REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	MAY 1996	

4. TITLE AND SUBTITLE
SELECTION OF COMMERCIALLY PREPARED UTILIZATION MANAGEMENT GUIDELINES: A DELPHI STUDY

5. FUNDING NUMBERS

6. AUTHOR(S)
LIEUTENANT COLONEL WILLIAM J. WYCKOFF, AN

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
PACIFICARE,
8200 IH-10 West Suite 1000
San Antonio, TX 78230-3878

8. PERFORMING ORGANIZATION REPORT NUMBER
34b-96

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)
US ARMY MEDICAL DEPARTMENT CENTER AND SCHOOL
BLDG 2841 MCCS HRA US ARMY BAYLOR PGM IN HCA
3151 SCOTT ROAD
FORT SAM HOUSTON, TEXAS 78234-6135

10. SPONSORING/MONITOI AGENCY REPORT NUMI

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT
APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

The down-sizing of the Department of Defense cuts across all branches of the military. Measurement of the effectiveness of the leaner fighting force is essential to allow decision makers to spend the shrinking military budget in the most cost-effective manner. The medical departments of the three services have been included in this down-sizing; however, their missions have not been down-sized. New methods and systems for the delivery of healthcare to military beneficiaries are being implemented. The evaluation of healthcare provided under the new delivery system is essential since the budget for healthcare is also being down-sized. The quality and effectiveness of the care provided must continue at high levels while costs are kept as low as possible. The selection of utilization management (UM) guidelines for use in Department of Defense medical treatment facilities has far reaching consequences. These guidelines are used to evaluate the care provided not only in the military hospitals and clinics, but also the care provided by the contracted provider networks. The selection of UM guidelines should be based on criteria selected by individuals with experience and expertise in utilization management. UM guidelines should not be selected based only on by the dollar amount attached to the contract. The rework that the selection of the wrong set of guidelines could cost would negate any perceived savings on the up-front cost of the contract. In this study regardless of the number of SMEs (12 vs 7) included in the analysis or number of consensus criteria (18 vs 16) M&R consistently and substantially was found the superior tool.

14. SUBJECT TERMS
UTILIZATION MANAGEMENT, DELPHI STUDY

15. NUMBER OF PAGES
59

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
N/A	N/A	N/A	UL

SELECTION OF COMMERCIALLY PREPARED UTILIZATION MANAGEMENT GUIDELINES: A DELPHI STUDY

A Graduate Management Project

Submitted to the Faculty of

U.S. Army-Baylor University

In Partial Fulfillment of the

Requirements for the Degree

of Master of Health Administration

by

Lieutenant Colonel William J. Wyckoff, AN

May 1996

Acknowledgments

This project could not have been accomplished with the assistance of a group of dedicated Utilization Management professionals, who will not be named here. Thank you to each of them.

A special thanks must be given to the members of my family: my wife, Joanne who provided me with the support needed to complete this rigorous course; my children, Joe, Margaret, and Jeannette for tolerating their frequently intolerant father. The love and support I received from my family provided the needed encouragement to complete this task.

William J. Wyckoff
LTC, AN
Administrative Resident

Abstract

The down-sizing of the Department of Defense cuts across all branches of the military. Measurement of the effectiveness of the leaner fighting force is essential to allow decision makers to spend the shrinking military budget in the most cost-effective manner. The medical departments of the three services have been included in this down-sizing; however, their missions have not been down-sized. New methods and systems for the delivery of healthcare to military beneficiaries are being implemented. The evaluation of healthcare provided under the new delivery system is essential since the budget for healthcare is also being down-sized. The quality and effectiveness of the care provided must continue at high levels while costs are kept as low as possible. The selection of utilization management (UM) guidelines for use in Department of Defense medical treatment facilities has far reaching consequences. These guidelines are used to evaluate the care provided not only in the military hospitals and clinics, but also the care provided by the contracted provider networks. The selection of UM guidelines should be based on criteria selected by individuals with experience and expertise in utilization management. UM guidelines should not be selected based only on by the dollar amount attached to the contract. The rework that the selection of the wrong set of guidelines could cost would negate any perceived savings on the up-front cost of the contract. regardless of the number of SMEs (12 vs 7) included in the analysis or number of consensus criteria (18 vs 16) M&R consistently and substantially was found the superior tool.

TABLE OF CONTENTS

1. INTRODUCTION

The American appetite for the latest and greatest in healthcare, no matter the costs, has helped fuel a rapid upward spiral of healthcare costs. Healthcare spending across the nation has seen an unprecedented cost explosion over the past several decades. The response to this fiscal emergency has been the implementation of programs designed to slow the expenditure of scarce healthcare dollars. The American healthcare industry has seen ever-increasing constraints placed on it by third party payers as they try to slow their escalating costs. The greatest driving force behind the constraints has been the upward spiral of healthcare costs associated with the healthcare technology explosion. Changes in healthcare payment practices have brought to the forefront the need to contain costs while providing quality care.

The impact of cost-containment measures must be monitored to observe their impact on the quality and outcome of healthcare services (Dring, et el. 1994). Escalating medical costs and cost containment measures have created an increased interest in studies aimed at improving efficiency in care delivery without affecting the quality of care delivered (MacKoul, et el. 1995). Everyone involved in the purchase of healthcare is concerned about the quality of care provided. Today's healthcare consumer is better informed than at any time in history, and is concerned about not only the quality of care received, but the costs involved. Healthcare costs are measured in more than just direct dollars, they include costs related to waiting times, either on the telephone or in the provider's waiting room. Purchasers in both the private and public-sector want both lower costs and quality care (Gosfield 1996).

The number of variables involved make it difficult to evaluate healthcare. Structure, process, and outcome are not always evaluated when a determination of the quality of care is made. If quality is defined as meeting or exceeding expectations, how those expectations are established has a pivotal impact on judgments of quality (Hungate 1994). It has been said that the quality of healthcare is measured through the eyes of the consumer. If a consumer feels good about the healthcare interaction, he/she will likely perceive quality care has been delivered. Consumer perception can be swayed by the personalities of the providers encountered, their actions, the physical environment of the setting, and feeling better as a result of the encounter. Healthcare providers have their own perception of the quality of the care they provide. A provider's perception of the care delivered is usually based on the outcome; did the patient's condition improve. Rarely will a provider examine aspects of care such as: appropriateness of care, length of stay, cost, use of appropriate referrals, and the setting used for care provision. A providers evaluation of care focuses on the technical quality of care. Very little is done to address the perceived quality of care. The perceived quality of care issues are usually addressed through the patient representative's office.

Efforts to reduce lengths of stay have taken the form of managed care programs, which attempt to reduce hospital stays through the implementation of clinical guidelines and critical pathways for specific procedures and diagnoses. Available information suggests hospital lengths of stay are decreasing over time, and there is an increasing awareness that patients are generally better off without extended

hospital stays. The widespread interest in length of stay reduction has generated little information concerning the limits of hospital stay reduction for specific procedures and diagnoses. Related to this problem is a lack of information concerning how quality of care is affected by decreases in lengths of stay. Currently, there are no reliable estimates of optimum hospital stays by procedure or diagnosis. In most instances, the shortest hospital stay is implicitly assumed to be the most appropriate length of stay (Westert 1995).

To a physician, health status is a more appropriate outcome measure than length of hospital stay. To determine cost-effectiveness, it is essential to know whether the cost is justified by the benefit to the patient (Winkelaar 1995). To decrease length of stay, institutions have developed techniques to streamline patient care while maintaining quality. These techniques include case management, managed care, and the implementation of standardized patient care plans or critical pathways (Lombness 1994). The impetus behind managed healthcare is cost containment without a loss of quality (Gustin, et el. 1995).

Managed care organizations carefully examine all aspects of heathcare: inpatient costs, outpatient costs, skilled nursing facility costs, home care costs, durable medical equipment expense and even hospice costs. Managed care focuses on outpatient preventive healthcare as the pivotal point in the provision of healthcare. The managed care industry believes that an ounce of prevention is worth more than a pound of cure, their financial survival is dependent upon implementation of preventive health care. The successful managed care companies educate their physician partners

on the value of preventive care to their financial success. Managed care, or more correctly, managed competition, will encompass every facet of healthcare within 5 years (Stewart-Amidei 1994).

Preventive services are increasingly viewed as the foundation of quality healthcare, and are primarily delivered in the outpatient/ambulatory setting. The quality of health in this country increasingly depends on the ambulatory sector for several reasons: 1) more people receive medical care in the ambulatory setting than the inpatient setting; 2) prompt and efficacious treatment of an episode of illness may improve the patient's long-term health and; 3) appropriate outpatient preventive interventions have significant potential to reduce total healthcare expenditures by reducing the need for episodes of both inpatient and outpatient care. Proper coordination of care in the ambulatory setting can reduce the costs of wasted and redundant work and the need to repeat poor-quality work (Lawthers, et el. 1993).

Quality healthcare is a commodity that comes with a high price tag. Consumers ask many more questions about the healthcare they now pay more and more for with the passage of each year. The movements toward (1) continuous quality improvement (CQI), (2) total quality management (TQM), and (3) similar quality improvement (QI) approaches are seen as the primary means of managing quality in hospitals and other healthcare organizations. These approaches reflect values and beliefs about appropriate ways to manage quality (Sales, et el. 1995). JCAHO's approach to ensuring quality, which emphasizes functions and processes to improve quality rather than specific activities, is meant to promote a comprehensive, integrated,

continuous process. Organizational efforts to ensure excellence should be focused through three essential managerial processes: (1) defining desired performance (setting standards), (2) measuring performance, and (3) maintaining or changing performance (Penchansky 1993). Confusion exists about the boundaries between QA, UR, UM, and resource management (RM). The activities of these processes sometimes overlap and when they do, their purposes and methods are almost indistinguishable. The boundaries separating these approaches are beginning to blur (Flannery 1996, Penchansky 1993).

Evaluation of quality must be based upon objective standards, that are objectively measured. The introduction of the Department of Defense's (DoD) TRICARE Program is changing the way healthcare is delivered to active duty members, their family members, retired service members and their family members. TRICARE is the DOD's medical benefits program that is available for individuals eligible for CHAMPUS. Each encounter with the healthcare system has the potential to force those members of the military family who have selected a civilian gatekeeper to pay for what was once looked at as a free "benefit for life." The multiple options available under TRICARE are drastically changing the healthcare options available. The question has to be asked -- What evaluation measures are being used to measure the quality and appropriateness of the care being provided?

The attributes of the delivery of healthcare that contribute to excellence are: (1) appropriateness of care, (2) coordination of that care, (3) amelioration of the problems, and (4) satisfaction of the patient (Penchansky 1993). The process of bringing the

military treatment facility's (MTF) and the contractor's UM programs into alignment, as TRICARE attempts to do, potentially creates problems evaluating the care being provided. One potential contributor to consistent and successful UM is the use of the same UM guidelines. Dr. Joseph's directive on UM guidelines calls for all MTFs and TRICARE contractors to use INTERQUAL's UM guidelines. The next obvious question -- Are these the best guidelines available for use?

a. CONDITIONS WHICH PROMPTED THE STUDY

Military treatment facilities (MTF) and TRICARE contractors are currently directed by DOD Health Affairs to use INTERQUAL's guidelines for their UM programs under a contract with INTERQUAL for a three year period. This contract expires in 1997. INTERQUAL's UM guidelines are not the only guidelines available for use. Is this contract providing the best buy for the dollar? The question under study is -- What criteria should be used to identify the UM guidelines that are the most appropriate for use in MTFs and by TRICARE contractors?

b. STATEMENT OF THE QUESTION

The delivery of healthcare is not an exact science, it is an art, that must be practiced. The ongoing practice of healthcare delivery will reveal that different courses of treatment will eventually lead to a similar favorable outcome. Providers of healthcare seek to find the optimal course of care; the one that produces the favorable health outcome with the expenditure of the least amount of resources (Doyle & Ferren 1994). Minimizing the cost of care by improving delivery efficiency is beneficial to the patient and all payors. The ultimate benefit will be delivered to the provider

because their capacity to deliver care increases with improved efficiency. The responsibility of healthcare management is to make the most appropriate use of increasingly limited healthcare resources. Utilization Management plans should be developed to cover the entire continuum of care, from the first treatment encounter through the return to a health status that permits a return to "normal" health and activity (Doyle & Ferren 1994).

An organized, comprehensive quality management (QM) program is a hospital's response to social, economic and legal pressures. QM components share four critical processes: (1) data acquisition and management, (2) data analysis, (3) data use, and (4) oversight/supervision. Organizational strategies accounting for all four processes are essential to effective quality management/utilization management programs (Tennant 1994).

INTERQUAL's review system is a clinically-based system designed to provide the hospital with a mechanism to: a) identify opportunities to affect the efficient use of resources for each case, and b) identify variance days -- days of care that could be delivered in a less costly setting. The system includes utilization review criteria and a methodology to screen for the medical necessity and appropriateness of hospital admissions, continued hospitalization and services provided to patients. The review system is designed for concurrent and/or retrospective review. The criteria do not represent physician standards of care, are not intended for use in reimbursement decisions, and are not designed for preadmission authorization decisions. INTERQUAL's criteria address medical necessity in terms of the severity of the

patient's condition, the intensity of treatment provided the patient and whether discharge can be safely accomplished (Tennant 1994).

Milliman & Robertson (M&R) Inc.'s (INTERQUAL's chief competitor) Healthcare Management Guidelines provide a quantitative basis for both on-line medical management, as well as retrospective analysis and assessment of healthcare management programs and procedures. The guidelines were prepared for use by "qualified" medical and risk management professionals. "The guidelines should be applied to establish a course of treatment for a specific individual only in conjunction with the application of professional medical judgement." (Doyle & Ferren 1994) Proper application of M&R guidelines requires consideration of all factors which might affect the desired or actual utilization and treatment patterns.

UM is viewed as one of those necessary evils healthcare providers must endure. It is not looked upon as user friendly, and some doctors will tell you that UR is simply a way to identify poor utilizers. UM is not valued by providers as enhancing the care they provide, it is looked upon as another impediment to providing care to their patients.

The selection of UM guidelines is a problem the DoD will face in 1997. How should the DoD select the next contractor for UM guidelines? What criteria should be used to select UM guidelines? Should the contract be awarded to the lowest bidder, or to the contractor that presents the best product? This graduate management project was undertaken to identify a set of criteria that can be applied to existing UM guidelines to select the "best" available for use throughout the DoD. The issue of cost

was not examined as a part of this project.

c. LITERATURE REVIEW

QUALITY ASSURANCE

Quality Assurance (QA) is the formal set of activities used to review and affect the quality of services provided. It includes quality assessment and corrective actions to remedy any deficiencies identified in the quality of direct patient, administrative and support services. Standard QA activities alone do not satisfy the needs and requirements of health plan managers, purchasers, and regulators for quality monitoring and management. The application of QA by providers of care is criticized for excessive focus on support processes and structure rather than actual clinical processes. Although the QA model does not explicitly foster it, many internal and external QA programs applied to providers are bad-apple oriented, with a focus on finding problems and someone to blame (Panzer 1993). QA activities, which primarily focus on individual physicians, produce two negative results: (1) potential problems are not readily generalized to the delivery system as a whole and (2) physician acceptance is jeopardized because deficiencies in care are attributed to physicians without considering the roles of other participants in the health delivery system (Leatherman 1991).

Currently, there is no thorough on-going program to ensure public accountability for quality of care in all hospitals (Rubin 1994). The single-tracked nature of QA programs is being replaced by a broader, more all encompassing process referred to as Utilization Management (Henzler 1995). Quality of care is the degree to

which healthcare services for individuals and populations increase the likelihood of desired outcomes and are commensurate with current professional knowledge (Goldfield 1991).

All customers of health services, including enrollees and employers/payors, need to be able to evaluate and understand the quality measurement tools used by healthcare providers. In this manner, providers will, hopefully, differentiate themselves not on the basis of a proprietary quality measurement system but rather on the impact these programs have on their primary customer: their patient (Wise 1993). Cost and quality are now related in the minds of many purchasers, who believe that poor quality care is ultimately more expensive than good quality care. Although this conclusion seems obvious and rather insignificant, it in fact represents a major change in attitude from the long held assumptions that more healthcare and more expensive healthcare, equaled better healthcare. The relationship between cost and quality is captured in the concept of value; necessary healthcare at a reasonable cost (Panzer 1993).

It is possible to evaluate the structures, processes, and outcomes -- as well as the improvements -- of care against standards that define the quality of care (Schlackman 1991). A variety of applications of quality information directly affect clinical decision making, they include: critical pathways, case maps, algorithms, and case management. An organized effort has begun to design in a standardized, preplanned set of decisions, as well as information feedback to clinicians to help them fine tune their decision making for specified patient subgroups. Benchmarking

appears to be the most effective technique for external quality review; such an effort seeks to gather information about the outcomes of care for different providers and make a comparison. The QI efforts search for the best processes by looking at those with the best outcomes, these are cursory beginnings of initiation of practice guidelines (Panzer 1993).

UTILIZATION REVIEW

Utilization review (UR) programs are the mechanism healthcare facilities use to demonstrate appropriate allocation of their resources (Lenox 1993). The scope of UR activities has evolved from initial programs directed toward the avoidance of Medicare denials and timely discharge planning. UR has been a retrospective review of the care and services provided to the patient, a sort of post-care look. Initially adopted as a weapon to attack rising health plan costs, UR has grown into a managed care elder statesman that gets along well with many employer groups/purchasers and is trying to make peace with providers (Grobman 1991). UR takes place at the level of the provider organization and is the process of evaluating the efficiency of medical care, based on examination of the patient record (Torrens 1993, Nelson 1983).

One purpose of UR is to detect inappropriate medical care (i.e., care provided in an unnecessarily expensive or otherwise resource intensive setting). Inappropriate care is a major concern for hospitals, since reimbursement may be fixed and/or contested, reduced, or denied by payers. Inappropriate care unnecessarily exposes patients to iatrogenic conditions, inconvenience, and financial stress (Nelson 1994). UR policies and procedures must balance the organization's desire to ensure that

services are provided in an appropriate and cost-effective manner against the possibility that unreasonable or inflexible policies and procedures may be alleged to require providers to withhold medically necessary service from covered individuals (Kongstevedt 1989). UR is part of the larger effort to allocate limited resources more efficiently (Nelson 1994). Employers agree that UR's role is rapidly changing as employers and insurers turn to more aggressive ways of controlling utilization, such as managed care and case management (Wise 1993).

UR has been required for participation in the Medicare program since the 1960's (Baschon 1992). The past three decades have seen great growth in efforts by purchasers of healthcare to understand and influence the treatment of patients. These efforts reflect purchasers' concerns that their increasing expenditures are not matched by increasing value and even that a significant amount of care is inappropriate and wasteful (Gray 1989). Employers contend that guiding the industry toward uniform procedures is an insignificant step that doesn't address the real problem of UR: documenting its effectiveness (Wise 1993).

Accreditation standards, first released by the Utilization Review Accreditation Committee (URAC) in June 1991, were designed to encourage consistency in the interactions between providers, payers and consumers. These standards ensure that the UR process causes as little disruption of healthcare delivery as possible; sets uniform national standards for review procedures, turnaround times on certification and non-certification decisions of inpatient stays; and provide a model for states to regulate UR services. Typically, states were enacting staffing requirements to ensure that board-

certified physicians were overseeing reviews, and that UR procedures were documented (Wise 1993). Since URAC adopted its standards in 1991, 10 states have incorporated the same language or waived URAC accredited firms for compliance with state rules (Wise 1993). Efficiency and cost containment increasingly are seen as complementary to healthcare quality (Hershey 1994). Explicit criteria lead to consistent reviews over time and between reviewers (Lawthers, et el. 1993).

DISCHARGE PLANNING

Discharge Planning (DP) was the earliest attempt to "manage" a resource intensive patient, and was the first attempt to coordinate a patient's hospital stay. The rationale for discharge planning is twofold: continuity of care and cost effectiveness. DP is defined as the process of activities that involve the patient and a team of individuals from various disciplines working together to effectively move that patient from one environment to another (McKeehan 1981). It is a process made up of several steps/phases whose immediate goal is to anticipate changes in patient care needs and whose long-term goal is to insure continuity of healthcare (Rorden & Taft 1990). DP reduces uncertainty and stress during a hospital stay by helping patients understand what to expect and reduces the possibility of fragmented care through coordination of services (Rorden & Taft 1990).

Every caregiver involved with a patient must remain alert to possible discharge needs throughout the acute care process. DP is a process of assessing a patients needs and obtaining or coordinating appropriate resources as they move through the healthcare system, and might be more appropriately called continuity of care planning

(O'Hare & Terry 1988). The discharge plan includes: 1) evaluation of the patient for the appropriateness of the discharge; 2) determination of the optimal site of care and of patient-care resources; and 3) determination that financial resources are adequate.

DP is the mechanism that guides a multi-disciplinary effort to achieve the successful transfer of the patient from the healthcare facility to an alternate site of care. The complexity of the plan is determined by the patient's medical condition, needs, and goals. DP, (which in reality should begin prior to admission) is aimed at not only meeting the needs of the patient while in the hospital, but also assuring the patient needs will be met after discharge. Meeting the patient's need could involve; (1) providing assistance with financial or insurance matters, (2) locating necessary services/programs, and (3) advocating on behalf of the patients and families. Not all patients admitted to the hospital require the services of the discharge planning team. A routine uncomplicated admission usually will not require the DP team. DP efforts are usually directed toward those resource intensive admissions, or the frequent readmissions following a short stay at home. The DP team becomes involved from the day of admission to assure everything is in place to allow a patient to be discharged at the earliest possible time. The discharge plan should be reviewed, modified, and re-implemented whenever the patient is transferred or considered for transfer to an alternate site. A disadvantage associated with traditional DP is that it is done without the advantage of a case manager, "someone in charge" to see that things are accomplished in a timely manner. DP was the first evolutionary step into the case management arena.

CASE MANAGEMENT

Case management has captured the medical community's attention because it supports cost effective, quality healthcare. Case management based on a utilization review or utilization management prototype might be renamed claims management (Jennings 1994). Case management is a boundary-spanning approach; instead of providing a specific direct service, it utilizes case managers who link the client to the maze of direct service providers (Sands, et el. 1994). Case management as a system is a means to bring managed care to the bedside, and as a component of the managed care system, is specifically designed to coordinate the care of selected patients. It involves the clinical management of targeted patient populations from admission to discharge (Smith, et el. 1994, Jennings 1994). Case-management generally is regarded as an approach to client management that endeavors to enhance quality of life, decrease fragmentation of services, promote self-care, and control healthcare costs (Benjamin 1988).

Critical pathways are important tools used in managed care and case management. Critical pathways are a timed sequence of interventions in the patient's plan of care to achieve desirable outcomes and are prepared by a multi- disciplinary group of clinicians to delineate the expected process of care delivery (Jennings 1994). A critical pathway is a written plan that functions as a guide or timetable for efficient and timely patient care. The critical pathway acts as a road map to direct each discipline on the essential interventions and outcomes that must be accomplished on a given day or within a given time frame (Zander 1986). These interventions are done

by an interdisciplinary team of registered nurses, licensed practical nurses, primary care physician or specialist, nutritionist, social worker, occupational therapist, physical therapist, case manger, pharmacist, home health nurse and other professionals as well as the patient and his/her immediate family/significant other. Managed Care Organizations (MCOs) want to see critical pathways in subacute care as part of the credentialing process. MCOs know from experience that critical pathways prevent unnecessary utilization of services and provide enormous cost savings (Stahl 1995).

The goals of critical pathways are to achieve measurable quality clinical outcomes with reasonable financial parameters as indicated by the MCO contract. Critical pathways provide the mechanism to develop quality clinical outcomes per Diagnosis Related Group as well as a profit and loss profile, which are necessary in strategic planning for subacute care growth (Stahl 1995). Case management aims to provide consistency of care based on measurable outcomes that fulfill a standard case management plan or well-negotiated alternative set of plans. It promises to decrease fragmentation of care through collaborative practice patterns; improve quality of services, control costs by reducing wasted time, energy, and materials; and encourage a timely discharge within a planned length-of-stay for a given primary diagnosis. Its proponents claim that it enhances communication among all members of the healthcare disciplines and promotes professional satisfaction and development through increased accountability (Lynam 1994).

Critical pathways are mechanisms that facilitate enactment of case management. They are tools to map or track a patient's hospitalization, articulating

critical incidents that normally take place on a given hospital day and include appropriate interventions to achieve certain results. In most models, the case manager notes and records deviations from the critical path, discusses possible causes of deviations with appropriate personnel, and arranges for remedial action to be taken (Lynam 1994). One major barrier to achieving quality is the lack of ability to control the care delivery process. Case management is one way of overcoming this barrier (Dring, et el. 1994).

The case manager collaborates on providing managed care for clients with catastrophic health problems and limited resources. The innovative management of these clients can reduce costs and overall length of stay (Dring, et el. 1994). Regardless of the quality and appropriateness of the care plan, successful case management requires sustained and continuous monitoring (Dring, et el. 1994). Case management focuses on the relatively few beneficiaries in any group who have generated or are likely to generate very high expenditures (Gray 1989). The intensified involvement of government and private purchasers in efforts to contain healthcare costs has been a key element in the rise of more direct and assertive programs to influence patient care decisions. Case management has an emphasis on assessing individual needs and circumstances and then planning, arranging, and monitoring needed services. There seems to be general acceptance that case management can save money and improve the quality of life for patients and families (Gray 1989).

UTILIZATION MANAGEMENT

Utilization Management (UM) as defined by the American Hospital Association (AHA) is the planning, organizing, directing, and controlling of the healthcare product in a cost-efficient manner while maintaining the quality of patient care and contributing to the overall goals of the institution. Baschon has a slightly different definition: managing the people, services, and supplies necessary to provide patient care (Baschon 1994). The AHA definition is a workable definition in any healthcare setting since it speaks in very general terms and doesn't specify how it will be done. The AHA has simply set the goal. Gray and Field define UM as a deliberate action taken by purchasers to manage healthcare costs and influence the hospital's and/or physician's decision making in order to increase the efficiency and appropriateness with which healthcare services are provided.

UM is part of a complex balancing act created by society's struggles with two important questions. First, how to ensure that people get needed medical care without spending so much that it compromises other important social objectives? Second, how to discourage unnecessary and inappropriate medical services without jeopardizing necessary high-quality care? UM is a set of techniques used by or on behalf of purchasers of health benefits to manage healthcare costs. These techniques influence patient care decision-making through case-by-case assessments of the appropriateness of care prior to and following its provision. Little evidence exists that there is an impact of UM methods on the quality of care, or on patient and provider costs. UM adds to the administrative burdens of practitioners and institutional providers, and contributes to feelings of reduced professional autonomy and satisfaction (Gray 1989).

UM is a program that involves the entire healthcare team. Its goal is to provide high quality care at a reasonable cost to the hospital and the payor (Baschon 1992).

Utilization management programs have been widely used to control hospital inpatient costs, but little is known about their potential to control outpatient costs (Wickizer 1995). UM is designed to control healthcare costs by influencing treatment decision making on a case-by-case basis through coordination of care, flexible allocation of treatment and financial resources, and encouragement of less restrictive treatment settings (Gustin et el. 1995). UM is an active process that not only identifies inefficiencies, but attempts to eliminate them as well (Baschon 1992). As processes improve, the quality improves and the process becomes more efficient which conserves resources for use in other processes, or to provide appropriate care to greater numbers of people.

Physicians are responding to capitation by using UM techniques; some at early stages of development, that were previously used only by insurers. The physician-initiated management approach represents a fundamental transformation in the practice of medicine (Kerr et el. 1995). According to the AHA's policy statement: healthcare organizations should be accountable for delivering high-quality care and services; operating an internal performance improvement system; providing useful information to purchasers and consumers to help them choose providers, plans and treatment options; and contributing to the health of the community (Bergmann 1994).

Third party payers have widely publicized the cost savings they have achieved through aggressive UM programs. As profit margins from Medicare and other third

party payers continue to decline, UM takes on a more comprehensive role. In addition to ensuring that admissions are appropriate, action must be taken to ensure that patients stay only as long as medically necessary to recuperate from their illnesses. Complications must be minimized, and unrelated, non-acute problems deferred for treatment to the outpatient setting. To maximize the financial benefits of utilization management and improve patient care, resource management must be a part of the UM program. This is not to say that length of stay should be ignored. Elimination of medically unnecessary days reduces length of stay without increasing charges. Unnecessary days may be the result of poor scheduling, inappropriate test sequencing, delays in initiation of discharge planning. UM programs should be designed to identify and report medically unnecessary days and patterns of inappropriate utilization. The UM department, through it's access to vital information, has many opportunities to influence changes in clinical practice patterns. This information must be presented to administration in such a way that its importance is immediately obvious. Changing inefficient practices can dramatically reduce lost or denied charges, and greatly improve staff productivity (Baschon 1992).

The review process is becoming less a retrospective review of whether actions that have occurred were correct, and more a concurrent and/or prospective review of whether actions being taken or planned are necessary and appropriate. UM is a part of overall peer review which is any review of professional medical activity, directly or indirectly related to quality of care. Medial record review is used to monitor compliance with the utilization management program, and is the primary means to

identify utilization problems.

The dominant UM strategy is prior review of proposed medical services, which includes several related techniques. Prior review provides advance evaluation of whether medical services proposed for a specific person conform to provisions of health plans that limit coverage to medically necessary care. Most prior review programs include an integrated set of review steps, not all of which will apply to any single patient. The focus may be on the site of care, the timing or duration of care, or the need for a specific procedure or other service. The first point of assessment, often called preadmission review, may occur before an elective hospital admission. A patient may be required to get a second opinion on the need for certain proposed treatments from a practitioner other than their physician (Gray 1989). It is important to note that prior review is not used in the full capitation model. The fully capitated provider makes all decisions regarding medically necessary treatment.

Dr. Joseph has directed that DoD's UM processes (this includes TRICARE) be (1) patient focused, and (2) that they ensure delivery of necessary and appropriate care at the most cost effective level without jeopardizing quality or access (Joseph 1994). UM activities and information are essential elements in the overall development and incorporation of total quality improvement activities within military medicine. The DoD's medical budget is built on the assumption of major accomplishments in UM in order to hold the annual rate of growth to levels below the national norm. The DOD UM plan calls for a system which includes prospective review, concurrent review, discharge planning, case management, and retrospective review. Retrospective review

activities are especially important, since they provide both validation of review decisions and evaluation of overall trends in utilization. The key elements of an effective UM process (UR, case management, and discharge planning) provide a basic foundation for evaluation of care and services, and development of best clinical practices such as practice guidelines, critical pathways, and clinical outcomes studies (Joseph 1994).

UR and UM programs are most effective when integrated into the quality management program, and when they create their desired effect using resources as economically as possible (Tennant 1994). However as with any system, barriers to UM implementation exist and must be addressed. Some common barriers include: turf battles; hospital and medical staff that do not understand the payment mechanism has changed; physician and staff resistance to change; a system that is unable to clearly identify costs associated with patient care; and patients that fail to recognize that healthcare is not free. Additional barriers are: patients and family demands that result from unrealistic expectations of the healthcare system; failure of senior management and nursing administration to actively support utilization management; failure to educate all disciplines about their role in utilization and resource management from the start; and physician practice of defensive medicine. The final set of barriers are: physician and staff failure to consider cost in ordering practices; physicians who order tests out of habit, without regard to new technology; peer or supervisor pressure on residents and staff physicians to order tests or keep the patient hospitalized; lack of financial incentive for physicians to encourage proper utilization of resource; and a

system where physician reimbursement may encourage longer stays and over use of resources. In addition to these barriers are the four common mindsets that must be overcome: 1) "We ve always done it that way;" 2) "That won't work in our hospital;" 3) "Our physicians won't do that;" and 4) "Our patients are sicker" (Baschon 1994). The implementation of a UM program, or the change to a new UM program encounters many barriers and problems because it forces people out of their comfort zone and into unfamiliar territory. A change to a new UM program will require involvement from the top levels of management and provider staff, and an intense education program for all staff members.

d. PURPOSE

The purpose of this graduate management project is to identify a set of criteria to be used in the selection of commercially available UM guidelines for use in DOD healthcare. These criteria will be developed and applied to two commonly used commercial sets of guidelines using a Delphi process. The development of criteria and selection of guidelines will be based on the decision of a panel of UM experts. After this set of criteria for selection of guidelines is identified and applied to the two commercially available sets of guidelines, a recommendation will be made to DoD Health Affairs regarding the set of guidelines identified as the most appropriate for use in MTFs. The recommendation will be dependent upon the panel identifying a clear difference between the sets of guidelines.

2. METHOD AND PROCEDURES

THE DELPHI STUDY

The Delphi technique was developed as a forecasting tool at the RAND Corporation in the 1940's. The technique was developed as an attempt to deal with future decisions by making systematic use of the intuitive guesstimate of a number of experts. The RAND Corporation continued to refine the Delphi procedure, and around 1950 the technique was used on problems of group information utilization. It has gained recognition and is used in planning settings to achieve a number of objectives: 1) Determine/Develop a range of possible program alternatives, 2) Explore/Expose underlying assumptions or information leading to different judgments, 3) Seek out information which may generate a consensus on the part of the respondent group, 4) Correlate informed judgments on a topic spanning a wide range of disciplines, and 5) Educate the respondent group as to the diverse and interrelated aspects of the topic (Delbecq, et el. 1975).

The Delphi technique is a systematic, iterative method of forecasting based on independent input from a group of experts. The objective is to obtain a consensus of opinion from a panel of experts regarding the topic under research. The Delphi method encourages honest opinion which is free from peer group pressure. Because successive rounds of information reach each panel member, views can be retracted, altered or added with the benefit of considered thought (Williams & Webb 1994). Farrell & Scherer (1983) maintain that the Delphi technique is suitable for areas where there is a lack of empirical data. One of the main advantages of the Delphi approach is its ability to guide group opinion towards a final decision (McKenna 1994).

CHARACTERISTICS OF THE DELPHI TECHNIQUE

The Delphi technique, a method for soliciting and combining the opinions of experts, involves the use of a series of questionnaires designed to produce group consensus and eliminate the face-to-face confrontation experienced on panels or committees. Key characteristics of the Delphi are:

Anonymity: The obvious advantage of guaranteed anonymity is that it encourages opinions which are not influenced by peer pressure or other extrinsic factors. It avoids certain psychological factors present in face-to-face debate, such as undue influence by a dominant individual ("the jury room effect), the bandwagon effect, and the unwillingness to abandon a position once it has been publicly stated (Warnick & Sullivan 1988). It can also lead to a lack of accountability.

Iteration with controlled feedback: This is achieved in Delphi studies through the use of successive questionnaires which seek information and/or opinion from the respondents.

Statistical group response: This builds upon the information fed back to the Delphi participants within the successive questionnaires. It provides a statistical summary of the group's views on specific items, while it maintains anonymity.

The use of experts: The originators of the Delphi technique tend not to advocate a random sample of panelists who are representative of the target population. Instead, the use of experts or a least informed advocates is recommended. Consensus is suggested to equate with 51% agreement among the respondents (Loughlin 1979, Goodman 1987).

The Delphi technique is a multistage approach, with each stage building on the

results of the previous one (McKenna 1994). The main features of the Delphi survey are:

1. It is a postal or electronic questionnaire: (a) this preserves independent thought which is seen as important to prevent individuals being unduly influenced by strong personalities in the group, and (b) it facilitates participation by respondents from a wide geographic area.

2. It is a non-random sample made up of experts in the field. This reflects the aim of the survey which is to produce a best-guess consensus on a question of policy in an area where answers are required but unobtainable through more empirically based means. The use of experts reflects the fact that it is not an opinion poll designed to reflect the views of the general population. Rather it is an opinion poll of experts whose views might not be shared by the general population precisely because they are less well informed.

3. It consists of a number of rounds and involves feedback to respondents. This reflects the aim of the Delphi survey as it was originally conceived, which was to elicit a consensus of opinion. Results of each round are therefore analyzed and fed back to the respondents who are asked to reconsider their position in the light of the overall results. Experts who continue to hold deviant views may be asked to expand on these views which will be given to the other respondents for further consideration. In this way the Delphi survey technique aims to produce a consensus from the experts on the topic under consideration (Proctor 1994, Whitman 1990, Loughlin 1979).

The Delphi Technique has been applied to numerous fields since its

development in the 1950's. In the past few years, there have been many applications of the technique in such areas as industry, social/health planning at the community level, evaluation of research projects, and educational innovations. One of the most extensive uses of the method has been in higher learning. In education and healthcare the focus has been cost-effectiveness, cost/benefit analysis, organizational goals and objectives, and consensus rating scales and values (Lindeman 1975).

Reasons for choosing the Delphi technique (Linstone & Turoff 1975)

1. The research problem does not lend itself to precise analytical techniques, but can benefit from subjective judgements on a collective basis.

2. The research population may present diverse backgrounds with respect to experience or expertise.

3. Time, cost, and logistics would make frequent meetings of all the subjects unfeasible.

As the literature points out, the Delphi Technique has been used for nearly 50 years in fields ranging from industry, community planning, education, and healthcare. Due to its long history of use and success, the process is widely accepted for accuracy, reliability, and validity. The technique can be used in most types of decision making processes; from the most complicated survey to the simplest interview. The Delphi technique is recognized as being cost-effective (Lyons 1981, Polit & Hungler 1987). Sackman (1975) who has written an exhaustive critique on the subject admits how inexpensive it is to use, while Reid (1988) maintains that it is one of the cheapest research methods available. A form of the Delphi Technique is used in our everyday

lives; whether it's buying a car, computer, house, or even groceries; we seek out who we think are the area experts.

STUDY DESIGN

In this study a sample of UM experts was identified from two distinct populations. The first group came from UM experts working in various DoD MTFs, Lead Agents, or Health Service Support Area assignments. The second group came from UM experts working in San Antonio based HMOs. An invitation to participate (See Annex A) was sent to each identified UM expert. An identified UM expert was operationally defined as an individual whose primary job was UM, and who had been performing UM for at least last twelve months. An additional requirement to participate in this study asked each participant to have a working knowledge of the UM guidelines commercially prepared by: (1) INTERQUAL and (2) M&R.

The first round of the Delphi study asked the panel of experts to identify no more than seven criteria they would use to make their personal selection of commercially available UM guidelines. (See appendix B for first round questionnaire) During the first round panelists were asked to submit demographic data about: a) profession, b) number of years working in that profession, c) educational level, d) number of years working in UM, e) current employer, f) number of years with current employer, g) age, and h) gender. (See Appendix C) In the first round thirty different criteria were identified by the panel of twelve experts. Criteria that were similar were combined or reworded to maintain the context of the authors' intent. (See Appendix D)

In round two of the study, the experts were asked to review the list of thirty criteria generated in round one, and select a minimum of seven criteria they considered valid for use in the selection of UM guidelines. Each participant was asked to mark each criteria yes if they would use the criteria for selection, and no if they would not. (See round two results at Appendix E-1) Consensus criteria for use in round three were those criteria that fifty-one percent of the panel marked yes they considered the criteria were valid for guideline selection. (See column marked % of group agreement at Appendix E-1)

In round three of the study, the experts were asked to indicate how strongly they agreed or disagreed that the consensus criteria from round two were met first by INTERQUAL and then by M&R UM guidelines. (See Appendixes F and G for third round questionnaire)

3. THE RESULTS

Each participant was mailed, hand-delivered, or e-mailed questionnaires for round one of the Delphi study. Each participant received a demographic questionnaire with the round one criteria questionnaire. The demographics revealed the following (see Appendix C):

(1) The group consisted of ten Registered Nurses, one Physical Therapist, and one Health Care Administrator.

(2) The total number of professional years was two hundred twenty years with an average of 18.3 years.

(3) Six participants hold Masters Degrees, five have Bachelors Degrees, and one is a Diploma graduate RN currently working toward her Bachelors Degree.

(4) The total years experience in utilization management for the group was seventy eight years, with an average of six and a half years.

(5) The expert panel consisted of four active duty Army officers, one active duty Air Force officer, one Department of the Army Civilian, five PacifiCare employees, and one Humana employee. The total number of years employed was 114, with an average length of employment of nine and a half years.

(6) The panel was made up of two males and ten females, with an average age of 41.2 years.

Round one produced thirty different criteria, after similar/identical criteria were combined or reworded. The intent of the original criteria was maintained for each criteria combined or reworded. If the original intent could not be maintained during combination with a similar criteria, the original criteria was retained. (see Appendix D)

In round two, the panel of experts was asked to review the list of thirty criteria generated by the group. Criteria participants considered valid for the selection of commercially prepared UM guidelines were marked with a yes. Criteria participants did not consider valid for selection of commercially prepared UM guideline were marked with a no. The results are displayed at Appendix E-1. Eighteen of the thirty criteria identified in round one received a consensus (simple majority, 7 of 12 SMEs) vote as valid for the selection of commercially prepared UM guidelines. (See shaded criteria Appendix E-1)

In round three the panel of experts was asked to rate INTERQUAL's and M&R's guidelines against the eighteen consensus criteria. (See Appendixes F & G) Appendixes H-1 and I-1 display the results of the ratings each set of guidelines received. The participants rated their

opinion whether the guideline met the criteria on a scale of strongly agree, agree, no opinion, disagree, and strongly disagree. The responses have been assigned the following numerical values: a) strongly agree -- {5}, b) agree -- {3}, c) no opinion -- {0}, d) disagree -- {-3}, and e) strongly disagree -- {-5}.

Only upon receipt of third round input was it discovered several members of the expert panel had a misunderstanding of the concept of "working knowledge" of the guidelines. Five members of the panel did not have the required working knowledge of both sets of guidelines (see Appendix H-1 & I-1). Failure to identify this flaw in SME selection earlier in the process made recruitment of new panel members unrealistic in terms of timely completion of the project. The change in number of panel members fully capable to participate in the study resulted in the need to reevaluate the results of round two (See Appendix E-2).

4. DISCUSSION

The individuals selected for participation in this study were all very eager to express their thoughts on the UM criteria, as was evidenced by the rapid turn-around time on the first two rounds of the study. The first two rounds were completed in ten days. Each round of the study had been allotted ten days. The rapid turn-around time may be attributed to the virtual information world we are developing through the use of electronic mail and fax machines for the exchange of files and information. The virtually instantaneous communication possible through the electronic medium has eliminated the long delays experienced by those who formerly relied on the US mail system for dissemination of their study topics, questionnaires, and the return of responses.

The return of the third round questionnaire brought with it problems. 1) Only three of the

twelve participants returned the questionnaires within the agreed upon time frame of ten days. The other nine questionnaires were returned as much as ten days late. 2) Five of the twelve panelists annotated on the bottom of the questionnaires they were not familiar enough with one or the other set of guidelines to rate both sets of guidelines. These five panelists did rate the set of guidelines they were currently using. Three of the seven civilian experts stated they were not familiar enough with the INTERQUAL guidelines to rate them, and two of the five military experts stated they were not familiar enough with the M&R guidelines to rate them.

The inability of five panelists to participate fully in the study created a quandary about how to complete the study. The consensus criteria were reevaluated to identify criteria that would be selected by the smaller panel of experts. The reevaluation showed that only sixteen criteria were selected by the smaller panel. Various options were available, considered, and examined to identify their effects on the results. The following was observed.

The first option considered was to simply tabulate the scores as they were returned, adding zeros for those experts unfamiliar with a set of guidelines. As depicted in Appendixes H-1, and I-1, INTERQUAL's cumulative score was 299 with an average of 33.2, and M&R's cumulative score was 492 with an average score of 49.2; using the eighteen criteria identified by the entire panel of twelve experts. Appendixes H-2, and I-2 depict INTERQUAL'S cumulative score decreased to 253 with an average of 28.8, and M&R's cumulative score decreased to 454 with an average of 45.4; using the sixteen criteria identified by the panel of seven fully qualified subject matter experts. This option was not appropriate since the INTERQUAL score was based on nine respondents and the M& R score was based on ten respondents.

The next option considered was to employ a statistical technique of averaging the

responses for each criteria, and substituting that average for the missing data. The average is a more valid number to use than zero and will skew the data less (Finstuen 1995). Appendixes J-1 and K-1 display the results of averaging the responses for each of the eighteen criteria and substituting the average. INTERQUAL's adjusted score rose to a total of 398.7 with an average score of 33.2 and M&R's adjusted total score rose to 590.4 with an average score of 49.2. Appendixes J-2 and K-2 display the results of averaging the responses for the sixteen criteria identified by the panel of seven members. INTERQUAL'S adjusted score fell to 345.3 with an average score of 28.8 and M&R's adjusted total score fell to 544.8 with an average score of 45.4.

The final option considered was to eliminate those respondents unable to evaluate both sets of guidelines from the study. This option resulted in the use of seven experts' evaluations of sixteen criteria. Appendixes L and M display the data. INTERQUAL's total score dropped to 173 with an average score of 24.7, and M&R's total score dropped to 357 with an average score of 51.

An examination of the scores achieved by the sets of guidelines evaluated by each option shows:

1) The first technique is obviously flawed and would not produce results that could be supported. Appendixes H-1 and I-1 based on eighteen criteria demonstrate a difference between guideline total scores of 193 points, and a difference between average scores of 16. Appendixes H-2 & I-2 which are based on sixteen criteria identified by the seven member panel show a difference of 195 points, and a difference between averages scores of 16.6.

2) The use of the statistical method of averaging is an improvement over the first technique, with a difference between guideline total scores of 191.7 points, with a difference

between average scores of 16 using the eighteen criteria identified in round two (See Appendixes J-1 and K-1). The total score difference using sixteen criteria was 199.5 with a difference between average scores of 16.6 (See appendixes J-2 & K-2). The second technique, although an improvement over the first, is not acceptable because it uses scores generated by individuals not fully qualified for participation in the study.

3) Using the third technique and eliminating respondents not familiar with both sets of guidelines, results in a difference between guideline total scores of 184 points, and the difference between average scores of 26.3. (See total score and average score boxes at Appendix L&M)

The first two options were rejected, due to the inaccuracy of the results produced. The first two options were inaccurate because five individuals not fully qualified to participate in the study supplied data that was included in the analysis. The third method of analysis was selected for use in drawing conclusions since it is not biased by either missing data, substituted data, or participants not fully qualified to take part in the process. The expert panel size was substantially reduced; however the reduction in potential bias will facilitate a better decision-making process. Had time allowed, a group of substitute panelists who met all criteria for participation would have been assembled. A problem in the design of the invitation to prospective subject matter experts was the inaccurate definition and/or interpretation of the term "working knowledge" of both sets of guidelines. A better definition would have been the requirement to have "worked with" both sets of guidelines. A "working knowledge" of the guidelines as interpreted by the SME invitees at the beginning of the study did not translate to a sufficient understanding of the guidelines for full participation in the study.

The overall analysis of the scores given by the final expert panel of seven members

shows that M&R's guidelines received an average score of 51 and INTERQUAL's guidelines received an average score of 24.7. (See average score box Appendix L&M) A criteria-by-criteria analysis of the results reveals the expert panel gave higher scores for agreement that the selection criteria were met by M&R's guidelines in 14of 16 consensus criteria. The first of the two selection criteria where M&R received a lower score than INTERQUAL was being "nationally recognized/utilized"; M&R's composite score was 28 and INTERQUAL's was 33. (See shaded row Appendixes L&M) The second exception was the criteria that said the "guidelines should be valid and reliable, objective, non-controversial, and clinically sound"; M&R's composite score was 17 and INTERQUAL's score was 19. (See shaded row Appendixes L&M)

5. CONCLUSIONS

The reduction in the size of the expert panel reduces the impact of the findings, but does not negate the findings. This expert panel agreed M&R's UM guidelines met the set of selection criteria better than INTERQUAL's. This is evidenced by the higher composite and average scores. As evidenced by Appendix N, regardless of the number of SMEs (12 vs 7) included in the analysis or number of consensus criteria (18 vs 16) M&R consistently and substantially was found the superior tool. The results can be interpreted that the expert panel agreed M&R's UM guidelines met the consensus criteria to a higher degree than INTERQUAL's. Therefore the expert panel would choose M&R's guidelines over INTERQUAL's. This decision has not considered cost since cost was not evaluated as a part of this study.

6. RECOMMENDATIONS

1) DoD Health Affairs should use the research methodology used in this study for the

selection of UM guidelines for the next contract. The methodology should be duplicated with a larger group of subject matter experts to further validate the appropriateness of these selection criteria.

2) Research should be conducted into the cost of contracting with both M&R and INTERQUAL for use of their UM guidelines. A cost benefit analysis should be done, that must include the training that would be required for the change across the military health care system. The analysis must also take into account any change in the way care is provided, any resulting change in length of stay, and any change in care outcomes.

3) Milliman and Robertson's UM guidelines should be given strong consideration as the UM guidelines of choice for the next contract period.

SPECIAL NOTE: The opinions expressed here are those of the authors alone, and do not represent those of the U.S. Army Medical Department, the U.S. Army, or the Department of Defense.

25 March 1996

My name is LTC William Wyckoff. I am currently completing the residency phase of the U.S. Army-Baylor Masters in Healthcare Administration. I have chosen for my Graduate Management Project, (a requirement for graduation) an exploration of expert opinions of Utilization Management (UM) guidelines. I have selected this project in the hopes of making a recommendation to the Department of Defense, Office of Health Affairs, about the UM guidelines that should be selected for the contract to be signed in 1997, based on the knowledge and experience of UM experts.

I am enlisting your assistance as an "expert" in UM to complete a Delphi Process. You have been identified as a knowledgeable individual in the UM process. I am asking for your assistance in completing the task. I do not anticipate the process taking more than 3-4 rounds to complete. I will have the initial questionnaire to you by Wednesday of this week, and ask that you reply within seven days. Based on your responses, I will send the second questionnaire to you within three days. Once consensus (51% of the participants) is reached, the final questionnaire will be sent you. This is not a labor intensive effort on your part, but your knowledge and experience will prove invaluable to the research effort.

The requirements to participate are: 1) willingness, 2) familiarity with both Interqual and Milliman & Robertson guidelines, 3) a minimum of 30-45 minutes to devote to each round of the process.

I will send the questionnaire for each round to those not located in San Antonio via Email or Fax, and will hand deliver those in the San Antonio area. Anonymity of responses will be guaranteed.

Please respond either by telephone (210) 979-2304, Fax (210) 979-2406, or Email your availability or non-availability to participate. If you have any questions that I have not addressed, please feel free to contact me.

APPENDIX A

Round # 1 Questionnaire

List no more than seven (7) criteria you would use in the selection of UM guidelines. Please disregard any current contracts or obligations that may exist within your organization. Please be specific rather than general.

1._____

2._____

3._____

4._____

5._____

6._____

7._____

APPENDIX B

Participant Demographics

Profession	#yrs as Prof	Ed Level	# yr in UM	Employer	# yr employ	age	sex
PT	23	MS	2	AIR FORCE	19	46	M
RN	27	MSN,MHA	5	ARMY	16	49	F
RN	18	MSN	4	ARMY	18	43	F
RN	30	BA	12	ARMY	20	51	F
HCA	11	MHA	2	ARMY	19	40	F
RN	16	MSN	3	PacifiCare	3	37	F
RN	18	MS	7	PacifiCare	7	45	F
RN	6	RN	4	PacifiCare	1	30	F
RN	14	BSN	4	PacifiCare	4	37	F
RN	21	BSN	19	PacifiCare	4	44	F
RN	11	BSN	6	PacifiCare	2	32	F
RN	25	BS	10	Humana	1	40	M

Total years experience as Prof.	220	Total years experience UM	78	Total yrs employed	114		
Average Years experience	18.3	Average Years experience	6.5	Average years employed	9.5	41.2	Average age

Appendix C

The following is a list of 30 criteria that have been recommended for the selection of UM Guidelines. Similar criteria have been combined/reworded to include the essence of the suggested criteria. Thank you for your input. Please indicate whether you would use each of the criteria to select UM guidelines by writing yes or no beside each criteria. Please select at least seven criteria.

Criteria

1. Nationally recognized/utilized criteria, must have credentials as a tool - i.e. AMA, NCQA, JCAHO recognition.

2. The guidelines should have broad acceptance and demonstrated efficacy when used in civilian managed care organizations, research based.

3. Do they show ways to minimize the cost of health care without, taking away quality of health care, enhances appropriate resource use.

4. The guidelines should be valid and reliable, objective, non-controversial, clinically sound.

5. Physician affiliation preference/ must have physician buy in

6. Can they be integrated effectively with Health Care Provider support

7. Guidelines provide reasonable approach to implementing health care management

8. Adaptability to local market/ physician practice patterns/ flexible - adaptable - cookbooks are "guidelines" not absolutes, provider oriented

9. Relatively easy to use by health care professionals/ easy to understand, user friendly, with clear, concise, unambiguous criteria.

10. Readily available/ on-line in all data reports on UR, Ideally, guideline software would be in a relational database format with standardized reports and easy ad hoc capabilities.

11. Guidelines available for medical, surgical, pediatric, mental health, obstetrics, The guidelines(s) must evaluate critical aspects of care in adult and pediatric age groups, medical surgical and mental health, and inpatient and outpatient care.

12. Do they cover the entire period of care from first encounter to last, proactive planning, not reactive.

APPENDIX D

13. Are they consistent with established data that is relevant and current

14. Do they consist of current and cost-effective protocols, the guidelines should have regular updates based on continuous quality improvement of the instrument itself, and changes in healthcare delivery.

15. Do they have the ability to educate and guide health provider, health plan, and member

16. Do they confirm to clinical competency

17. There should be hard copies and software of the guidelines for use on lap tops.

18. Meets Quality Standards - meets professionally recognized standards of care.

19. Able to track out of the ordinary problems - to identify problems & potential problems.

20. Involves all disciplines

21. Staff must have training - med techs, nurses, data people

22. Prospective Review - Identification of cases for case management or special resource needs and understanding of demand management

23. Concurrent Review - Identification for discharge planning requirements, Identification of facility process for improvement

24. Retrospective Review, Focused Studies - Identification of need for intervention to improve facility process. - Identify requirements in infrastructure needs

25. Case Management, Discharge planning - Patient advocate, social work model not just a steward of CHAMPUS dollars

26. Patient Profiling for clinical conditions (morbidity etc.) use of resources - Without this capability UM is very difficult to achieve

27. Data base application is part of package and is easily interpreted/utilized

28. Provider Profiling, style of practice - The other part of health care delivery. The other part is the patient. Without this part how can any management take place.

29. Demand Management, Disease prevention, epidemiology acuity and comorbidity - This the neglected part of UM but requires patient profiling, intake assessment to PCM etc. This is really what we are buying health status

30. Highlights where patient should best be located & not detailed clinical criteria as primary focus

ROUND 2 RESULTS USING TWELVE PANELISTS

The table below displays the results of the expert panel selection of criteria for round three. YES = 1 NO = 0

	PARTICIPANT													
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	% OF GROUP AGREEMENT	
CRITERIA NUMBER														CRITERIA NUMBER
1	1	1	1	0	1	1	1	1	1	0	1	1	83%	1
2	1	1	1	1	1	1	1	1	0	1	1	0	83%	2
3	1	1	1	0	1	1	0	1	1	1	1	0	75%	3
4	1	1	1	0	1	0	1	1	1	1	1	0	75%	4
5	1	0	0	1	0	0	1	1	1	1	1	0	58%	5
6	1	1	0	0	0	0	0	0	1	1	0	0	33%	6
7	1	1	1	0	0	0	0	0	0	1	1	0	42%	7
8	1	1	1	0	1	1	1	1	0	1	1	0	75%	8
9	1	1	1	1	1	0	1	1	1	1	1	1	92%	9
10	1	1	1	0	1	1	1	0	1	1	1	1	83%	10
11	1	1	1	1	0	0	1	1	1	1	1	0	75%	11
12	0	1	0	0	1	1	1	1	1	1	1	0	67%	12
13	1	1	0	0	0	0	0	0	0	1	1	0	33%	13
14	1	1	1	0	1	1	1	0	1	1	1	0	75%	14
15	0	1	1	1	1	0	0	1	0	1	1	1	67%	15
16	0	0	0	1	0	0	0	0	1	1	0	0	25%	16
17	1	1	1	0	0	0	1	0	1	1	1	1	67%	17
18	1	1	1	0	1	0	1	0	1	1	1	0	67%	18
19	0	0	0	0	1	0	1	0	0	1	1	0	33%	19
20	0	0	0	0	1	0	0	1	0	1	1	0	33%	20
21	0	1	1	1	0	0	0	1	1	1	1	0	58%	21
22	1	1	0	0	1	1	0	1	1	1	1	0	67%	22
23	0	1	0	0	1	1	0	1	1	1	1	0	58%	23
24	0	1	0	0	0	1	0	1	0	1	1	0	42%	24
25	0	1	0	0	0	0	0	1	1	1	1	0	42%	25
26	0	1	1	0	0	0	0	0	1	1	1	1	50%	26
27	1	1	0	0	1	0	1	0	1	1	1	1	67%	27
28	0	1	1	0	0	0	0	0	0	1	1	0	33%	28
29	0	1	0	0	0	0	0	1	1	1	0	1	42%	29
30	0	1	0	0	1	0	0	0	0	1	0	0	25%	30
# OF CRITERIA CHOSEN	17	26	16	7	17	10	14	17	20	29	26	8		# OF CRITERIA CHOSEN

APPENDIX E-1

ROUND 2 RESULTS USING THE FINAL SEVEN PANELISTS

The table below displays the results of the expert panel selection of criteria for round three.
YES = 1 NO = 0

	STUDY PARTICIPANT								
	#1	#4	#5	#7	#8	#9	#12	% OF GROUP AGREEMENT	
CRITERIA NUMBER									CRITERIA NUMBER
1	1	0	1	1	1	1	1	86%	1
2	1	1	1	1	1	0	0	71%	2
3	1	0	1	0	1	1	0	57%	3
4	1	0	1	1	1	1	0	71%	4
5	1	1	0	1	1	1	0	71%	5
6	1	0	0	0	0	1	0	29%	6
7	1	0	0	0	0	0	0	14%	7
8	1	0	1	1	1	0	0	57%	8
9	1	1	1	1	1	1	1	100%	9
10	1	0	1	1	0	1	1	71%	10
11	1	1	0	1	1	1	0	71%	11
12	0	0	1	1	1	1	0	57%	12
13	1	0	0	0	0	0	0	14%	13
14	1	0	1	1	0	1	0	57%	14
15	0	1	1	0	1	0	1	57%	15
16	0	1	0	0	0	1	0	29%	16
17	1	0	0	1	0	1	1	57%	17
18	1	0	1	1	0	1	0	57%	18
19	0	0	1	1	0	0	0	29%	19
20	0	0	1	0	1	0	0	29%	20
21	0	1	0	0	1	1	0	43%	21
22	1	0	1	0	1	1	0	57%	22
23	0	0	1	0	1	1	0	43%	23
24	0	0	0	0	1	0	0	14%	24
25	0	0	0	0	1	1	0	29%	25
26	0	0	0	0	0	1	1	29%	26
27	1	0	1	1	0	1	1	71%	27
28	0	0	0	0	0	0	0	0%	28
29	0	0	0	0	1	1	1	43%	29
30	0	0	1	0	0	0	0	14%	30
# OF CRITERIA CHOSEN	17	7	17	14	17	20	8		# OF CRITERIA CHOSEN

*** NOTE: - - Shaded area represents criteria that were not included in the final analysis when the panel size was decreased to seven.

ROUND 3 INTERQUAL QUESTIONNAIRE

THE FOLLOWING 18 CRITERIA WERE IDENTIFIED BY THE EXPERT PANEL AS CONSENSUS CRITERIA.
PLEASE INDICATE HOW STRONGLY YOU AGREE OF DISAGREE THAT THE INTERQUAL GUIDELINES MEET THESE CRITERIA.

CRITERIA					
Relatively easy to use by health care professionals/easy to understand, user friendly, with clear, concise, unambiguous criteria.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Nationally recognized/utilized criteria, must have credentials as a tool - i.e. AMA, NCQA, JCAHO recognition.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
The guidelines should have broad acceptance and demonstrated efficacy when used in civilian managed care organizations, research based.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Do they show ways to minimize the costs of health care, without taking away quality of health care, enhances appropriate resource use?	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
The guidelines should be valid and reliable, objective, non-controversial, clinically sound.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Adaptability to local market/physician practice patterns/flexible - adaptable - cookbooks are "guidelines" not absolutes, provider oriented.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Readily available/on-line in all data reports on UR. Ideally, guideline software would be in a relational database format with standardized reports and easy ad hoc capabilities.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Guidelines available for medical, surgical, pediatric, mental health, obstetrics. The guidelines must evaluate critical aspects of care in adult and pediatric age groups, medical, surgical, and mental health; for inpatient and outpatient care.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Do they consist of current and cost-effective protocols, the guidelines should have regular updates based on continuous quality improvement of the instrument itself, and changes in healthcare delivery?	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Do they cover the entire period of care from first encounter to last, proactive planning, not reactive?	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Meets Quality Standards - meets professionally recognized standards of care.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Prospective Review - Identification of cases for case management or special resource needs and understanding of demand management.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Physician affiliation preference / must have physician buy in.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Do they have the ability to educate and guide health provider, health plan, and member ?	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
There should be hard copies and software of the guidelines for use on lap tops.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Staff must have training - med techs, nurses, data people.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Concurrent Review - Identification for discharge planning requirements, identification of facility process for improvement.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Data base application is part of package and is easily interpreted/utilized.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE

APPENDIX F

ROUND 3 M R QUESTIONNAIRE

THE FOLLOWING 18 CRITERIA WERE IDENTIFIED BY THE EXPERT PANEL AS CONSENSUS CRITERIA.
PLEASE INDICATE HOW STRONGLY YOU AGREE OF DISAGREE THAT THE MILLIMAN & ROBERTSON GUIDELINES MEET THESE CRITERIA.

CRITERIA					
Relatively easy to use by health care professionals/easy to understand, user friendly, with clear, concise, unambiguous criteria.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Nationally recognized/utilized criteria, must have credentials as a tool - i.e. AMA, NCQA, JCAHO recognition.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
The guidelines should have broad acceptance and demonstrated efficacy when used in civilian managed care organizations, research based.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Do they show ways to minimize the costs of health care, without taking away quality of health care, enhances appropriate resource use?	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
The guidelines should be valid and reliable, objective, non-controversial, clinically sound.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Adaptability to local market/physician practice patterns/flexible - adaptable - cookbooks are "guidelines" not absolutes, provider oriented.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Readily available/on-line in all data reports on UR. Ideally, guideline software would be in a relational database format with standardized reports and easy ad hoc capabilities.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Guidelines available for medical, surgical, pediatric, mental health, obstetrics. The guidelines must evaluate critical aspects of care in adult and pediatric age groups, medical, surgical, and mental health; for inpatient and outpatient care.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Do they consist of current and cost-effective protocols, the guidelines should have regular updates based on continuous quality improvement of the instrument itself, and changes in healthcare delivery?	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Do they cover the entire period of care from first encounter to last, proactive planning, not reactive?	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Meets Quality Standards - meets professionally recognized standards of care.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Prospective Review - Identification of cases for case management or special resource needs and understanding of demand management.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Physician affiliation preference / must have physician buy in.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Do they have the ability to educate and guide health provider, health plan, and member ?	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
There should be hard copies and software of the guidelines for use on lap tops.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Staff must have training - med techs, nurses, data people.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Concurrent Review - Identification for discharge planning requirements, identification of facility process for improvement.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE
Data base application is part of package and is easily interpreted/utilized.	STRONGLY AGREE	AGREE	NO OPINION	DISAGREE	STRONGLY DISAGREE

APPENDIX G

ROUND 3 INTERQUAL RESULTS USING 18 CRITERIA

THE FOLLOWING 18 CRITERIA WERE IDENTIFIED BY THE EXPERT PANEL AS CONSENSUS CRITERIA.
PLEASE INDICATE HOW STRONGLY YOU AGREE OF DISAGREE THAT THE INTERQUAL GUIDELINES MEET THESE CRITERIA.

CRITERIA	# 1 (C)	# 2 (M)	# 3 (C)	# 4 (C)	# 5 (C)	# 6 (C)	# 7 (C)	# 8 (M)	# 9 (M)	# 10 (C	# 11 (M	# 12 (M)	Criteria Total	Criteria Average
Relatively easy to use by health care professionals/easy to understand, user friendly, with clear, concise, unambiguous criteria.	-3	5		5	0		-3	-3	5		3	5	14	1.6
Nationally recognized/utilized criteria, must have credentials as a tool - i.e. AMA, NCQA, JCAHO recognition.	5	3		5	5		3	5	5		5	5	41	4.6
The guidelines should have broad acceptance and demonstrated efficacy when used in civilian managed care organizations, research based.	-3	5		0	3		3	3	5		3	5	24	2.7
Do they show ways to minimize the costs of health care, without taking away quality of health care, enhances appropriate resource use?	3	0		5	0		3	-3	5		5	3	21	2.3
The guidelines should be valid and reliable, objective, non-controversial, clinically sound.	3	5		3	3		3	-3	5		3	5	27	3.0
Adaptability to local market/physician practice patterns/flexible - adaptable - cookbooks are "guidelines" not absolutes, provider oriented.	-3	3		3	3		-3	-3	0		3	3	6	0.7
Readily available/on-line in all data reports on UR. Ideally, guideline software would be in a relational database format with standardized reports and easy ad hoc capabilities.	0	5		-3	0		-3	-5	5		-3	3	-1	-0.1
Guidelines available for medical, surgical, pediatric, mental health, obstetrics. The guidelines must evaluate critical aspects of care in adult and pediatric age groups, medical, surgical, and mental health; for inpatient and outpatient care.	0	3		3	3		-3	3	5		3	3	20	2.2
Do they consist of current and cost-effective protocols, the guidelines should have regular updates based on continuous quality improvement of the instrument itself, and changes in healthcare delivery?	-3	5		3	3		-3	-3	5		3	3	13	1.4
Do they cover the entire period of care from first encounter to last, proactive planning, not reactive?	0	0		5	3		-3	-3	5		3	3	13	1.4
Meets Quality Standards - meets professionally recognized standards of care.	3	3		5	3		3	3	5		5	3	33	3.7
Prospective Review - Identification of cases for case management or special resource needs and understanding of demand management.	0	0		0	0		0	-3	5		3	3	8	0.9
Physician affiliation preference / must have physician buy in.	-3	0		3	3		0	-3	5		-3	3	5	0.6
Do they have the ability to educate and guide health provider, health plan, and member ?	0	3		3	0		-3	3	0		3	3	12	1.3
There should be hard copies and software of the guidelines for use on lap tops.	0	5		3	5		-3	3	5		3	3	24	2.7
Staff must have training - med techs, nurses, data people.	3	0		3	5		5	3	5		5	3	32	3.6
Concurrent Review - Identification for discharge planning requirements, identification of facility process for improvement.	0	0		3	0		-3	-3	5		3	3	8	0.9
Data base application is part of package and is easily interpreted/utilized.	0	5		3	0		-3	-5	5		-3	-3	-1	-0.1
COLUMN TOTAL	2	50		52	39		-10	-14	60		44	56	299	TOTAL SCORE
														Average 33.2

Indicates individuals unable to rate criteria.
Indicates disqualifed as an SME.

ROUND 3 INTERQUAL RESULTS USING 16 CRITERIA

THE FOLLOWING 16 CRITERIA WERE IDENTIFIED BY THE EXPERT PANEL AS CONSENSUS CRITERIA.
PLEASE INDICATE HOW STRONGLY YOU AGREE OF DISAGREE THAT THE INTERQUAL GUIDELINES MEET THESE CRITERIA.

CRITERIA	# 1 (C)	# 2 (M)	# 3 (C)	# 4 (C)	# 5 (C)	# 6 (C)	# 7 (C)	# 8 (M)	# 9 (M)	# 10 (C	# 11 (M	# 12 (M)	Criteria Total	Criteria Average
Relatively easy to use by health care professionals/easy to understand, user friendly, with clear, concise, unambiguous criteria.	-3	5		5	0		-3	-3	5		3	5	14	1.6
Nationally recognized/utilized criteria, must have credentials as a tool - i.e. AMA, NCQA, JCAHO recognition.	5	3		5	5		3	5	5		5	5	41	4.6
The guidelines should have broad acceptance and demonstrated efficacy when used in civilian managed care organizations, research based.	-3	5		0	3		3	3	5		3	5	24	2.7
Do they show ways to minimize the costs of health care, without taking away quality of health care, enhances appropriate resource use?	3	0		5	0		3	-3	5		5	3	21	2.3
The guidelines should be valid and reliable, objective, non-controversial, clinically sound.	3	5		3	3		3	-3	5		3	5	27	3.0
Adaptability to local market/physician practice patterns/flexible - adaptable - cookbooks are "guidelines" not absolutes, provider oriented.	-3	3		3	3		-3	-3	0		3	3	6	0.7
Readily available/on-line in all data reports on UR. Ideally, guideline software would be in a relational database format with standardized reports and easy ad hoc capabilities.	0	5		-3	0		-3	-5	5		-3	3	-1	-0.1
Guidelines available for medical, surgical, pediatric, mental health, obstetrics. The guidelines must evaluate critical aspects of care in adult and pediatric age groups, medical, surgical, and mental health; for inpatient and outpatient care.	0	5		3	3		-3	3	5		3	3	20	2.2
Do they consist of current and cost-effective protocols, the guidelines should have regular updates based on continuous quality improvement of the instrument itself, and changes in healthcare delivery?	-3	5		3	3		-3	-3	5		3	3	13	1.4
Do they cover the entire period of care from first encounter to last, proactive planning, not reactive?	0	0		5	3		-3	-3	5		3	3	13	1.4
Meets Quality Standards - meets professionally recognized standards of care.	3	3		5	3		3	3	5		5	3	33	3.7
Prospective Review - identification of cases for case management or special resource needs and understanding of demand management.	0	0		0	0		0	-3	5		3	3	8	0.9
Physician affiliation preference / must have physician buy in.	-3	0		3	3		0	-3	5		-3	3	5	0.6
Do they have the ability to educate and guide health provider, health plan, and member ?	0	3		3	0		-3	3	0		3	3	12	1.3
There should be hard copies and software of the guidelines for use on lap tops.	0	5		3	5		-3	3	5		3	3	24	2.7
Data base application is part of package and is easily interpreted/utilized.	0	5		3	0		-3	-5	5		-3	-3	-1	-0.1
COLUMN TOTAL	-1	50		46	34		-12	-14	70		36	50	259	TOTAL SCORE 28.8

Indicates individuals unable to rate criteria.
Indicates disqualifed as an SME.

APPENDIX H-2

ROUND 3 M AND R RESULTS USING 18 CRITERIA

THE FOLLOWING 18 CRITERIA WERE IDENTIFIED BY THE EXPERT PANEL AS CONSENSUS CRITERIA.
PLEASE INDICATE HOW STRONGLY YOU AGREE OF DISAGREE THAT THE MILLIMAN & ROBERTSON GUIDELINES MEET THESE CRITERIA.

CRITERIA	# 1 (C)	# 2 (M)	# 3 (C)	# 4 (C)	# 5 (C)	# 6 (C)	# 7 (C)	# 8 (M)	# 9 (M)	# 10 (C	# 11 (M	12 (M)	Criteria Total	Criteria Average
Relatively easy to use by health care professionals/easy to understand, user friendly, with clear, concise, unambiguous criteria.	3		5	5	3	3	0	5	5	3		5	37	3.7
Nationally recognized/utilized criteria, must have credentials as a tool - i.e. AMA, NCQA, JCAHO recognition.	3		5	5	5	3	5	0	5	3		5	39	3.9
The guidelines should have broad acceptance and demonstrated efficacy when used in civilian managed care organizations, research based.	3		5	0	3	3	5	3	5	3		5	35	3.5
Do they show ways to minimize the costs of health care, without taking away quality of health care, enhances appropriate resource use?	5		3	5	3	3	5	3	5	3		3	38	3.8
The guidelines should be valid and reliable, objective, non-controversial, clinically sound.	3		0	3	3	3	0	0	5	3		3	23	2.3
Adaptability to local market/physician practice patterns/flexible - adaptable - cookbooks are "guidelines" not absolutes, provider oriented.	3		3	3	5	-3	3	3	0	3		3	23	2.3
Readily available/on-line in all data reports on UR. Ideally, guideline software would be in a relational database format with standardized reports and easy ad hoc capabilities.	5		5	0	3	3	5	0	5	0		3	29	2.9
Guidelines available for medical, surgical, pediatric, mental health, obstetrics. The guidelines must evaluate critical aspects of care in adult and pediatric age groups, medical, surgical, and mental health; for inpatient and outpatient care.	3		0	3	5	3	-3	3	5	3		5	27	2.7
Do they consist of current and cost-effective protocols, the guidelines should have regular updates based on continuous quality improvement of the instrument itself, and changes in healthcare delivery?	5		5	3	3	3	3	0	5	3		5	35	3.5
Do they cover the entire period of care from first encounter to last, proactive planning, not reactive?	3		3	5	3	-3	-3	0	5	-3		5	15	1.5
Meets Quality Standards - meets professionally recognized standards of care.	3		5	5	3	3	5	3	5	3		5	40	4.0
Prospective Review - Identification of cases for case management or special resource needs and understanding of demand management.	3		3	0	3	-3	-3	0	5			3	11	1.1
Physician affiliation preference / must have physician buy in.	3		-3	3	3	3	5	3	5	3		3	28	2.8
Do they have the ability to educate and guide health provider, health plan, and member ?	5		-3	3	3	3	3	3	0	-3		3	17	1.7
There should be hard copies and software of the guidelines for use on lap tops.	5		5	3	5	3	3	0	5	3		3	35	3.5
Staff must have training - med techs, nurses, data people.	5		0	3	5	3	-3	0	5	0		3	21	2.1
Concurrent Review - Identification for discharge planning requirements, identification of facility process for improvement.	3		0	3	3	3	-3	3	5	-3		3	17	1.7
Data base application is part of package and is easily interpreted/utilized.	3		5	3	3	-3	3	0	5	0		3	22	2.2
COLUMN TOTAL	66		46	55	64	30	30	29	80	24		68	492	TOTAL SCORE 49.2

Indicates individuals unable to rate criteria.
Indicates disqualifed as an SME.

ROUND 3 M AND R RESULTS USING 16 CRITERIA

THE FOLLOWING 18 CRITERIA WERE IDENTIFIED BY THE EXPERT PANEL AS CONSENSUS CRITERIA.
PLEASE INDICATE HOW STRONGLY YOU AGREE OF DISAGREE THAT THE MILLIMAN & ROBERTSON GUIDELINES MEET THESE CRITERIA.

CRITERIA	# 1 (C)	# 2 (M)	# 3 (C)	# 4 (C)	# 5 (C)	# 6 (C)	# 7 (C)	# 8 (M)	# 9 (M)	# 10 (C	# 11 (M	12 (M)		Criteria Total	Criteria Average
Relatively easy to use by health care professionals/easy to understand, user friendly, with clear, concise, unambiguous criteria.	3		5	5	3	3	0	5	5	3		5		37	3.7
Nationally recognized/utilized criteria, must have credentials as a tool - i.e. AMA, NCQA, JCAHO recognition.	3		5	5	5	3	5	0	5	3		5		39	3.9
The guidelines should have broad acceptance and demonstrated efficacy when used in civilian managed care organizations, research based.	3		5	0	3	3	5	3	5	3		5		35	3.5
Do they show ways to minimize the costs of health care, without taking away quality of health care, enhances appropriate resource use?	5		3	5	3	3	5	3	5	3		3		38	3.8
The guidelines should be valid and reliable, objective, non-controversial, clinically sound.	3		0	3	3	3	0	0	5	3		3		23	2.3
Adaptability to local market/physician practice patterns/flexible - adaptable - cookbooks are "guidelines" not absolutes, provider oriented.	3		3	3	5	-3	3	3	0	3		3		23	2.3
Readily available/on-line in all data reports on UR. Ideally, guideline software would be in a relational database format with standardized reports and easy ad hoc capabilities.	5		5	0	3	3	5	0	5	0		3		29	2.9
Guidelines available for medical, surgical, pediatric, mental health, obstetrics.	3		0	3	5	3	-3	3	5	3		5		27	2.7
The guidelines must evaluate critical aspects of care in adult and pediatric age groups, medical, surgical, and mental health; for inpatient and outpatient care.															
Do they consist of current and cost-effective protocols, the guidelines should have regular updates based on continuous quality improvement of the instrument itself, and changes in healthcare delivery?	5		5	3	3	3	3	0	5	3		5		35	3.5
Do they cover the entire period of care from first encounter to last, proactive planning, not reactive?	3		3	5	3	-3	-3	0	5	-3		5		15	1.5
Meets Quality Standards - meets professionally recognized standards of care.	3		5	5	3	3	5	3	5	3		5		40	4.0
Prospective Review - Identification of cases for case management or special resource needs and understanding of demand management.	3		3	0	3	-3	-3	0	5			3		11	1.1
Physician affiliation preference / must have physician buy in.	3		-3	3	3	3	5	3	5	3		3		28	2.8
Do they have the ability to educate and guide health provider, health plan, and member ?	5		-3	3	3	3	3	3	0	-3		3		17	1.7
There should be hard copies and software of the guidelines for use on lap tops.	5		5	3	5	3	3	0	5	3		3		35	3.5
Data base application is part of package and is easily interpreted/utilized.	3		5	3	3	-3	3	0	5	0		3		22	2.2
COLUMN TOTAL	58		46	49	58	24	36	26	70	27		62	454	TOTAL SCORE	Average 45.4

Indicates individuals unable to rate criteria.
Indicates disqualifed as an SME.

ROUND 3 INTERQUAL RESULTS ADJUSTED USING 18 CRITERIA

THE FOLLOWING 18 CRITERIA WERE IDENTIFIED BY THE EXPERT PANEL AS CONSENSUS CRITERIA.
PLEASE INDICATE HOW STRONGLY YOU AGREE OF DISAGREE THAT THE INTERQUAL GUIDELINES MEET THESE CRITERIA.

CRITERIA	# 1 (C)	# 2 (M)	# 3 (C)	# 4 (C)	# 5 (C)	# 6 (C)	# 7 (C)	# 8 (M)	# 9 (M)	# 10 (C	# 11 (M	# 12 (M)	Criteria Total	Criteria Average
Relatively easy to use by health care professionals/easy to understand, user friendly, with clear, concise, unambiguous criteria.	-3	5	1.6	5	0	1.6	-3	-3	5	1.6	3	5	18.7	1.6
Nationally recognized/utilized criteria, must have credentials as a tool - i.e. AMA, NCQA, JCAHO recognition.	5	3	4.6	5	5	4.6	3	5	5	4.6	5	5	54.7	4.6
The guidelines should have broad acceptance and demonstrated efficacy when used in civilian managed care organizations, research based.	-3	5	2.7	0	3	2.7	3	3	5	2.7	3	5	32.0	2.7
Do they show ways to minimize the costs of health care, without taking away quality of health care, enhances appropriate resource use?	3	0	2.3	5	0	2.3	3	-3	5	2.3	5	3	28.0	2.3
The guidelines should be valid and reliable, objective, non-controversial, clinically sound.	3	5	3.0	3	3	3.0	3	-3	5	3.0	3	5	36	3.0
Adaptability to local market/physician practice patterns/flexible - adaptable - cookbooks are "guidelines" not absolutes, provider oriented.	-3	3	0.7	3	3	0.7	-3	-3	0	0.7	3	3	8.0	0.7
Readily available/on-line in all data reports on UR. Ideally, guideline software would be in a relational database format with standardized reports and easy ad hoc capabilities.	0	5	-0.1	-3	0	-0.1	-3	-5	5	-0.1	-3	3	-1.3	-0.1
Guidelines available for medical, surgical, pediatric, mental health, obstetrics. The guidelines must evaluate critical aspects of care in adult and pediatric age groups, medical, surgical, and mental health; for inpatient and outpatient care.	0	3	2.2	3	3	2.2	-3	3	5	2.2	3	3	26.7	2.2
Do they consist of current and cost-effective protocols, the guidelines should have regular updates based on continuous quality improvement of the instrument itself, and changes in healthcare delivery?	-3	5	1.4	3	3	1.4	-3	-3	5	1.4	3	3	17.3	1.4
Do they cover the entire period of care from first encounter to last, proactive planning, not reactive?	0	0	1.4	5	3	1.4	-3	-3	5	1.4	3	3	17.3	1.4
Meets Quality Standards - meets professionally recognized standards of care.	3	3	3.7	5	3	3.7	3	3	5	3.7	5	3	44.0	3.7
Prospective Review - Identification of cases for case management or special resource needs and understanding of demand management.	0	0	0.9	0	0	0.9	0	-3	5	0.9	3	3	10.7	0.9
Physician affiliation preference / must have physician buy in.	-3	0	0.6	3	3	0.6	0	-3	5	0.6	-3	3	6.7	0.6
Do they have the ability to educate and guide health provider, health plan, and member ?	0	3	1.3	3	0	1.3	-3	3	0	1.3	3	3	16.0	1.3
There should be hard copies and software of the guidelines for use on lap tops.	0	5	2.7	3	5	2.7	-3	3	5	2.7	3	3	32.0	2.7
Staff must have training - med techs, nurses, data people.	3	0	3.6	3	5	3.6	5	3	5	3.6	5	3	43	3.6
Concurrent Review - Identification for discharge planning requirements, identification of facility process for improvement.	0	0	0.9	3	0	0.9	-3	-3	5	0.9	3	3	10.7	0.9
Data base application is part of package and is easily interpreted/utilized.	0	5	-0.1	3	0	-0.1	-3	-5	5	-0.1	-3	-3	-1.3	-0.1
COLUMN TOTAL	2	50	33.2	52	39	33.2	-10	-14	80	33.2	44	56	398.7	TOTAL SCORE / Average 33.2

Indicates averages based on nine respondents.
Indicates disqualifed as an SME.

APPENDIX J-1

ROUND 3 INTERQUAL RESULTS ADJUSTED USING 16 CRITERIA

THE FOLLOWING 18 CRITERIA WERE IDENTIFIED BY THE EXPERT PANEL AS CONSENSUS CRITERIA.
PLEASE INDICATE HOW STRONGLY YOU AGREE OF DISAGREE THAT THE INTERQUAL GUIDELINES MEET THESE CRITERIA.

CRITERIA	# 1 (C)	# 2 (M)	# 3 (C)	# 4 (C)	# 5 (C)	# 6 (C)	# 7 (C)	# 8 (M)	# 9 (M)	# 10 (C	# 11 (M	# 12 (M)	Criteria Total	Criteria Average
Relatively easy to use by health care professionals/easy to understand, user friendly, with clear, concise, unambiguous criteria.	-3	5	1.6	5	0	1.6	-3	-3	5	1.6	3	5	18.7	1.6
Nationally recognized/utilized criteria, must have credentials as a tool - i.e. AMA, NCQA, JCAHO recognition.	5	3	4.6	5	5	4.6	3	5	5	4.6	5	5	54.7	4.6
The guidelines should have broad acceptance and demonstrated efficacy when used in civilian managed care organizations, research based.	-3	5	2.7	0	3	2.7	3	3	5	2.7	3	5	32.0	2.7
Do they show ways to minimize the costs of health care, without taking away quality of health care, enhances appropriate resource use?	3	0	2.3	5	0	2.3	3	-3	5	2.3	5	3	28.0	2.3
The guidelines should be valid and reliable, objective, non-controversial, clinically sound.	3	5	3.0	3	3	3.0	3	-3	5	3.0	3	5	36	3.0
Adaptability to local market/physician practice patterns/flexible - adaptable - cookbooks are "guidelines" not absolutes, provider oriented.	-3	3	0.7	3	3	0.7	-3	-3	0	0.7	3	3	8.0	0.7
Readily available/on-line in all data reports on UR. Ideally, guideline software would be in a relational database format with standardized reports and easy ad hoc capabilities.	0	5	-0.1	-3	0	-0.1	-3	-5	5	-0.1	-3	3	-1.3	-0.1
Guidelines available for medical, surgical, pediatric, mental health, obstetrics. The guidelines must evaluate critical aspects of care in adult and pediatric age groups, medical, surgical, and mental health; for inpatient and outpatient care.	0	3	2.2	3	3	2.2	-3	3	5	2.2	3	3	26.7	2.2
Do they consist of current and cost-effective protocols, the guidelines should have regular updates based on continuous quality improvement of the instrument itself, and changes in healthcare delivery?	-3	5	1.4	3	3	1.4	-3	-3	5	1.4	3	3	17.3	1.4
Do they cover the entire period of care from first encounter to last, proactive planning, not reactive?	0	0	1.4	5	3	1.4	-3	-3	5	1.4	3	3	17.3	1.4
Meets Quality Standards - meets professionally recognized standards of care.	3	3	3.7	5	3	3.7	3	3	5	3.7	5	3	44.0	3.7
Prospective Review - Identification of cases for case management or special resource needs and understanding of demand management.	0	0	0.9	0	0	0.9	0	-3	5	0.9	3	3	10.7	0.9
Physician affiliation preference / must have physician buy in.	-3	0	0.6	3	3	0.6	0	-3	5	0.6	-3	3	6.7	0.6
Do they have the ability to educate and guide health provider, health plan, and member ?	0	3	1.3	3	0	1.3	-3	3	0	1.3	3	3	16.0	1.3
There should be hard copies and software of the guidelines for use on lap tops.	0	5	2.7	3	5	2.7	-3	3	5	2.7	3	3	32.0	2.7
Data base application is part of package and is easily interpreted/utilized.	0	5	-0.1	3	0	-0.1	-3	-5	5	-0.1	-3	-3	-1.3	-0.1
COLUMN TOTAL	-1	50	28.8	46	34	28.8	-12	-14	70	28.8	36	50	345.3	TOTAL SCORE 28.8

Indicates averages based on nine respondents.
Indicates disqualifed as an SME.

ROUND 3 M AND R RESULTS ADJUSTED USING 18 CRITERIA

THE FOLLOWING 18 CRITERIA WERE IDENTIFIED BY THE EXPERT PANEL AS CONSENSUS CRITERIA.
PLEASE INDICATE HOW STRONGLY YOU AGREE OF DISAGREE THAT THE MILLIMAN & ROBERTSON GUIDELINES MEET THESE CRITERIA.

CRITERIA	# 1 (C)	# 2 (M)	# 3 (C)	# 4 (C)	# 5 (C)	# 6 (C)	# 7 (C)	# 8 (M)	# 9 (M)	# 10 (C	# 11 (M	12 (M)	Criteria Total	Criteria Average
Relatively easy to use by health care professionals/easy to understand, user friendly, with clear, concise, unambiguous criteria.	3		5	5	3	3	0	5	5	3		5	44.4	3.7
Nationally recognized/utilized criteria, must have credentials as a tool - i.e. AMA, NCQA, JCAHO recognition.	3		5	5	5	3	5	0	5	3		5	46.8	3.9
The guidelines should have broad acceptance and demonstrated efficacy when used in civilian managed care organizations, research based.	3		5	0	3	3	5	3	5	3		5	42	3.5
Do they show ways to minimize the costs of health care, without taking away quality of health care, enhances appropriate resource use?	5		3	5	3	3	5	3	5	3		3	45.6	3.8
The guidelines should be valid and reliable, objective, non-controversial, clinically sound.	3		0	3	3	3	0	0	5	3		3	27.6	2.3
Adaptability to local market/physician practice patterns/flexible - adaptable - cookbooks are "guidelines" not absolutes, provider oriented.	3		3	3	5	-3	3	3	0	3		3	27.6	2.3
Readily available/on-line in all data reports on UR. Ideally, guideline software would be in a relational database format with standardized reports and easy ad hoc capabilities.	5		5	0	3	3	5	0	5	0		3	34.8	2.9
Guidelines available for medical, surgical, pediatric, mental health, obstetrics. The guidelines must evaluate critical aspects of care in adult and pediatric age groups, medical, surgical, and mental health; for inpatient and outpatient care.	3		0	3	5	3	-3	3	5	3		5	32.4	2.7
Do they consist of current and cost-effective protocols, the guidelines should have regular updates based on continuous quality improvement of the instrument itself, and changes in healthcare delivery?	5		5	3	3	3	3	0	5	3		5	42	3.5
Do they cover the entire period of care from first encounter to last, proactive planning, not reactive?	3		3	5	3	-3	-3	0	5	-3		5	18	1.5
Meets Quality Standards - meets professionally recognized standards of care.	3		5	5	3	3	5	3	5	3		5	48	4.0
Prospective Review - Identification of cases for case management or special resource needs and understanding of demand management.	3		3	0	3	-3	-3	0	5	0		3	13.2	1.1
Physician affiliation preference / must have physician buy in.	3		-3	3	3	3	5	3	5	3		3	33.6	2.8
Do they have the ability to educate and guide health provider, health plan, and member ?	5		-3	3	3	3	3	3	0	-3		3	20.4	1.7
There should be hard copies and software of the guidelines for use on lap tops.	5		5	3	5	3	3	0	5	3		3	42	3.5
Staff must have training - med techs, nurses, data people.	5		0	3	5	3	-3	0	5	0		3	25.2	2.1
Concurrent Review - Identification for discharge planning requirements, identification of facility process for improvement.	3		0	3	3	3	-3	3	5	-3		3	20.4	1.7
Data base application is part of package and is easily interpreted/utilized.	3		5	3	3	-3	3	0	5	0		3	26.4	2.2
COLUMN TOTAL	66		46	55	64	30	30	29	80	24		66	590.4	TOTAL SCORE 49.2

Indicates averages based on ten respondents
Indicates disqualifed as an SME.

ROUND 3 M AND R RESULTS ADJUSTED USING 16 CRITERIA

THE FOLLOWING 18 CRITERIA WERE IDENTIFIED BY THE EXPERT PANEL AS CONSENSUS CRITERIA.
PLEASE INDICATE HOW STRONGLY YOU AGREE OF DISAGREE THAT THE MILLIMAN & ROBERTSON GUIDELINES MEET THESE CRITERIA.

CRITERIA	# 1 (C)	# 2 (M)	# 3 (C)	# 4 (C)	# 5 (C)	# 6 (C)	# 7 (C)	# 8 (M)	# 9 (M)	# 10 (C	# 11 (M	12 (M)	Criteria Total	Criteria Average
Relatively easy to use by health care professionals/easy to understand, user friendly, with clear, concise, unambiguous criteria.	3	3.7	5	5	3	3	0	5	5	3	3.7	5	44.4	3.7
Nationally recognized/utilized criteria, must have credentials as a tool - i.e. AMA, NCQA, JCAHO recognition.	3	3.9	5	5	5	3	5	0	5	3	3.9	5	46.8	3.9
The guidelines should have broad acceptance and demonstrated efficacy when used in civilian managed care organizations, research based.	3	3.5	5	0	3	3	5	3	5	3	3.5	5	42	3.5
Do they show ways to minimize the costs of health care, without taking away quality of health care, enhances appropriate resource use?	5	3.8	3	5	3	3	5	3	5	3	3.8	3	45.6	3.8
The guidelines should be valid and reliable, objective, non-controversial, clinically sound.	3	2.3	0	3	3	3	0	0	5	3	2.3	3	27.6	2.3
Adaptability to local market/physician practice patterns/flexible - adaptable - cookbooks are "guidelines" not absolutes, provider oriented.	3	2.3	3	3	5	-3	3	3	0	3	2.3	3	27.6	2.3
Readily available/on-line in all data reports on UR. Ideally, guideline software would be in a relational database format with standardized reports and easy ad hoc capabilities.	5	2.9	5	0	3	3	5	0	5	0	2.9	3	34.8	2.9
Guidelines available for medical, surgical, pediatric, mental health, obstetrics. The guidelines must evaluate critical aspects of care in adult and pediatric age groups, medical, surgical, and mental health; for inpatient and outpatient care.	3	2.7	0	3	5	3	-3	3	5	3	2.7	5	32.4	2.7
Do they consist of current and cost-effective protocols, the guidelines should have regular updates based on continuous quality improvement of the instrument itself, and changes in healthcare delivery?	5	3.5	5	3	3	3	3	0	5	3	3.5	5	42	3.5
Do they cover the entire period of care from first encounter to last, proactive planning, not reactive?	3	1.5	3	5	3	-3	-3	0	5	-3	1.5	5	18	1.5
Meets Quality Standards - meets professionally recognized standards of care.	3	4	5	5	3	3	5	3	5	3	4	5	48	4.0
Prospective Review - Identification of cases for case management or special resource needs and understanding of demand management.	3	1.1	3	0	3	-3	-3	0	5	0	1.1	3	13.2	1.1
Physician affiliation preference / must have physician buy in.	3	2.8	-3	3	3	3	5	3	5	3	2.8	3	33.6	2.8
Do they have the ability to educate and guide health provider, health plan, and member ?	5	1.7	-3	3	3	3	3	3	0	-3	1.7	3	20.4	1.7
There should be hard copies and software of the guidelines for use on lap tops.	5	3.5	5	3	5	3	3	0	5	3	3.5	3	42	3.5
Data base application is part of package and is easily interpreted/utilized.	3	2.2	5	3	3	-3	3	0	5	0	2.2	3	26.4	2.2
COLUMN TOTAL	58	45.4	46	49	56	24	36	26	70	27	45.4	62	544.8	TOTAL SCORE: Average 45.4

Indicates averages based on ten respondents
Indicates disqualifed as an SME.

ROUND 3 M AND R RESULTS USING 7 PANELISTS

THE FOLLOWING 18 CRITERIA WERE IDENTIFIED BY THE EXPERT PANEL AS CONSENSUS CRITERIA.
PLEASE INDICATE HOW STRONGLY YOU AGREE OF DISAGREE THAT THE MILLIMAN & ROBERTSON GUIDELINES MEET THESE CRITERIA.

CRITERIA	# 1 (C)	# 4 (C)	# 5 (C)	# 7 (C)	# 8 (M)	# 9 (M)	12 (M)		Criteria Total	Criteria Average
Relatively easy to use by health care professionals/easy to understand, user friendly, with clear, concise, unambiguous criteria.	3	5	3	0	5	5	5		26	3.7
Nationally recognized/utilized criteria must have credentials/approval - i.e. AMA, NCQA, JCAHO recognition.	3	5	5	5	0	5	5		28	4.0
The guidelines should have broad acceptance and demonstrated efficacy when used in civilian managed care organizations, research based.	3	0	3	5	3	5	5		24	3.4
Do they show ways to minimize the costs of health care, without taking away quality of health care, enhances appropriate resource use?	5	5	3	5	3	5	3		29	4.1
The guidelines should be valid and reliable objective, scientifically sound.	5	5	0	0	0	5	5		20	2.9
Adaptability to local market/physician practice patterns/flexible - adaptable - cookbooks are "guidelines" not absolutes, provider oriented.	3	3	5	3	3	0	3		20	2.9
Readily available/on-line in all data reports on UR. Ideally, guideline software would be in a relational database format with standardized reports and easy ad hoc capabilities.	5	0	3	5	0	5	3		21	3.0
Guidelines available for medical, surgical, pediatric, mental health, obstetrics. The guidelines must evaluate critical aspects of care in adult and pediatric age groups, medical, surgical, and mental health; for inpatient and outpatient care.	3	3	5	-3	3	5	5		21	3.0
Do they consist of current and cost-effective protocols, the guidelines should have regular updates based on continuous quality improvement of the instrument itself, and changes in healthcare delivery?	5	3	3	3	0	5	5		24	3.4
Do they cover the entire period of care from first encounter to last, proactive planning, not reactive?	3	5	3	-3	0	5	5		18	2.6
Meets Quality Standards - meets professionally recognized standards of care.	3	5	3	5	3	5	5		29	4.1
Prospective Review - Identification of cases for case management or special resource needs and understanding of demand management.	3	0	3	-3	0	5	3		11	1.6
Physician affiliation preference / must have physician buy in.	3	3	3	5	3	5	3		25	3.6
Do they have the ability to educate and guide health provider, health plan, and member ?	5	3	3	3	3	0	3		20	2.9
There should be hard copies and software of the guidelines for use on lap tops. member ?	5	3	5	3	0	5	3		24	3.4
Data base application is part of package and is easily interpreted/utilized.	3	3	3	3	0	5	3		20	2.9
COLUMN TOTAL	58	49	56	36	26	70	62	357	TOTAL SCORE	Average 51.0

*****NOTE -- RESULTS ARE BASED ON SEVEN PANELISTS AND 16 CRITERIA**

***** NOTE - - SHADED CRITERIA REFER TO COMMENTS ON PAGE 35.**

AVERAGE SCORE COMPARISON

	INTERQUAL	M & R
ROUND 3 USING 18 CRITERIA	33.2	49.2
ROUND 3 USING 12 CRITERIA	28.8	45.4
ROUND 3 ADJUSTED USING 18 CRITERIA	33.2	49.2
ROUND 3 ADJUSTED USING 16 CRITERIA	28.8	45.5
ROUND 3 USING 7 PANELIST & 16 CRITERIA	24.7	51

APPENDIX N

BIBLIOGRAPHY

Bailit, Howard and Sennett, Carey. "Utilization Management as a Cost Containment Strategy." *Health Care Financing Review* Annual supplement (1991): 87-93.

Baschon, S. *A Complete Guide to Utilization Management: A Practical Approach to Program Design, Implementation, and Evaluation.* Fayetteville, NC: Continuing Education Resources, 1990.

Baschon, Sharon. *A Complete Guide to Utilization Management.* Durham, NC: Baschon Group, 1992.

_____. *Manage Patient Care of Lose to Managed Care: The REALITY of Healthcare Reform.* Durham, NC: The Baschon Group, 1994.

Bergman, Rhonda. "The Trials of Accreditation." *Hospitals & Health Networks*, Sept 5 1994, 42-49.

Bustin, N. and Lagoe, R. "The Evaluation of Hospital Stays for Total Hip Replacement." *American Journal of Medical Quality* 10, no. 3 (Fall 1995): 138-40.

Dalkey, N. & Helmer O. "An Experimental Application of the Delphi Method to the Use of Experts." *Management Science* 9, no. 3 (1963): 458-67.

DelBecq, A. Et El. *Group Techniques for Program Planning: A Guide to Nominal Group and Delphi Processes.* Glenview, Ill: Scott, Foresman & Company, 1975.

Doyle, R., & Ferren, A. *Healthcare Management Guidelines, Vol 3.* Washington,

D.C.: Milliman & Robertson, Inc., 1994.

Dring, R., Hiott, B. "Case Management: A Case Study." *Journal of Neuroscience Nursing* 26, no. 3 (June 1994): 166-69.

Dunston, Janice. "How Managed Care Can Work For You." *Nursing 90*, October 1990, 56-59.

Farrell, P., & Scherer, K. "The Delphi Technique as a Method for Selecting Criteria to Evaluate Nursing Care." *Nursing Papers (Canada)* 15, no. 1 (1983): 51-60.

Finsteun, Kenneth. "Addressing Missing Data Points." US Army-Baylor Classroom 2312, Jan, 1995.

Flannery, Diane. MEDCOM UM . Edited by William Wyckoff. San Antonio, TX, January, 1996.

Gary, BH., & Field, MJ. (editors). *Controlling Costs and Changing Patient Care. The Role of Utilization Management.* Washington, D.C.: National Academy Press, 1989.

Goldfield Norbert. "Measurement and Management of Quality in Managed Care Organizations: Alive and Improving." *QRB*, November 1991, 343-48.

Goodman, Claire. "The Delphi Technique: A Critique." *Journal of Advanced Nursing* 12 (1987): 729-34.

Gosfield, J.D. "The New Quality Standards: How Well Will You Measure Up?" *Medical Economics*, Feb 12 1996, 116-24.

Gray, B.H. & Field MJ. *Controlling Costs and Changing Patient Care? The Role of*

Utilization Management. Washington, D.C.: National Academy Press, 1989.

Griffin, John. *The Well Managed Community Hospital 2nd Edition*. Ann Arbor: AUPHA, 1992.

Grobman, Marc. "UR Only as Good as What You Save." *Business and Health*, July 1991, 21-30.

Hartigan, E. & Brown, J. *Discharge Planning for Continuity of Care*. New York: National League for Nursing, 1985.

Henzler, C., & Harper, J. "Implementing a Computer-Assisted Appropriateness Review Using DRG 182/183." *Journal on Quality Improvement* 21, no. 5 (May 1995): 239-45.

Hershey, Nathan. "Economic Credentialing: A Poor Title for a Legitimate Assessment Concept." *American College of Medical Quality* 9, no. 1 (Spring 1994): 3-9.

Hoy, Elizabeth, Et al. "Change and Growth in Managed Care." *Health Affairs*, Winter 1991, 18-36.

HSC IG. *Special Evaluation Report of Utilization Management Procedures in U.S. Army Health Services Command*. Fort Sam Houston: U.S. Army Health Services Command, 1993.

Hungate, Robert. "Purchaser Quality Measures: Progressing From Wants to Needs." *Joint Commission Journal on Quality Improvement* 20, no. 7 (July 1994): 381-87.

Joint Commission. *Understanding The Hospital Performance Report*. Oakbrook Terrance, Ill: Joint Commission, 1994.

Joseph, Stephen. *Utilization Management (UM) Activities in The Direct Care System Under TRICARE.* Washington, D.C.: US Department of Health Affairs, 1994.

Kerr, E., Mittman, B. "Managed Care and Capitation in California: How Do Physicians at Financial Risk Control Their Own Utilization ?" *Annals of Internal Medicine* 123, no. 7 (October 1995): 500-04.

Kongstevedt, Peter. *The Managed Health Care Handbook.* Rockville, MD: Aspen Publishers, 1989.

Lawthers, A., Palmer, R. "Developing Performance Measures for Ambulatory Care Quality: A Preliminary Report of the DEMPAQ Project." *Joint Commission Journal on Quality Improvement* 19, no. 12 (December 1993): 552-65.

Leatherman, S., Peterson, E. "Quality Screening and Management Using Claims Data In a Managed Care Setting." *QRB*, November 1991, 349-59.

Lenox, Angela. "From Theory to Implementation: Integrated Strategies for Utilization and Quality Review." *American Journal of Medical Quality* 8, no. 1 (Spring 1993): 12-20.

Lindeman, Carol. "Delphi Survey of Priorities in Clinical Nursing Research." *Nursing Research* 24, no. 6 (Nov-Dec 1975): 434-41.

Linstone, HA, & Turoff M. *The Delphi Method: Techniques and Applications.* Treading, Mass: Addison-Wesley, 1975.

Lombness, Patricia. "Difference in Length of Stay with Care Managed by Clinical Nurse Specialists or Physician Assistants." *Clinical Nurse Specialist* 8, no. 5 (1994): 253-60.

Loughlin KG, & Turoff, M. "Using Delphi to Achieve Congruent Objectives and Activities in a Pediatrics Department." *Journal of Medical Education* 54, no. 2 (1979): 101-06.

Lyons, H. "Solutions by Consensus." *Health and Social Services Journal* 2 (1981): 1515-16.

MacKoul, D. Feldman, M. "Emergency Department Utilization in a Large Pediatric Group Practice." *American Journal of Medical Quality* 10, no. 2 (Summer 1995): 88-92.

McKeehan, Kathleen Ed. *Continuing Care: A Mulitdisciplinary Approach to Discharge Planning*. St Louis: C.V. Mosby Company, 1981.

McKenna, Hugh. "The Delphi Technique: A Worthwhile Research Approach for Nursing?" *Journal of Advanced Nursing* 19 (1994): 1221-25.

McPayne, S. & Campbell, D. "New Methods for Evaluating Utilization Management Programs." *QRB*, October 1992, 340-47.

Nelson, E., & Gardner, R. "Decision Support for Concurrent Utilization Review." *The Annual Symposium on Computer Applications in Medical Care* (1993).

O'Hare, P. & Terry, M. *Discharge Planning Strategies for Assuring Continuity of Care*. Rockville: Aspen Publishers, 1988.

Panzer, R., & Cronin, C. "Putting Research to Work in Quality Improvement and Quality Assurance." *Summary Report* (1993).

Penchansky, R. and Macnee, C. "Ensuring Excellence: Reconceptualizing Quality Assurance, Risk Management, and Utilization Review." *QRB*, June 1993, 182-

89.

Polit, DF., & Hungler BP. *Nursing Research: Principles and Methods 3rd Edn.*. Philadelphia: JB Lippincott, 1987.

Procter, S. & Hunt M. "Using the Delphi Survey Technique to Develop a Professional Definition of Nursing for Analyzing Nursing Workload." *Journal of Advanced Nursing* 19 (1994): 1003-14.

Rakich, J. & Longest, B. & Darr. *Managing Health Services Organizations 3rd Ed.* Baltimore: Health Professional Press, 1994.

Reid, NG. *The Delphi Technique, Its Contribution to the Evaluation of Professional Practice. In Professionals Competence and Quality Assurance in the Caring Professions*. Beckenham, Kent.: Croom Helm, 1988.

Rorden, J. & Taft, E. *Discharge Planning Guide for Nurses*. Philadelphia: W.B. Saunders Company, 1990.

Rubin, Haya. "For What Should Hospitals Be Accountable." *Journal on Quality Improvement* 20, no. 7 (July 1994): 411-18.

Sackman, H. *Delphi Critique*. Lexington, Mass: Lexington Books, 1975.

Sales, A., Lurie, N. "Is Quality in the Eye of the Beholder?" *Journal on Quality Improvement* 21, no. 5 (1995): 219-25.

Schlackman, Neil. "The Quality Care Cycle." *QRB*, November 1991, 360-64.

Shockney, Lillie. "The Financial Benefits of an Effective Hospital Wide Quality Assurance/Utilization Management Program." *QRB*, August 1992, 259-65.

Shouldice, Robert. *Introduction to Managed Care*. Washington, D.C.: Information

Resources, 1991.

Stewart-Amidei, Chris. "Editorial: The Managed Care Initiative." *Journal of Neuroscience Nursing* 26, no. 3 (June 1994): 327.

Tennant, Thomas (editor). *Utilization Review and Management Training Manual: Independent Study*. Marlborough, MA: InterQual, Inc, 1993.

Tibbitts, Samuel J. "Health Heads for Revolutionary Changes in Organization." *Modern Healthcare*, July 1983.

Trentalance, Albert. "Understanding Economic Credentialing." *QM Update*, Winter 1994, 2-3.

Viau, Suzanne. *PPOs The State of the Art*. Washington, D.C.: Health Publishing Ventures, 1983.

Warnick, M. & Sullivan T. *Nursing 2020: A Study of the Future of Hospital-Based Nursing*. New York: National League for Nursing, 1988.

Whitman, NI. "The Committee Meeting Alternative: Using the Delphi Technique." *Journal of Nurse Administration* 20, no. 7/8 (1990): 30-36.

Wickizer, Thomas. "Controlling Outpatient Medical Equipment Costs Through Utilization Management." *Medical Care* 33, no. 4 (1995): 383-91.

Williams, P., & Webb, C. "The Delphi Technique: A Methodological Discussion." *Journal of Advanced Nursing* 19 (1994): 180-86.

Williams, S & Torrens P. . *Introduction to Health Services*. Albany, NY: Delmar Publishers, 1993.

Wineklaar, Phillip. "How Important is Length of Stay?" *Canadian Medical*

Association Journal 153, no. 3 (1995): 252-53.

Wise, Dan. "UR Accreditation Raises Questions Among Employers." *Business & Health*, January 1993, 38-41.

Woodside, Jeffrey. "Intensive, Focused Utilization Management in a Teaching Hospital, An Exploratory Study." *Quality Assurance and Utilization Review* 6, no. 2 (Summer 1991): 47-50.