
# Summary of Evidence Family Participation in Rounds

By Judy E. Davidson DNP, CNS, RN, Nancy L. Falk, PhD, MBA, RN, Pat Kleba, MSN, and Jan Bull, MPA

The foundational concept of family-centered care can be attributed to Dr. William Osler. In 1903, Dr. Osler stated that "…the best teaching is that taught by the patient himself" (Osler, 1903, p.50) as he advocated for bedside teaching rounds that included and engaged the patient. More recently, advocates for family-centered care argue that there is improved communication and better outcomes when information is relayed to families and patients in a structured and meaningful way. This philosophy encourages healthcare providers to involve family members as well as patients in developing the treatment plan. The Institute of Medicine suggests that family involvement in care should be part of both collaborative teams and clinical decision-making (IOM, 2001). Family-centered care is also endorsed in the basic core competencies of physician residents through the Accreditation Council for Graduate Medical Education (2007). In 2004, the American College of Critical Care Medicine Task Force recommended that families and patients be provided the opportunity to be present during rounding (Davidson, Powers, Hedayat, et al., 2007). It has even been suggested that family involvement in care can decrease family stress while improving patients outcomes (Melnyk & Feinstein, 2009; Davidson, Powers, Hedayat, et al., 2009; Davidson, 2010; Davidson, Daly, Agan, et al., 2010). Offering patients and their families the opportunity to participate in bedside rounding is one way that healthcare teams can incorporate family-centered care into daily clinical practice.

We reviewed the literature using CINHAL, MEDLINE and PubMed. The reference lists from each manuscript were also used to identify additional evidence. The research that was identified includes two guidelines (American Academy of Pediatrics, 2003; Davidson, Powers, Hedayat, et al., 2007), one randomized control trial (level A) (Lehmann, Brancati, Chen, et al., 1997), six experimental, non-randomized studies (level B) (Jacobowski, Girard, Mulder, & Ely, 2010; Rotman- Pikielny, Rabin, Amoyal, et al., 2007; Lewis, Knopf, Chastain- Lorber, et al., 1988; Rosen, Stenger, Bochkoris, et al., 2009; Landy, Lafrenaye, Roy, & Cyr, 2007; Simons, Baily, Zelis, et al., 1989), nine qualitative or descriptive studies (level B) (Mittal, Sigrest, Ottolini, et al., 2010; Phipps, Bartke, Spear, et al., 2007; Cameron, Schleien & Morris, 2009; Wang-Cheng, Barnas, Sigmann, et al., 1989; Aronson, Yau, Helfaer, et al., 2009; Bramwell & Weindling, 2005; Kuzin, Yborra, Taylor, et al., 2007; Latta, Dick, Parry, & Tamura, 2008; Baines & Vassilas, 1999), and six performance improvement projects conducted in a non- research model (Muething, Kotagal, Schoettker, et al., 2007; Schiller & Anderson. 2003; Kleiber,

Davenport, & Freyenberger, 2006; Knoderer, 2009; Birtwhistle, Houghton, & Rostill, 2003; Uhlig, Brown, Nason, Camelio, & Kendall, 2002).

Five of the identified studies supported the idea that communication is improved when families are present. Families contribute information that affords more comprehensive clinical decision making while improving staff satisfaction (Jacobowski, Girard, Mulder, & Ely, 2010; Rotman-Pikielny, Rabin, Amoyal, et al., 2007; Cameron, Schleien, & Morris, 2009; Lehmann, Brancati, Chen, et al., 1997; Latta, Dick, Parry, & Tamura, 2008). It has been shown to be beneficial to have a structured rounding format and to prepare the family for what to expect during rounds to ease fears and anxiety (Lewis, Knopf, Chastain-Lorber, et al., 1988; Aronson, Yau, Helfaer, et al., 2009; Birtwistle, Houghton, & Rostill, 2000). There is evidence to suggest that the manner in which rounds are conducted (not whether family is present or not) may have a strong impact on staff and family anxiety (Lehmann, Brancati, Chen, et al., 1997; Birtwistle, Houghton, & Rostill, 2000). Hallway rounds without family inclusion have been demonstrated to increase suspicion and anxiety while increasing concerns about confidentiality (Wang-Cheng, Barnas, Sigmann, et al., 1989; Bramwell & Weindling, 2005). One method proposed to reduce the tension of group rounds is to have a junior member of the team facilitate (Uhlig, Brown, Nason, Camelio, & Kendall, 2002) and to prepare families upon admission for what to expect during rounds (Aronson, Yau, Helfaer, et al., 2009; Latta, Dick, Parry, & Tamura, 2008; Bramwell & Weindling, 2005; Baines & Vassilas, 1999). Family inclusion has also been demonstrated to improve the relationship between the family and the physicians, and the family's perception of teamwork (Mittal, Sigrest, Ottolini, et al., 2010; Latta, Dick, Parry, & Tamura, 2008).

Concerns have been raised that rounding time may be longer when family is present. However, two studies have shown that the increase in the amount of time it takes to execute rounds with family participation was not statistically significant (13 minutes with family versus 11 minutes without family and 10 minutes with family versus 9 minutes without family) (Phipps, Bartke, Spear, et al., 2007; Cameron, Schleien, & Morris, 2009). In one study it was found that having a standing as an academic teaching center or having a higher census had a greater impact on rounds time than family presence (Mittal, Sigrest, Ottolini, et al., 2010). It has been demonstrated that families believe that time in rounding is time well spent, as it allows for clarification of information and an opportunity to ask questions of the healthcare team (Phipps, Bartke, Spear, et al., 2007). In fact, in one performance improvement project, physicians reported that the extra one to two minutes spent during rounds when family is present may save considerable time, rather than meeting at another time during the day (Kleiber, Davenport, & Freyenberger, 2006). Another important consideration is that new pertinent information regarding the patient is commonly presented to physicians by families when they are present for rounds

(Cameron, Schleien, & Morris, 2009; Aronson, Yau, Helfaer, et al., 2009).

One last concern voiced often by physicians is that if family members are present the teaching normally performed in rounds may suffer (Aronson, Yau, Helfaer, et al., 2009). Teaching time was measured in only one study and no difference was found in teaching time when families were present versus when they were not present (Phipps, Bartke, Spear, et al., 2007). In one study, the family members actually engaged in the Socratic method of teaching and found it stimulating (Knoderer, 2009). Other authors suggest that teaching with family members present may provide opportunity for the team to learn how to communicate in a family-friendly format, which is beneficial to the teaching process (Knoderer, 2009; Landy, Lafrenaye, Roy, & Cyr, 2007).

The totality of the evidence suggests that although physicians and staff are concerned that family presence at rounds may increase time needed for rounds, as well as family anxiety or stress, families are less concerned with the stress imposed by rounds relative to their perceived need for information. When given the choice, 85 to 98% of families would prefer to be at rounds. The evidence informs us that families should be given the choice of inclusion in rounds, anticipating that the majority will welcome the opportunity.

| Hopkins Strength / Quality | Citation | Purpose | Method | Findings | Comments |
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| III/A | Aronson, P., Yau, J., Helfaer, M., et al. (2009). Impact of family presence during pediatric intensive care unit rounds on the family and medical team. Pediatrics 124(4), 1119-1125. | To examine impact of family presence during Pediatric Intensive Care Unit (PICU) rounds on family satisfaction, resident teaching, and length of rounds: to identify characteristics affecting family satisfaction. | Prospective, observational study utilizing a 17- question Likert scale. | Family (n=98) and residents (n=33) completed questionnaires. 98% of family preferred presence during rounds. 85% of residents preferred family presence during rounds. There was less family involvement (p=.048) in double-occupancy rooms. The family provided new information about the patient to the medical staff during bedside rounds 46% of the time. Bedside rounds were not longer with family presence with data adjustment for physician physical exam, subspecialty service presence on rounds, and PRISM score (p=.12), 82% of residents perceived rounds taking longer. 97% felt it was important to hear the details of their child's case. | Family perception of rounds changed over time. On the first day of admission, the responses to questions about rounds were less positive and suggested family needed round preparation. Family members reported a need for a consolidated plan by a single provider at round conclusion. Limitations: English speaking only, single site study may not be generalizable. |
| III/B | Bains, J., & Vassilas, C.A. (1999). Carers of people with dementia: Their experience of ward rounds. Aging Mental Health, 3(2), 184-187. | Identify round experience of spouses and other caretakers of elderly dementia patients. Identify whether stress of rounds is higher with spouses versus other types of caretakers including children, siblings, and extended family. | Telephone questionnaires administered to providers caring from individuals with dementia diagnoses. | Completed questionnaires (n=67). Spouses (n=31), adult children (n=23), other family/ friends (n=13). In a semi-rural eastern England population, 41.9% of spouses found that the rounds were stressful, 27.8% of "other" caretakers found rounds to be stressful but this was a small proportion of caretakers and not statistically significant (p= 0.224). Only 9% of total sample saw the experience as negative. | Potential bias due to: sample omitted subjects without a phone; unable to interview caretakers who are hard of hearing, older age of spouse in comparison to "other" caretakers, and 29 week mean time lag between ward rounding experience and telephone interview. Offering caregivers advanced notice of the purpose and composition of the ward round can be beneficial. |

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| III/B | Birtwistle, L., Houghton, J.M., & Rostill, H. (2000). A review of a surgical ward round in a large paediatric hospital: Does it achieve its aims? Medical Education, 34(5), 398-403. | Investigate attitudes of medical and surgical staff, nursing staff, and parents/ patients regarding rounds. | Semi-structured interviews conducted with junior medical staff and senior nursing staff on a pediatric unit in a children's hospital, Birmingham, England. Preliminary interviews led to development of a Likert scale survey administered to doctors, consultants as well as medical, surgical, and nursing staff. | N=84 (including medical (n=16) and nursing staff (n=30), patients (n=14) and parents (n=24)). Majority of health professionals felt that surgical grand rounds provided an opportunity to share ideas among team members. Notable differences between nursing and medical professionals included 1) whether rounds provided a valuable teaching environment 2)family and 3) patients were intimidatedby rounds, and 3) rounds promoted team spirit. Many staff felt that rounds did not encourage questions or provide a valuable learning experience. | Sample size was small with no statistical tests of significance. The project findings did provide an opportunity for team to consider changes to the rounding procedures to improve the quality of teaching and patient care. A minority of the parents expressed concerns over confidentiality and |
| III/B | Bramwell, R., & Weindling, M. (2005). Families' views on ward rounds in neonatal units. Archives in Disease Childhood-Fetal and Neonatal Edition, 90 (5), F429-F431. | Determine parental preference about visiting during ward rounds to help inform ward policy. | Telephone survey of policies at neonatal units in the United Kingdom and structured parent interviews in a single neonatal unit in England. | 34 out of 37 centers responded. Parental interviews conducted (n=86). 86% of parents said they thought it beneficial to hear what the MD said. 7% felt it was difficult to talk with doctors and some did not want to be involved in rounds due to perceived intimidation from the group. 20% of parents had issues with confidentiality during rounds. 54% of the parents overheard information about other babies during rounds. | Family view rounds as an information opportunity but some are intimidated. Providers should consider confidentiality matters and manner of communication with families and patients. Some parents did not know that rounds were occurring. If they had known they would have |

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| III/ B | Cameron, M., Schleien, C., & Morris, M. (2009). Parental presence on pediatric intensive care unit rounds. Journal of Pediatrics, 155(4), 522-528. | Examine effect of parental presence on pediatric intensive care unit rounding. | Prospective, observational survey- on a 32-bed pediatric intensive care unit, tertiary care children's hospital. Qualitative assessment tools were validated with an inter rater reliability of 97% accuracy and Kappa 0.88. RNs (n=63), house staff (n=38) and attending physicians (n=10)). Parents (n=36). | Surveys (n=130) over 10-week period (measures = duration of rounds, location of parent, and questions posed during rounds). 75% of parents felt that being involved in rounds assisted them with healthcare decisions, 89% reported better understanding of patient condition and plan of care, 83% reported increased satisfaction, 56% believed they assisted in giving pertinent information to the team. 19% felt anxious during rounding and 11% felt a sense of stress during rounding. 88% parents agreed that they should be part of rounding. It was also identified that 57% of parents who participated in rounds provided new information to the healthcare team. | When invited to rounds, not all parents participate. Limitations: Single site study, investigator developed survey tools with some content validation, English speaking only, blinding was not possible, did not measure the affect of parental presence on teaching during rounds. |
| IV / A | Committee on Hospital Care. American Academy of Pediatrics, (2003). Family-centered care and the pediatrician's role. Pediatrics, 112(No. 3), 691-697. | To define the concept of "family-centered care" and to inform public policy by making recommendations to assist pediatricians in promoting well-functioning families. | Review of the literature. Expert opinion. | Policy statement summarizes outcomes on effects of family-centered care on patients, families, and staff satisfaction as well as benefits of pediatricians adopting family-centered care. Staff outcomes included positive feelings among staff members. Benefits include a stronger alliance with family in promoting child health and development. Finally, the statement provides a detailed list of 15 recommendations pediatricians can incorporate as the core concepts of family-centered care. | This policy statement focuses on the pediatric population and some recommendations may not apply directly to other types of patients and their families. |

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| IV / A | Davidson, J.E., Powers, K., Hedayat, K.M., et al. (2007). Clinical practice guidelines for support of the family in the patient centered intensive care unit. American College of Critical Care Medicine task force. Critical Care Medicine, 35(2), 605-622. | To develop clinical practice guidelines for patient and family-centered care in the intensive care unit. | Literature review through Cochrane library, CINAHL, and MEDLINE for articles between 1980 and 2003. Cochrane methodology used to evaluate each article's level of evidence and to grade the consensus recommendations of the expert panel. | Reviewed studies (n=300). 43 included recommendations that endorse shared decision-making models, care conferencing to reduce family stress, improve consistency with communication, and family presence at both rounds and resuscitation. Remaining articles were at Cochrane levels 4 or 5 and excluded. | Care providers must acknowledge the importance of family and/or healthcare surrogates in decision making and recognize them as integral parts of the healthcare team. |
| II /A | Jacobowski, N., Girard, T., Mulder, J., & Ely, W. (2010). Communication in critical care: Family rounds in the intensive care unit. American Journal of Critical Care, 19(5), 421-430. | To explore the effect of family attendance at interdisciplinary rounds on communication and end of life planning. | 7 month pilot study using validated survey tool in 28 bed medical ICU in academic health center. Patients enrolled initially (n=227). Discharged (n=187), died (n=40). Families invited to attend rounds. Family Satisfaction in the ICU Survey administered pre and post intervention | Results with families of survivors: improved satisfaction with frequency of physician communication (p=.004), improved perception of being supported (p=.005), decreased satisfaction with the amount of time for asking questions (p=.02). No statistically significant difference in overall family satisfaction between families who attended rounds and those who did not. In families of patients who died, family rounds participation did not significantly change satisfaction. | Rounds assisted with development of the family member's base knowledge of patient condition and 24-hour plan of care. Limitations include single center U.S. study, English |
| III / C | Jarvis, J.D., Woo, M., Moynihan, A., et al. (2005). Parents on rounds: Joint decision making in rounds in the PICU result in positive outcomes and increased satisfaction. [Abstract]. Pediatric Critical Care Medicine, 6(5), 626. | Determine how rounds which include family members effects decision-making, medical student and resident learning, nursing practice, and family satisfaction. | Prospective descriptive study utilizing a Likert scale to determine support of team members during bedside rounds. Patients, family, medical students, residents, and nurses completed the questionnaire. | Participants (n=110) and 96 completed and returned questionnaires with 87% response rate. 96% of parents supported involvement in decision making during rounds. Medical students had positive attitudes about the additional communication, but concerned with less teaching and increased medical errors. Residents reported increased communication while nurses expressed improvements in communication and patient education. | Most family members were supportive of family bedside rounds and being included in decision making. Efforts to improve communication among all members of the healthcare team leads to improved patient care and satisfaction. |

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| III / C | Kleiber, C, Davenport, T & Freyenberger, B (2006). Open bedside rounds for families with children in pediatric intensive care units. American Journal of Critical Care 15(5), 492-496. | Nurse and physician leaders implement a quality improvement project that focuses bedside rounds with parents of PICU patients in attempt to improve communication. | Pre and post-intervention anonymous surveys administered to parents, staff nurses, and physicians. | Pre intervention parent surveys (n=36), post intervention parent surveys (n=48). All pre and post-intervention surveys by parents found that parents preferred presence during rounds. Nurse surveys pre (n=23), post (n=16) found nurses agreed that parents be involved in rounding. Physician surveys (n=5) post intervention all agreed that family involvement was beneficial and saved | Low number of participants; no descriptive data collected; not all parents and nursing staff completed surveys |
| III / C | Knoderer, H. (2009). Inclusion of parents in pediatric subspecialty team rounds: Attitudes of the family and medical team. Academic Medicine: Journal of the Association of American Medical Colleges, 84(11), 1576-1581. | To examine the effects of family inclusion during sit-down medical team rounds on family, medical students, and physician satisfaction. | Multiple-choice survey (5-point Likert scale) administered on day of discharge. | Families (n=50) participated in rounds. Returned questionnaires (n=18). All comments were positive towards family involvement in rounds, including being better informed and more informed by the medical team. Medical students revealed a need to balance didactic and clinical experience in their curriculum. | Although the department only intended to pilot the program for four weeks, the response was so positive it accepted the approach as the new standard of care |

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| III/B | Bains, J., & Vassilas, C.A. (1999). Carers of people with dementia: Their experience of ward rounds. Aging Mental Health, 3(2), 184-187. | Identify round experience of spouses and other caretakers of elderly dementia patients. Identify whether stress of rounds is higher with spouses versus other types of caretakers including children, siblings, and extended family. | Telephone questionnaires administered to providers caring from individuals with dementia diagnoses. | Completed questionnaires (n=67). Spouses (n=31), adult children (n=23), other family/ friends (n=13). In a semi-rural eastern England population, 41.9% of spouses found that the rounds were stressful, 27.8% of "other" caretakers found rounds to be stressful but this was a small proportion of caretakers and not statistically significant (p= 0.224). Only 9% of total sample saw the experience as negative. | Potential bias due to: sample omitted subjects without a phone; unable to interview caretakers who are hard of hearing, older age of spouse in comparison to "other" caretakers, and 29 week mean time lag between ward rounding experience and telephone interview. Offering caregivers advanced notice of the purpose and composition of the ward round can be beneficial. |

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| III / C | Knoderer, H. (2009). Inclusion of parents in pediatric subspecialty team rounds: Attitudes of the family and medical team. Academic Medicine: Journal of the Association of American Medical Colleges, 84(11), 1576-1581. | To examine the effects of family inclusion during sit-down medical team rounds on family, medical students, and physician satisfaction. | Multiple-choice survey (5-point Likert scale) administered on day of discharge. | Families (n=50) participated in rounds. Returned questionnaires (n=18). All comments were positive towards family involvement in rounds, including being better informed and more informed by the medical team. Medical students revealed a need to balance didactic and clinical experience in their curriculum. | Although the department only intended to pilot the program for four weeks, the response was so positive it accepted the approach as the new standard of care |
| III / C | Kuzin, J., Yborra, J., Taylor, M., et al. (2007). Family-member presence during interventions in the intensive care unit: Perceptions of pediatric cardiac intensive care providers. Pediatrics, 119(4), 829-832. | To define perceptions and practice regarding family-member presence during ICU interventions/ rounds. | 20-question survey administered to physicians (n=145), and non-physicians (n=66). | Survey completed by physicians (n=145) and non-physicians (n=66) 77% respondents favored family presence during rounds and 86% witnessed a positive event with family presence during rounds. | The survey reflects only the views of attending physicians and does not reflect family perceptions or family satisfaction. Majority of respondents practiced in facilities with formal policies regarding family rounding. |

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| I / B | Landry, M.A., Lafrenaye, S., Roy, M.C., & Cyr, C. (2007). A randomized, controlled trial of bedside versus conference room case presentation in a pediatric intensive care unit. Pediatrics, 1120(2), 275-280. | To determine whether there was a difference in satisfaction and comfort between bedside rounds and conference room presentations with parents of PICU patients and residents-in-training. | 4-subject questionnaire administered to randomly selected parents and residents. Parents (n=22) and residents (n=21) completed questionnaires pre and post conference room and bedside rounds. | First day of hospitalization, researchers randomized parents to either bedside case or conference room presentation. On day two, parents participated in rounds different than the previous day. 96% vs. 92% of parents had higher satisfaction with bedside rounding, 95% vs. 15% preferred bedside rounding, and 89% vs. 19% agreed that they were more comfortable in bedside rounding. However, 84% vs. 69% of residents stated comfort with asking questions in conference room rounds and 85% vs. 67% felt more comfortable being asked questions during conference room rounding. | Parents were more satisfied and preferred bedside rounds; bedside rounding could be a better strategy to develop resident competencies. Small sample size. 9 |
| III / C | Latta, L., Dick, R., Parry, C., & Tamura, G. (2008). Parental responses to involvement in rounds on a pediatric inpatient unit at a teaching hospital: A quality improvement project. Academic Medicine: Journal of the Association of American Medical Colleges, 83(3), 292-297. | Determine how parents responded to participating in interdisciplinary rounds. | Qualitative descriptive study utilizing data from interviews (n=18) and a 12-question survey over a 5-month period.<br>All participants (n=18) | described the overall experience as positive while 17 of 18 felt comfortable in round inclusion. | Parents preferred lay language and their nurse to be present during rounds |
| I / B | Lehmann, L., Brancati, F., Chen, M., et al. (1997). The effect of bedside case presentations on patients' perceptions of their medical team. The New England Journal of Medicine 336(16), 1150-1155. | Examine the effect of bedside presentations vs. conference rooms on patients' perceptions and satisfaction. | Randomized controlled trial, questionnaire 24 hours after admission to an adult general medical service, 3 week study. | Patients (n=95) who received bedside presentations believed that their MDs spent more time with them during rounds (10 vs. 6 minutes p=<0.001) and reported greater satisfaction with their care. | This study reveals that bedside report is almost as good as conference report and preferred by patients. How information is relayed during a bedside report may be as important as whether the rounds are conducted at the bedside. Limitations: single site, English speaking only. Results not statistically significant |

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| II / C | Lewis, C., Knopf, D., Chastain-Lorber, K., et al. (1988). Patient, parent, and physician perspectives on pediatric oncology rounds. Pediatric Oncology Rounds, 112(3), 378-384. | To examine whether bedside rounds improved communication between physicians, patients, and families. | Experimental comparison of standard (conference room) vs. bedside rounds. 4 month period, 2 week blocks alternating. Groups: only bedside (11), only standard (4) and both (13). Questionnaires by parents (n=38), staff (n=9), and child/patient interviews (n=22), | Parents (n=36) who attended both standard and bedside rounds reported a significant improvement in communication. More children said bedside rounding was less upsetting than standard rounding. Children (n=21) that only experienced standard rounding were less likely to address any positive news (P=<0.005). Following experiencing bedside rounds, 64% of parents believed that their child's physician was more compassionate than previously thought and 43% of parents had an increased respect for their MDs. | Despite parent's perception that bedside rounds was moderately upsetting to their child, children did not report a difference in "unhappiness" between their feelings about bedside rounds and bedside communication vs. standard rounds. Bedside rounds increased parental satisfaction with communication and the parents' relationship with the attending physician. Limitations: Small sample size, single site study, block design resulted in uneven groups of those experiencing standard rounds vs. bedside vs. both types of rounds making data analysis difficult. Publication date: 1988. |
| III / B | Mittal, V., Sigrest, T., Ottolini, M., et al. (2010). Family-centered rounds on pediatric wards: A PRIS network survey of US and Canadian hospitals. Pediatrics, 126(1), 37-43. | To examine pediatric hospitalist rounding practices and characteristics associated with programs conducting patient-centered rounds. | Pediatric Hospitalist Triennial Survey distributed to Inpatient facilities that belonged to a listserv (US and Canada). Items (n=63) examined sociodemographics, rounding and practice characteristics (sit down vs. hallway vs. patient's rooms) and training practices. | 70% response rate (n=265), 44% of surveyed departments used family presence during rounds vs. 24% sit-down, 21% hallway, 11% other. 78% perceived benefits to family involvement. 75% of respondents agreed that family involvement in rounding increased family understanding of discharge goals and improved communication and teamwork. Nursing participation in rounds was higher with family presence on rounds vs. other methods (p<.0001). Respondents identified size of team (44%) and length of rounds (33%) as perceived barriers due to increased questions and discussion with family and patients. | Contrary to the stated perception by respondents that length of rounds were increased due to family presence, this study found that academic teaching centers and higher patient census increased the length of rounds more than family presence. Limitations: Survey based on individual responses rather than institutional; 39 responses were missing and not included in results. Length of rounds was estimated rather than measured objectively. |

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| III / C | Muething, S., Kotagal, U., Schoettker, P., et al. (2007). Family-centered bedside rounds: A new approach to patient care and teaching. Pediatrics, 119(4), 829-832. | To report experiences of family rounding project for use as a potential model to improve family-centered care and teaching. | Bedside rounding implemented for 2 weeks, families interviewed each day after rounds. | Sample size unspecified. Nurses stated there was better communication with teaching rounds. Family-centered rounds had increased potential for significant improvements in patient safety and improved clinical outcomes. | This method of rounding became standard procedure for the entire pediatric unit. |
| | Phipps, L.M., Bartke, C., Spear, D., et al. (2007). Assessment of parental presence during bedside pediatric intensive care unit rounds: Effect on duration, teaching and privacy. Pediatric Critical Care Medicine, 8(3), 220-224. | Assess effect of parental presence on length of rounding, staff teaching, staff satisfaction, and privacy. | Prospective blinded observational study in academic pediatric hospital. Medical staff (n=187) and parents (n=81) completed end of round surveys. | Family present at 60% of these rounds. Median rounding time with family presence was 13 minutes versus 11-minute median time with no family presence. There was no significant difference in teaching compared to no family involvement. 95% of medical staff surveys found no interference with family presence. Parent survey (n=81) 95% stated understanding of child's plan of care after rounds; 99% felt the team spent adequate time with them and answering parent questions; 98% stated there were no concerns regarding privacy. Concluded rounds with family had no negative affect on patient care. | Limitations: no clear comparison group, medium size unit with established team and rounding practice, selection bias with only family members to fill out survey were the ones that were present for rounds, possibility that only staff with positive experience with rounding actually completed the survey. 12 |
| III/B | Rappaport, D.I., Ketterer, T.A., Nilforoshan, V., & Sharif, I. (2012). Family-centered rounds: Views of families, nurses, trainees, and attending physicians. Clinical Pediatrics, 51(3), 260-266. | Study the impact of family-centered rounds for pediatric patients on family and staff satisfaction. | Observational study and survey conducted at an academic children's hospital. Staff participants included medical students (n=78), interns (n=60), nurses (n=59), residents (n=31), and attending physicians (n=29). | Data collected over 35 non-consecutive days, reflecting rounds of pediatric patients (n=295). Family respondents (n=137) and staff participants (n=257) completed surveys. Family responses (85%) strongly agreed that family rounds improved their knowledge of provider roles. Staff responses indicated agreement with rounds being easier with family presence. | Nurse satisfaction was higher with family presence during rounds. |

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| II / C | Rosen, P., Stenger, E., Bochkoris, M., et al. (2009). Family-centered multidisciplinary rounds enhance the team approach in pediatrics. Pediatrics, 123(4), 603-608. | To determine the impact of patient/family understanding and staff satisfaction of conference rounds and bedside rounds. | Quasi-experimental study over a 2- week period. First week was conventional rounds; second week was bedside rounds at an adolescent tertiary care center. Families surveyed at the end of rounds and staff surveyed at the end of each week. | Conventional rounds (n=14), bedside rounds (n=22). No statistical difference in satisfaction for families, staff thought they had a better understanding of the plan of care with bedside rounding. Bedside rounding took longer than conventional rounding but the difference was not statistically significant (+2.7 minutes, t=1.83, P=.07). During bedside rounding the family affected decisions of care 90% of the time. Surveys obtained from staff for both conventional rounds and bedside rounds. 80% of surveys for conventional rounding and 67% for bedside rounding were completed by nurses. A high level of satisfaction with bedside rounding was noted. A theme of empowerment also found among both staff and patients. | Despite concerns, this study concluded that patient/family rounds had no negative effect on care or the quality of teaching. 5% of parents stated that medical jargon inhibited them from understanding care plan for child. Limitations: English speaking only, exploratory without comparison group. Selection bias: family members to fill out the survey were the ones present at rounds |
| II / B | Rotman-Pikielny, P., Rabin, B., Amoyal, S., et al. (2007). Participation of family members in ward rounds: Attitude of medical staff, patients and relatives. Patient Education and Counseling, 65(2), 166-170. | Assess attitude of medical staff, patients and their relatives to the presence of family members in ward rounds. | Prospective survey, pre and post intervention of family involvement in rounds. Phase 1 (2 weeks) no family involvement or present presence during rounds, Phase 2 (2 weeks) family involvement and presence during rounds. Questionnaires completed by staff, family, and patients. | At baseline 96% of patient participants (n=26, 35 in phases 1 and 2 respectively) family members (n=32, 40) expressed a desire for family member presence on rounds as compared to only 82.6% of staff. Nurses were more likely than physicians to have a positive attitude regarding family presence on rounds (p=.039). Positive attitude of staff and physicians (n=26, 23) towards family rounds increased significantly following the intervention (experience with family presence on rounds) (p=.039). Perception that family presence increased length of rounds decreased significantly after experience with family presence (p=.02). Significantly increased family perception that involvement in rounds would assist in decision-making (p=.045). Patients reported a significantly improved perception of staff attitude towards the patient following family involvement in rounds (p=.039). | Limitations: Limited generalizability due to specific patient population, small sample size |

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| III / C | Schiller, W.R., & Anderson, B.F. (2003). Family as a member of the trauma rounds: A strategy for maximized communication. Journal of Trauma Nursing, 10(4), 93-101. | Examine how to improve communication through encouraging family involvement during trauma rounds. | Retrospective survey study for families who experienced rounding; staff survey was 25-question Likert scale. | Family survey (n=34) revealed families understood their loved one's condition and plan of care better when involved in rounding. No dissatisfactory statements found on surveys. The highest means on the Likert scale survey were in response to the importance of seeing physicians daily, recommending this type of rounding and knowing that they could ask questions; surveys from nurses showed satisfaction with improved communication. | Limitations: Questionnaires not validated and focused only on Israeli culture. Participants limited to a single medical department. 14 |
| II / B | Simons, R.J., Baily, R.G., Zelis, R., et al. (1989). The physiologic and psychological effects of the bedside presentation. New England Journal of Medicine, 321(18), 1273-1275. | Determine the degree of stress on patients with ischemic heart disease induced by bedside presentations. | Patients in an ICU at a teaching facility were monitored for an increase in HR, BP and norepinephrine levels at 1 minute intervals (x5) during bedside teaching rounds. After rounds, patients were interviewed and given the State Trait Anxiety Inventory Questionnaire for qualitative assessment of anxiety during rounds. | N=20. 10 small increases in systolic (7+/- 5 mm Hg; $p<0.01$) and diastolic (3 +/- 4 mm HG; $p<0.001$) blood pressure were seen during rounds. No change in heart rate or plasma norepinephrine levels was noted. The average on the anxiety scale was 30 +/- 5 (80 reflects anxiety). Universal themes of the anxiety scale and interviews were that the bedside rounds increased the patients knowledge of their medical problems and that bedside rounds should be continued. | Rounds held in hallway, which impeded flow of traffic; identified need for defined roles in rounding to decrease role confusion. |
| III / C | Uhlig, P. N., Brown, J., Nason, A. K., Camelio, A., & Kendall, E. (2002). System innovation: Concord hospital The Joint Commission Journal on Quality Improvement, 28(12), 666-672. | Implement collaborative rounds with structured communication protocol to improve safety and effectiveness for cardiac surgery patients at Concord Hospital. | Following project implementation, mortality outcome data analyzed; patient satisfaction measured using the Press Ganey Associates survey; informal patient interviews conducted; and outside observers assessed families and patients. | Mortality for cardiac surgery patients (n=unspecified) declined significantly following implementation of collaborative rounds; patient satisfaction were in the 97-99 percentile nationally. A quality of work-life survey of staff showed greater provider satisfaction with the collaborative process. | Limitations: Ten patients in the sample had previous experience with bedside rounds at the same facility in prior hospitalization. Sample size was small, single center. |

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| III / B | Wang-Cheng, R.M., Barnas, G.P., Sigmann, P.A., et al. (1989). Bedside case presentations: Why patients like them but learners don't. Journal of General Internal Medicine, 4(4), 284-287. | To determine current attitudes of patients, medical students, house staff, and clinical faculty toward bedside case presentations. | Multiple choice survey for staff and structured interviews for patients; included all patients admitted to general medical services over a 2 month period. | Patients (n=73), 85% preferred to hear their presentations at the bedside, 70% understood the information presented, 88% were opposed to hallway presentations due to breaches of privacy. 61% Students (n=136and 40% house staff (n=58were under the impression that bedside rounds took longer, but attendings were less likely to report this concern (24%). Medical staff was surveyed and 95% preferred conference room rounds secondary to the ability to have a more open discussion. | Limitations: Sample size not reported. Location limited to one hospital unit. 16 |

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