

FEATURE ARTICLE

Implementation of Collaborative Practice Through Interdisciplinary Rounds on a General Surgery Service

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Interdisciplinary teaching rounds were initiated on a general surgery service at a university teaching hospital. These rounds were designed to promote more efficient patient care by providing an opportunity for enhanced communication among health-care professionals. Improved collaboration is a prerequisite for implementation of critical paths and case management. The authors describe their methods of rounds development and the impact of the rounds on patient outcomes.

Interdisciplinary rounds were implemented on an academic surgical service to improve coordination of patient care. Interdisciplinary rounds are a useful strategy to bring health-care professionals including the case manager together to develop an integrated plan of care.¹⁻³ The goals were to enhance the quality of patient care, offer an opportunity for various disciplines to come together to discuss patient goals, and increase educational opportunities for staff.^{4,5,8}

It was thought that these rounds would enhance communication and improve collaboration among health care professionals, both of which are prerequisites for implementation of critical paths and case management. Improved collaboration would enhance the quality of patient care by facilitating decision making, defining more comprehensive treatment plans, and assisting progress toward patients' goals.⁵

Improved collaboration calls for physicians, nurses, case managers, and other health-care professionals to take a team approach to patient care. There are many barriers to the team approach.

A common barrier to teamwork is the limited

knowledge that health care professionals have of each others' job responsibilities. This lack of understanding can lead to conflict. Another potential source of misunderstanding is the unique language, or jargon, used by each specialized discipline. Interdisciplinary rounds, which require information sharing and ongoing communication, can help overcome barriers to teamwork, facilitating more efficient and effective patient care.² Authors have described the key components to an interdisciplinary approach.

Ferguson-Johnston⁴ lists aspects essential to interdisciplinary practice: good communication, strong knowledge base, competence, and accountability. Interdisciplinary rounds provide a mechanism by which these characteristics are encouraged and supported. Case managers and advanced practice nurses can provide the team with the nursing knowledge essential for the understanding of patient needs throughout the continuum of care. The variety of skills and competence offered by the team members contributes to improved outcomes of care while augmenting interdisciplinary practice. The daily forum improves accountability, which is especially beneficial when many disciplines are involved in patient care.

National groups also have written about the methods of promoting interdisciplinary collaborative practices. For collaborative practice to be successful,

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the National Joint Practice Commission recommends that: 1) medical staff be educated and prepared for a collaborative role; 2) physicians learn to relate to the nursing staff in new ways; 3) physicians in leadership roles demonstrate support for collaborative practice by attending patient care rounds; and 4) collaborative practice rounds be viewed as an important priority and these rounds be made the major patient care planning meeting of the day. Administrative support and attendance by case managers and advanced practice nurses is vital and promotes a smooth functioning environment for collaboration.⁵ The Joint Commission on Accreditation of Hospitals is including as a standard the expectation that nurses and physicians collaborate on coordinated practice teams. This enables nurses and physicians to work together in a positive way to provide the highest level of care to patients in the most economic way.⁶ This requires alterations in the way in which care is provided in many settings.

Traditionally, patient information has been communicated in separate forums through medical rounds and nursing report. The medical staff have separate medical rounds in which nurses and other health-care professionals often have little involvement. These rounds do not provide for direct communication among all involved team members. In an educational setting, the missions of patient care as well as the education of health-care providers are important.

It is important to help medical and nursing students learn collaboration.^{5,6} Because of the complexity of patient care and the numbers of involved providers, communication in this setting can often be complex. Learning effective collaboration during their education promotes nurse/physician understanding, more realistic expectations, and better working relationships. Learning about collaborative practice will help to prepare nursing and medical students for their later practice roles. Interdisciplinary rounds provide a time for resident staff, and medical and nursing students to carefully plan the patients' care as well as to evaluate the effectiveness of the plan. It is important that careful planning occurs, that patient care efforts are organized and there is follow-through on the plan. Daily rounds can help promote these important components of care and provide an opportunity to learn by reviewing outcomes of previously planned interventions.

Collaborative practice helps lower the cost of care while improving patient outcomes. There may be fewer risk management concerns because the plan of care is more organized and patients feel that they are receiving competent care.

OBJECTIVES AND DESCRIPTION OF ROUNDS

In May 1993, we implemented interdisciplinary rounds on our postoperative general surgical unit. These rounds were designed to improve coordination of care among the multiple health-care providers and enhance medical education. Regular attendees were resident medical staff, staff nurses, nurse supervisors and the advanced practice nurse. Other disciplines such as social service, pastoral care, dietary service, respiratory therapy, physical therapy, and pharmacy attended as needed to address specialized or complex patient needs. The following objectives were identified:

1. Foster improved coordination of care among the interdisciplinary team to include all key providers in a patient's particular episode of illness;
2. Achieve the needed outcomes of care within a specified period (e.g., according to an established critical path);
3. Develop one coordinated plan of care to be designed, implemented, and evaluated by the patient care team;
4. Increase nursing job satisfaction through more direct involvement in the patient's plan of care;
5. Reduce duplication of services, or conflicts about the direction of care or treatment;
6. Improve nursing and medical education regarding clinical care;
7. Enhance the level of communication among nurses, physicians, and other team members about the most crucial patient problems.

Rounds provide a structure for face-to-face intergroup communication so that all residents, medical students and nursing staff communicate regarding three areas: 1) What are the patient problems? 2) What is being done about the patient problems? 3) How is the patient responding to this treatment?

Rounds provide a recurring daily time to develop and update the patient problem list and patient's plan of care. This care plan is tightly integrated among the physician, registered nurse, respiratory therapist, social worker, and any other individual or group providing direct patient care. Rounds also provide a forum to discuss activities that must be accomplished by the on-call team and evening and night nursing staff. Rounds also provide a forum for writing afternoon and clarifying any existing orders.

IMPLEMENTATION OF ROUNDS

The implementation plan involved several steps including nursing inservices, a resident inservice, and the development of a new patient care Kardex (Carstens, Chicago, IL) for use during rounds. The

TABLE 1
DRG Data Before and After Implementation of Rounds

	Pre-Implementation Data	Post-Implementation Data	Variance
Number of Patients	163	238	75
Room Charges	\$4,017	\$2,987	-\$1,030
Ancillary Charges	\$13,112	\$10,282	-\$2,830
Total Patient Charges	\$17,129	\$13,269	-\$3,860
Average Length of Stay	9.4	7.5	-1.9 days

inservice topics were presentation of the patient plan, group dynamics, structure, and organization of rounds. Barriers to implementation of the plan that were addressed included resident and nurse availability because of inpatient crises, trauma admissions to the emergency room, and unscheduled or urgent operating room cases.

The shift supervisor compiled a list of the unit's general surgery patients. The supervisor assigned the order of presentation so that the staff could prioritize their patient care. The staff were then able to take their turn in attending the rounds. Each nurse discussed all of their assigned patients with the group. The nursing and resident staff were guided and encouraged to be flexible in scheduling the time for daily rounds to ensure they occurred but did not interfere with patient care duties.

The department manager and advanced practice nurse discussed with other team members (e.g., physical therapist, occupational therapist, respiratory therapist, other appropriate advanced practice nurses, peritoneal dialysis staff, and chaplains) the purpose of the rounds and they were invited to attend as needed. A pharmacist and social worker attended regularly. Key administrative staff attended rounds initially. These staff members were the Assistant Director of Nursing, the attending Chief of General Surgery, the nursing manager, and the surgical advanced practice nurse.

Multidisciplinary rounds were held in a conference room near each medical-surgical unit. The time for rounds varied each afternoon according to inpatient load, number of consults, clinic patients, and the daily operating room schedule. Staff nurses came to rounds and presented the following information regarding their patient(s): vital signs, assessment abnormalities, intake and output, patient's activity, weight, nursing and patient concerns, and information on discharge planning. Staff nurse coworkers cared for the presenting nurse's patients during rounds.

The patient care problems were addressed individually by the chief resident and solutions were discussed among members of the interdisciplinary team. Orders were written by the junior residents and the general surgery nurse practitioner. The day's plan of

care was evaluated. The short- and long-term patient care goals were reviewed by the team and informal teaching was accomplished as needed.

FINANCIAL EVALUATION

The cost and length of stay was analyzed to evaluate the achievement of the objectives. Data on length of stay before implementation of rounds and cost per patient stay were reviewed. These data were compared to postimplementation diagnosis related groups data. February and March 1993 were used for pre-data (Table 1). Total charges were broken down into room charges per patient and ancillary charges per patient. Ancillary charges include Pathology, Radiology, Pharmacy, and other departments.

July and August 1993 were used for post-interdisciplinary rounds data. Variance in length of stay was a 1.9 day decrease between pre-and post-implementation of interdisciplinary rounds. Total charges decreased \$3,860 per patient. Room charges decreased by \$1,030 and ancillary charges by \$2,830 per patient. Seasonal variables may have affected the data, because the comparison data is from February to March, and the test data is July to August. Although numerous clinical variables prevent a conclusive statement, the results strongly suggest that the interdisciplinary rounds promoted a decrease in length of stay and a decrease in patient charges to each patient's hospital stay. The decrease in length of stay and total charge of each patient's stay is a positive trend toward decreasing the overall costs of hospitalization. Interdisciplinary rounds are an important and effective intervention strategy to meet the increasing demands of managed care.

PHYSICIAN AND NURSE PERCEPTIONS AFTER IMPLEMENTATION OF THE ROUNDS

A survey of nurse and physician perceptions of the rounds process was conducted. A paper and pencil self-report was used. The tool measured attitudes toward shared responsibility and other subjects related to collaborative practice.¹¹

The results of the survey illustrate some key per-

ceptions that were not surprising in light of the teaching environment. The medical students believed the purpose of the rounds was to instruct, teach, and guide them in the principles and practice of surgical medicine. The nurses viewed rounds as a means to discuss the key needs of the patients with the resident staff. The resident staff viewed rounds as a time to make patient care decisions. There was some tension between the conflicting priorities of teaching as a teaching institution mission and providing care as another aspect of the service mission of the hospital. One common recommendation was to invite each attending/faculty physician to attend rounds to provide more emphasis on instruction, thus meeting the needs of the medical students. An additional recommendation was to streamline rounds to meet time constraints of nurses and residents.

MEDICAL STUDENTS' VIEW OF INTERDISCIPLINARY ROUNDS

Medical student perceptions were obtained from a routinely used, post-rotation evaluation form. Initially, 30% of the students thought rounds were not helpful to the learning process, 30% said they were sometimes helpful, 6% did not respond to the question, and 34% said that the rounds were a useful learning format (30 students). After the rounds had been in place for 3 months, medical student feedback showed a 7% non-response, 10% said the format was not helpful, 45% said they were sometimes helpful, and 38% said the rounds were a useful learning format. This is a 4% improvement in medical students' perceptions of the benefits of rounds after they had been implemented for three months. This could be a result of the fact that after several months the rounds were more defined as a process and the nursing staff and residents understood how to make them work for the multiple goals of the many individuals involved.

RESIDENT PHYSICIANS' VIEW OF INTERDISCIPLINARY ROUNDS

In the evaluation of interdisciplinary rounds, nine resident physicians with various levels of experience were surveyed regarding their view of physician-nurse collaboration. Statements were proposed, such as, "I reinforce the value of nursing care when talking to the patient," "I value or take into consideration nurses' opinions when making patient care decisions," or "I acknowledge nurses' expertise in those aspects of health care in which they have more expertise than I do."

The physicians were asked to rate their agreement to the statements using a scale of 1-6 with "1" being completely agree; and "6" being completely disagree. The most favorable responses from resident physi-

cians were in response to the question "I acknowledge nurses' expertise in those aspects of health care where they have more expertise than I do," and "I take into consideration nurses' judgment or opinions about orders not being appropriate and discuss these opinions with the nurses."

Least favorable responses were obtained to questions such as "I discuss with nurses the similarities and differences in medical and nursing approaches to care," and "I discuss with RNs [registered nurses] their expectations regarding their degree of involvement in the health care decision process." Although physicians were less favorable in their response to these questions, the average response was 3.1 and 3.3 for the two statements, respectively.

Perhaps the most interesting component of the physician survey was the comment section. In response to the question, "The best thing about rounds is . . .," physicians responded with statements such as: "Team care approach"; "excellent communication which results in more efficient patient care"; "nice to have regular nursing input in the formulation of the plan of care"; and "relaxed pace, teaching opportunity." Other comments included: "academic atmosphere"; "everyone present is there to learn"; and, "it is much easier to teach and to learn during interdisciplinary rounds than during walk-around rounds."

NURSES' VIEW OF INTERDISCIPLINARY ROUNDS

The staff nurses' view of rounds was generally favorable. The nurses provided varied comments, but seemed to appreciate the opportunity to give feedback and suggest ways to improve the rounds process. The nurses agreed that the rounds process helped to develop more physician respect of the value of nursing knowledge about patients. The nurses thought that the physicians in general were cooperative, allowed nurses' input on decisions regarding patient care, and accepted suggestions regarding the plan of care. The nurses informed the physician, when, in the nurses' judgment, the orders needed adjustment or the nurses foresaw any difficulties in the patient's ability to deal with treatment options.

One important limitation or difficulty for nurses was the timeframe of rounds. Several comments referred to avoiding shift change and keeping the rounds process brief, concise and to the point, so nurses could be in and out of rounds, and back to their patients. As staff became more accustomed to the process, rounds were completed in an efficient manner.

The nurses wanted to see an improvement in the attitude toward rounds, so that the approach was more professional and less casual. Another important item for change from the staff nurses' view was to

decrease the amount of time for medical student teaching. This is an interesting finding because the medical students preferred that rounds occur only for teaching purposes. It is important to bring the two missions of patient care delivery and teaching together in an integrated manner in a teaching hospital. Over time, with reinforcement of these goals, we expect the realization of both missions to be successful.

The greatest benefit noted from rounds for the nurses was that several stated they learned about disease process, test results, future plans, and that they could visualize the patient's progress. Also, the nurses viewed rounds as beneficial for asking questions, receiving answers and obtaining needed orders. Collaboration on discharge plans and improvement in communication between nurses and doctors were other perceived benefits.

Overall, the comments made by nursing staff were very positive and demonstrated support for the educational, collaborative, and coordination benefits of the rounds. Because of the success of these rounds, they have been expanded to another general surgical unit and in the future will expand to include other surgical services.

CONCLUSION

Interdisciplinary rounds are an effective strategy for planning patient care. The rounds were found to be invaluable for meeting the comprehensive needs of our patients. Additionally, after implementation of interdisciplinary rounds, patient's length of stay and costs were decreased. Nurses appreciated the opportunity to learn more about the disease process, test results, and future medical care plans, as well as the opportunity to get answers to questions and obtain needed orders.

Resident physicians liked the team approach, the opportunity for communication, and found teaching rewarding. Medical students found that interdisciplinary rounds enhanced their learning regarding patient care management, because they had increased contact with more experienced residents and attending physicians.

The coordination of care has improved the efficiency and effectiveness of the care provided to the patients on the General Surgery Service. We found initiation of interdisciplinary rounds on a general surgery service to be challenging but rewarding for patient outcomes.

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