11) ——>

---

**SELECT A RELATED FACTOR FOR A PATIENT WITH**
**NURSING DIAGNOSIS OF IMPAIRED PHYSICAL MOBILITY**

| 1) Decreased Activity Tolerance |
| 2) Musculoskeletal Function     |
| 3) Neuromuscular Function       |
| 4) Pain / Discomfort            |
| 5) Treatment Regime             |
| 6) Other: [........................] |

Current User: | Select one number (1-6) ——>

---

Figure 5.1.1.1q

---

Figure 5.1.1.1r
**SELECT A PATIENT GOAL FOR A PATIENT WITH**
**NURSING DIAGNOSIS OF IMPAIRED PHYSICAL MOBILITY**

1) Able to Transfer Independently  |  7) Maintains Full ROM
2) Able to Transfer w/ Assistance |  8) Maintain Pattern of Elimination
3) Demos Skills to Achieve Goals  |  9) Maintain Skin Integrity
4) Increase Range of Motion (ROM) | 10) No Additional Contractures
5) Maintain Effective Breathing Pattern | 11) Performs ADL
6) Other Goals: (.................................)

Current User: | Select one number (01-11) --->

Figure 5.1.1.1s

**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**
**MAINTAINS FULL ROM, INCREASES ROM, NO ADDED CONTRACTURES**
**OR MAINTAINS EFFECTIVE BREATHING PATTERN**

1) Active Range Of Motion (ROM)  |  6) Passive Range Of Motion (ROM)
2) Cough & Deep Breath           |  7) Positioning
3) Encourage Independent ADL    |  8) Turning
4) Gradual Increase ADL Activity |  9) Accom Pt Off Ward (>15 <30min)
5) Other Nursing Orders:        | 10) Accom Pt Off Ward (> 30 min)
                                      (.................................)

Current User: | Select one number (01-10) --->

Figure 5.1.1.1t
** SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
** MAINTAINS SKIN INTEGRITY OR OTHER **

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1)</strong> Ambulate</td>
<td><strong>7)</strong> Position</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2)</strong> Assist to Select Diet</td>
<td><strong>8)</strong> Protect Bony Prominences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3)</strong> Encourage Independent ADL</td>
<td><strong>9)</strong> Protect Pressure Areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4)</strong> Massage to Promote Circulation</td>
<td><strong>10)</strong> Provide Safe Environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5)</strong> Personal Possessions within Reach</td>
<td><strong>11)</strong> Siderails</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6)</strong> Other Nursing Orders: [.........................]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: [Select one number (01-11) ———]  

Figure 5.1.1.1u

---

** SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
** MAINTAINS PATTERN OF ELIMINATION OR Performs ADL **
** AFTER SOME SELECTIONS YOU WILL BE ASKED FOR FREQUENCY **

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1)</strong> Ambulate with Assistance</td>
<td><strong>6)</strong> Range Of Motion (ROM)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2)</strong> Increase Independence Doing ADL</td>
<td><strong>7)</strong> Select Diet to Promote GI Function</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3)</strong> Plan for Continuing Care</td>
<td><strong>8)</strong> Turn</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4)</strong> Position</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5)</strong> Other Nursing Orders: [.........................]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: [Select one number (1-8) -------]  

Figure 5.1.1.1v

390
**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**
**ABLE TO TRANSFER INDEPENDENTLY OR WITH ASSISTANCE**

1) Assist: Bed to Chair
2) Assist: Bed to Wheelchair
3) Other Nursing Orders: [

Figure 5.1.1.1w

**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**
**DEMONS SKILLS TO ACHIEVE GOALS**

1) Provide Opport To Practice Skills
2) Teach Factors for Impaired Mobility
3) Teach Rationale for Skills
4) Other Nursing Orders: [

Figure 5.1.1.1x
**SELECT NURSING ASSESSMENTS FOR A PATIENT WITH **
**NURSING DIAGNOSIS OF SELF-CARE DEFICIT **

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Unable to Cloth Self</td>
<td>7) Unable to Get to BR</td>
<td>11) Unable to do Toile Hygiene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Unable to Cut Food</td>
<td>8) Unable to Maint Appear</td>
<td>12) Unable to Rise Off Toilet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Unable to Drink</td>
<td>9) Unable to Select Cloth</td>
<td>13) Unable to Flush Toilet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Unable to Fasten Cloth</td>
<td>10) Unable to Sit on Toilet/Commode</td>
<td>14) Unable to Wash Sel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Unable to Feed Self</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Other Assessment:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: Select one number (01-14) --->

Figure 5.1.1.1y

**SELECT A RELATED FACTOR FOR A PATIENT WITH **
**NURSING DIAGNOSIS OF SELF CARE: DEFICIT **

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Activity Intolerance</td>
<td>6) Neuromuscular Impairment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Depression</td>
<td>7) Pain/Discomfort</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Developmental Phase</td>
<td>8) Perceptual Impairment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Musculoskeletal Function</td>
<td>9) Sensory Impairment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Other: [.......................]</td>
<td>10) Severe Anxiety</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current User: Select one number (01-10) --->

Figure 5.1.1.1z

392
**SELECT A PATIENT GOAL FOR A PATIENT WITH A **
**NURSING DIAGNOSIS OF SELF-CARE: DEFICIT **
**THEN SELECT CURRENT LEVEL OF CARE REQUIRED **

<table>
<thead>
<tr>
<th>Patient Goal</th>
<th>Current Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Functions @ Level 0: Full Self Care</td>
<td>A) Infant/Toddler Care</td>
</tr>
<tr>
<td>2) Functions @ Level 1: Use of Equip or Device</td>
<td>B) Self/Minimum Care</td>
</tr>
<tr>
<td>3) Functions @ Level 2: Needs Assist/Supervision</td>
<td>C) Assisted Care</td>
</tr>
<tr>
<td>4) Functions @ Level 3: Needs Assist &amp; Use Device</td>
<td>D) Complete Care</td>
</tr>
<tr>
<td>5) Functions @ Level 4: Dependent &amp; Does Not Participate</td>
<td>E) Total Care</td>
</tr>
</tbody>
</table>

Current User: Select one number (1-5) ---->
Select one letter (A-E) ---->

Figure 5.1.1.1aa

**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
**FUNCTIONS AT LEVEL 0: FULL SELF-CARE **

1) Support Increasing Independence in ADL
(i.e. feeding, bathing, toileting, dressing, grooming, etc.)

2) Peds Recreation/Observation

3) Other Nursing Orders: (.................................)

Current User: Select one number (1-3) ---->

Figure 5.1.1.1ab
**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**

**FUNCTIONS AT LEVEL 1: NEEDS EQUIPMENT OR DEVICE**

| 1 | Provide Equip For Bathing | 5 | Provide Equip For Toileting |
| 2 | Provide Equip For Dressing | 6 | Peds Recreation/Observation |
| 3 | Provide Equip For Feeding | 7 | Spoon Feed Adult Patient |
| 4 | Other Nursing Orders: | 8 | Spoon Feed Child (<6) |

Current User: Select one number (1-8) ---->

**Figure 5.1.1.1ac**

**SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS**

**FUNCTIONS AT LEVEL 2: NEEDS ASSISTANCE/SUPERVISION OR OTHER**

| 1 | Assist to Dress | 7 | Feed Adult Patient |
| 2 | Assist In/From Bathroom | 8 | Give Emotional Support |
| 3 | Assist w/ Partial Bath | 9 | Give Complete Bath |
| 4 | Assist: Comb/Brush Hair | 10 | Keep Commode @ Bedside |
| 5 | Dress Patient | 11 | Kp Urinal/Bedpan Near |
| 6 | Other: | 12 | Peds Recreation/Obs |
| 13 | Set up Food Tray |
| 14 | Shave Patient |
| 15 | Socialize During Med |
| 16 | Spoon Feed Child |

Current User: Select one number (01-16) ---->

**Figure 5.1.1.1ad**
** SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
** FUNCTIONS AT LEVEL 3: NEEDS ASSISTANCE AND USES EQUIP **

<table>
<thead>
<tr>
<th>Word Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Assist to Dress 7) Feed Adult Patient 12) Provide Necessary Eq
c
2) Assist To/From Bathroom 8) Give Emotional Support 13) Provide For Hygiene
c
3) Assist w/ Partial Bath 9) Give Complete Bath 14) Set Up Food Tray
c
4) Assist: Comb/Brush Hair 10) Keep Commode @ Bedside 15) Spoon Feed Child (<6
c
c
6) Other: [.............................]

Current User: Select one number (01-16) --->

Figure 5.1.1.1ae

** SELECT A NURSING ORDER FOR A PATIENT WHOSE GOAL IS **
** FUNCTIONS AT LEVEL 4: DEPENDENT AND DOES NOT PARTICIPATE **

<table>
<thead>
<tr>
<th>Word Room Bed</th>
<th>Patient</th>
<th>Reg #</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Assist To/From Bathroom 7) Give Complete Bath 12) Spoon Feed Child (<6
c
2) Assist To/From Commode 8) Give Emotional Support 13) Other Act (>15 <30mn
c
3) Assist: Comb/Brush Hair 9) Provide For Oral Hygiene 14) Other Act (>30 <1 hr
c
4) Dress Patient 10) Provide Personal Hygiene 15) Special Proc (>1 <2h
c
5) Feed Adult Patient 11) Provide Urinal/Bedpan 16) Xtra Linen Chge/Partial Bath
c
6) Other: [.............................]

Current User: Select one number (01-16) --->

Figure 5.1.1.1af

395
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Nursing Diagnosis</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/01/86</td>
<td>10:06:24</td>
<td>Comfort Alteration In: Pain</td>
<td>Alteration In Muscle Tone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Disease / Condition</td>
<td>Communicates Experience Tolerable Pain</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teach Alt Coping Strategies</td>
<td>Structured Teaching G. Harmeyer</td>
</tr>
<tr>
<td>01/01/86</td>
<td>10:06:12</td>
<td>Impaired Physical Mobility</td>
<td>Reluctant To Move</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Musculoskeletal Function</td>
<td>Able To Transfer With Assistance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assist Bed To Wheelchair</td>
<td>Structured Teaching G. Harmeyer</td>
</tr>
<tr>
<td>01/01/86</td>
<td>10:10:58</td>
<td>Self-Care Deficit</td>
<td>Unable To Do Toilet Hygiene</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Neuromuscular Impairment Func @ Level 2, Needs Assist/Supervis</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Keep Commode @ Bedside</td>
<td>TID</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Structured Teaching G. Harmeyer</td>
</tr>
</tbody>
</table>

Figure 5.1.1.2
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Order</th>
<th>Frequency</th>
<th>Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/11/86</td>
<td>10:06:20</td>
<td>Teach Alt Coping Strategies</td>
<td>G. Harmeyer RN</td>
<td></td>
</tr>
<tr>
<td>01/11/86</td>
<td>12:08:07</td>
<td>Assist Bed To Wheelchair</td>
<td>TID</td>
<td>N. Lyons MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>13:10:15</td>
<td>Self/Minimum Care</td>
<td>G. Harmeyer RN</td>
<td></td>
</tr>
<tr>
<td>01/11/86</td>
<td>13:10:53</td>
<td>Keep Commode @ Bedside</td>
<td>TID</td>
<td>G. Harmeyer RN</td>
</tr>
<tr>
<td>01/11/86</td>
<td>14:13:47</td>
<td>Up in Chair w/ Assist</td>
<td>TID</td>
<td>N. Lyons MD</td>
</tr>
<tr>
<td>01/11/86</td>
<td>10:14:23</td>
<td>Diabetic Diet</td>
<td>N. Lyons MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:14</td>
<td>Cloride</td>
<td>Daily @ 0600 T. Bui MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:17:40</td>
<td>Sodium</td>
<td>T. Bui MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:00</td>
<td>Amylase</td>
<td>T. Bui MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:26</td>
<td>Potassium</td>
<td>Daily @ 0600 T. Bui MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:18:56</td>
<td>CO2</td>
<td>Daily @ 0600 T. Bui MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:26</td>
<td>CBC</td>
<td>Daily @ 0600 T. Bui MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:19:54</td>
<td>Platlets</td>
<td>Daily @ 0600 T. Bui MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:20:18</td>
<td>Glucose</td>
<td>Daily @ 0600 T. Bui MD</td>
<td></td>
</tr>
<tr>
<td>01/12/86</td>
<td>10:22:02</td>
<td>Intake &amp; Output</td>
<td>TID</td>
<td>T. Bui MD</td>
</tr>
</tbody>
</table>

Figure 5.1.1.3

Patient: Mary Miser
Is In: Category II
Point Value Is: 27

Figure 5.1.1.4

397
*** SELECT ADD / DELETE A USER ***

1) Add A User

2) Delete A User

0) Sign-Off

Current User: |

Select one number (0-2) ----> *

Figure 6

---

USER INFORMATION

*** THIS INFORMATION IS CONFIDENTIAL ***

First Initial: 
Middle Initial:
Last Name:
Category of Requestor:
Password:
Access Level:

Figure 6.1

398
### DELETE A USER ###

<table>
<thead>
<tr>
<th>User's Name</th>
<th>Category</th>
<th>Access Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>0) Sign-Off</th>
<th>1) Next User</th>
<th>2) Delete User</th>
<th>3) Add/Delete Scr</th>
</tr>
</thead>
</table>

Current User: Select one number (0-3) ----> *

Figure 6.2
APPENDIX G

DATABASE STRUCTURE

Structure of the four databases used in the prototype project. Names have been elongated to provide more meaning for the reader.

Patient database

<table>
<thead>
<tr>
<th>Field name</th>
<th>Type</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAST NAME</td>
<td>Character</td>
<td>20</td>
</tr>
<tr>
<td>FIRST NAME</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>MIDDLE NAME</td>
<td>Character</td>
<td>3</td>
</tr>
<tr>
<td>RATE/RANK</td>
<td>Character</td>
<td>11</td>
</tr>
<tr>
<td>FMPSSN</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>BIRTH DATE</td>
<td>Date</td>
<td>8</td>
</tr>
<tr>
<td>AGE</td>
<td>Character</td>
<td>3</td>
</tr>
<tr>
<td>SEX</td>
<td>Character</td>
<td>1</td>
</tr>
<tr>
<td>ADMISSION DATE</td>
<td>Date</td>
<td>8</td>
</tr>
<tr>
<td>REGISTRATION NUMBER</td>
<td>Character</td>
<td>8</td>
</tr>
<tr>
<td>MEDICAL DIAGNOSIS</td>
<td>Character</td>
<td>24</td>
</tr>
<tr>
<td>PHYSICIAN</td>
<td>Character</td>
<td>24</td>
</tr>
<tr>
<td>PROGNOSIS</td>
<td>Character</td>
<td>3</td>
</tr>
<tr>
<td>ALLERGIES</td>
<td>Character</td>
<td>24</td>
</tr>
<tr>
<td>WARD</td>
<td>Character</td>
<td>2</td>
</tr>
<tr>
<td>ROOM</td>
<td>Character</td>
<td>1</td>
</tr>
<tr>
<td>BED</td>
<td>Character</td>
<td>1</td>
</tr>
</tbody>
</table>

Order database

<table>
<thead>
<tr>
<th>Field name</th>
<th>Type</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMPSSN</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>ORDER</td>
<td>Character</td>
<td>27</td>
</tr>
<tr>
<td>FREQUENCY</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>TIME</td>
<td>Character</td>
<td>8</td>
</tr>
<tr>
<td>DATE</td>
<td>Character</td>
<td>8</td>
</tr>
<tr>
<td>PRACTITIONER</td>
<td>Character</td>
<td>20</td>
</tr>
<tr>
<td>QUALIFIER</td>
<td>Character</td>
<td>6</td>
</tr>
<tr>
<td>TODAYONLY</td>
<td>Character</td>
<td>1</td>
</tr>
<tr>
<td>PATIENT POINTS</td>
<td>Numeric</td>
<td>3</td>
</tr>
<tr>
<td>MODULE</td>
<td>Character</td>
<td>1</td>
</tr>
<tr>
<td>MONITOR POINTS</td>
<td>Numeric</td>
<td>2</td>
</tr>
<tr>
<td>EMOTION POINTS</td>
<td>Numeric</td>
<td>2</td>
</tr>
<tr>
<td>ROUTINE POINTS</td>
<td>Numeric</td>
<td>2</td>
</tr>
</tbody>
</table>
Nursing core database

<table>
<thead>
<tr>
<th>Field name</th>
<th>Type</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMPSSN</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>NURSING DIAGNOSIS</td>
<td>Character</td>
<td>30</td>
</tr>
<tr>
<td>NURSING ASSESSMENT</td>
<td>Character</td>
<td>27</td>
</tr>
<tr>
<td>RELATED FACTORS</td>
<td>Character</td>
<td>25</td>
</tr>
<tr>
<td>PATIENT GOAL</td>
<td>Character</td>
<td>38</td>
</tr>
<tr>
<td>NURSE'S ORDER</td>
<td>Character</td>
<td>27</td>
</tr>
<tr>
<td>DATE</td>
<td>Date</td>
<td>8</td>
</tr>
<tr>
<td>TIME</td>
<td>Character</td>
<td>8</td>
</tr>
<tr>
<td>NURSE</td>
<td>Character</td>
<td>20</td>
</tr>
<tr>
<td>FREQUENCY</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>EMOTIONAL/TEACHING</td>
<td>Character</td>
<td>19</td>
</tr>
<tr>
<td>REQUIREMENTS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

User's information database

<table>
<thead>
<tr>
<th>Field name</th>
<th>Type</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>USER'S FIRST INITIAL</td>
<td>Character</td>
<td>2</td>
</tr>
<tr>
<td>USER'S MIDDLE INITIAL</td>
<td>Character</td>
<td>3</td>
</tr>
<tr>
<td>USER'S LAST NAME</td>
<td>Character</td>
<td>12</td>
</tr>
<tr>
<td>REQUESTOR</td>
<td>Character</td>
<td>3</td>
</tr>
<tr>
<td>PASSWORD</td>
<td>Character</td>
<td>5</td>
</tr>
<tr>
<td>ACCESS LEVEL</td>
<td>Numeric</td>
<td>1</td>
</tr>
<tr>
<td>No.</td>
<td>Copy</td>
<td>Initial Distribution List</td>
</tr>
<tr>
<td>-----</td>
<td>------</td>
<td>---------------------------</td>
</tr>
</tbody>
</table>
| 1.  | 2    | Defense Technical Information Center  
Cameroon Station  
Alexandria, Virginia 22304-6145 |
| 2.  | 2    | Library, Code 0142  
Naval Postgraduate School  
Monterey, California 93943-5002 |
| 3.  | 1    | CAPT S. A. Holmes, NC, USN  
Naval Health Sciences Education and Training Command (Code 2NC)  
Naval Medical Command National Capital Region  
Bethesda, Maryland 20814-5022 |
| 4.  | 1    | CDR K. A. Reider  
Naval School of Health Sciences (Research Department)  
Bethesda, Maryland 20814-5033 |
| 5.  | 1    | CDR Mary Hauser  
Naval Hospital  
Bethesda, Maryland 20814 |
| 6.  | 1    | LCDR M. Galdun  
Naval Medical Data Services Command Building 11  
Bethesda, Maryland 20814-5066 |
| 7.  | 1    | LCDR M. E. Quisenberry  
3095 Marina Drive #40  
Marina, California 93933 |
| 8.  | 1    | LCDR G. R. Harmeyer  
4923 France Street  
North Charleston, South Carolina 29406 |
| 9.  | 1    | Curricular Office, Code 37  
Naval Postgraduate School  
Monterey, California 93943-5000 |
| 10. | 1    | Professor Tung Bui  
Naval Postgraduate School  
Monterey, California 93943-5000 |
END
DTIC
8-86