INCREASING PARENTAL PARTICIPATION DURING ROUNDS IN A PEDIATRIC CARDIAC INTENSIVE CARE UNIT

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Background Inviting parents of sick children to participate during the rounding process may reduce parents’ anxiety and improve communication between the parents and the health care team.

Objectives To increase the percentage of available parents invited to participate in morning rounds in a pediatric cardiothoracic intensive care unit (CTICU).

Methods Invitations to parents to participate in morning CTICU rounds were randomly audited from June 2012 to April 2014 (mean, 15 audits per month). From June 2012 to February 2013 (before intervention), 73% of parents available during morning rounds received an invitation to participate. From April 2013 to May 2013, the following interventions (family participation bundle) were implemented: (1) staff education, (2) “Invitation to Rounds” handout added to the parent welcome packet with verbal explanation, (3) bedside tool provided for parents to communicate desire to participate in rounds with the team, (4) reminder to invite parents added to nursing rounding sheet. Following interventions, family feedback was obtained by 1-on-1 (physician-parent) open-ended conversation.

Results From April 2013 to April 2014, 94% of parents available during morning rounds received an invitation to participate. Reasons for not participating: chose not to participate (63%), sleeping—staff reluctant to wake (25%), not English speaking (7%), breastfeeding (5%).

Conclusion Implementation of a family participation bundle was successful in increasing invitations to parents to participate during morning rounds in the CTICU. Engagement of staff and addressing specific staff concerns was instrumental in the project’s success. (American Journal of Critical Care. 2015;24:532-538)
Family-centered care has been endorsed by several health care organizations, including the American Academy of Pediatrics. It has been suggested that parental participation during rounds is an important component of family-centered care and offers a consistent, timely way to discuss the child’s care and keep the family informed.

Having parents participate in rounds minimizes parental anxiety, builds trust, and improves communication and team building between the family and the medical team.

Rounds have several purposes: decision making regarding clinical management, communication among the team members, and serving as a venue for teaching and discussion. Some concerns voiced by staff regarding inclusion of parents during rounds include privacy issues, increasing parents’ anxiety, increasing duration of rounds, decreasing teaching during rounds, and concerns for parents’ understanding of complex discussions.

Phipps et al. in an observational study, showed that parental presence during rounds did not inhibit teaching during rounds, although admittedly the data on this topic are controversial. Cameron et al. in a prospective, observational, and survey-based study, showed that 40% of attending physicians limited their teaching during rounds to avoid exposing the knowledge gaps among house staff. This same study showed that 88% of parents believed that parents should be invited to participate during rounds and 81% reported that participation during rounds increased their overall satisfaction with their child’s care. Only 19% stated that rounds increased their anxiety. In a prospective study via parental surveys, Kuo et al. found that family participation during rounds was associated with higher parental satisfaction, improved and consistent transfer of medical information, discussion of care plan, and participation in decision making. Parents in the family-centered rounding group also thought that the physicians spent more time with their child than did parents in the rounding group that was not family centered.

Parental participation during rounds offers a venue to meet the Accreditation Council for Graduate Medical Education’s core competencies of professionalism, interpersonal and communication skills, direct observation, and feedback. Physician trainees reported that family-centered rounds enhanced their medical education by increasing the number of encounters with patients and observations of direct patient care, providing an opportunity for real-time feedback and role modeling by attending physicians, and enhancing communication and interpersonal skills.

Parental participation during rounds has been embraced as a measure of quality and as standard practice recommended by the American Academy of Pediatrics. The purpose of this quality improvement project was to increase the percentage of invitations to participate in morning rounds on the pediatric cardiothoracic intensive care unit (CTICU) that were extended to the parents available.

Methods

Ethical Issues

This quality improvement work involved development of practices designed to increase parental participation when parents were present during morning rounds. No interventions involved comparison of therapies, and there was no randomization. Patients’ medical records were not accessed. No personal health information was shared. Therefore, this study did not require approval by the institutional review board at our institution.

Setting

The CTICU is a 20-bed unit with approximately 540 admissions per year. The CTICU staff includes a multidisciplinary team of critical care and cardiology physicians, advanced nurse practitioners, a dedicated clinical pharmacist, nurses, respiratory therapists, physicians in training in critical care and cardiology, a clinical dietician, a physical therapist, and...
Rounding Process

The rounding process takes approximately 15 minutes per patient. The multidisciplinary rounding team consists of an attending intensive care physician, a consulting physician as appropriate (ie, cardiologist, transplant physician, perfusionist, neonatologist), 2 or 3 CTICU advanced nurse practitioners, fellows (cardiology and PICU), a clinical pharmacist, a dietician, a bedside nurse, a respiratory therapist if the patient is intubated, and the patient’s parents if available. If the patient is to be transferred to the cardiology step-down unit, that team (attending physician, charge nurse, resident, advanced nurse practitioner or cardiology fellow) also participate. Rounds begin promptly at 8 AM with the bedside nurse reading the rounding sheet. The rounding sheet begins with the diagnosis and reason for admission, followed by the events of overnight, then a review by systems including vital signs, medications, laboratory values, and nursing concerns. Following the bedside nurse’s presentation, the fellow or advanced nurse practitioner reviews with data and presents the plan for the day by systems. Next, the family is asked if all of their concerns were addressed and if they have any additional questions or comments that they would like to share. The bedside nurse then summarizes the plans for the day by using a daily goals worksheet and new orders are reviewed.

Planning the Intervention

The project began with a retrospective review of hospital random audits performed by the hospital’s quality department via direct observation of invitations to participate in morning CTICU rounds extended to the parents who were available. The quality representative was present during rounds and observed if the parent was present in the room and if present, if the rounding team invited the parent to participate during rounds. From June 2012 to February 2013 (before the intervention), only 73% of parents available during morning rounds received an invitation to participate.

A multidisciplinary team, including a CTICU attending physician, advanced nurse practitioner, nursing leadership representative, bedside nurse, and quality improvement services representative, was recruited to explore reasons for not inviting an available parent to participate during morning rounds. Based on this information, a SMART (specific, measureable, achievable, realistic, timely) specific aim statement and key driver diagram were created (Figure 1).17

Intervention

Staff education was planned on the basis of the issues discovered during the root-cause analysis. A large component of this education included reassurance that education and teaching would not be reduced, reassurance that rounds would not last longer than necessary, and reassurance that information would be presented to the parents at an appropriate level. Education was in the form of e-mails, individual and small-group discussions, as well as staff meetings, review of the published literature, and making it personal—“what would you want if it were your child?” Throughout the process,
real-time feedback from the staff was also entertained regarding the concerns just listed.

The first intervention was to place a formal “invitation to rounds” (Figure 2) in the CTICU parent welcome packet. The invitation to rounds was intended to share the desire, importance, and goal of family participation during rounds. The formal invitation was accompanied by a verbal explanation of the rounding process, what to expect during rounds, and the desire and importance of family participation by the nursing staff. The welcome packet already contained photos, job descriptions, and names of the multidisciplinary team members for the month.

Additionally, a method that parents could use to communicate whether they desired to participate in morning rounds was developed. The first attempt was a process where a member of the night-shift team (physician, advanced nurse practitioner, bedside nurse) asked the parents, if present, if they wished to participate during morning rounds the following morning. Their response was then written on the glass door to the patient’s room where the morning rounding team could read it. The staff and parents enjoyed writing on the doors, which enhanced buy-in for the project. This intervention was the first plan-do-study-act (PDSA) cycle. This method of communication improved staff engagement and was effective in communicating parents’ desire to participate, but it did not address the communication needs for our patients in our open bay rooms (without doors). Therefore, the hang tag was introduced (Figure 2). The hang tag was given to the parents on admission with the instructions to hang it on the hook outside each room (even in the open bay rooms) on the appropriate side. One side of the hang tag stated “Yes, I want to join rounds” and the other side stated “No, I do not wish to join rounds.”

A third intervention was to place a reminder on the nurse’s morning rounding sheet to remind the rounding team to invite the parent to participate. This nursing reminder, the hang tag, and the invitation to rounds were the 3 components that made up the CTICU family participation bundle.

Method of Evaluation and Analysis

A retrospective review of random audits performed by our hospital’s quality information services department via direct observation of invitations to participate in morning CTICU rounds was analyzed to obtain preintervention baseline data. During the initial months following the implementation of the family participation bundle, audits were performed more frequently by the CTICU staff to encourage staff buy-in, to obtain real-time feedback, and to address any ongoing concerns (mean, 7 audits per month June 2012-Feb 2013 vs 24 audits per month April 2013-April 2014). During implementation of the family participation bundle, use of the hang tag was audited for the first 2 months after implementation (May and June 2013).

Five weeks after implementation of the family participation bundle, 1-on-1 open interviews were undertaken between a single attending physician and 5 parents in the CTICU to solicit feedback regarding family participation during morning rounds.

Results

The multidisciplinary initial root-cause analysis revealed several issues and concerns, including (1) the perception that the parents did not desire to participate, (2) reluctance to wake the parent if the parent was asleep during rounds, (3) concern that education or teaching during rounds would be reduced, (4) concern that rounds would take longer, (5) concern that rounds were too technical, and (6) concerns that differing opinions in management would lead to parental anxiety or confusion.

From June 2012 to February 2013 (before the intervention), only 73% (n = 66 audits) of parents who were present during morning rounds received an invitation to participate. From April 2013 to April 2014 (after the intervention), 94% (n = 309 audits) of parents present during morning rounds received an invitation to participate (P < .001; Figure 3).

Monthly use of the hang tag was 80% in May 2013 and 77% in June 2013. The percentage of families who were present to whom invitations were extended was 90% in May 2013 and 94% in June 2013. Monthly hang tag audits were stopped because

One side of the door hang tag stated, “Yes, I want to join rounds.”
of the sustained improvement in extending invitations to available parents to participate during rounds.

Of the 5 parents interviewed for parental feedback, 4 of the 5 thought that participation during rounds was beneficial and enhanced the understanding of their child's medical condition and management plan. Only 1 parent did not think that participating in morning rounds was beneficial. This parent’s child had been in the CTICU for several months and the parent was not interested in hearing all of the data presented. He preferred for the physician or nurse practitioner to provide a brief update and plan for the day following rounds.

During the random audits between April 2013 and April 2014, parents were physically present in the room at the time of morning rounds only 57% of the time. Unfortunately, these data were not collected before the family participation bundle was instituted. Reasons for available parents not participating during rounds included the following: parent chose not to participate (63%), parent was asleep and staff was reluctant to wake (25%), parent was not English speaking (7%), and the mother was breastfeeding and staff did not want to intrude (5%).

**Discussion**

Parental participation during rounds is an important component of family-centered care and offers a consistent, timely way to discuss the child’s care and keep the family informed. Implementation of a multidisciplinary collaborative bundle to increase the percentage of available parents invited to participate in morning CTICU rounds resulted in an increase in parental participation in rounds from 73% to 94%.

Quality methods were useful tools in analysis, organization, and communication of information to direct this initiative. The first step in this project was to use cause and effect analysis to provide a way of considering all possible factors contributing to parental participation during rounds. These factors include systems, equipment, materials, external forces, and people. For each of the factors identified, possible causes of the problem that may be related to the particular factor were discussed. Addressing staff concerns and perceptions through brainstorming discussions and cause and effect analysis led to the development of the specific aim statement, key driver diagram, and family participation bundle.
The specific aim statement answers the question: “What are we trying to accomplish?” An aim statement provides a clear focus for the improvement goal that is specific, measurable, achievable, realistic, and timely. The key driver diagram helps recognize relationships and organize work. It includes “key drivers” (elements, factors, or influences) contributing directly to the aims statement and interventions (in this case, family participation bundle) describing “how” to address the key drivers in order to reach the aim. Interventions are evaluated by using PDSA cycles to test success of the intervention, identify potential problems, note unexpected observations, and compare results with predictions. The result of the PDSA cycle is to adopt the intervention, abandon it or try again after modification. This was a useful tool in development of the components of the family participation bundle.

In regard to the components of the CTICU’s family participation bundle, the invitation to rounds served as an introduction for the staff to discuss the benefits and goals of parent participation during rounds with the parents. Currently we use a combination of communication tools including writing on the door, hang tags, and verbal inclusion during the nursing hand-off, as we discovered that communication of the desire to participate in morning rounds, in general, was more important than the specific communication tool (writing on the door vs hang tag). The reminder on the nurse’s rounding sheet that is read during rounds also helped avoid failing to extend an invitation to the parents to participate during rounds, especially when a float nurse was working in the CTICU. Most importantly, staff buy-in to the importance of parents’ participating during rounds and engaging in the process was a key element of our success.

The initial concerns voiced by our CTICU staff, as well as in published reports, regarding privacy issues, increasing parental anxiety, increasing duration of rounds, decreasing teaching during rounds, and concerns for parents’ understanding of complex discussions were not found to be true in our experience. Our findings are more consistent with those of Kuo et al., who reported that family participation during rounds was associated with higher parental satisfaction. Increasing and consistent transfer of medical information, discussion of care plan, and participation in decision making; and Phipps et al., who reported that parental presence during rounds did not inhibit teaching. Our study also supports the finding of others that parental participation minimizes parental anxiety, builds trust, and improves communication and team building between the family and the medical team.

**Limitations**

Audits during rounds were performed more frequently after implementation of our interventions. The mere presence of the quality department auditor may have increased the likelihood of the CTICU rounding team extending an invitation to the parents to participate during rounds because the team is aware of the auditing process. No official surveys of parent or staff opinions were performed, only 1-on-1 open-ended conversations for specific parental feedback were done in 5 cases. The CTICU is covered 24/7 by an in-house attending physician and an advanced nurse practitioner. Therefore, the CTICU staff rounds twice a day, once in the morning and once in the evening. Invitations extended to parents present for night-shift rounds were not monitored as part of this quality project. Only a small percentage of the CTICU patient population is non-English speaking (<1% Hispanic; 8% unspecified ethnicity). However, the presence of an interpreter during rounds for non-English-speaking parents was inconsistent. We are working on interventions to engage our non-English-speaking families in the rounding process. Institution wide, an iPad video interpretation service available 24/7 was introduced to be used when an interpreter is not available. Only 57% of parents were physically present in the ICU for an invitation to be extended during morning rounds. Potential ways to increase overall parent participation during morning rounds, even for those not physically present, by using available technology are being explored.

**Conclusions**

Implementation of a family participation bundle was successful in increasing parent participation during morning rounds in the CTICU. Engagement of staff and addressing specific concerns were instrumental in project success.

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**FINANCIAL DISCLOSURES**

None reported.
REFERENCES


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