

# Can We Talk? Priorities for Patient Care Differed Among Health Care Providers

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## Abstract

**Objective:** Poor communication and collaboration between members of a patient's health care team can result in medical errors and poor quality of care. The purpose of this study was to assess communication and consensus regarding patient care goals between members of the health care team (physicians, registered nurses [RNs], and patient care technicians [PCTs]) caring for the same patient on a given day. **Methods:** Frequency of communication and agreement on priorities for patient care were measured among team members. Four hundred thirty-seven inpatients were randomly selected from six nursing divisions in an acute care tertiary hospital, and the responsible physician, RN, and PCT were identified. Each health care provider was interviewed midmorning and midafternoon. Each provider was asked to identify other team members and to describe the top three priorities for the care of the individual patient. **Results:** Midmorning, 23 percent of physicians could name the RN caring for their patient and 42 percent of RNs could name the physician responsible for the same patient. Midafternoon, approximately 50 percent of physicians and RNs reported discussing the patient with each other, while over 90 percent of RNs and PCTs had discussed patient care with each other. There was full agreement on patient priorities between the physician and RN in 17 percent of cases, partial agreement in 53 percent of cases, and no agreement in 30 percent of cases. Agreement between physicians and RNs was higher than the agreement between RNs and PCTs. **Conclusion:** Our findings show that the priorities of patient care differed between members of the health care team, and that verbal communication between team members was inconsistent.

## Introduction

Failures of communication among health care providers can lead to medical errors and poor quality of patient care. Efforts to improve health care safety and quality are dependent on teamwork and are jeopardized by the communication and collaboration barriers that exist between physicians and registered nurses (RNs).<sup>1,2</sup> Because of the focus of their professional roles, physicians and RNs often have different perceptions of what patients need, and thus different goals for patient care. However, true collaboration builds consensus as to the common goals all members of the health care team must address and should create a common set of goals with which to direct patient care. The level of collaboration existing within acute care settings is worrisome.<sup>3</sup> More than one-fifth of patients

# Report Documentation Page

Form Approved  
OMB No. 0704-0188

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1. REPORT DATE <b>MAY 2005</b>		2. REPORT TYPE <b>N/A</b>		3. DATES COVERED <b>-</b>	
4. TITLE AND SUBTITLE <b>Can We Talk? Priorities for Patient Care Differed Among Health Care Providers</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Agency for Healthcare Research and Quality Office of Communications and Knowledge Transfer 540 Gaither Road, Suite 2000 Rockville, MD 20850</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release, distribution unlimited</b>					
13. SUPPLEMENTARY NOTES <b>Published in Advances in Patient Safety: From Research to Implementation. Volumes 1-4, AHRQ Publication Nos. 050021 (1-4). February 2005. Agency for Healthcare Research and Quality, Rockville, MD. <a href="http://www.ahrq.gov/qual/advances/">http://www.ahrq.gov/qual/advances/</a>.</b>					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>UU</b>	18. NUMBER OF PAGES <b>10</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

hospitalized in the United States reported hospital system problems, including staff providing conflicting information and staff not knowing which physician is in charge of their care.<sup>4</sup>

The search for strategies to reduce medical errors has focused minimal attention on the core patient care process of formulating and carrying out an appropriate plan of care for patients. Hospitalized patients are assigned a multidisciplinary team of health care providers, with the physician, RN, and patient care technician (PCT) typically serving as the central figures. The physician is the traditional leader of the team, focusing on the diagnosis and treatment of patients' health problems. The RN has a more holistic focus, managing the patients' responses to health problems. The PCT performs a variety of patient-related tasks, under the direction and supervision of the nurse. Each care provider brings a different level of problem-relevant information and knowledge when they come together to manage and administer patient care.

Research has shown that delays in patient care and recurring problems from unresolved disputes are often the by-product of physician-nurse disagreement.<sup>5</sup> Leaders in both medicine and nursing have issued ongoing calls for the development of a cooperative rather than a competitive agenda to benefit patient care.<sup>5-7</sup> Unfortunately, however, the level of collaboration among the care providers today still appears to be inconsistent and often nonexistent. Unfortunately, health care workers are used to poor communication and teamwork, as a result of a "culture of low expectations" that has developed in many health care settings.<sup>8</sup> This culture, in which health care workers have come to expect a norm of faulty and incomplete exchange of information, leads to errors because even conscientious professionals tend to ignore potential red flags and clinical discrepancies. They view these warning signals as indicators of routine repetitions of poor communication rather than unusual, worrisome indicators.

Communication among health care providers is increasingly important today due to higher levels of patient acuity, shorter lengths of stay, fragmentation of care across multiple care providers, and the use of unlicensed care providers. As more caregivers become involved in the care of a patient, coordination of their activities becomes more difficult. Teaching hospitals present particular barriers to RN-physician communication because of the larger number and rapid turnover of physicians caring for a given patient. National surveys have shown that academic hospitals consistently rank worse than community hospitals in care coordination, one of the very few areas where such a discrepancy exists.<sup>4</sup> Although no data exist to document how widespread communication failures are, they are probably endemic in academic medical centers.<sup>8</sup>

We hypothesized that appropriate care cannot be delivered if the health care providers do not agree on the priorities and plan of care. In order to measure the effectiveness of communication and collaboration between health care workers, we examined agreement between perceived priorities of care among physicians, RNs, and PCTs caring for the same patients.

## Methods

### Study Setting

This project was carried out in six nursing units (four general internal medicine and two neurology units) at a large academic teaching hospital. The study was approved by our Institutional Review Board.

### Subjects

On each nursing unit, patients were randomly selected through the use of a random number list and the patient's room number. Patients were eligible if they had been on the nursing unit for 24 hours or more. We did not include recently admitted patients because the health care providers may not have had sufficient time to evaluate the patient and communicate with other providers. For each patient selected, an interviewer attempted to identify the resident physician, RN, and PTC caring for that patient during the day shift. Each of these providers was then approached in person or by telephone to participate in a brief morning interview and a brief followup afternoon interview. Morning interviews were conducted at approximately 10 a.m., a time when physicians and nurses had completed their separate patient rounds and ample time had elapsed to make a plan and communicate with other providers. Afternoon interviews were conducted at approximately 2:30 p.m., an hour before the end of shift for nurses working an 8-hour day shift.

### Interview

The morning interview consisted of five questions, including "What are the top three priorities for the care of this patient today?" and "Who is the nurse (or doctor) taking care of your patient today?" The afternoon interview consisted of four questions, including "Did you speak directly with the nurse (or doctor) taking care of this patient today?"

### Coding

Following collection of interview data, agreement on priorities of patient care between providers was coded by three authors (BE, PP, and DG). Agreement was coded independently, and all disagreements were resolved through consensus. We counted agreement between providers on the question "What are the top three priorities for the care of this patient today?" Responses did not need to match exactly in order to be counted as agreeing; coders were required to infer whether the health care providers were describing the same priority of care. For example, "treat infection" and "give antibiotics" would be counted as agreement, as would "monitor respiratory status" and "improve breathing" or "check potassium level" and "monitor electrolyte status."

## Results

### Reported communication between health care providers

Four hundred thirty-seven patients were randomly selected from the six nursing units studied. We successfully interviewed the physician and RN in 314 cases (71.9 percent), the RN and PCT in 395 cases (90.4 percent), and all 3 providers in 285 cases (65.2 percent). Table 1 shows the distribution of health care provider interviews.

**Table 1. Numbers of health care providers completing interviews**

Interview	Refused contact	Unable to contact	Unable to identify	Completed morning interview	Completed afternoon interview
Physician	27	83	10	317	276
RN	1	4	0	432	424
PCT	32	11	0	394	371

RN = registered nurse  
PCT = patient care technician

At the time of the morning interview, 42.3 percent of RNs could name the physician caring for the patient, while only 22.8 percent of physicians could name the nurse caring for the patient. At the time of the afternoon interview, slightly more than half of nurses and physicians reported speaking together about the care of the patient during the day, while over 90 percent of nurses and PCTs reported speaking together regarding the patient (Table 2).

**Table 2. Percentage of health care providers who could identify the other in the morning; and percentage reporting that they had spoken with other health care providers about the care of the patient by mid-afternoon**

Physician reported discussing patient with RN	48.9
RN reported discussing patient with physician	51.9
RN reported discussing patient with PCT	92.7
PCT reported discussing patient with RN	90.3
Physician could name RN	22.8
RN could name physician	42.3

RN = registered nurse  
PCT = patient care technician

### Agreement between health care providers

We examined agreement in priorities regarding the care of the patient between physician and RN, between RN and PCT, and across all three providers. The perceived priorities of care differed greatly between physicians, RNs, and PCTs. Physician priorities largely involved completion of ordered tests and procedures,

monitoring for suspected clinical changes, and timely completion of prescribed treatments. RN priorities included responding and intervening when clients experience clinical changes, facilitating preparation for procedures, and attending to patients' basic needs (e.g., comfort, nutrition, activity). PCT priorities were more often focused on personal care issues (feeding, toileting).

Examples of reported priorities of physicians and nurses are given in Table 3.

For patient 1, there was full agreement between the priorities listed by physician and nurse. For patient 2, there was partial agreement, with two of the three priorities matching. For patients 3 and 4, there was no agreement between priorities listed by the physician and the nurse, and in fact opposite plans were listed for bed rest for patient 4. Table 4 shows the data on agreement in our entire study set.

There was complete agreement between the priorities listed by the physician and RN in 12.7 percent of the cases, partial agreement in 57.4 percent of the cases, and no agreement in priorities in 29.9 percent of the cases. Agreement between RN and PCT was somewhat less than physician-RN agreement, and there were few patients for whom all three care providers agreed on the priorities of care. We also defined the proportion of agreement on priorities as the number of common priorities named by providers divided by the total number of priorities listed by the physician (or RN for RN-PCT agreement). Proportion of agreement ranged from 0 (no agreement) to 100 percent (full agreement). The mean proportion was 40.1 percent for physician-RN agreement, 30.1 percent for RN-PCT agreement, and 16.2 percent for agreement across all three providers.

### **Interrater reliability**

The intraclass correlation coefficient (ICC) was used to measure interrater reliability for the three observers' independent ratings of priorities. ICC values ranged from 0.62 to 0.77 for observers' ratings of agreement between different provider pairs (physician-RN and RN-PCT) and across all three providers. This shows good general agreement between raters.

### **Discussion**

Our study found inconsistent verbal communication between nurses and physicians, and greatly differing priorities of patient care expressed by physicians, RNs, and PCTs. On the hospital units we studied, direct verbal communication between physicians and RNs was reported for only half the patients on a given day, suggesting that communication between the two main caregivers often occurred only through review of the patient chart. The units we observed did not have a mechanism for conducting physician and nurse rounds. This was in part due to the fact that multiple physicians and physician teams cared for patients on a given unit. These different physicians saw their patients at different times, making it difficult to coordinate joint rounds between physicians and nurses. There was

**Table 3. Examples of agreement and disagreement in priorities between physicians and nurses**

Patient	Nurse priorities	Physician priorities	Scored agreement	Comment
1	Discharge	Seizure precautions	3 out of 3	Complete match - agreement on all three priorities
	MRI	MRI		
	General care and safety (seizures)	Discharge		
2	Improve mental status	Diagnosing the reason behind his altered mental status	2 out of 3	Matched on mental status and dialysis
	Dialysis	Keep him from hurting himself		
	Wake up enough to eat	Getting him dialyzed		
3	Increase activities	MRI	0 out of 3	No overlap of priorities
	Pain management	Continue steroid treatment		
	Blood sugar high	Plan for discharge		
4	Keep her in bed	Get out of bed	0 out of 3	No overlap of priorities; opposing plans regarding bed rest
	Keep her clean	Improve kidney function		
	Tube feedings	Plan for discharge		

MRI = magnetic resonance imaging

**Table 4. Proportion of patient cases where the health care providers agreed on priorities for patient care**

	Agreement (%)		
	Full	Partial	None
RN/MD priorities	12.7	57.4	29.9
PCT/RN priorities	7.3	54.2	38.5
PCT/RN/MD priorities	3.5	31.2	65.3

RN = registered nurse  
 MD = physician  
 PCT = patient care technician

also no consistent format by which RNs and PCTs met to discuss a plan of care for patients. On the units we observed, RNs did not consistently articulate to the PCTs the relationship between their specific tasks and the overall plan of care. The lack of consistent systems for communicating between caregivers resulted in a fragmented approach that yielded discordant priorities. In approximately 30 percent of patients we studied, there was no overlap between the three top priorities for care listed by the physician and by the nurse.

Our study had a number of limitations that may have affected the results we found. Our interview format may have underestimated the true concordance of priorities of care among providers by asking for only three priorities, when a larger number of responses would have given more chance for overlap. Also, subjects sometimes responded with a task that was unique to their role in patient care and not likely to be reflected in the answers given by other providers. Discordance on perceived priorities for care may be appropriate for health care providers with differing roles. For example, while an RN is able to perceive patient care problems from a more conceptual focus (e.g., pain management), PCTs only perceive the tasks of care to perform (e.g., turn patient more often). Unless PCTs are appropriately socialized into the role of nursing, it is often difficult for them to recognize how their activities contribute to the overall plan for nursing care. However, in order to serve as extenders or surrogates for nurses' traditional role in monitoring patients and providing personal care, PCTs must be aware of specific alterations in patient status to look for and of changes in routine care that are required for plans that day (such as holding a meal in anticipation of a test or procedure). Our study found that even this level of knowledge of patient plans was often not reported by PCTs.

Despite these limitations, our study provides a unique description of an important area of dysfunction within the health care system. Previous studies have reported cases of communication breakdown, have reported health care providers' perceptions about communication and collaboration, and have described in qualitative terms the lack of collaboration between physicians, nurses, and other members of a health care team. To our knowledge, our study is the first to measure the results of the collaborative goal-setting process—shared plans and priorities of care—in a large patient population. Our study did not measure the effect of poor communication on patient outcomes; this will be a focus of further studies in our group. In a setting where many organizations are calling for improved communication and collaboration between health care providers, these data provide a direct measure of the extent to which providers communicate and create shared goals for patient care.

Collaboration is defined as nurses and physicians assuming complementary roles and cooperatively working together, sharing responsibility for problem-solving and making decisions to formulate and carry out plans for patient care.<sup>6,9</sup> Collaboration between physicians and nurses increases team members' awareness of each others' type of knowledge and skills, leading to continued improvement in decisionmaking.<sup>10</sup> Widely considered an important part of quality improvement processes in health care,<sup>11</sup> collaboration has been empirically shown to improve



health care in a handful of studies. Nurses' perceptions of collaboration in intensive care units (ICUs) has been linked with better patient outcomes and nurse retention.<sup>12, 13</sup> Generally, higher levels of care provider-reported collaboration<sup>14</sup> or observer-reported collaboration<sup>15</sup> in patient care units have been associated with better patient outcomes in those units.

Clearly, developing an increased level of collaboration will be a challenge. Cross-sectional surveys have shown that attitudes toward teamwork and communication are discrepant between physicians and nurses, and between different groups of physicians. In a survey of urban teaching and nonteaching hospitals in the United States and four other countries, Sexton et. al.<sup>16</sup> showed differences between surgeons and anesthesiologists and between physicians and nurses. For example, high levels of teamwork with consultant (attending) surgeons were reported by 73 percent of surgical residents and 64 percent of consultant surgeons, but by only 39 percent of anesthesia consultants, 28 percent of surgical nurses, and 10 percent of anesthesia residents. Not only did perceptions of teamwork differ among team members, but senior staff was reluctant to accept input from junior members.

While our study did not explicitly analyze errors or quality of care, the literature suggests that the lack of shared discourse about the clinical plan of care that we observed creates the potential for poor-quality care and medical errors. A number of studies have concluded that communication and coordination are related to better outcomes.<sup>15, 17, 18</sup> Fuss<sup>19</sup> and Gittell<sup>20</sup> have shown that implementing systems to facilitate team communication can substantially improve quality. Improved teamwork and communication are described by health care workers as among the most important factors in improving clinical effectiveness and job satisfaction.<sup>21</sup>

Despite the challenges, increased collaboration and communication can be achieved. Pronovost et al.<sup>22</sup> describe the adoption of a "Daily Goals" form in the ICU of a major medical center. The use of the form by members of the care team was designed to facilitate communication among team members. After implementation of the form, the mean length of stay in the ICU decreased from 2.2 to 1.1 days.

## **Conclusion**

Our study suggests that communication among resident physicians, RNs, and PCTs was poor in the setting of a large urban teaching hospital. Physicians and nurses frequently described different priorities for the care of their patients, suggesting that coordination of care was less than optimal. Our results suggest that efforts to increase and improve effective communication among health care workers are needed in order to improve the delivery of care to inpatients. Our detailed measures on a large number of patients and providers will serve as a baseline to measure the effects of interventions to improve communication and collaboration. We are currently evaluating interventions to improve communication between members of the health care team to determine if such

interventions result in improved agreement on priorities of care and better quality of care.

## Acknowledgments

This study was funded by the Agency for Healthcare Quality and Research, Grant # R01 HS11983-0, “Work Environment: Effects on Quality of Health Care.” The authors wish to thank Ms. Jessica Marshall, Ms. Jennifer Sledge, and Ms. Sarah Vandaveer for their many hours of persistent effort in conducting interviews with physicians, nurses, and patient care technicians.

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## References

1. Stein LI. The doctor-nurse game. *Arch Gen Psych* 1967;16:699–703.
2. Stein LI, Watts DT, Howell T. The doctor-nurse game revisited. *N Engl J Med* 1990;322(8):546–9.
3. Zwarenstein M, Reeves S. Working together but apart: barriers and routes to nurse-physician collaboration. *Jt Comm J Qual Impr* 2002;28(5):242–7.
4. Cleary PD. A hospitalization from hell: a patient’s perspective on quality. *Ann Intern Med* 2003;138(1):33–9.
5. Prescott PA, Bowen SA. Physician-nurse relationships. *Ann Intern Med* 1985;103(1):127–33.
6. Fagin CM. Collaboration between nurses and physicians: no longer a choice. *Nurs Health Care* 1992;13(7):354–62.
7. Mechanic D, Aiken LH. A cooperative agenda for medicine and nursing. *N Engl J Med* 1982;307:747–50.
8. Chassin MR, Becher EC. The wrong patient. *Ann Intern Med* 2002;136(11):26–33.
9. Baggs JG, Schmitt MH. Collaboration between nurses and physicians. *Image: J Nurs Scholarsh* 1988;20:145–9.
10. Christensen C, Larson JR. Collaborative medical decision making. *Med Decis Making* 1993;13:339–46.
11. McMahan EV, Hoffman K, McGee G. Physician-nurse relationships in clinical settings: a review and critique of the literature. 1966–1992. *Med Care Rev* 1994;51:112.
12. Baggs JG, Ryan SA. Intensive care unit nurse-physician collaboration and nurse satisfaction. *Nurs Econ* 1990;8:386–92.
13. Baggs JG, Ryan SA, Phelps CE, et al. The association between interdisciplinary collaboration and patient outcomes in medical intensive care. *Heart Lung* 1992;21:18–24.
14. Mitchell PH, Armstrong S, Simpson TF, et al. AACN demonstration project. *Heart Lung* 1989;18:219–23.
15. Knaus WA, Draper EA, Wagner DP, et al. An evaluation of outcome from intensive care in major medical centers. *Ann Intern Med* 1986;104:410–8.
16. Sexton JB, Thomas EJ, Helmreich RL. Error, stress, and teamwork in medicine and aviation: cross sectional surveys. *Brit Med J* 2000;320(7237):745–9.
17. Zimmerman JE, Shortell SM, Rousseau DM, et al. Improving intensive care: observations based on organization case studies in nine intensive care units: a prospective multicenter study. *Crit Care Med* 1993;21(10):1443–51.
18. Shortell SM, Zimmerman JE, Rousseau DM, et al. The performance of intensive care units: does good management make a difference? *Med Care* 1994;32(5):508–25.

19. Fuss MA, Bryan YE, Hitchings KS, et al. Measuring critical care redesign: impact on satisfaction and quality. *Nurs Admin Quart* 1998;23(1):1–14.
20. Gittel JH, Fairfield KM, Bierbaum B, et al. Impact of relational coordination on quality of care, postoperative pain and functioning, and length of stay; a nine hospital study of surgical patients. *Med Care* 2000;38(8):807–19.
21. Flin R, Fletcher G, McGeorge P, et al. Anaesthetists' attitudes to teamwork and safety. *Anaesthesia* 2003;58(3):233–42.
22. Pronovost P, Berenholtz S, Dorman T, et al. Improving communication in the ICU using daily goals. *J Crit Care* 2003;18(2):71–5.