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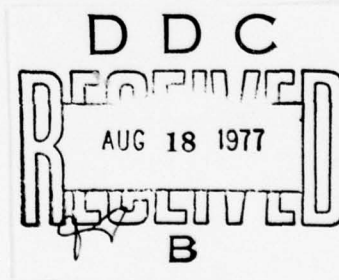
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WARDS SUBSYSTEM

PROCESS
CONDITION-ACTION DIAGRAM
FLOWCHARTS

AD-A043214

US ARMY TRIMIS AGENCY
Walter Reed Army Medical Center
Washington, D.C. 20012



August 1976

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The processes charted herein represent methods being employed in an inpatient ward modeling environment. As such, they are not necessarily indicative of general practices currently in use in any single military hospital. The modeling effort represents an attempt not only to update the general efficiency and quality of inpatient health care delivery, but also to try to parallel the operating conditions expected in the new Walter Reed facility. In this way, potential difficulties with work flow, patient timing, personnel training, and so forth, can be discovered and rectified early, making the transition into the new facility as smooth as possible.

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ACKNOWLEDGMENTS

These charts were developed through the combined efforts of personnel of the US Army Tri-Service Medical Information Systems (TRIMIS-Army) Agency and the Walter Reed Army Medical Center (WRAMC). This undertaking, conducted concurrently with the establishment of a nursing unit operations modeling project at WRAMC, spanned 15 months and utilized both medical professional and systems analyst personnel from TRIMIS-Army, and medical professional, para-professional, and auxiliary personnel from the Model Ward.

WARDS SUBSYSTEM

1. PURPOSE

The purpose of the Wards Subsystem "manual" condition-action flow-charts is to offer a graphic representation of the major processes which make up a ward system. Detail is of such a nature as to identify all ward operations but not the minute details of each operation so that what the physician actually does in the way of treatment for each patient, or how the medical records technician actually updates specific forms, is beyond the scope of these charts.

2. BACKGROUND

While differences exist between types of medical care rendered by different types of nursing units, there is a great deal of commonality among these units in terms of treatment procedures, administrative processes, and ancillary service support. As well, both the nursing units and the entire medical treatment facility cover a wide range of sizes, and this system is designed to be usable for all facilities which have inpatient beds, regardless of their relative size. It is reasonable to assume, however, that certain subsets of this system would not be implemented in smaller or more specialized facilities. All of these procedures have been implemented and are currently used--at least in part--in a manual system at the Walter Reed Army Medical Center.

3. LIMITATIONS

The reader is cautioned to remember that these charts represent inpatient health care as delivered in a military hospital--with rules, regulations, limitations, and stipulations--as set forth by the Surgeon General of the Army and members of his staff. Thus, certain processes, especially those of an administrative nature, closely parallel methods employed in civilian institutions while retaining military labels and nomenclatures.

The processes charted herein represent methods being employed in an inpatient ward modeling environment. As such, they are not necessarily indicative of general practices currently in use in the Walter Reed Army Medical Center or any other military hospital. The modeling effort represents an attempt not only to update the general efficiency and quality of inpatient health care delivery, but also to try to parallel the operating conditions expected in the new Walter Reed facility. In this way, potential difficulties with work flow, patient timing, personnel training, and so forth, can be discovered and rectified early, making the transition into the new facility as smooth as possible.

Operations in the new facility will require sizeable increases in the number of clerical personnel required to operate this subsystem as charted, especially if done in a totally manual mode. The assumption is that adequate numbers of additional personnel are available to fill these positions and that they can be trained to adequately perform all required duties, especially in an automated environment.

4. OBJECTIVES

The overriding goal of any ward is to provide top-quality health care to its patients. This requires the bringing together of nearly all of the hospital's services--both professional and non-professional--at the time and place where a need occurs.

One of the major considerations in this regard is the fact that current thinking leans toward the extraction of the physician and nurse from routine clerical matters with a consequent increase in involvement in direct patient care. This system has been carefully designed to optimize nurse involvement in health care, with clerical, managerial, and logistical support being provided to the patient and the health care team by persons skilled in these particular disciplines.

5. DEFINITION OF TERMS

The following are definitions of abbreviations and terms found throughout the Wards flowcharts:

A&D - Admissions and Dispositions. Generally used to refer to the office within the medical treatment facility (MTF) which is responsible for patient admissions and discharges, and their related administration.

Admission. The process of placing an individual under treatment or observation as an inpatient in an MTF and assuming medical responsibility for an individual who is hospitalized in a non-federal hospital or VA hospital, or when an individual is placed "on quarters."

Admitting Physician. The physician with designated admitting privileges who arranges for the admission, pre-admission, or transfer of the patient to the hospital.

Care Provider (CP). An individual who delivers services of a clinical nature directly to the patient--may be a physician, nurse, clinical dietitian, chaplain, LPN (Licensed Practical Nurse), etc. Does not include persons acting in administrative support roles, e.g., unit manager. Does not identify level of profession.

Clinic. A health treatment facility primarily intended, and appropriately staffed and equipped, to provide emergency treatment and outpatient services. A clinic is also intended to perform certain preventive medicine activities related to the health of the personnel served,

such as physical examinations and immunizations. A clinic may be equipped with beds for observation of patients awaiting transfer to a hospital, or for short-term observation of patients following some kind of treatment.

Clinic/CP Schedule. Generally, an array of times in which the CP is in the clinic showing his specific availability, by time, for patient encounters of various types. Clinics and CP's, in the Patient Appointments and Scheduling (PAS) Subsystem, are said to have "schedules" in which various patient appointments can occur. In a more restricted sense, "schedule" refers to a printed or displayed schedule (as defined above) which indicates at a glance the types and availabilities of the appointment slots comprising it, but does not indicate which patients have been appointed to the filled slots. The term "scheduling", as used in PAS, refers primarily to the bookkeeping of each CP's schedule and availability.

Clinical Summary. A defined set of data elements providing a concise outline of the patient's problems and treatment of same. Other terms which have been used are: "mini-record" and "minimal patient data base." The elements of the Clinical Summary are:

| | <u>Differences*</u> | |
|--------------------------------------|---------------------|----------------------------------------------|
| <u>Ward</u> | | <u>Clinic</u> |
| <u>Patient Identification (PTID)</u> | | |
| Age, Sex, Religion, Race | | |
| Rank-Category | | |
| *Patient Location | Ward, Room, Bed | Tel No., Addr (Home, Work) |
| *Primary Physician | Ward Physician | Physician, Location |
| *Primary Nurse | Ward Nurse | Nurse Clinician, Location (if applicable) |
| Problem Lists | | |
| Current Medications | | |
| Reactive Agents, Adverse Reactions | | |
| Medical Alert Message | | |
| Special Instructions | | |
| Height-Weight/Date | | |
| Blood Type | | |
| Surgical History | | |
| Obstetrical History | | |
| Test Results Profile | | |
| Last Contact(s) with System | | |
| Clinical Flow Sheet | | |

Consultation. The process of requesting a specialist's opinion regarding a patient's problem.

Disposition. The termination of an individual's admission to an MTF (See definition of Admission). Can also refer to the completion of all or some major part of a treatment plan for a clinic patient.

Logistics Technician (Log Tech). An individual assigned to a specific area of coverage (one or more nursing units or clinics) who is directly responsible for maintaining supply stockage levels for the unit, for stocking nurse servers as required, and for obtaining non-standard supplies and equipment at the request of the CP.

MEB (Medical Evaluation Board). A medical committee used to assist in determining the medical fitness of an active duty Service member. The MEB members are appointed by the MTF commander to consider each individual case where Board action is required by regulation, as well as any cases where Board action is necessary due to the problematical or controversial nature of an individual's condition.

Medical Output Processing Clerk. A person skilled in the analysis and transcription of medical records. This person generally is responsible for review and processing of a patient's record after a patient encounter in a clinic.

MRT (Medical Record Technician). A person skilled in the analysis and transcription of medical records. The MRT is responsible for the clinical record while it is on the ward.

MTF (Medical Treatment Facility). Any physical complex wherein professional health care is rendered, either on an inpatient and/or an outpatient basis.

MTRC/MITRC (Medical Treatment Recording Card/Medical Inpatient Treatment Recording Card). These are standard credit-card-size cards (plastic, embossed, and machine-readable) which contain patient identifying information.

Order - A formal request for a service. Patient orders may be classified as to:

1) ORIGIN:

Primary - An order whose execution is not specified to be conditional to the execution of another order.

Secondary - An order whose execution is specified to be conditional to the execution of another order.

2) PRIORITY:

STAT - (Abbrev of Latin STATIM meaning immediately).
An order whose execution is time-critical and which
may invoke a special mode of execution.

Routine - An order which is executed through normal
procedures.

3) STATUS:

Current - An order which is in effect.

Outstanding - An order whose execution is in process
(for which no result has been received).

Suspense - An order for which a file entry is created
upon order entry and not deleted until a specified
event occurs.

Old - An order whose execution has been completed
(and confirmed if a suspense order) or cancelled.

Delinquent - An order whose execution step(s) has/
have not been confirmed within a pre-defined period
of time after the ordered time.

4) TYPE:

A (traditional) classification for orders to
identify to which activity and/or service the order
is directed, e.g., laboratory order, diet order, etc.

Ordering. The process of requesting an action to be performed.

PAD (Patient Administration). The function of PAD is to provide
patient administrative services for the hospital and to act as custodian
of all medical and clinical records of inpatients and outpatients. This
includes: administratively admitting and discharging patients, and
receiving, reviewing, maintaining, storing, and disposition of medical
records.

PAS (Patient Appointments and Scheduling Subsystem). The subsystem
of the Health Care Delivery System which supports patient appointments,
clinic/CP schedules, dental, and operating room scheduling. This system
is ADP-supported and has no specific geographic bounds, being composed of
a centralized telephonic appointment service as well as decentralized
appointment sites, such as clinic outprocessing areas.

PTID (Patient Identification). The data necessary to provide unique patient identification and the common linkage between the various automated and manual data files forming the basis for an integrated patient data base system. It consists of patient's name, sponsor's Social Security Number, patient's family member prefix, and patient's date of birth.

Pre-admission. Collecting appropriate admission data before admission actually occurs. Performed for elective cases where immediate hospitalization is not required, it is identical to Admission except that hard-copy admission documentation is maintained in a suspense file until actual admission.

Primary Nursing. A nursing concept wherein a registered nurse is designated as the individual responsible for ensuring that the nursing process is accomplished for a case-load of hospitalized patients. Responsibility begins with admission and continues through discharge (including discharge planning). In this case, the primary nurse works directly with the primary physician, and the patient and his family to ensure that observations are documented and analyzed care is planned, implemented, and evaluated, and that plans are modified as required.

Primary Physician. The physician responsible for the patient's medical care and for coordination of services available from the health care system. When a patient is admitted to a ward, the ward physician assigned becomes the patient's primary physician for the duration of the patient's hospitalization.

Pri-team. A combination of team nursing and primary nursing in which the team is responsible and accountable for all the nursing care delivered to that team's patient.

Pri-team Nursing. Assignment of eight to ten individual patients to a nursing team whose members are responsible for nursing management of their case-load from the time each patient is admitted until he is discharged. Team membership consists of an RN and one or two other nursing service personnel.

Problem-oriented Medical Record. A medical record which includes a problem list and in which the CP's notes are organized according to the listed problems. A problem is any condition which may adversely affect or reflect the patient's health. Problems may be: 1) diagnoses, 2) physiologic findings, 3) symptoms or physical findings, 4) abnormal laboratory findings, 5) health maintenance, and 6) psycho-social conditions relevant to one of the preceding categories.

Requisition/Request Form - An order document. For example, laboratory test requisitions have the following elements:

- 1) PTID
- 2) Test specification - usually only one test or several closely related tests (e.g., blood hematology tests) can be ordered per requisition. Hence, requisitions are usually test-specific.
- 3) Source of specimen (e.g., blood, urine), if not implied by 2.
- 4) Date and time of specimen collection.
- 5) Ordering clinic or ward.
- 6) Ordering CP.
- 7) Date of order.
- 8) Frequently, additional test specific data needed for interpretation (e.g., age, sex).
- 9) Space for result reporting.

As the above implies, a requisition can serve not only to communicate an order but also to report results.

SI (Seriously Ill). When a patient's illness is of such severity that there is cause for immediate concern although there is no imminent danger to life.

Standard Order Set. A defined set of orders which are frequently entered simultaneously, but with only minor variations, and which have therefore been grouped together for convenience of entry. Examples of this grouping are:

- 1) Admission orders (e.g., obstetrical, coronary care, etc.).
- 2) Procedure-related orders (e.g., pre-operative, post-operative), with breakdowns by procedure categories.

Team Nursing. A method of organizing nursing services whereby patient care is assigned to teams consisting of a team leader, RN, and one or more other nursing service personnel. The head nurse remains the center of communications and the person ultimately responsible.

Test Results Profile. A defined set of laboratory, X-ray, and EKG (electrocardiogram) reports providing a concise summary of the patient's test results data base. The set may be defined by any or all of the following mechanisms:

- 1) The most current results for a defined set of tests, (e.g., complete blood count, urinalysis, SMA 12, chest X-ray, EKG).
- 2) Results from previous encounters with the option of obtaining only the most recent results.
- 3) Results of tests uniquely specified for a patient.

One use of the Test Results Profile is in the Clinical Summary.

Unit Administrator. Individual charged with responsibility for all administrative, personnel, and logistical functions of each individual ward and clinic. In the military environment, the unit administrator is responsible basically for all non-direct patient-care functions of his unit. He is responsible for all unit equipment; he hires, trains, supervises, and schedules all non-professional personnel, handles local patient administration, and participates in the overall budgetary process for funds for his unit.

Unit Dose Distribution. Drug distribution system in which each drug order is sent to the pharmacy. The pharmacy maintains a patient's medication profile. Periodically, medications are delivered to the wards in a cart (or in cassettes which are made to fit into a cart). Each drawer in the cart will contain medication for one patient. The pharmacy places enough medication in each patient drawer to meet the requirements for active orders between cart exchange times. Each medication (including injectables) is dispensed in a single well-labeled medication package which contains a single dose in ready-to-administer form.

Unit Medical Clerk. A trained person located on the ward/clinic/ancillary service who is responsible for all intra-hospital communications to and from that unit.

VSI (Very Seriously Ill). When a patient's illness is of such severity that his life is in imminent danger.

Walk-in Patient. Any non-appointed patient who presents himself for care at the MTF.

6. EXPECTED BENEFITS

- a. Greater flexibility and capability.
- b. Increased nursing personnel involvement in direct patient care.
- c. Improved utilization of personnel and material resources.
- d. Improved patient satisfaction.
- e. Standardized procedures.
- f. Ability to collect more meaningful and complete workload data for staffing purposes.

7. SUBSYSTEM INTERFACES

There are major interfaces in the Wards Subsystem to the Patient Administration System, the Pharmacy System, the Radiology System, the Clinical Laboratory System, and the Food Service System.

There are also minor interfaces to the Clinics Subsystem and the Patient Appointments and Scheduling System.

8. AMENABILITY TO ADP SUPPORT

These processes, as charted, represent only procedures and are, as such, technology-independent. It is now foreseen that most, if not all, of these processes will be automated in the future. However, each of them can be adapted to a completely manual health care system, as well as any manual/automated combination, simply by following the charts.

9. FILES, RECORDS, AND FORMS

The following are descriptions of files, records, and forms utilized in the Wards Subsystem and referenced throughout these flowcharts:

a. Nursing Care Plan. A detailed outline of medical care originated by the nursing team leader and used as the basis for all inpatient nursing care during the patient's stay. This plan is a combination of the physician's orders as well as the nursing technique to be used.

b. Order Schedule. Sheet noting the schedule times for all tests, services, and other significant treatment events on the ward. Used by the ward staff to insure that patients are transported at proper times, that medications are administered on time, etc.

c. Order Sheet. Form used by patient CP's to request services. Some orders, particularly those for medication, may need to be signed or countersigned by a physician.

d. Outstanding Report Suspense File. File created during processing of CP's written orders to insure that orders are carried out within a set period of time.

e. Patient Appointment File. File, maintained on the ward, listing ward patient's appointments with other health care activities within the MTF.

10. SPECIFIC FLOWCHART COMMENTARY

Explanation of possible ambiguities or areas of misunderstanding within the Wards Subsystem flowcharts are listed below by process.

a. Transfer-in/Admission

On Sheet 2/2, physician and/or nurse coordination must include approval through PAD channels of the new ward assignment prior to patient transportation. Failure to coordinate with PAD introduces unneeded subsequent rectification of PAD ward assignment records and erroneous patient status reporting.

b. Inpatient Care Process

The pre-disposition process noted has a military-unique aspect. Because of the need for advance notification of personnel branches in order that assignment orders, etc., can be prepared in a timely manner, the physician must attempt to project a discharge date as far as possible in advance. The pre-disposition process is basically the notifications involved with the patient's impending transfer to a new assignment or to the medical holding company for further convalescence/treatment.

The unit management process, in the context of Sheet 1/2, includes any administrative matters, such as typing, housekeeping duties, etc., needed by the patient or physician to resolve the problem at hand. The process is not charted in detail at this time because it is still undergoing development.

c. Order Process

Action circle 1B on Sheet 1/13 indicates a return of an order from the Pharmacy Subsystem because of need for countersignature of a drug order by a physician with full prescribing privileges. Certain drugs (e.g., experimental drugs) can be ordered only by specifically authorized individuals.

The standard operating procedures file referenced on Sheet 4/13 implies a standard order set of supplementary orders generated by one primary order. This standard order set is adequate for most routine cases but may be modified by the CP to fit the particular situation.

The Pharmacy, Radiology, and Food Service Subsystems, referenced on Sheet 5/13, all contain needed feedback to the Wards/Clinics Subsystem. Respectively, these include transportation of the requested drug or admixture to the ward for administration by ward personnel, transmittal of X-ray results or notes on radiation therapy results from the Radiology Department, and coordination of appropriate diet therapy by the Food Service Division. The Pharmacy Subsystem feeds back into the medication administration process, Radiology re-enters at the result return and review process, and Food Service enters indirectly through coordination with the CP's on needed dietary changes/updates which generate new orders.

The Laboratory Subsystem, referenced on Sheet 7/13, also contains feedback mechanism to the result return and review process.

Special handling mentioned also on Sheet 7/13, as well as on 8/13, involves any procedure, such as icing of certain specimens or fixing smear specimens, which must be accomplished to preserve the specimen for accurate testing.

On Sheet 9/13, the two condition blocks from Circle 9A differ in terms of volume of blood drawn. The "Patient Donation for Later Administration to Himself" implies withdrawal of a quantity (most likely one unit) of blood. The "Cross Match and Reserve for Specific Patient" implies withdrawal of only that quantity needed for laboratory cross-matching procedures, usually one or two small vials. As soon as the cross-match is performed, two units of the right type of blood are reserved for use by the patient when needed.

CONDITION-ACTION
DIAGRAM INTERPRETATION GUIDE

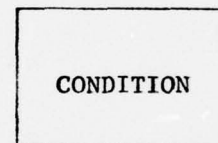
1. ACTION

When an action circle is encountered, the specified action, procedure, function, or process is to be performed as noted. An action is performed and never has a truth (true or false) value.



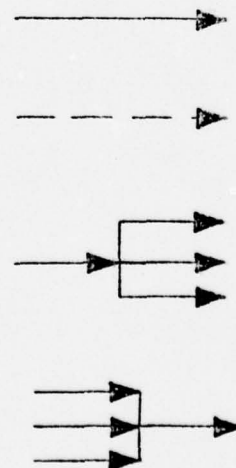
2. CONDITION

When a condition box is encountered, the specified condition is to be evaluated. If it holds true or succeeds, the following blocks on the diagram are to be executed. If the condition does not hold, then flow along this path of the diagram stops. The flow may, as appropriate, either be blocked permanently or may merely wait at the box pending the successful evaluation of the condition at some later time. A condition always has a truth (true or false) value.



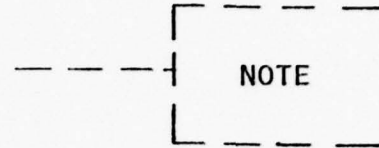
3. FLOWLINES

Flow proceeds through the diagram along the flowlines. When a flowline splits into multiple lines, all the lines must be followed (perhaps at once). If only one is intended, condition boxes will be used to select the proper line. When flowlines join or reconsolidate into a single line, that line is to be followed regardless of the number of joining lines that were active. Thus, there is no waiting at a junction. Control, execution, or interpretation of the diagram is shown by solid flowlines. Data and information are usually assumed to accompany control; but, where necessary for clarity, it is shown by "dash" lines, regardless of media.



4. NOTE

Clarifying notes, comments, remarks, and other annotations, including references to additional documentation, are enclosed in "dash" note boxes and are connected to the annotated structure by "dash" lines.



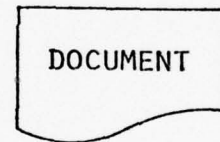
5. STORAGE

A triangular storage block indicates storage of information or data regardless of the medium of storage. Thus, only "dash" data flow lines--not solid control lines--will connect to storage blocks.



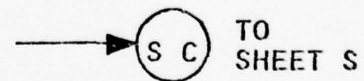
6. DOCUMENT

A document symbol represents information or data, regardless of media. (It may or may not physically reside on a document). It is used only for clarity, as information such as that contained in the "document" is assumed to be always present along with the control flow. Like the storage symbol, only "dash" data lines may connect to a document symbol.



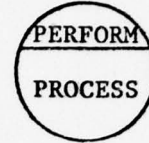
7. CONNECTOR

A connector circle specifies that the flow continues on another page. An out-connector contains a number (which is the sheet number at which the flow is continued) and a letter (which specifies which in-connector on that sheet is being referenced). The in-connector contains the matching number/letter code. Adjacent to the connectors is a notation as to the sheet and process to, or from, which the connectors refer.



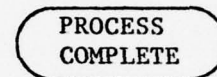
8. PROCESS

A striped process circle indicates a process to be performed. It is analagous to a high-level or meta-action. The process referenced will be diagramed in its own set of condition-action flowcharts which are included in the same packet of flowcharts for reference. After the process is performed, flow resumes.



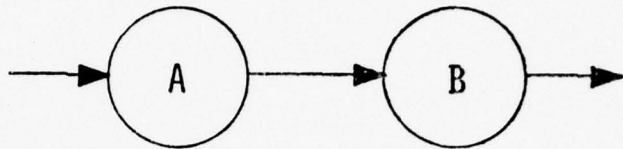
9. TERMINATOR

The oblong terminator symbol indicates that the current process or sub-process is complete. Normally, upon completion of a process, control returns to the process which invoked it and resumes where it left off in that process.

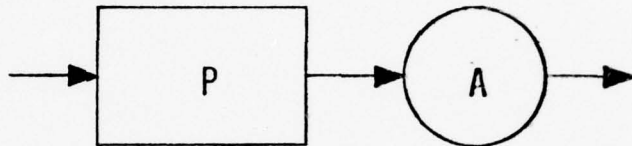


CONDITION-ACTION
EXAMPLES

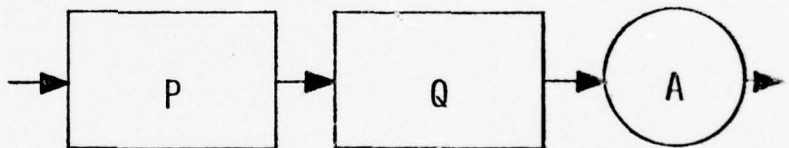
Perform Action A first,
then in sequence,
perform B.



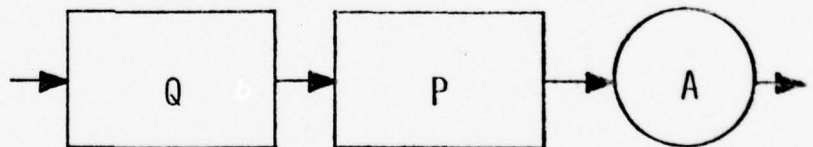
If Condition P holds true,
then perform Action A. If
P does not hold, do not
perform A.



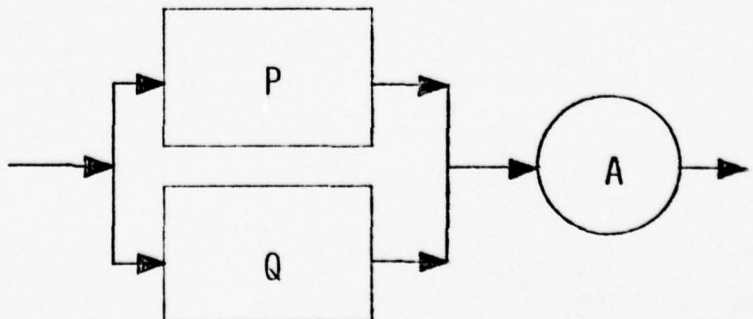
If both Condition P and
Condition Q hold true,
then perform A. If either
one does not hold, then
do not perform A.



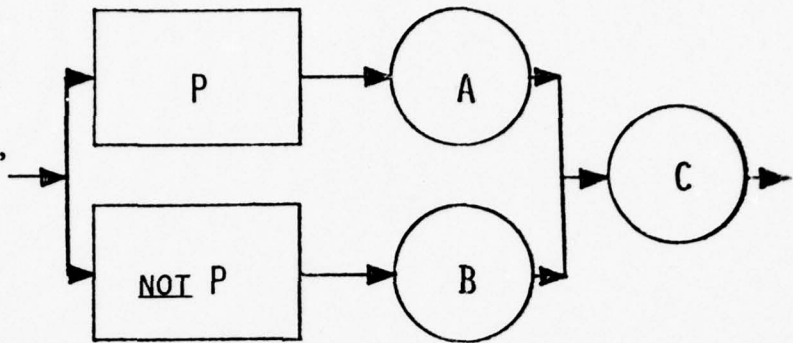
Same function and same net
result as above, but
evaluated in a different
sequence.



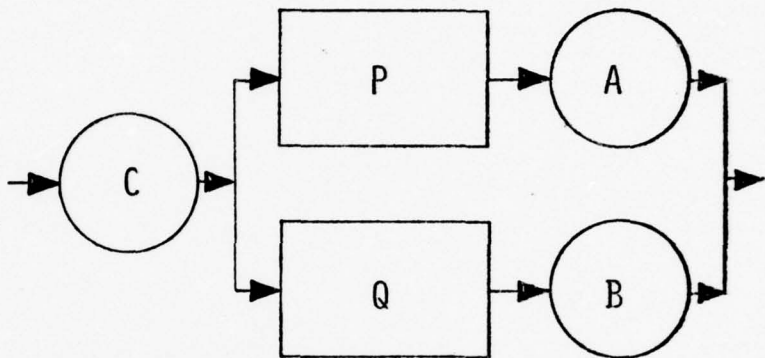
If either Condition P or
Condition Q holds true
(or both), then perform A.
If neither holds true,
then do not perform A.



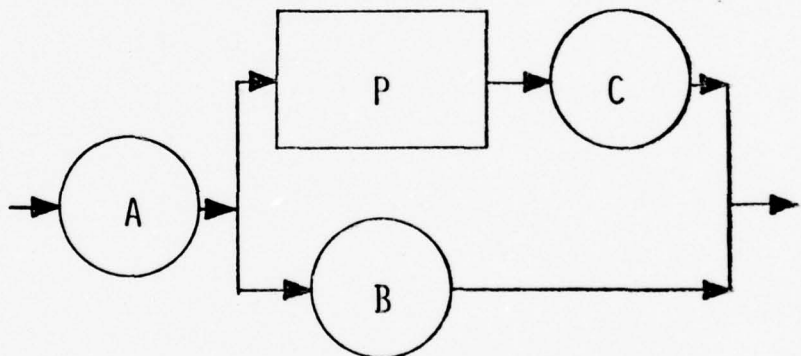
If Condition P holds true, then perform Action A, but not B. If P does not hold, then perform B, but not A. In any case, when done, perform C.



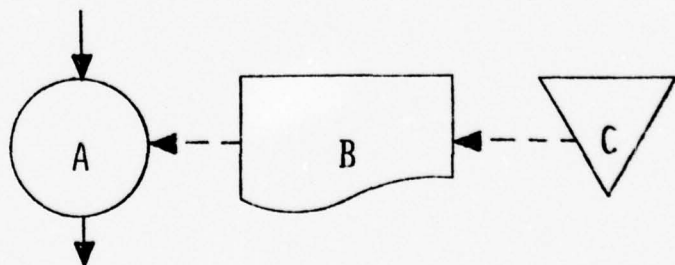
First perform Action C. Then, if Condition P holds true, perform Action A. If Condition Q holds true, then perform Action B. Note that both P and Q may hold, in which case both A and B will be performed.



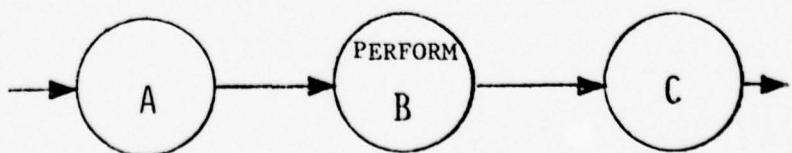
First perform Action A, then (in all case) perform Action B. Additionally, if Condition P holds true, then perform Action C (perhaps at the same time as Action B).



Perform Action A, utilizing information contained on the document B which was retrieved from the File C.



First perform Action A. Then perform Process B, which is itself flow-charted elsewhere in this set of charts. After B is completed, return to here and perform Action C.



INDEX TO CHARTS

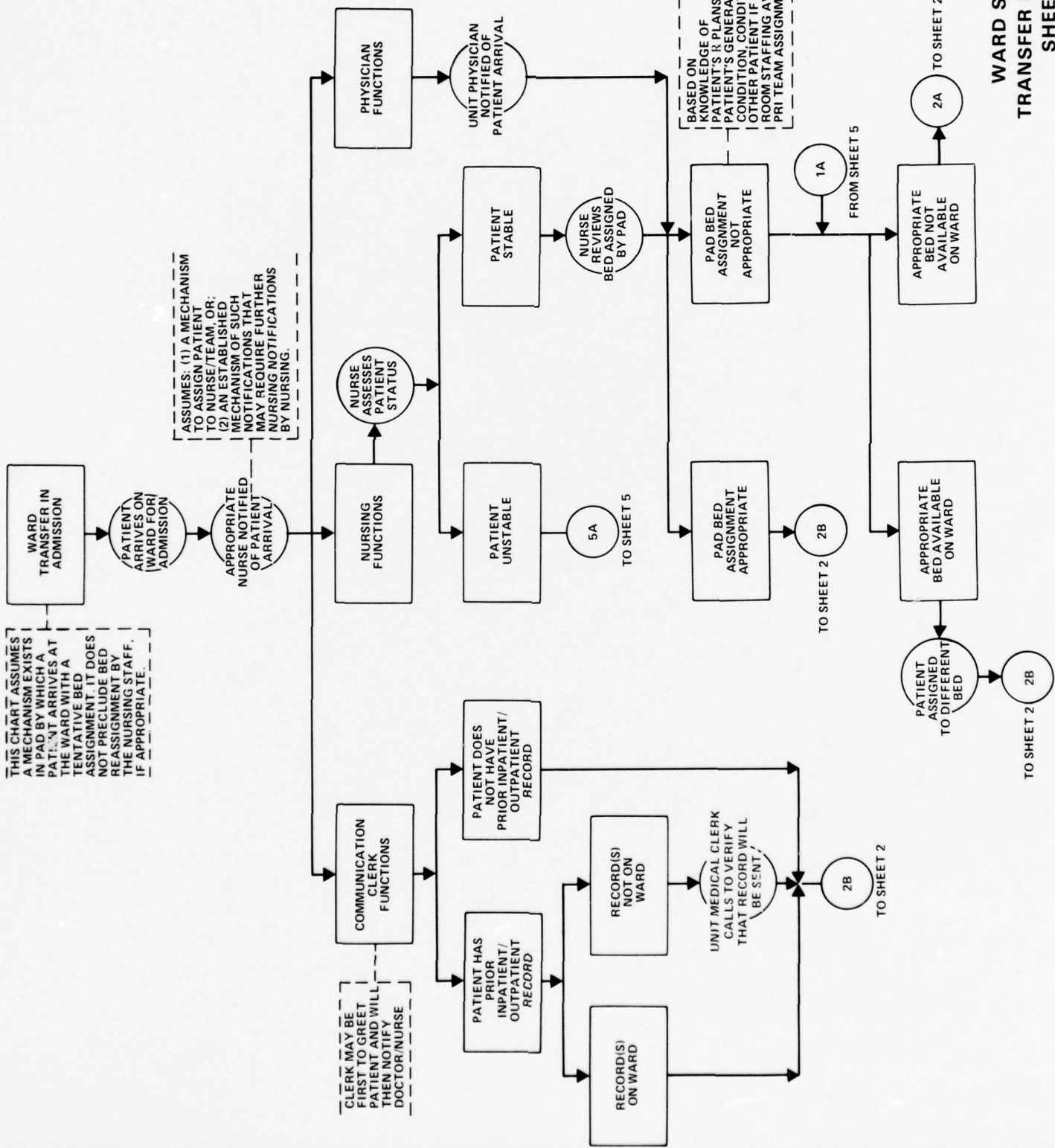
| <u>Process</u> | <u>Page</u> |
|------------------------------|-------------|
| Admission/Transfer-In | 17 |
| Blood Product Administration | 42 |
| Inpatient Care | 22 |
| Medication Administration | 40 |
| Order | 24 |
| Result Return and Review | 37 |
| Transfer-In/Admission | 17 |

THIS CHART ASSUMES A MECHANISM EXISTS IN PAD BY WHICH A PATIENT ARRIVES AT THE WARD WITH A TENTATIVE BED ASSIGNMENT. IT DOES NOT PRECLUDE BED REASSIGNMENT BY THE NURSING STAFF, IF APPROPRIATE.

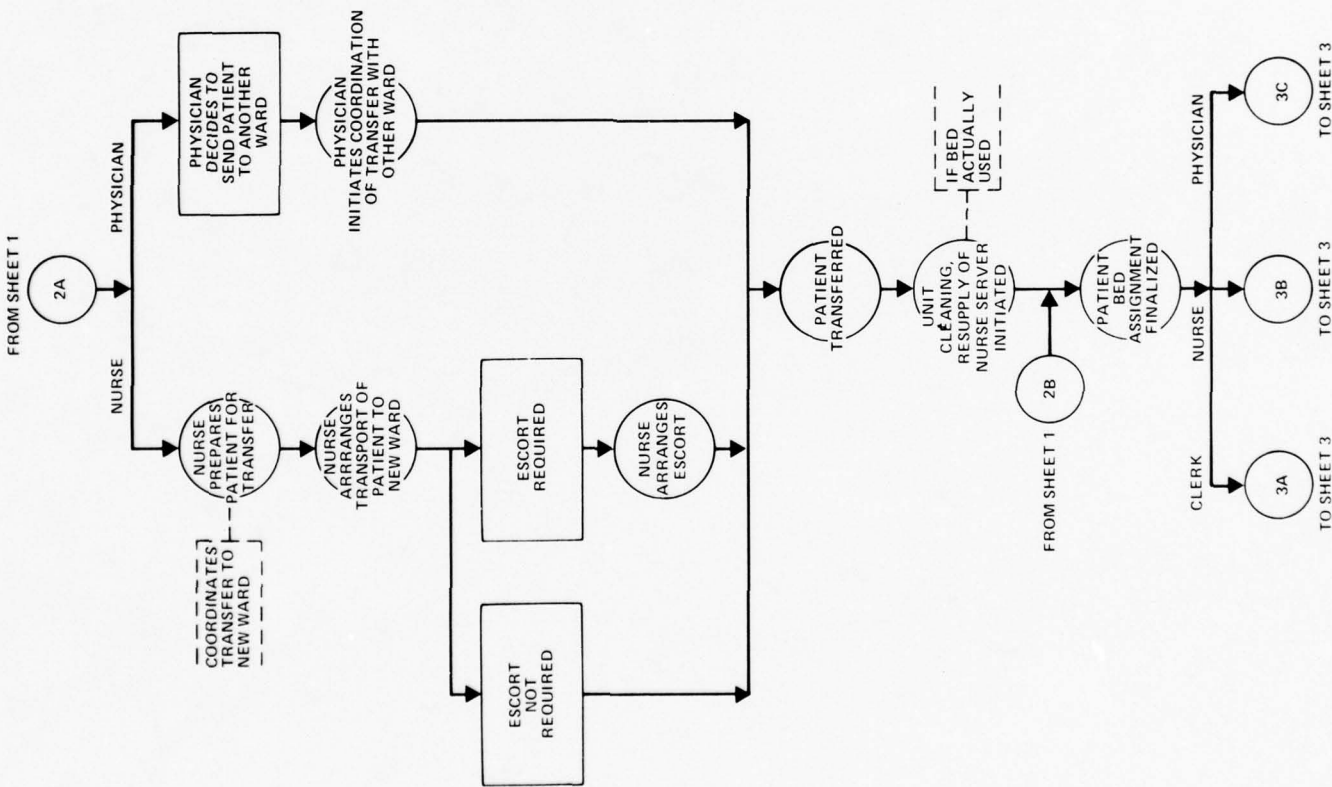
CLERK MAY BE FIRST TO GREET PATIENT AND WILL THEN NOTIFY DOCTOR/NURSE

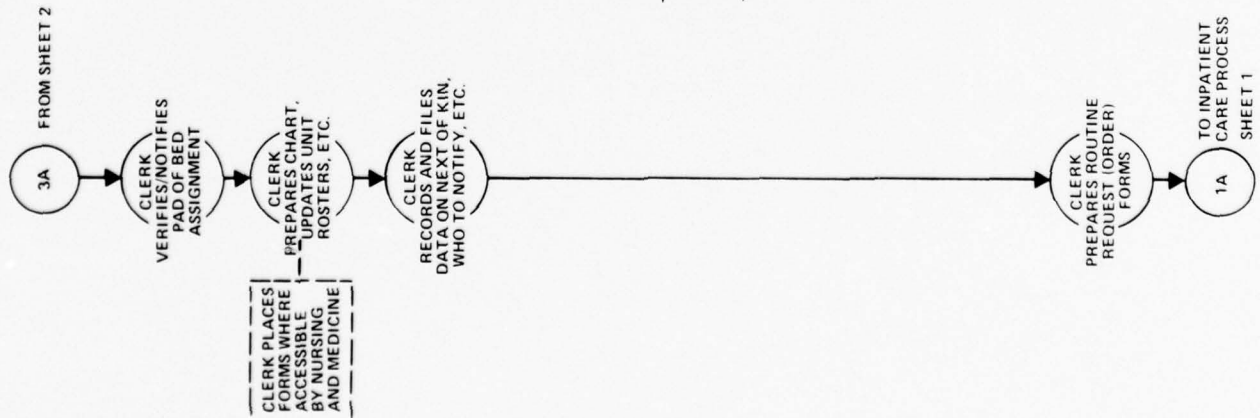
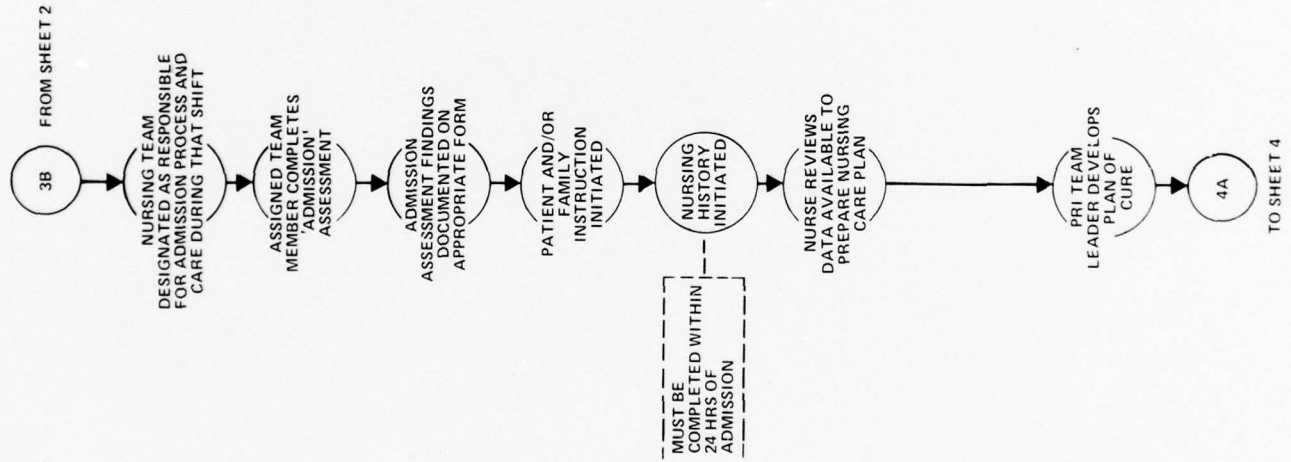
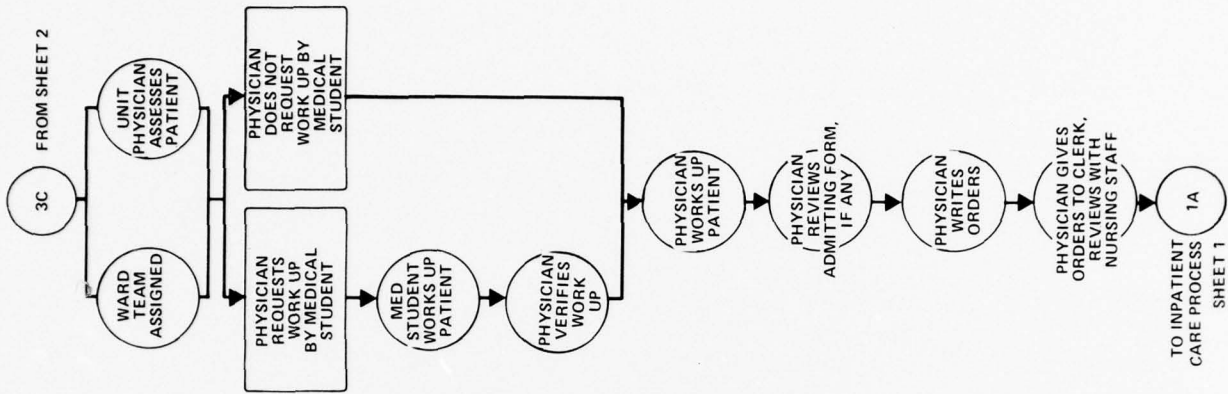
ASSUMES: (1) A MECHANISM TO ASSIGN PATIENT TO NURSE/TEAM, OR; (2) AN ESTABLISHED MECHANISM OF SUCH NOTIFICATIONS THAT MAY REQUIRE FURTHER NURSING NOTIFICATIONS BY NURSING.

BASED ON KNOWLEDGE OF PATIENT'S PLANS, PATIENT'S GENERAL CONDITION, CONDITION OF OTHER PATIENT IF SHOWN, ROOM STAFFING AVAILABLE PRI TEAM ASSIGNMENT



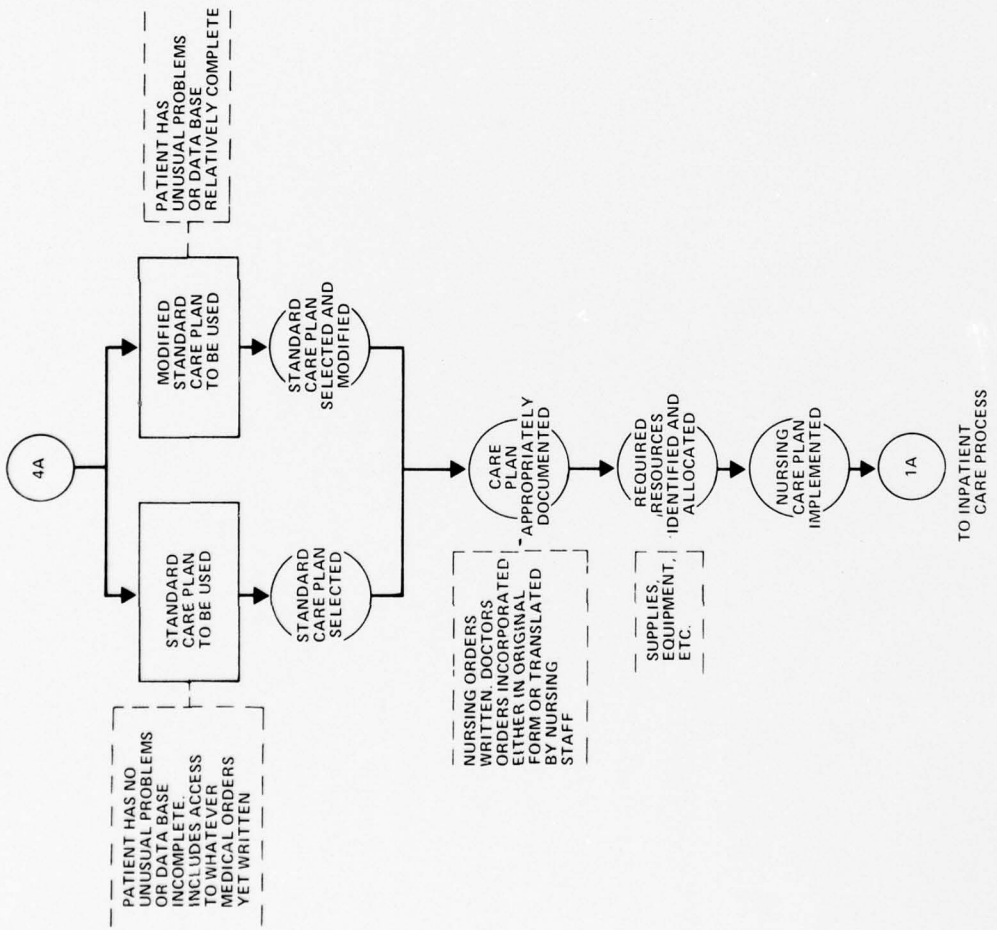
WARD SUBSYSTEM
TRANSFER IN/ADMISSION
SHEET 1 OF 5

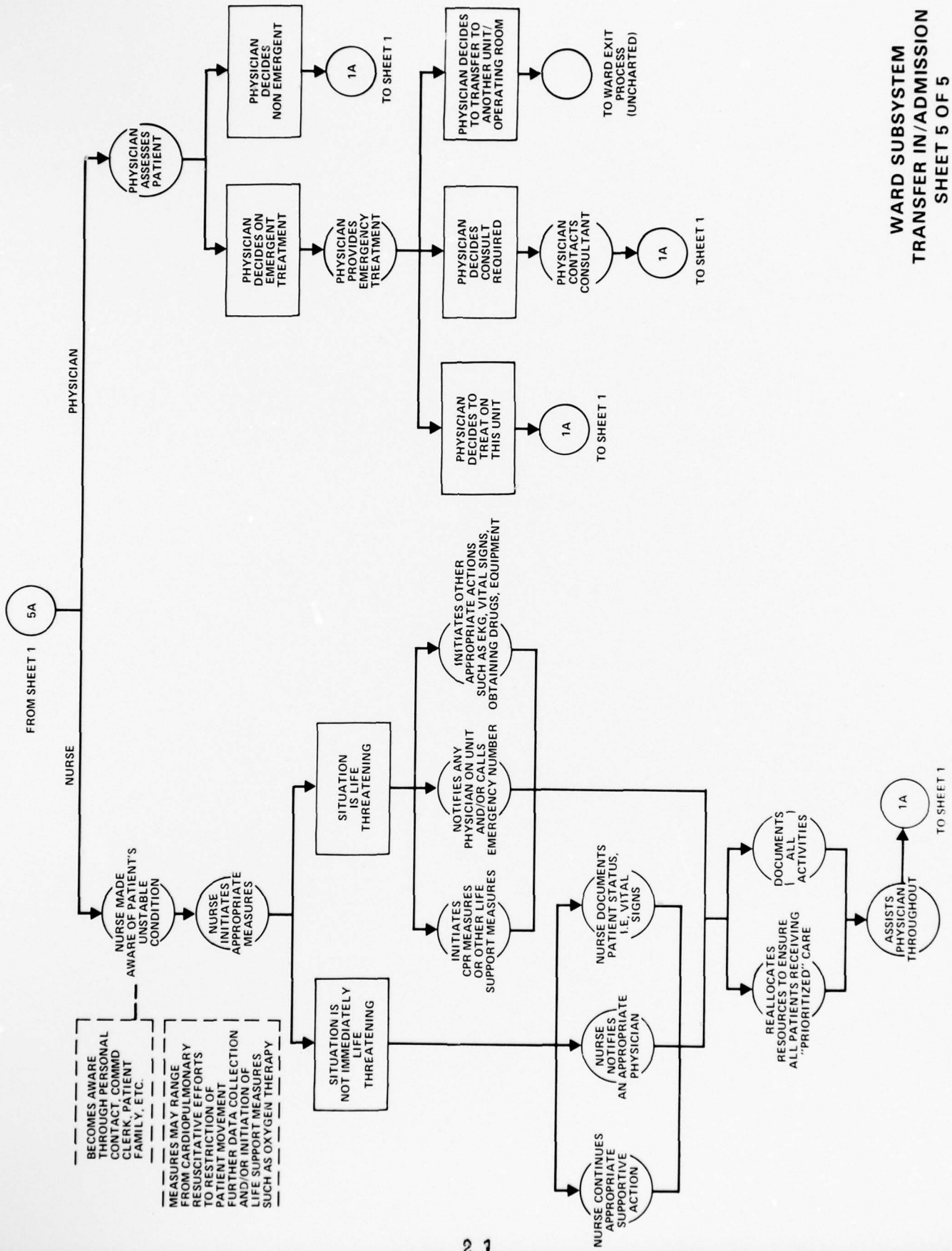




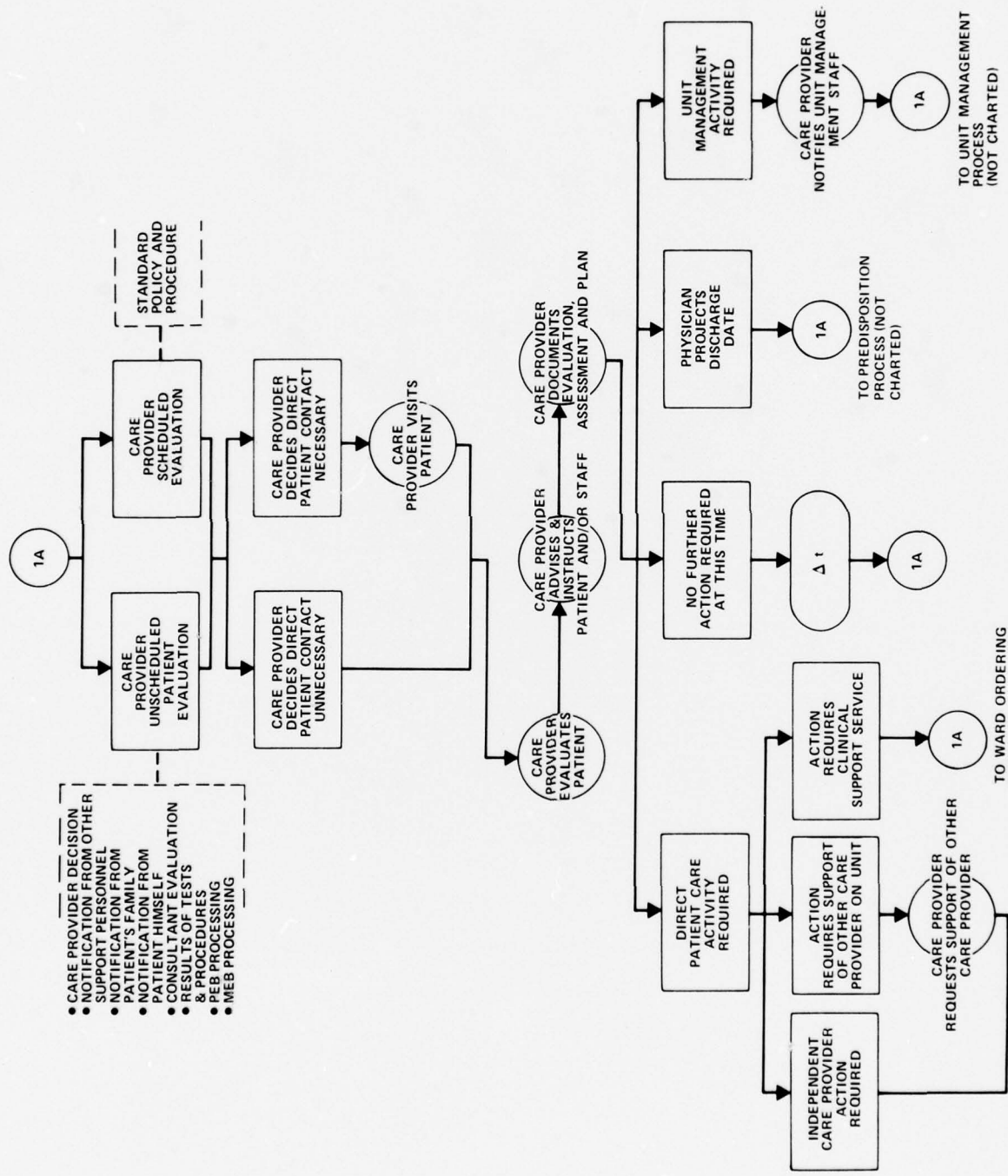
WARD SUBSYSTEM
TRANSFER IN/ADMISSION
SHEET 3 OF 5

FROM SHEET 3

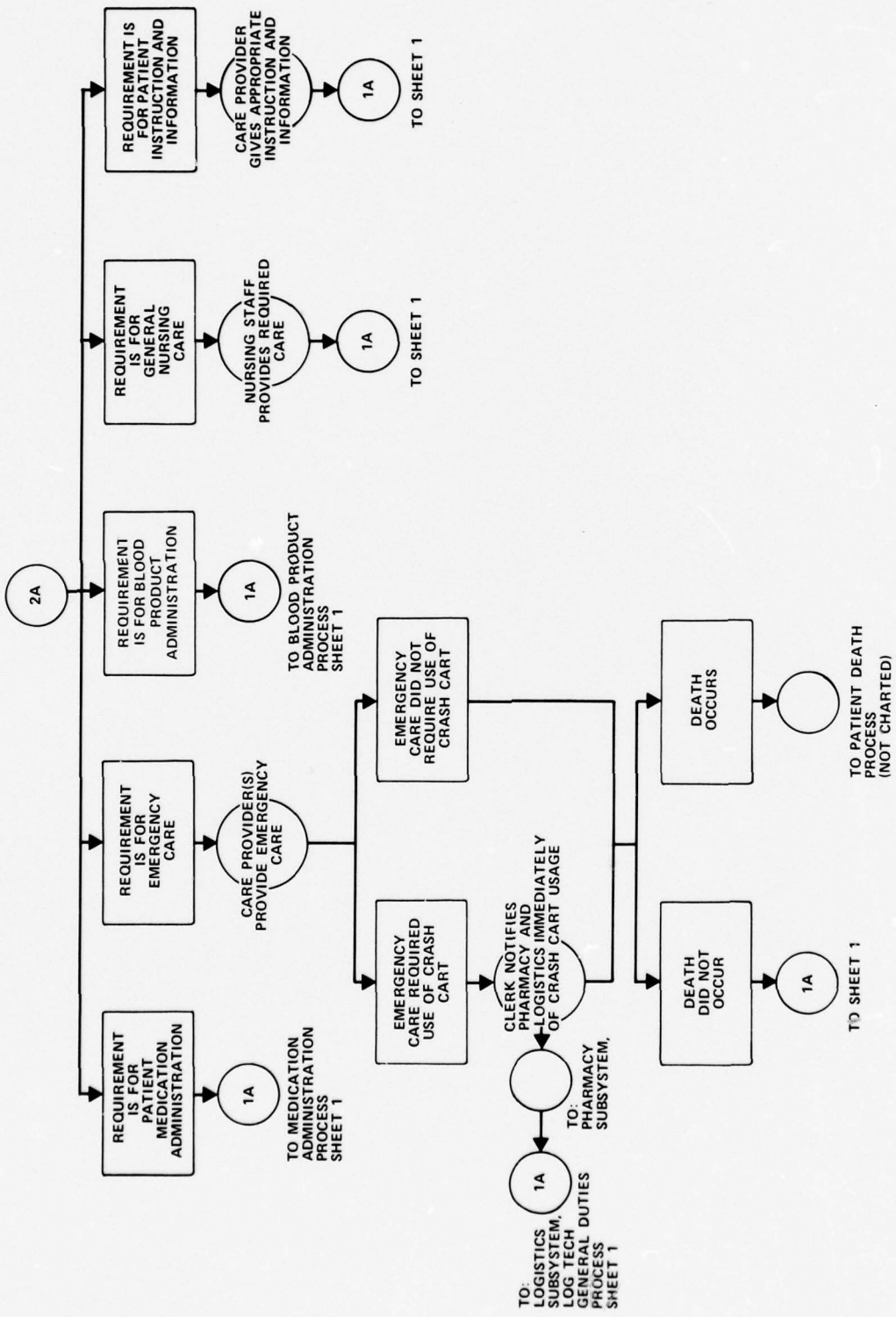




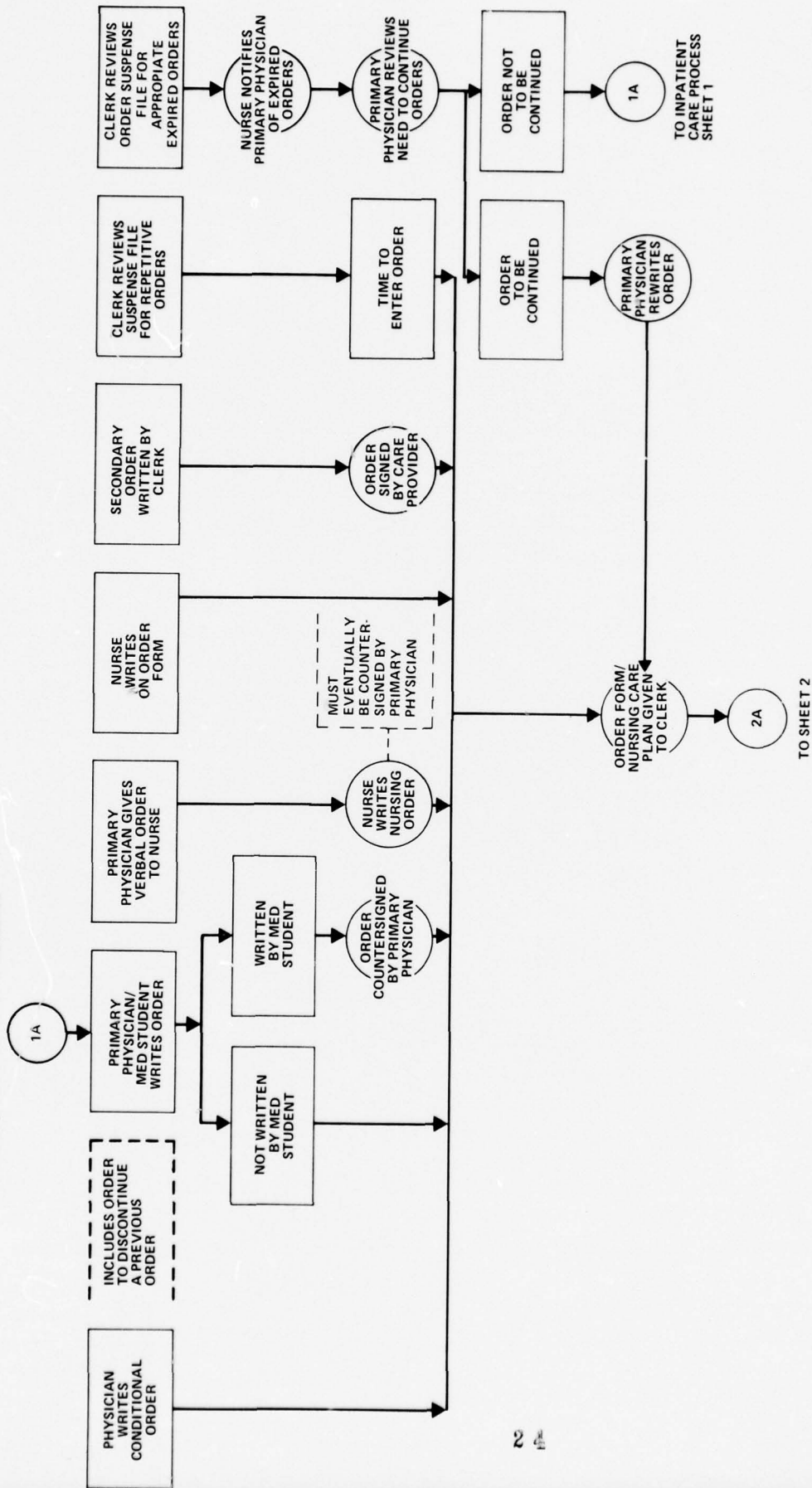
**WARD SUBSYSTEM
TRANSFER IN/ADMISSION
SHEET 5 OF 5**

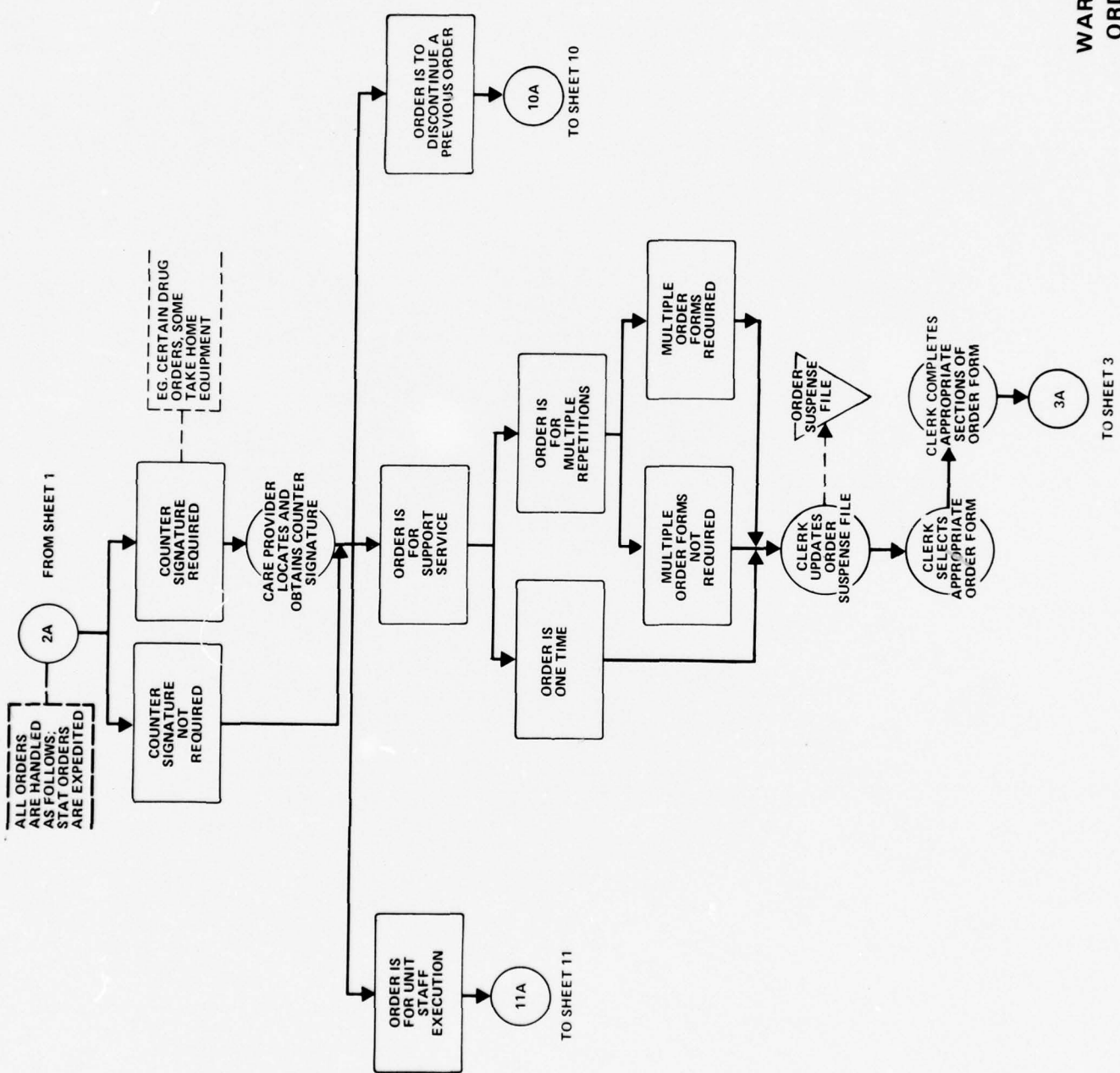


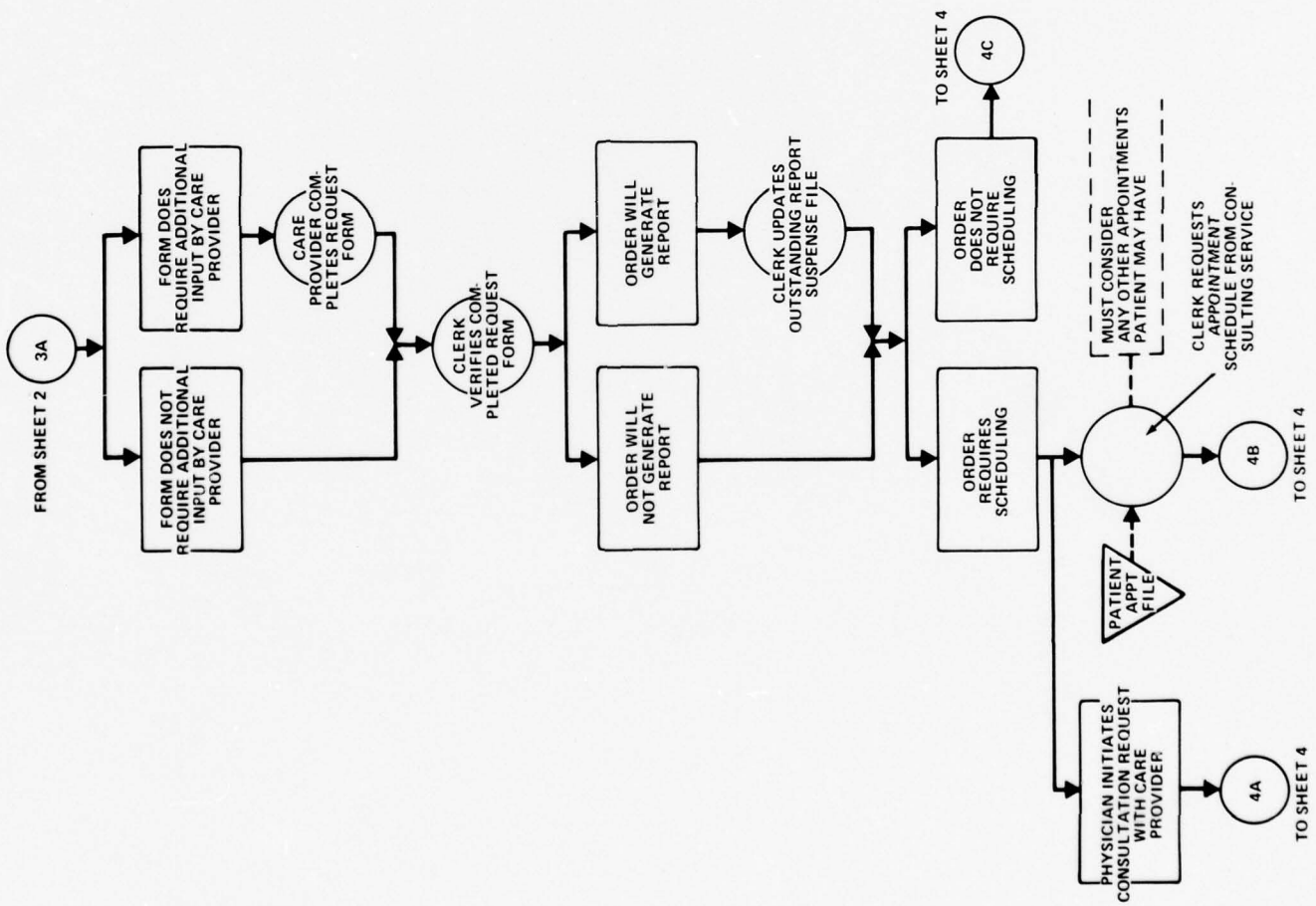
- CARE PROVIDER DECISION
- NOTIFICATION FROM OTHER SUPPORT PERSONNEL
- NOTIFICATION FROM PATIENT'S FAMILY
- NOTIFICATION FROM PATIENT HIMSELF
- CONSULTANT EVALUATION
- RESULTS OF TESTS
- B-PROCEDURES
- FEB PROCESSING
- MIB PROCESSING



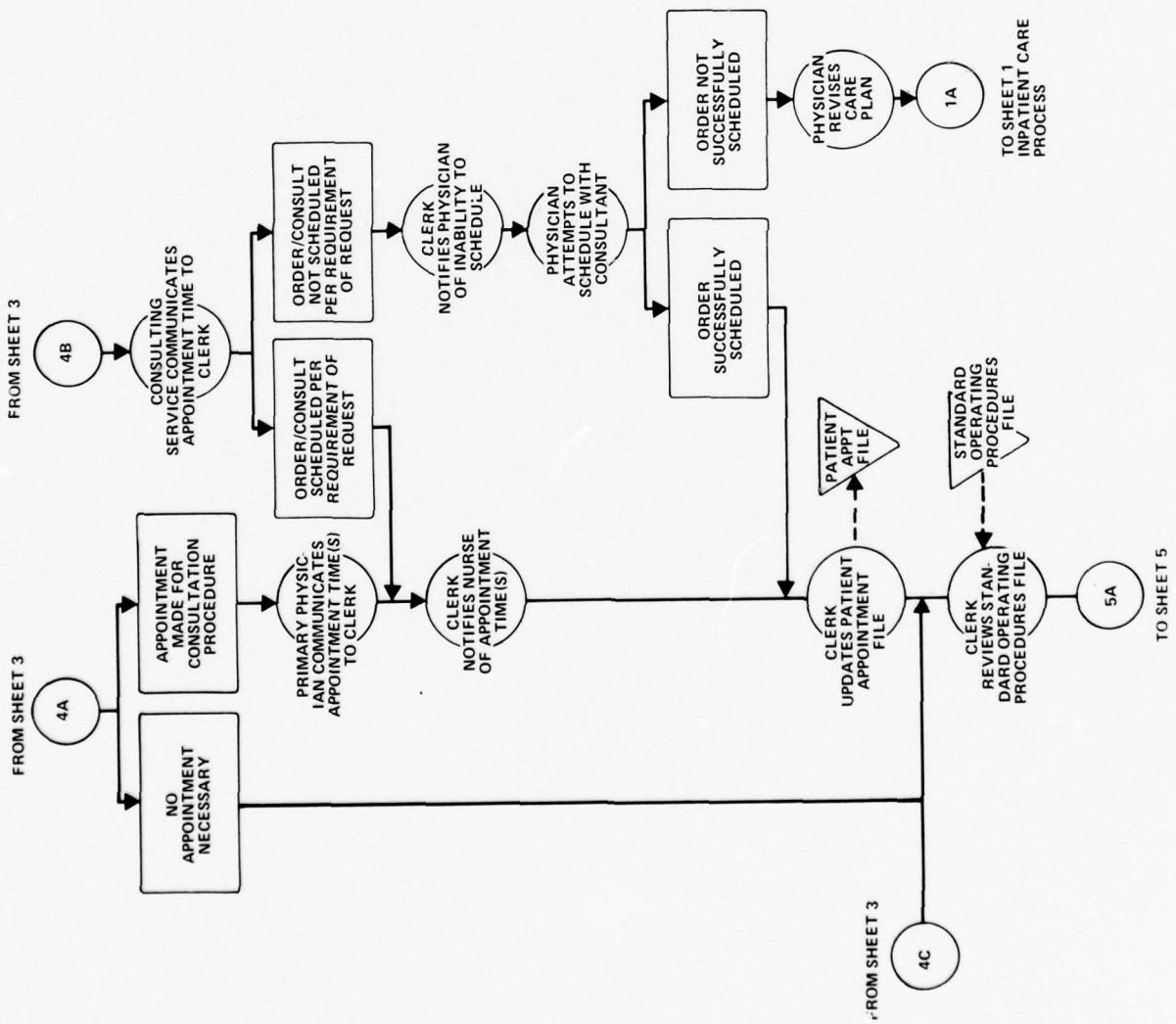
FROM LABORATORY SUBSYSTEM
SHEET 1
BLOOD PRODUCT REQUEST PROCESSING

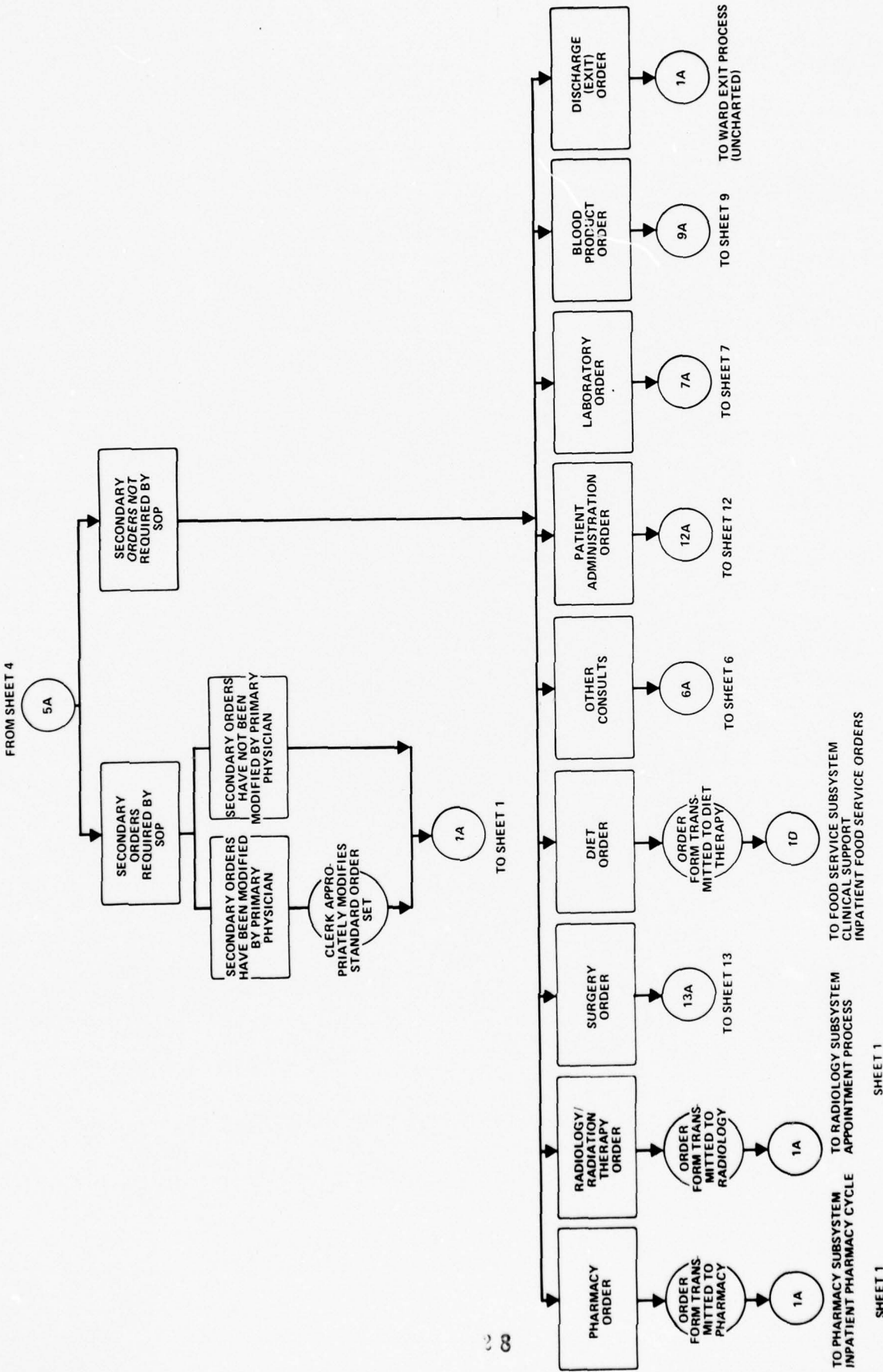




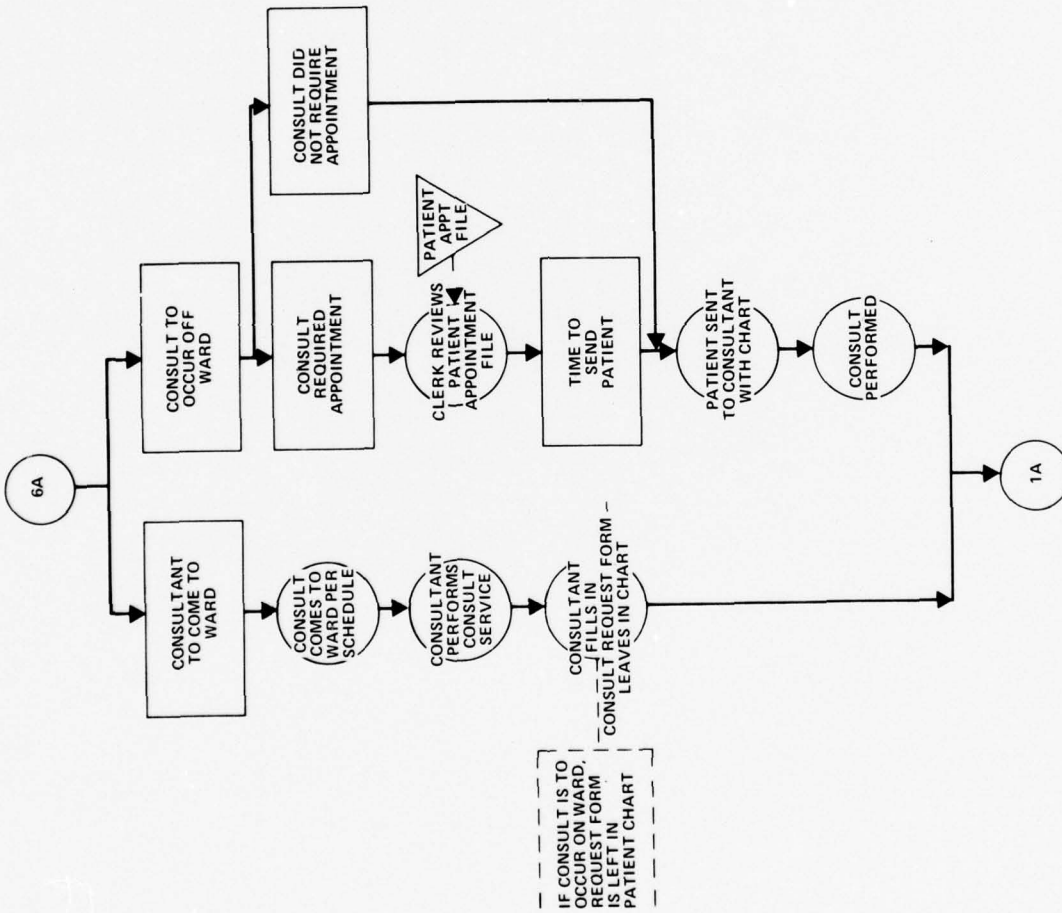


WARD SUBSYSTEM
ORDER PROCESS
SHEET 4 OF 13



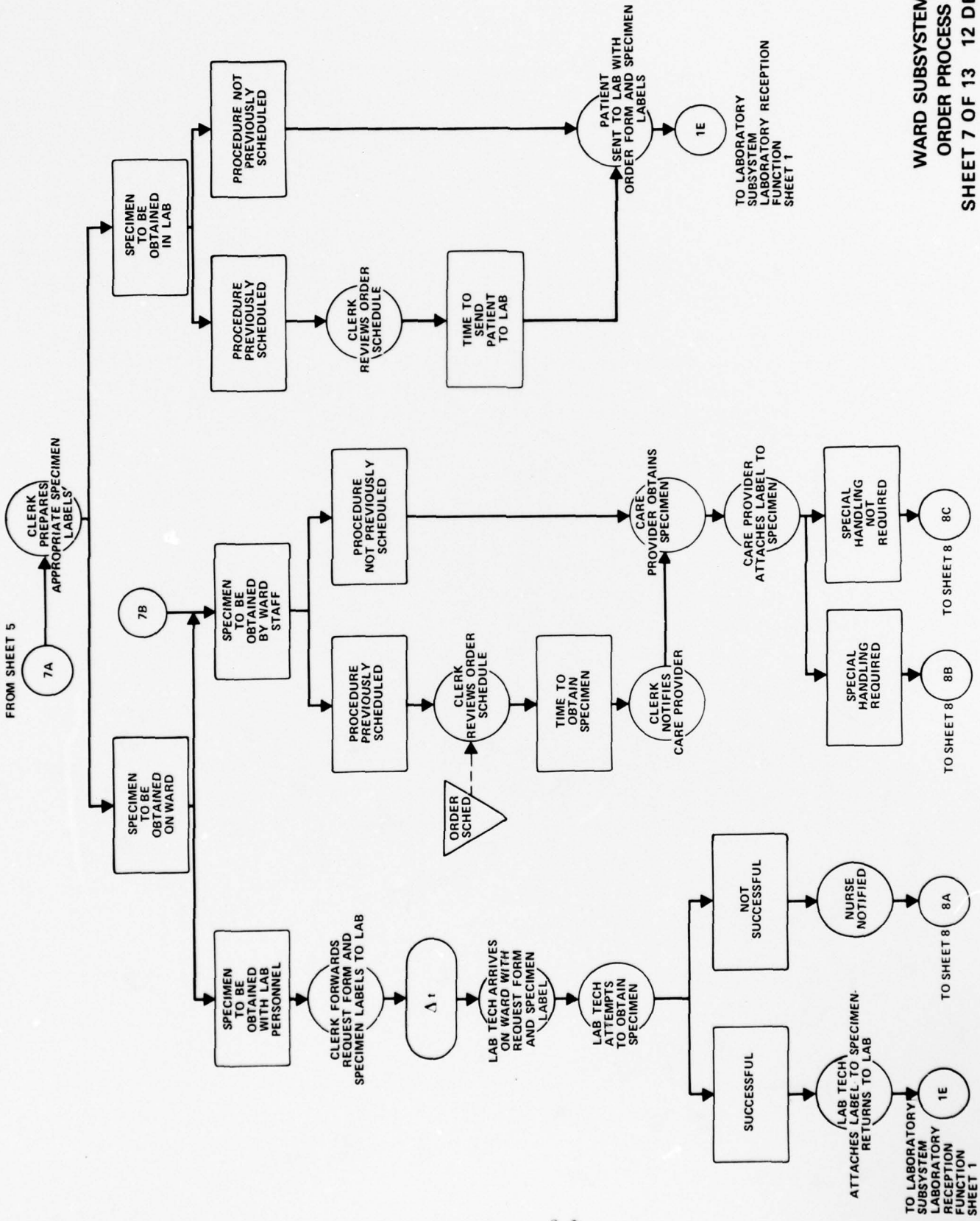


FROM SHEET 5



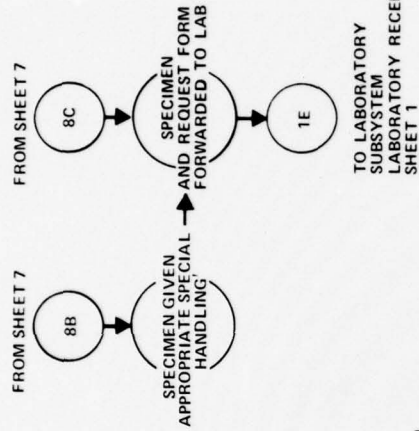
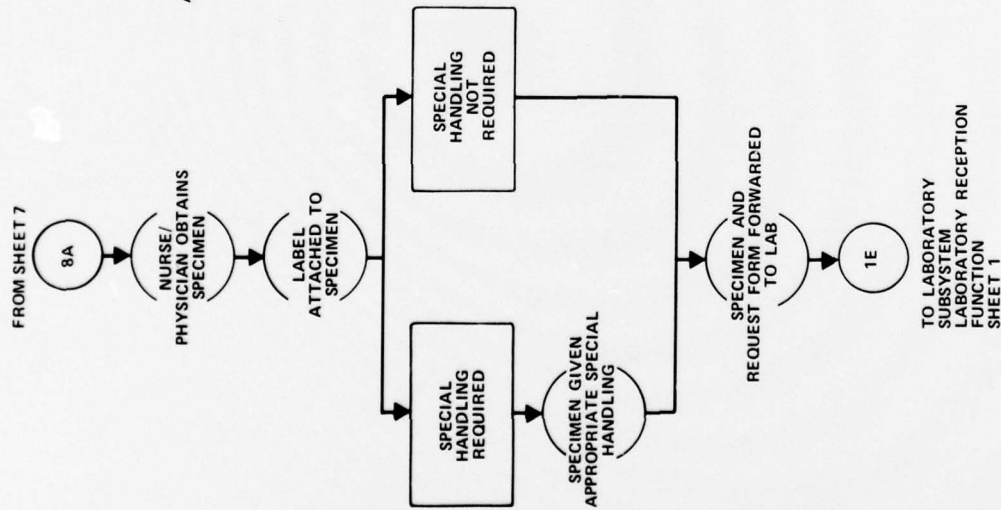
TO INPATIENT CARE PROCESS SHEET 1

FROM SHEET 5



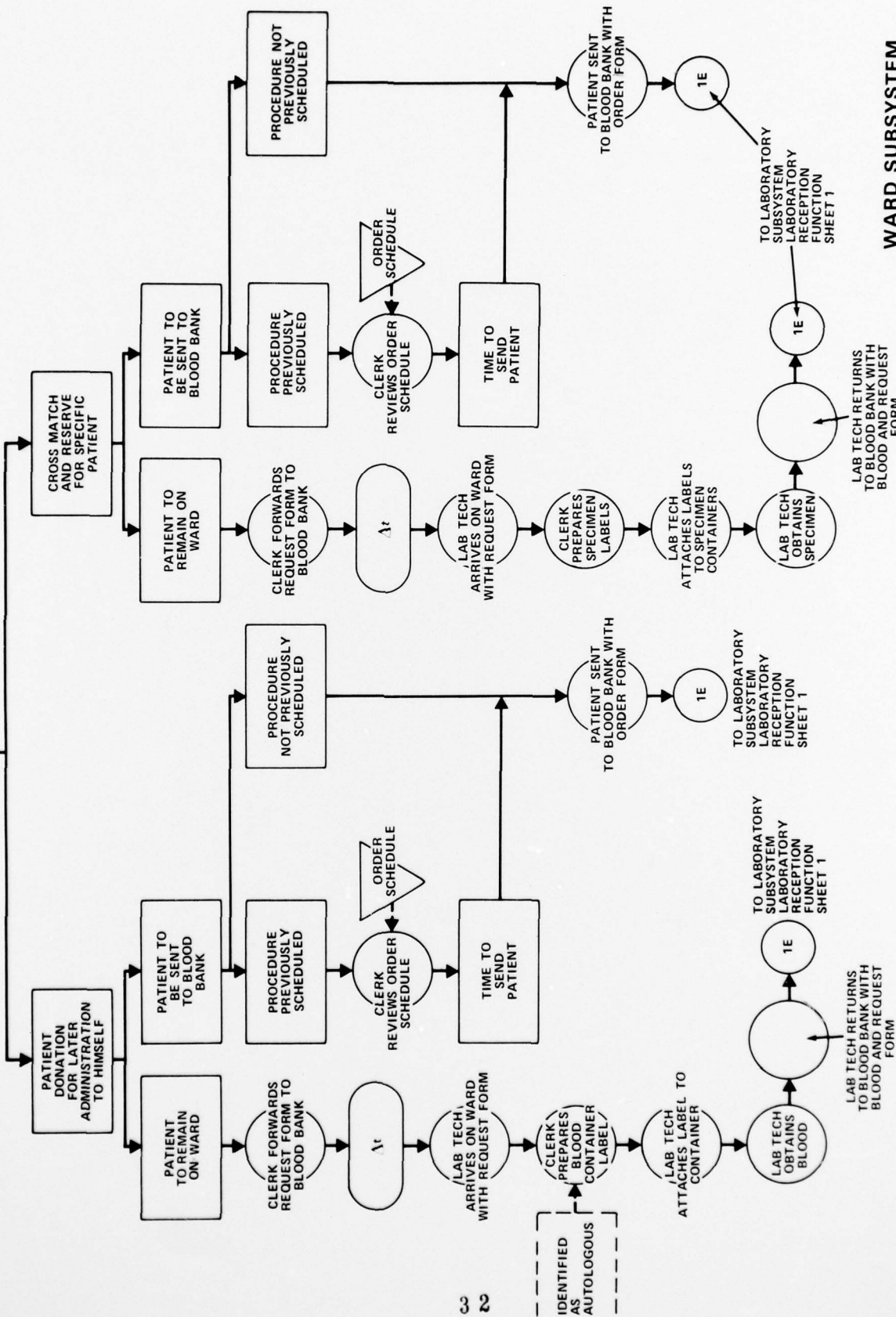
WARD SUBSYSTEM
 ORDER PROCESS
 SHEET 7 OF 13 12 DEC 75

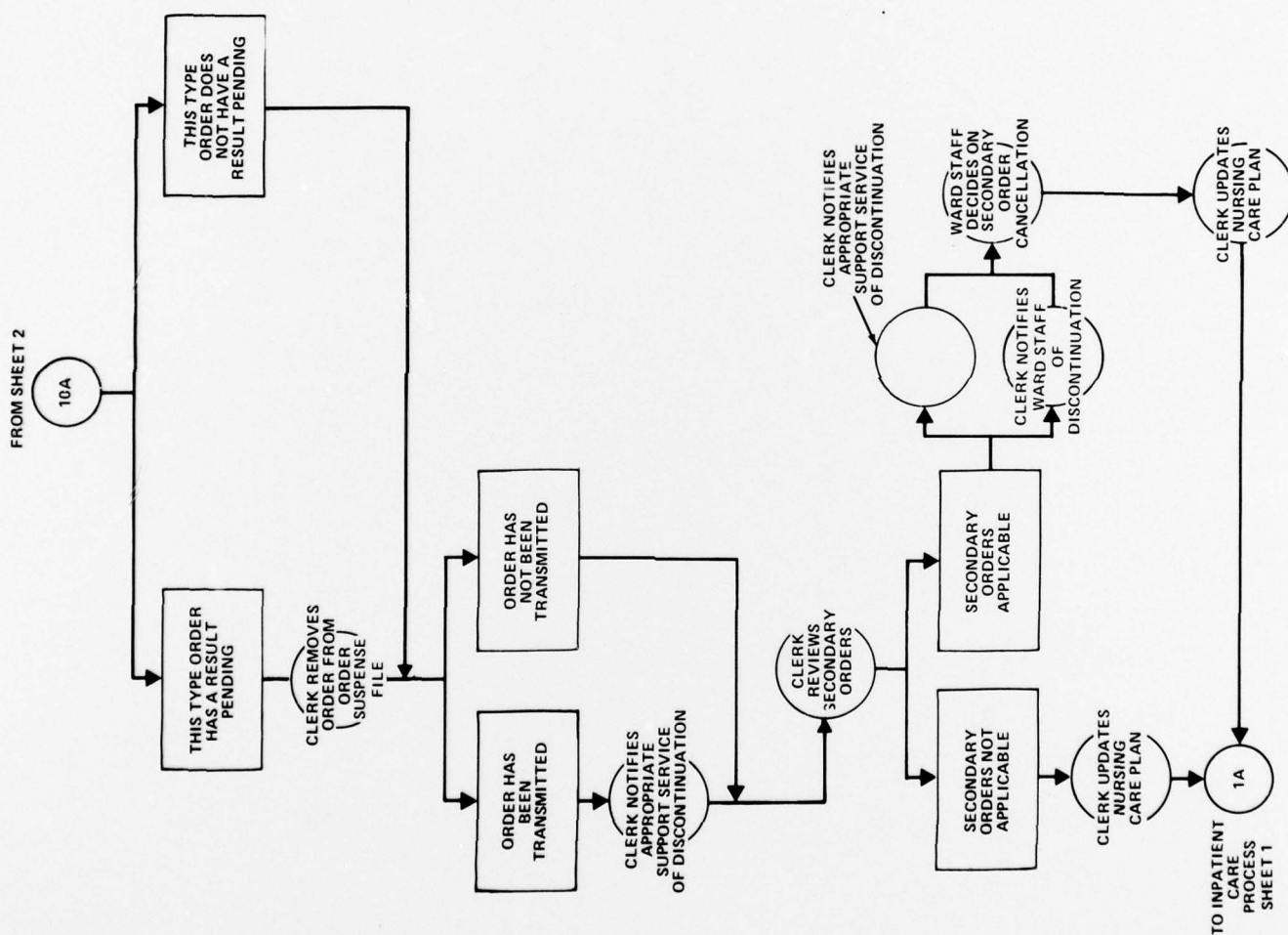
TO LABORATORY
 SUBSYSTEM
 LABORATORY
 RECEPTION
 FUNCTION
 SHEET 1

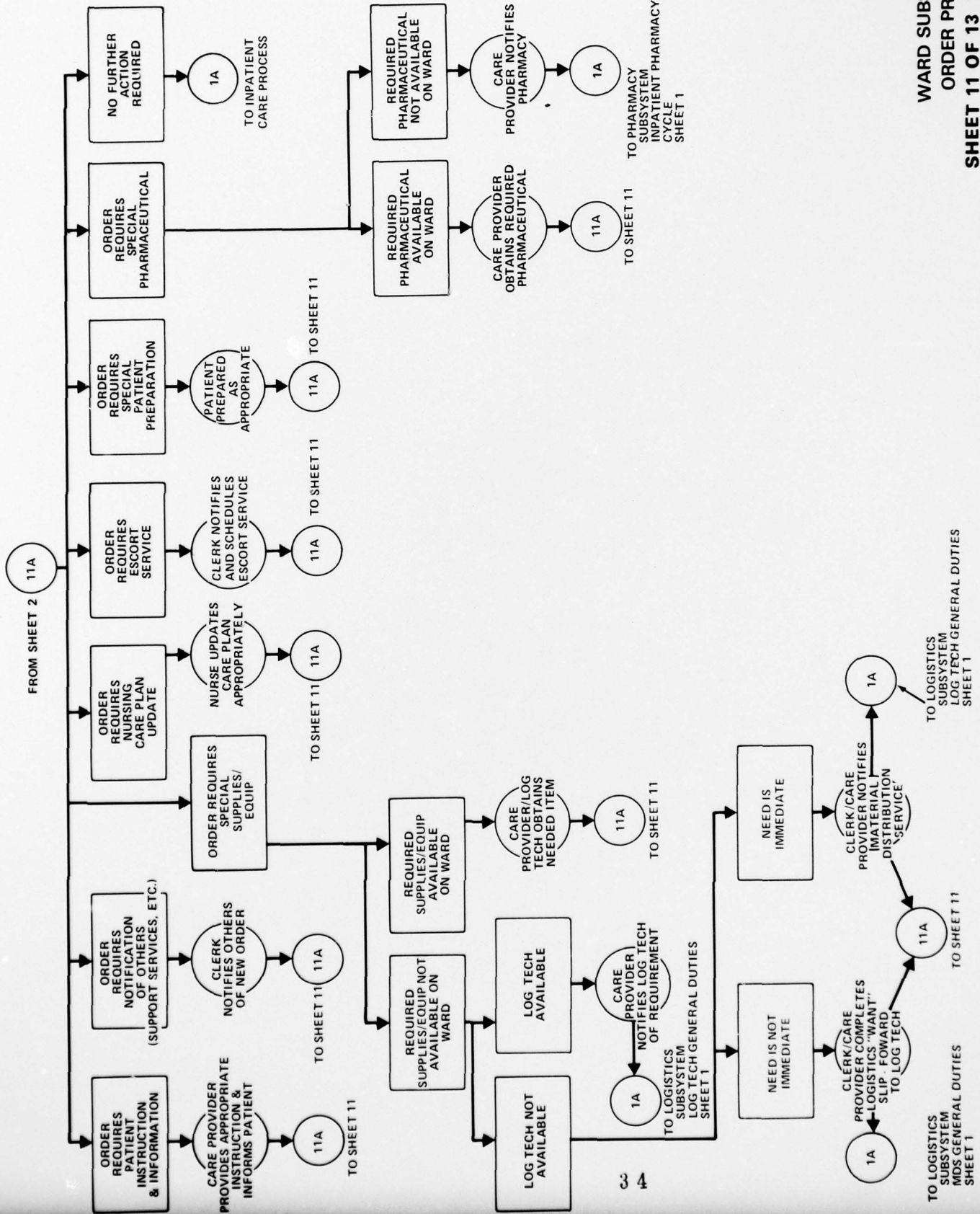


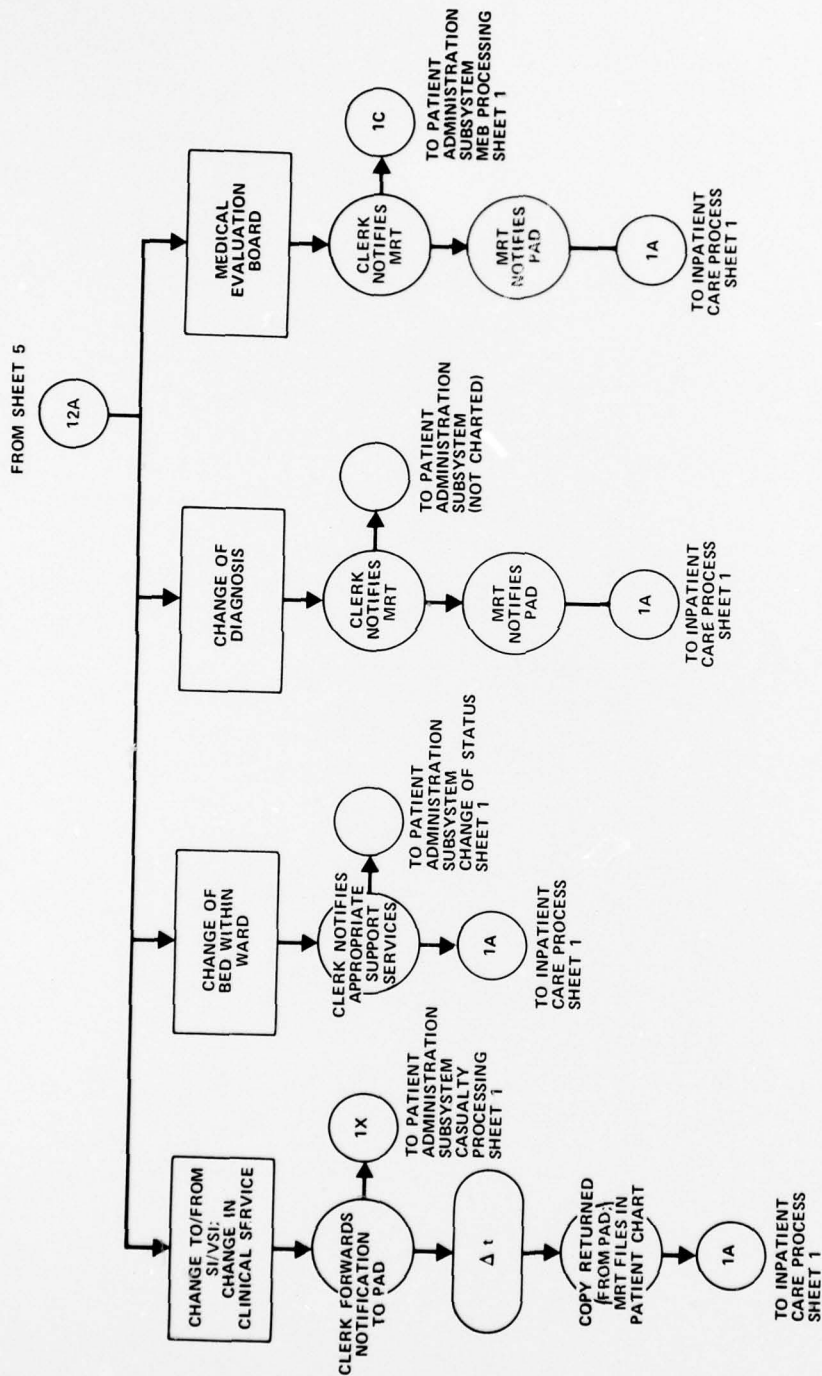
FROM SHEET 5

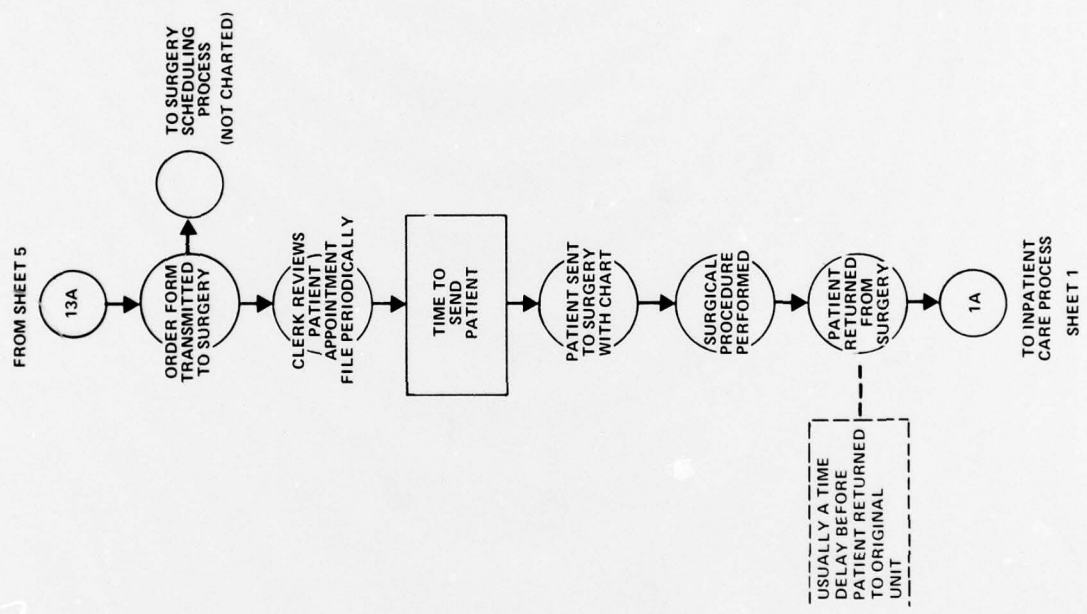
9A



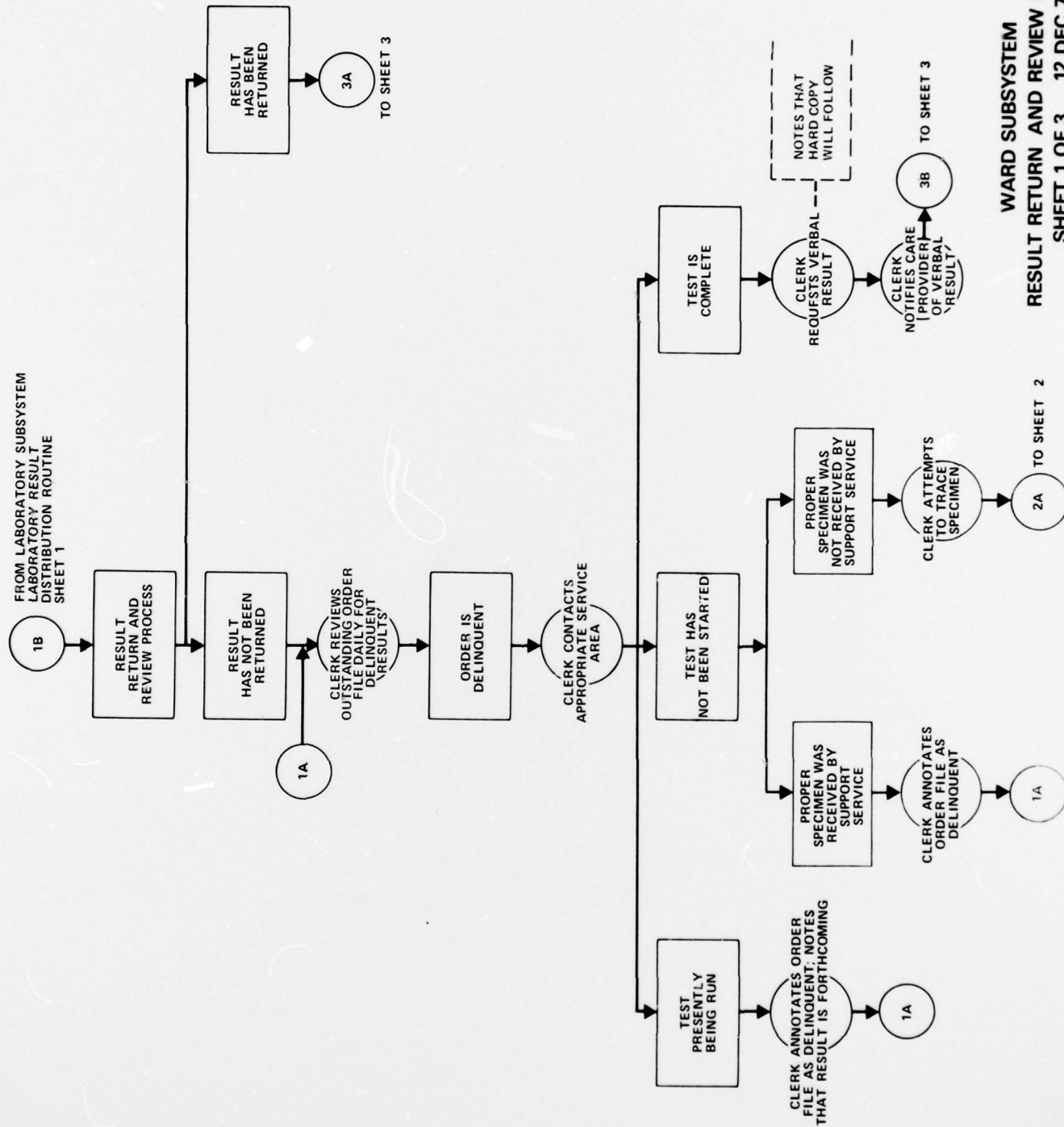




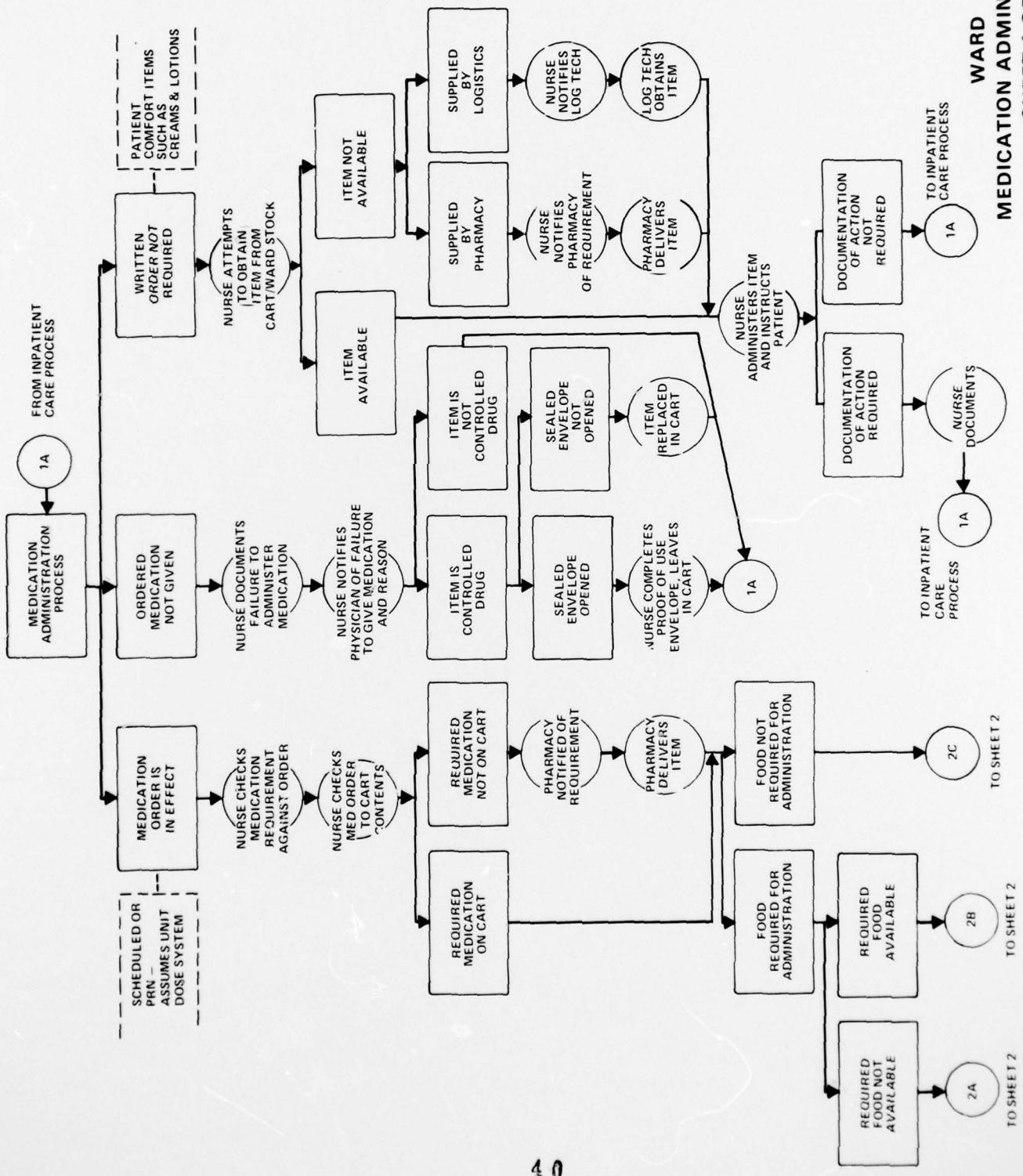




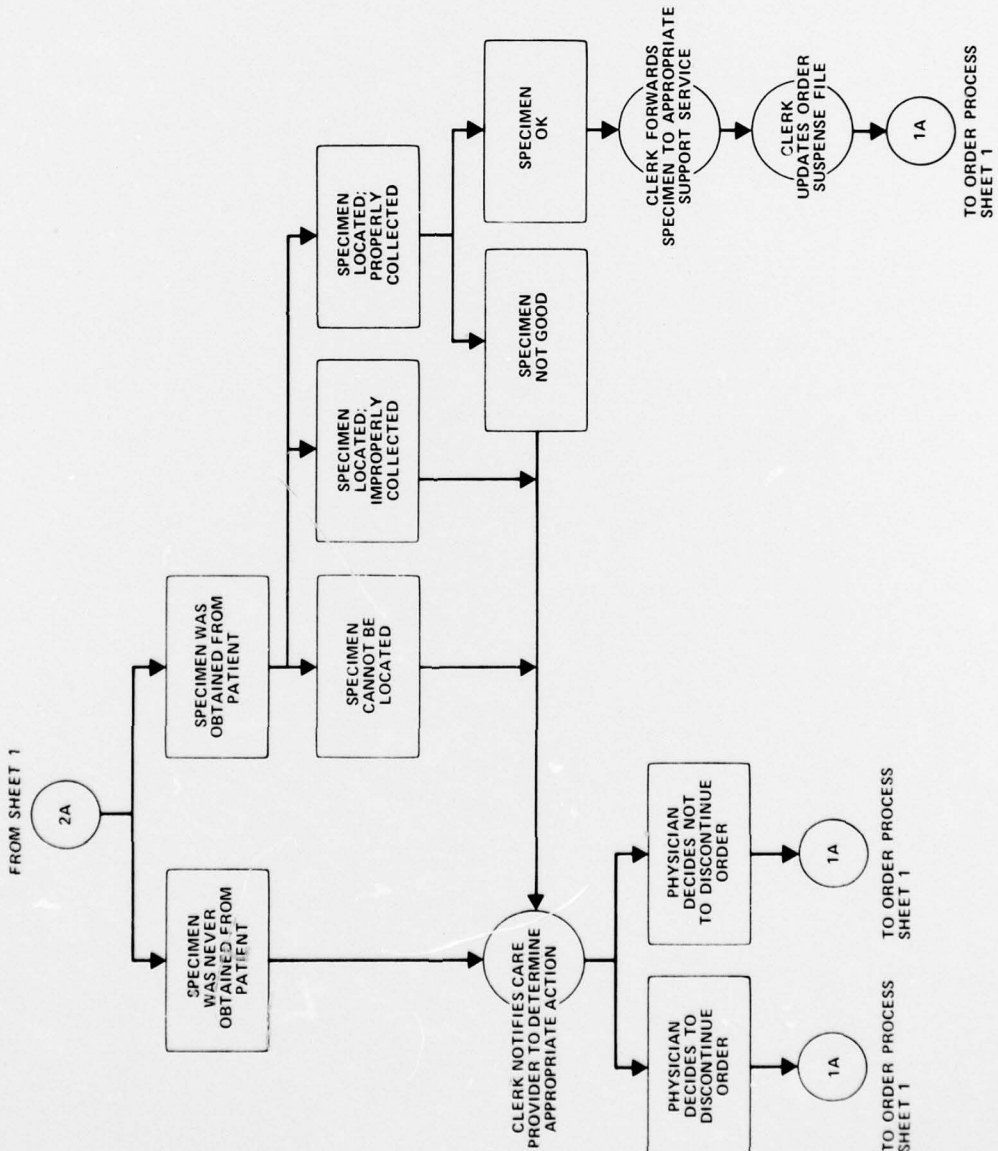
FROM LABORATORY SUBSYSTEM
LABORATORY RESULT
DISTRIBUTION ROUTINE
SHEET 1

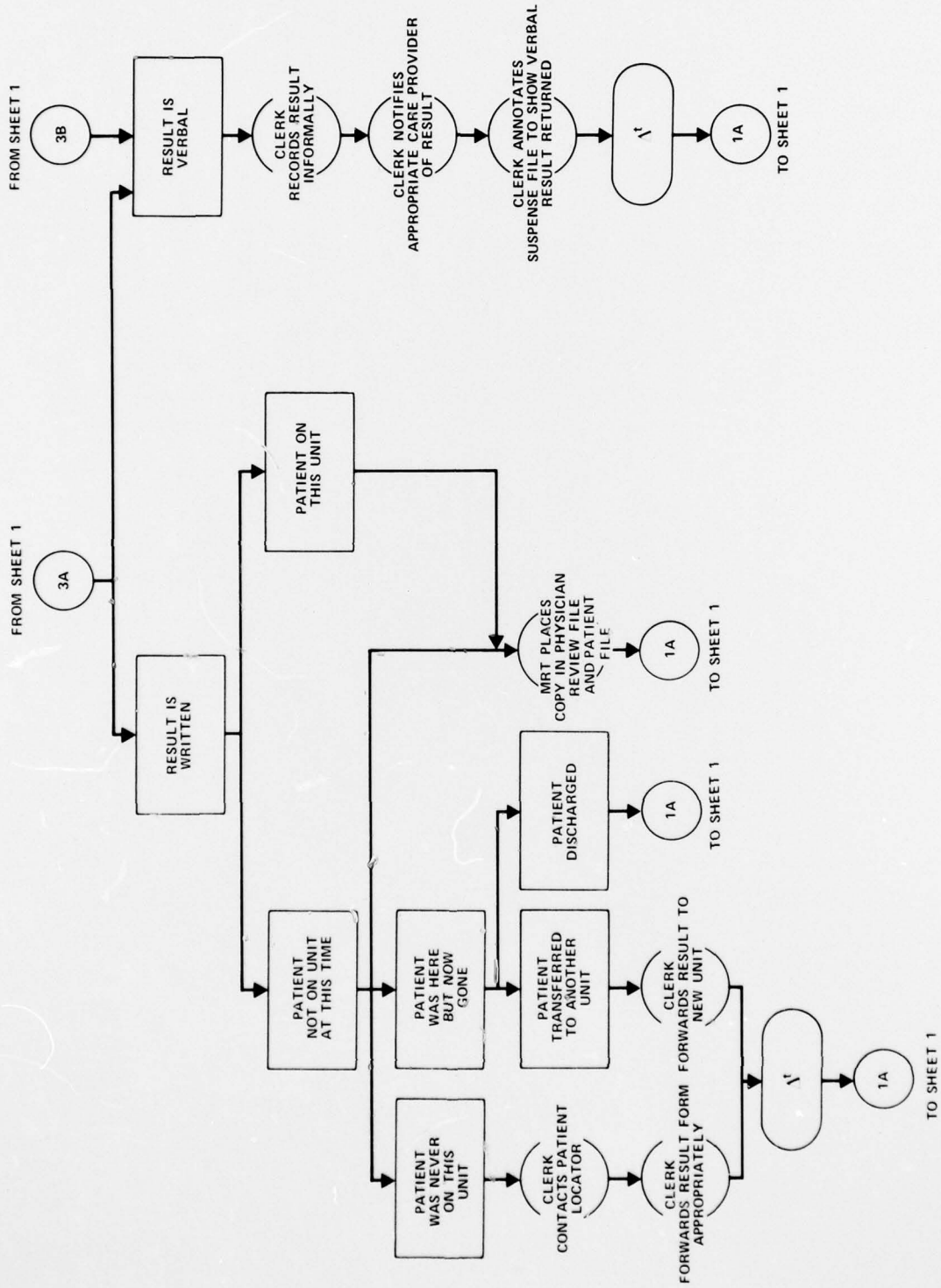


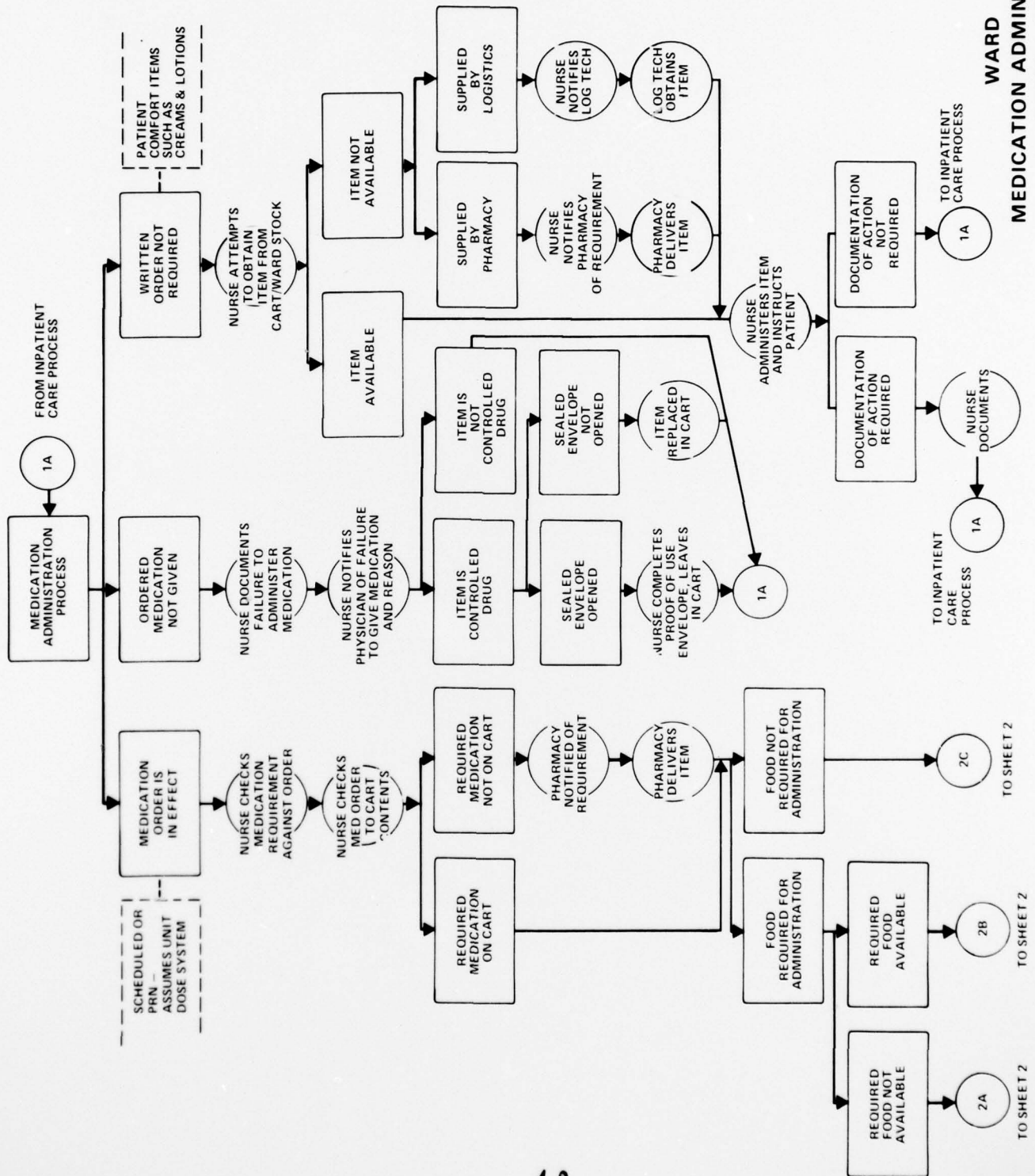
WARD SUBSYSTEM
RESULT RETURN AND REVIEW PROCESS
SHEET 1 OF 3 12 DEC 75

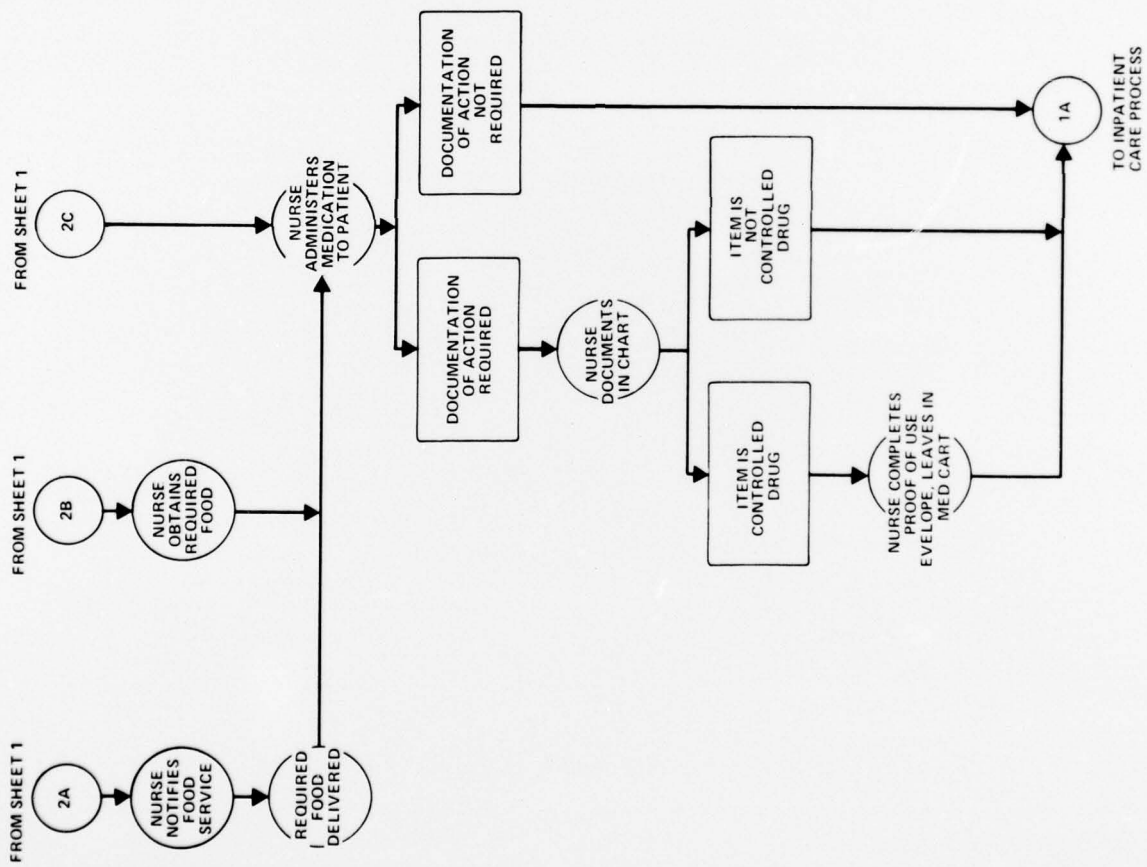


WARD
 MEDICATION ADMINISTRATION
 SHEET 1 OF 2



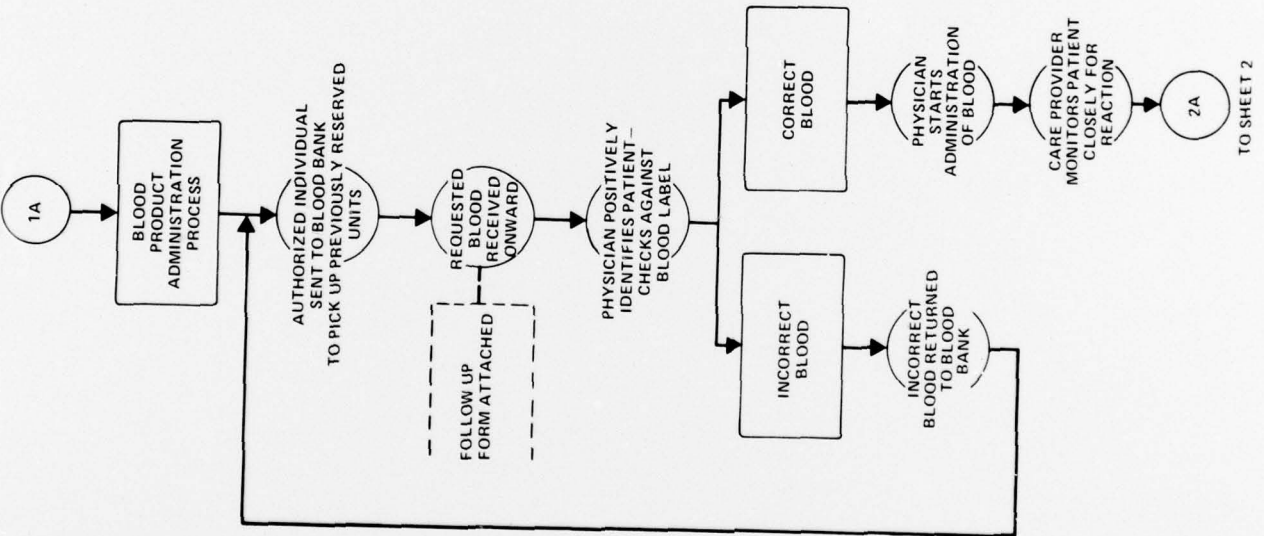




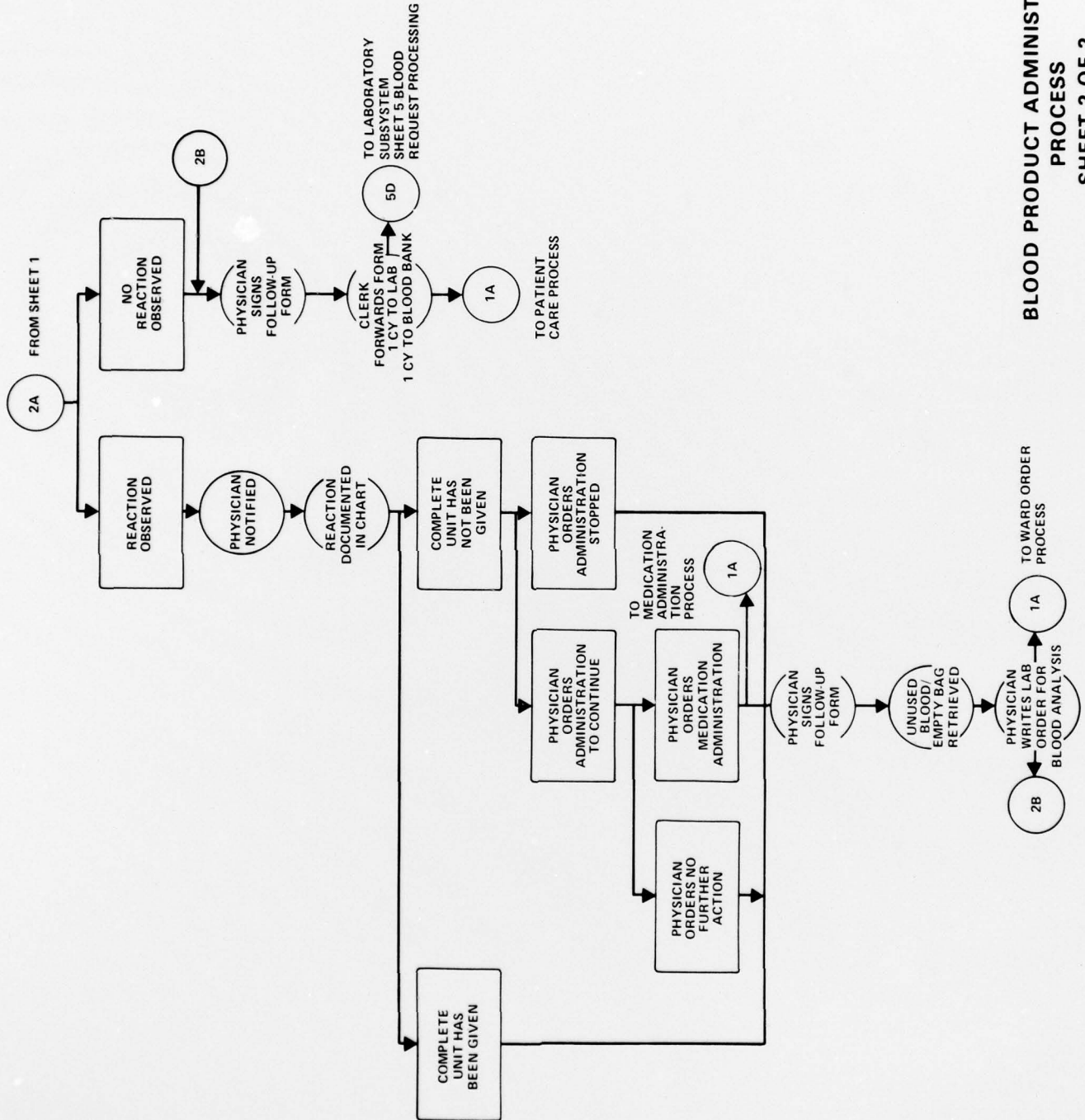


WARD
MEDICATION ADMINISTRATION
SHEET 2 OF 2

FROM INPATIENT CARE PROCESS
SHEET 2



BLOOD PRODUCT ADMINISTRATION
PROCESS
SHEET 1 OF 2



**BLOOD PRODUCT ADMINISTRATION
PROCESS
SHEET 2 OF 2**