provided by Plymouth Electronic Archive and Research Librar

Family-Centered Care Guidelines

Coombs M, Puntillo KA, Franck LS, Scruth EA, Harvey M, Swaboda S, Davidson JE. 2017.

Implementing the SCCM Family-Centered Care Guidelines in critical care nursing practice.

July 2017AACN Advanced Critical Care 28(2):138-147

Author copy. Accepted for publication 6 December 2016.

DOI: 10.4037/aacnacc2017766

Implementing the SCCM Family-Centered Care Guidelines in critical care nursing practice.

Running title - Family-Centered Care Guidelines and nursing

Maureen Coombs PhD RN

Chair in Clinical Nursing (Critical Care) Graduate School of Nursing Midwifery and Health,

Victoria University of Wellington

Level 7 Clinical Services Block

Wellington Regional Hospital

Newtown, Wellington

New Zealand

Email: Mo.coombs@vuw.ac.nz

Tel No.: +64 4 463 5180

Fax No.: +64 4 463 5442

Kathleen A. Puntillo PhD RN FAAN FCCM

Department of Physiological Nursing, University of California, San Francisco

Email: Kathleen.puntillo@ucsf.edu

Tel. No.: 415 819 2655

Fax No.: 415 476 8899

Linda S. Franck PhD RN FRCPCH FAAN

Jack and Elaine Koehn Endowed Chair in Pediatric Nursing

Department of Family Health Care Nursing, University of California, San Francisco

University of California, San Francisco

2 Koret Way, N411F, Box 0606

San Francisco, CA 94143

Email: linda.franck@ucsf.edu

Tel No.: 415 476 4433

Fax No.: 415 753 2161

Elizabeth A. Scruth PhD RN CCRN CNS FCCM

Critical Care/Sepsis Clinical Practice Consultant

Regional Quality and Regulatory Services, Kaiser Permanente, Oakland CA

Email: Elizabeth.Scruth@kp.org

Tel No.: 510 9874475

Fax No.: 510 9873548

Maurene A. Harvey MPH MCCM

Critical Care Educator and Consultant, Lake Tahoe, Nevada

Maurene46@gmail.com, 775.901-6066

Critical Care Educator and Consultant, Lake Tahoe, Nevada

Email: Maurene46@gmail.com

Tel. No.: 75 901 6066

Sandra M. Swoboda MS RN FCCM

Research Program Coordinator/Simulation Educator

Johns Hopkins Hospital

Osler 603

600 N Wolfe Street

Baltimore, MD 21287

Email: sswoboda@jhmi.edu

Tel No.: 410 955 3739

Fax: 410 614 9083

Judy E. Davidson DNP RN FCCM FAAN

Evidence Based Practice/Research Nurse Liaison

University of California San Diego Health, San Diego, California

Tel No.: 858 657 7339

Email: Jdavidson@ucsd.edu

Institution(s) at which the work was performed

N/A

Key words

Family-centered care, Intensive Care, Critical Care, Nursing

Grants and funding

No grant or any other financial support was used in this study

Acknowledgements

Authors acknowledge the members of the international ACCM/SCCM Family Centered Care guidelines writing team for their contributions to this process.

Abstract

Family-centered care is an important component of holistic nursing practice. This is particularly so in the speciality of critical care where the impact on families of having a family member admitted to intensive care is well recognised. Family-Centered Care Guidelines have been recently developed by an international group of nursing, medical and academic experts for the American College of Critical Care Medicine/Society of Critical Care Medicine. These Guidelines explore the evidence base in five key areas of family-centered care: family presence in the intensive care unit; family support; communication with family members; use of specific consultations and intensive care team members; and operational and environmental Issues. Review of the considerable body of evidence in this area identified that research continues to be of an overall low-level quality, with still much research to be performed to provide better evidence for nursing practice. This paper outlines evidence in each of the Guideline areas and makes recommendations as to how critical care nurses can use this information to guide family-centered care practice.

Introduction

Nurses have long recognized that intensive care is provided not only to the critically ill patient; but it also extends to supporting and working with family members. ^{1,2} While families were traditionally perceived as passive visitors in the intensive care unit (ICU), a more nuanced understanding is developing of the active contribution that families make as part of the healthcare team. This acknowledges their role as patient protectors, facilitators, historians, coaches, and voluntary caregivers. ³ Families are central to the practice of

intensive care and to the continued support and care required by the patient following critical illness.

However, there is a significant physiological and psychological burden on families of having a critically ill family member in the ICU. ^{4,5,6} The importance of supporting families is therefore widely acknowledged in health care, with the concept of family-centered care (FCC) underpinning many international health practice guidelines. ^{7,8,9} Given the essential role that nurses hold in intensive care, it is important that nurses are aware of best FCC practices and of the guiding evidence base in this area.

In this paper, we explore the nursing implications of the recently published 'Guidelines for FCC in the Neonatal, Pediatric and Adult Intensive Care Unit' from the American College of Critical Care Medicine/Society of Critical Care Medicine. ¹⁰ An international expert group of 21 medical, nursing and academic experts in the field worked to develop these over a two year period (2014-2016). This follow-on paper is written by the nursing membership of the group. Here, we outline the Guidelines project, provide summaries of the evidence base in each section of the Guidelines, and highlight how content from the Guidelines can inform bedside nursing practice.

Overview of the FCC Guidelines project

The Council of Medical Specialty Societies (CMSS) Principles for the Development of Specialty Society Clinical Guidelines framework ¹¹ was used to develop the Guidelines.

Initially, a structured literature search strategy identified qualitative research that explored patient, family and clinician perspectives of FCC in the ICU. PubMed, CINAHL, Web of

Science, and PsycINFO databases were searched for qualitative studies published since 1994. Search terms included intensive care, critical care, critical care nursing and family centered/centred. Two hundred and twenty eight studies were included. Key patient/family, and clinician FCC related areas were developed from thematic analysis.

Priority areas in these fields were synthesized to develop PICO (P: Population of interest, I: Intervention, C: Compared to What, O: Outcomes) questions. 12 The evidence from quantitative studies testing FCC interventions was used to answer the PICO questions. Studies were identified by undertaking a rigourous systematic review that followed Preferred Reporting Items for Systematic Reviews (PRISMA) and Meta- Analyses Guidelines. ¹³ Search terms were similar to those used in the earlier literature review but with focus on randomised trials, prospective experimental, and observational studies. Two hundred and nine studies were included and reviewed using the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) methodology ¹⁴ to assess levels of evidence. Quality and consensus checks were used during these procedures. Recommendations for practice were based on the strength of evidence and the study results. Data management was facilitated by use of RefWorks®. Patient and family members were consulted and informed the project. Full details of the project are published elsewhere. ¹⁰ The Guidelines make recommendations in five areas: family presence in the ICU; family support; communication with family members; use of specific consultations and ICU team members; and operational and environmental Issues. These provide the structure for this paper. A summary of recommendations as to how these Guidelines can be implemented across all domains of nursing practice (direct care, leadership, research) is provided in Table 1.

Family Presence in the ICU

Families value the opportunity to be at the bedside of their loved one in the ICU and this important aspect of FCC is the first area to be explored in the Guidelines. While the presence of family members at the bedside 24 hours a day may be challenging ¹⁵ and perceived to increase the workload of staff, ¹⁶ evidence has shown improved outcomes when family members are present and engaged with their family member's care in the ICU. ¹⁷⁻¹⁹ Observational work in this area has focussed on how open or flexible visiting practices impact on family satisfaction. ²⁰⁻²² However, there are no trial reports to inform how this visiting may best be undertaken. With little high level evidence to guide practice, the Guidelines recommend that family members of critically ill patients be offered open and flexible family presence at the bedside. Nurses at the bedside have an important role in helping families manage such presence while balancing the needs of families with the patient's clinical needs.

Interdisciplinary rounds provide an opportunity for the clinical team and family members to engage in, and be informed about, goals of care. Robust evaluation work with validated family-centred outcomes is still needed. However, there is low-level evidence demonstrating that family members who participate in family-centered rounds report greater understanding and involvement in decision-making and satisfaction with clinical team communication than those who do not. ²³⁻²⁵ Family presence on rounds can also support and improve family member decision making. ^{26,27} As family involvement in interdisciplinary rounds is recommended in the Guidelines, nurses can continue to facilitate

family participation in clinical rounds, enabling families to raise questions and engage in dialogue with clinicians during rounds.

A final area explored in this section and one that garners strong professional opinion is family member attendance during resuscitation. There is descriptive and qualitative work that explores clinician and family member attitudes to this practice across pediatric and adult intensive care settings, however, there are few clinical trials to inform practice. It is clear that some family members want to be present during resuscitation and gain support and comfort from this. e.g. 28-30 However, physicians are less supportive of this practice, having concerns about family interference in procedures, impaired staff performance, and increased litigation risk identified as potential barriers. e.g. 31-34 It is unsurprising, then, that ICUs have been slow to adopt this practice, even though family presence at resuscitation has been recommended since the original practice guidelines. ⁷ Understanding such challenges, there is opportunity for clinical nurses to work with physicians and family members and reach a mutually agreeable way forward regarding family presence during resuscitation. The presence of a support person for families during resuscitation is recommended mainly through evaluations of nurse and physician values found in the qualitative literature, and not experimental evidence. Thus, we would suggest that nurses are well placed to lead the re-design of the resuscitation team to include a family support person.

Family Support

Frequently patients in the ICU are too ill to participate in in their care, to communicate, or to participate in decision-making. Family caregivers often face multiple

stressors related to the emotional burden of the intensive care experience while having to serve as proxy decision makers for their critically ill loved one. The FCC Guidelines provide a rigorous evaluation of the evidence to provide support for the family of critically ill patients and makes specific recommendations for family support that include family education, family involvement in caregiving, communication and decision support tools, and peer-to-peer support. The strongest evidence, from moderate quality studies, was the positive impact on family member anxiety and stress when informational leaflets about the ICU were provided. ³⁵ In addition, there was a positive change in parent competence, confidence and psychological health in family members of critically ill children when they were offered teaching about participating in their child's care. ^{36,37} A major challenge in making substantial Guidelines recommendation about use of effective family support interventions was the lack of robust evaluation studies. Although clinical trials have been undertaken, ^{38,39,40} these trials did not test standardized family training/education programs. Variation in the format, duration and intent of these programmes renders comparison difficult.

The remaining Guidelines recommendation for family support includes the use of family education programs, peer-to-peer support, ICU diaries, decision support tools and communication tools, all based on low levels of evidence. Two of the recommendations, teaching families how to contribute to caregiving and peer-to-peer support, are specific to critically ill children because of insufficient research in adult critical care settings. It is evident that research investigating impact on outcomes associated with post-ICU clinics, peer-to-peer support programs in areas other than pediatrics, and methods to teach family members how to function in the surrogate decision-maker role is warranted. While diary programs are well received and preliminary data support the use of diaries to reduce family

stress and depression, ⁴¹⁻⁴³ further study is needed to explore the best method to launch a diary program and to increase confidence in results to date. ⁴⁴⁻⁴⁶

All family support recommendations made in the Guidelines have direct relevance to nursing practice, education and research. From a practice perspective, direct care nurses will implement the majority of the family support interventions. Therefore establishing nursing staff as champions for family support is critical. Specific plans for family support or involvement could be added to the daily plan of care. The family involvement plan should be concise, easy to navigate, well-supported with education and practice standards, be associated with appropriate staffing levels, and evaluated by continuous quality improvement tools. Physician and nursing leadership at the ICU and hospital levels are in key roles to advocate for resources and interdisciplinary collaboration to ensure all families of the critically ill receive the recommended support. Nurses working in education can use a family nursing theory foundation to support skill training in the curriculum through direct interaction, webinars, on-line courses, and simulation experiences with directed feedback. Nurse scientists can focus on closing the gaps and improving the quality of the evidence for family support of critically ill patients.

Communication with Family Members

The FCC Guidelines address the importance of communication between ICU family members and clinicians. Specifically, one focus of the Guidelines was to evaluate outcomes from research concerning the effectiveness of communication that occurs within interdisciplinary family meetings. The ability to make recommendations from this body of research was limited due to the primarily observational nature of the research to date.

However, the Guidelines suggest that routine interdisciplinary family conferences be held in the ICU. This suggestion was based on research findings that families who participated in conferences demonstrated more satisfaction with care, ⁴⁷ experienced less conflict, ⁴⁸ and reached consensus more often. ⁴⁹ The type of communication that occurs during a family meeting significantly influences outcomes. That is, when family members have more time to talk during a meeting (vis a vis the clinicians), ⁴⁸ when clinicians show empathy ⁵⁰ and assure family members that they will not be "abandoned", ⁵¹ and when family members feel that they are participating in decision-making to their degree of comfort, ⁵² family satisfaction is improved. Intentional structuring of conversations during a family conference such as use of empathy, using statements of support, and emphasizing clinician support with family decision-making may provide comfort to families and improve their satisfaction. ⁵³ These actions may even decrease family symptoms such as anxiety and depression after the ICU experience. ⁵⁴ Family conferences may decrease ICU patient length of stay, ⁴⁹ but this finding is equivocal. ^{55,56}

It is likely that the effectiveness of family conferences depends on clinician preparation in communication techniques. Clinician training has clearly shown an improvement of clinicians' self-perceived confidence and skills in their communication abilities. e.g. 57-60 Improvement in skills were related to the length of training, with longer training demonstrating greater improvement in skills. However, in the limited number of communication training studies, impact on patient or family outcomes has not received indepth exploration. Thus, the Guidelines could not recommend any specific training method such as didactic training, role-plays and/or simulation that would affect important outcomes.

Nurses have important roles in family conferences since they often have the most established relationships with the family. They can communicate empathy, help establish trust, provide information and support, and continue and clarify information after the conference. Research is warranted on the effectiveness of ICU nurse communication training on improved family outcomes. Decreasing short- and long-term family anxiety, depression, and post-traumatic stress may leave family members healthier and with memories that they contributed to goal-directed decisions in the best manner possible.

Use of Specific Consultations and ICU Team Members

Care given to critically ill patients and their families requires the coordination of, and input from, many specialists. While this philosophy is common in clinical practice, research to guide practice in this area is limited. The few studies about consultation services outlined in the FCC Guidelines mainly focused on palliative care utilization. While some studies demonstrated reduction in ICU and hospital LOS ⁶¹⁻⁶³ following use of palliative care, results were equivocal. ^{64,65} There was a similar lack of high-level evidence about use of ethics consultation with a range of non-standardised ethics consultation approaches investigated. ⁶⁶⁻⁶⁹ As we await further work in this area, it is important that nurses have a high level of awareness of patients who may benefit from palliative care and ethics consults. In situations where there is potential for conflict with or within families, proactive engagement with these teams should occur.

Use of psychology consultation services are not mainstream, with only 4-29% of ICUs worldwide reporting use of these and few well-described observational studies to inform use of psychology consults in FCC. ^{70 - 72} There is indication that psychological support, when

combined with video and written support material, can reduce family anxiety levels. ⁷³ Use of cognitive behavioral therapy can also reduce the level of depression and anxiety in family members. ^{74,75} Work in this area originates from neonatal and trauma ICUs, however, these results may be transferable to distressing situations experienced in other ICU settings. With such an under-developed evidence base, the implications for nurses can only be speculative. However, we suggest that the critical care nurse can remain vigilant for families experiencing emotional trauma and crisis and hold discussions with families regarding the support that psychologists can bring. Critical care nurses can also consider whether specific information packs for families about traumatic situations (for example, attempted/successful suicide, child death, violent and sudden death) could be prepared in ICU as practice development initiatives. Family education pamphlets regarding the possible utility of referral for counseling may be obtained at www.sccm.org.

Social workers are well utilized in ICU practice. However, there were few studies ^{76,77} to guide recommendations about this role in the FCC Guidelines. Until work in this area is better developed, nurses should continue to recognize the value of social workers in providing support to families. Similarly the role of spiritual advisor in ICU has received little empirical attention, although the availability of spiritual care is important to families. ⁷⁸ Such support can improve overall family satisfaction with ICU care, ⁷⁹ especially at end of life. ⁸⁰ Given this, nurses can identify spiritual support for families who may benefit.

While the above team members are complementary to nursing, a developing nursing consultation role is that of Navigator, a care coordinator who acts as a consistent communicator with family members. In randomized trials, the Navigator role reduced

depression in ICU family members at six months ⁸¹ and increased family satisfaction with physician communication. ^{82,83} These roles are early in their development and there is no consensus on whether there are associated ICU and hospital cost savings. However, what is clear in these roles is that communication continues to be paramount in FCC, and that nurses are important in meeting family information needs.

Operational and Environmental Issues

Nurses are key to delivering on, and driving forward, local ICU operational and environmental issues. However, empirical studies on operational issues are few, and are usually single-sited and observational in nature. Given that family members rely on nurses for support and the provision of quality information, the impact of specialised communication programmes was one operational area discussed. However, the Guidelines note that the impact of communication training programmes for nurses is not well explored, although there is some evidence of reduced ICU length of stay ⁸⁴ and improved quality of communication between ICU families and nurses ⁸⁵ following involvement of a specialist trained in communication on the ICU team. Even with these limited data, the Guidelines reassert that that training be provided to help ICU nurses with family communication and support.

Noise reduction is a further operational issue explored in the Guidelines due to the well-known adverse effects of noise on patients and staff. ⁸⁶⁻⁸⁹ There is low-level evidence that single, private rooms reduce noise and improve family satisfaction, ^{90.91} even though the increased workload on nursing staff is recognized. ⁹² Given this, the Guidelines suggest

implementation of noise reduction practices with use of single rooms in ICU. Therefore nurses are advised to be aware of situations where noise reduction should be supported.

Nurses should be fully engaged in the design of new ICU's so that patient, family and staff needs can be fully considered.

The adverse effects of sleep deprivation in ICU families and the need for sleeping areas for families are well documented. ⁹³⁻⁹⁵ Although the impact of sleep promotion for families has not been evaluated, nurses should be mindful that if families are visiting for extended periods, rest periods can be encouraged as part of self-care. ICUs personnel could assess provision of sleep surfaces within or near patient areas and try to offer space specifically designated for ICU family members.

One of most stressful and challenging operational issues in ICU is the withdrawal of life supporting therapies. The potential stress to patients, families and staff necessitates efforts to provide the best care possible. The limited number of studies evaluating use of protocols in withdrawal of life support ⁹⁶⁻⁹⁸ focus on clinician, not family-centred, outcomes. There is higher quality evidence ⁹⁹ that use of a protocol for sedation and analgesia can support symptom management. Given that nurses are key to end-of-life processes, protocols can be helpful to guide complex decisions about the use of sedation and analgesia, and should be implemented.

A further area explored in the Guidelines was use of unit-based polices and processes to promote a FCC approach. Although studies are limited to single site and of low-level evidence, there is evidence that unit-based policies that focus on care informed by the integration of families in care as opposed to care driven by traditional authoritarian hospital

values, can reduce hospital readmission days ⁸⁴ and increase-family satisfaction. ⁸⁵
Recognizing that further research is required, there is support for instituting FCC polices in ICU. Nurses should take the lead in developing local work groups to develop and implement FCC policies.

Conclusions and recommendations for future research in the area

Critical care nurses have many opportunities to influence all aspects of FCC outlined in the Guidelines. However, as recommendations were constructed from low-level evidence, further research is needed. In particular, given the interdisciplinary nature of intensive care and the construction of appropriate teams to deliver FCC, the outcomes of each discipline need to be quantified and assessed. Although nurses often lead the way in innovations to support families and their engagement in their family member's care, greater effort is needed to test the effectiveness of these interventions in comparative trials. This is especially timely given the recent development of the specialized family support Navigator role, often undertaken by nurses. The education necessary to fulfil this role and outcomes associated with deploying this model warrant further investigation. Concerning communication with families, best practices in development of communication training programs and the involvement of family inclusion in rounds has yet to be identified.

Finally, unit-based policies of FCC are usually developed and endorsed at the local level, yet there is no established best practice to standardize these efforts. Simple issues that seem inherently obvious, such as the effect of consistency in nurse staffing or the delivery of culturally sensitive nursing care, have not been evaluated in the ICU environment. Progress has been made since the original guidelines were published in 2007,⁷

yet there are many opportunities for practice improvements and further research in the area of FCC.

REFERENCES

- 1. Coulter MA. The needs of family members of patients in ICU. *Intensive Care Nurs.* 1989;5(1):4–10.
- 2. Curry S. Identifying family needs and stresses in the intensive care unit. *Br J Nurs.* 1995; 4(1):15–19.
- 3. McAdam JL, Arai S, Puntillo KA. Unrecognized contributions of families in the intensive care unit. *Intensive Care Med.* 2008; 34:1097–1101 DOI 10.1007/s00134-008-1066-z.
- 4. Wolters AE, Slooter AJ, van der Kooi AW, van Dijk D Cognitive impairment after intensive care unit admission: a systematic review. *Intensive Care Med.* 2013; 39:376–386.
- Azoulay E, Pochard F, Kentish-Barnes N, et al. Risk of post-traumatic stress symptoms in family members of intensive care unit patients. *Am J Respir Crit Care Med.* 2005; 171:987–994.
- Gries CJ, Engelberg RA, Kross EK, et al. Predictors of symptoms of posttraumatic stress and depression in family members after patient death in the ICU. *Chest* 2010; 137:280–287.

- 7. Davidson JE, Powers K, Hedayat KM, et al. Clinical practice Guidelines for support of the family in the patient centered intensive care unit: American College of Critical Care Medicine Task Force 2004–2005. *Crit Care Med* 2007;35:605–622.
- 8. Scottish Government. *The Healthcare Quality Strategy for NHS Scotland*. 2010.The Scottish Government, Edinburgh.
- 9. Australian Commission on Safety and Quality in Health Care. Patient Centred Care:
 Improving Quality and Safety by Focusing Care on Patients and Consumers. 2010.
 Available at:
 http://www.safetyandquality.gov.au/internet/safety/publishing.nsf/Content/36AB39E
 537937 8EBECA5372577B5373001D5379373 C5379372B/\$File/PCCC-DiscussPaper.
 pdf (accessed 19 January 2011).
- 10. Davison JE, Aslakson RA, Long AC, et al. Guidelines for Family-Centered Care in the Neonatal, Pediatric and Adult Intensive Care Unit. *Crit. Care Med.* (under review).
- 11. Council for the Medical Speciality Societies. Principles for the development of specialty society Guidelines. 2016. [http://cmss.org/wp-content/uploads/2016/02/CMSS-Principles-for-the-Development-of-Specialty-Society-Guidelines-September-20122.pdf].

- 12. Schardt C, Adams MB, Owens T, et al. Utilization of the PICO framework to improve searching PubMed for clinical questions. BMC Med Inform Decis Mak 2007; 7:16. DOI: 10.1186/1472-6947-7-16
- 13. Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group. Preferred Reporting

 Items for Systematic Reviews and Meta- Analyses: The PRISMA Statement. PLoS Med

 2009;6: e1000097. doi:10.1371/journal.pmed1000097
- 14. Guyatt GH, Oxman AD, Kunz R, et al. Going from evidence to recommendations. *BMJ* 2008;336:1049-1051.
- 15. McAlvin SS, Carew-Lyons A. Family presence during resuscitation and invasive procedures in pediatric critical care: A systematic review. *Am J Crit Care*. 2014;23:477-485.
- 16. Ciufo D, Hader R, Holly C. A comprehensive systematic review of visitation models in adult critical care units within the context of patient- and family-centred care. *Int J Evid Based Healthc.* 2011;9:362-387.
- 17. Melnyk BM, Alpert-Gillis L, Feinstein NF, et al. Creating opportunities for parent empowerment: Program effects on the mental health/coping outcomes of critically ill young children and their mothers. *Pediatrics*. 2004;113:e597-607.

- 18. Melnyk BM, Crean HF, Feinstein NF, et al. Testing the theoretical framework of the COPE program for mothers of critically ill children: An integrative model of young children's post-hospital adjustment behaviors. *Journal of Pediatr Psychol.* 2007;32:463-474.
- 19. Melnyk BM, Feinstein NF, Alpert-Gillis L, et al. Reducing premature infants' length of stay and improving parents' mental health outcomes with the creating opportunities for parent empowerment (COPE) neonatal intensive care unit program: A randomized, controlled trial. *J. Pediatr.* 2006;118:e1414-27.
- 20. Kynoch K, Chang A, Coyer F, et al. The effectiveness of interventions to meet family needs of critically ill patients in an adult intensive care unit: A systematic review protocol update. *JBI Database of Systematic Reviews and Implementation Reports* 2014;12:14-26.
- 21. Karlsson C, Tisell A, Engstrom A, et al. Family members' satisfaction with critical care: A pilot study. *Nurs Crit Care* 2011;16:11-18.
- 22. Soury-Lavergne A, Hauchard I, Dray S, et al. Survey of caregiver opinions on the practicalities of family-centred care in intensive care units. *J Clin Nurs* 2012;21:1060-1067.
- 23. Mangram AJ, Mccauley T, Villarreal D, et al. Families' perception of the value of timed daily "family rounds" in a trauma ICU. *Am Surg* 2005;71:886-891.

- 24. Schiller WR, Anderson BF. Family as a member of the trauma rounds: A strategy for maximized communication. *J Trauma Nurs* 2003;10:93-101.
- 25. Tripathi S, Arteaga G, Rohlik G, et al. Implementation of patient-centered bedside rounds in the pediatric intensive care unit. *J Nurs Care Qual* 2015;30:160-166.
- 26. Ladak LA, Premji SS, Amanullah MM, et al. Family-centred rounds in Pakistani pediatric intensive care settings: Non-randomized pre- and post-study design. *Int J Nurs Stud* 2013;50:717-726.
- 27. Cameron MA, Schleien CL, Morris MC. Parental presence on pediatric intensive care unit rounds. *J Pediatr* 2009;155:522-528.
- 28. Mazer MA, Cox LA, Capon JA. The public's attitude and perception concerning witnessed cardiopulmonary resuscitation. *Crit Care Med.* 2006;34:2925-2928.
- 29. Duran CR, Oman KS, Abel JJ, et al. Attitudes toward and beliefs about family presence: A survey of healthcare providers, patients' families, and patients. *AJCC* 2007;16:270-280.
- 30. Tinsley C, Hill JB, Shah J, et al. Experience of families during cardiopulmonary resuscitation in a pediatric intensive care unit. *J Pediatr.* 2008;122:e799-804.
- 31. Ong MEH, Chan YH, Srither DE, et al: Asian medical staff attitudes towards witnessed resuscitation. Resuscitation 2004;60:45-50.

- 32. Knott A, Kee CC: Nurses' beliefs about family presence during resuscitation. Applied Nursing Research 2005;18:192-198.
- 33. Lam DSY, Wong SN, Hui H, et al: Attitudes of doctors and nurses to family presence during paediatric cardiopulmonary resuscitation. Hong Kong Journal of Paediatrics 2007;12:253-259.
- 34. Gordon ED, Kramer E, Couper I, et al: Family-witnessed resuscitation in emergency departments: Doctors' attitudes and practices. South African Medical Journal 2011;101:765-767.
- 35. Cooper LG, Gooding JS, Gallagher J, et al. Impact of a family-centered care initiative on NICU care, staff and families. *J Perinatol* 2007;27 Suppl 2:S32-7.
- 36. Franck LS, Oulton K, Nderitu S, et al. Parent involvement in pain management for NICU infants: A randomized controlled trial. *Pediatrics* 2011;128:510-518.
- 37. Bastani F, Abadi TA, Haghani H. Effect of family-centered care on improving parental satisfaction and reducing readmission among premature infants: A randomized controlled trial. *J Clin Diagn Res* 2015;9:SC04-8.
- 38. Melnyk BM, Alpert-Gillis L, Feinstein NF, et al. Creating opportunities for parent empowerment: Program effects on the mental health/coping outcomes of critically ill young children and their mothers. *Pediatrics* 2004;113:e597-607.

- 39. Melnyk BM, Crean HF, Feinstein NF, et al. Testing the theoretical framework of the COPE program for mothers of critically ill children: An integrative model of young children's post-hospital adjustment behaviors. *Journ of Pediatr Psychol* 2007;32:463-474.
- 40. Melnyk BM, Feinstein NF, Alpert-Gillis L, et al. Reducing premature infants' length of stay and improving parents' mental health outcomes with the creating opportunities for parent empowerment (COPE) neonatal intensive care unit program: A randomized, controlled trial. *Pediatrics* 2006;118:e1414-27.
- 41. Jones C, Backman C, Griffiths RD. Intensive care diaries and relatives' symptoms of posttraumatic stress disorder after critical illness: A pilot study. *Am J Crit Care* 2012;21:172-176.
- 42. Garrouste-Orgeas M, Coquet I, Perier A, et al, Impact of an intensive care unit diary on psychological distress in patients and relatives. *Crit Care Med* 2012;40:2033-2040.
- 43. Garrouste-Orgeas M, Perier A, Mouricou P, et al. Writing in and reading ICU diaries:

 Qualitative study of families' experience in the ICU. *PLoS One* 2014;9:e110146.
- 44. Garrouste-Orgeas M, Coquet I, Perier A, et al. Impact of an intensive care unit diary on psychological distress in patients and relatives. *Crit Care Med* 2012, 40(7):2033-2040.

- 45. Egerod I, Christensen D, Schwartz-Nielsen KH, et al. Constructing the illness narrative: a grounded theory exploring patients' and relatives' use of intensive care diaries. *Crit Care Med.* 2011, 39(8):1922-1928.
- 46. Egerod I, Schwartz-Nielsen KH, Hansen GM, et al. The extent and application of patient diaries in Danish ICUs in 2006. *Nurs Crit Care* 2007, 12(3):159-167.
- 47. Hwang DY, Yagoda D, Perrey H, et al: Assessment of satisfaction with care among family members of survivors in a neuroscience intensive care unit. Neurocritical Care 2012;17:S261.
- 48. McDonagh JR, Elliott TB, Engelberg RA, et al: Family satisfaction with family conferences about end-of-life care in the intensive care unit: Increased proportion of family speech is associated with increased satisfaction. Crit Care Med 2004;32:1484-1488.
- 49. Lilly CM, De Meo DL, Sonna LA, et al: An intensive communication intervention for the critically ill. American Journal of Medicine 2000;109:469-475.
- 50. Selph RB, Shiang J, Engelberg R, et al: Empathy and life support decisions in intensive care units. J Gen Intern Med 2008;23:1311-1317.
- 51. Stapleton RD, Engelberg RA, Wenrich MD, et al: Clinician statements and family satisfaction with family conferences in the intensive care unit. Crit Care Med 2006;34:1679-1685

- 52. White DB, Braddock CH,3rd, Bereknyei S, et al: Toward shared decision making at the end of life in intensive care units: Opportunities for improvement. Arch Intern Med 2007;167:461-467.
- 53. Shaw D, J., Davidson J, E., Smilde R, I., et al: Multidisciplinary team training to enhance family communication in the ICU*. Crit Care Med 2014;42:265-271.
- 54. Lautrette A, Darmon M, Megarbane B, et al: A communication strategy and brochure for relatives of patients dying in the ICU. N Engl J Med 2007;356:469-478.
- 55. Daly BJ, Douglas SL, O'Toole E, et al: Effectiveness trial of an intensive communication structure for families of long-stay ICU patients. Chest 2010;138:1340-1348.
- 56. Lilly CM, Sonna LA, Haley KJ, et al: Intensive communication: Four-year follow-up from a clinical practice study. Crit Care Med. 2003;31:S394-9.
- 57. McCallister JW, Gustin JL, Wells-Di Gregorio S, et al: Communication skills training curriculum for pulmonary and critical care fellows. Ann Am Thorac Soc. 2015;12:520-525.
- 58. Krimshtein NS, Luhrs CA, Puntillo KA, et al: Training nurses for interdisciplinary communication with families in the intensive care unit: An intervention. J Palliat Med. 2011;14:1325-1332.

- 59. Boss RD, Urban A, Barnett MD, et al: Neonatal critical care communication (NC3):

 Training NICU physicians and nurse practitioners. J Perinatol. 2013;33:642-646.
- 60. Downar J, Knickle K, Granton JT, et al: Using standardized family members to teach communication skills and ethical principles to critical care trainees. Crit Care Med. 2012;40:1814-1819.
- 61. Campbell ML, Guzman JA: Impact of a proactive approach to improve end-of-life care in a medical ICU. Chest 2003;123:266-271.
- 62. Campbell ML, Guzman JA: A proactive approach to improve end-of-life care in a medical intensive care unit for patients with terminal dementia. Crit Care Med 2004;32:1839-1843.
- 63. Mosenthal AC, Murphy PA, Barker LK, et al: Changing the culture around end-of-life care in the trauma intensive care unit. J Trauma 2008;64:1587-1593.
- 64. Norton SA, Hogan LA, Holloway RG, et al: Proactive palliative care in the medical intensive care unit: Effects on length of stay for selected high-risk patients. Crit Care Med 2007;35:1530-1535.

- 65. Lamba S, Murphy P, McVicker S, et al: Changing end-of-life care practice for liver transplant service patients: Structured palliative care intervention in the surgical intensive care unit. J Pain Symptom Manage 2012;44:508-519.
- 66. Khandelwal N, Kross EK, Engelberg RA, et al: Estimating the effect of palliative care interventions and advance care planning on ICU utilization: A systematic review. Crit Care Med 2015;43:1102-1111.
- 67. Andereck WS, McGaughey JW, Schneiderman LJ, et al: Seeking to reduce nonbeneficial treatment in the ICU: An exploratory trial of proactive ethics intervention. Critical Care Medicine 2014;42:824-830.
- 68. Schneiderman LJ, Gilmer T, Teetzel HD: Impact of ethics consultations in the intensive care setting: A randomized, controlled trial. Crit Care Med 2000;28:3920-3924.
- 69. Schneiderman LJ, Gilmer T, Teetzel HD, et al: Effect of ethics consultations on nonbeneficial life-sustaining treatments in the intensive care setting: A randomized controlled trial. JAMA 2003;290:1166-1172.
- 70. Alam J, Ahlund S, Thalange N, et al: Psychological support for parents in UK tertiary-level neonatal units A postcode lottery. Archives of Disease in Childhood 2010;95:A104.

- 71. Tunick RA, Gavin JA, DeMaso DR, et al: Pediatric psychology critical care consultation: An emerging subspecialty. Clinical Practice in Pediatric Psychology 2013;1:42-54.
- 72. Conniff H, Pierce C, Brierley J, et al: Communication on picu: Reflections on consultant conversations with families. Pediatric Critical Care Medicine 2011;1):A71.
- 73. Carvalho AE, Linhares MB, Padovani FH, et al: Anxiety and depression in mothers of preterm infants and psychological intervention during hospitalization in neonatal ICU. Span J Psychol 2009;12:161-170.
- 74. Shaw RJ, St John N, Lilo EA, et al: Prevention of traumatic stress in mothers with preterm infants: A randomized controlled trial. Pediatrics 2013;132:e886-94.
- 75. Shaw RJ, St John N, Lilo E, et al: Prevention of traumatic stress in mothers of preterms: 6-month outcomes. Pediatrics 2014;134:e481-8.
- 76. Burns JP, Mello MM, Studdert DM, et al: Results of a clinical trial on care improvement for the critically ill. Crit Care Med 2003;31:2107-2117.
- 77. Sundararajan K, Sullivan TR, Chapman M: Determinants of family satisfaction in the intensive care unit. Anaesth Intensive Care 2012;40:159-165.
- 78. Al-Mutair A, Plummer V, Clerehan R, et al: Families' needs of critical care Muslim patients in saudi arabia: A quantitative study. Nurs Crit Care 2014;19:185-195.

- 79. Johnson JR, Engelberg RA, Nielsen EL, et al: The association of spiritual care providers' activities with family members' satisfaction with care after a death in the ICU*. Crit Care Med 2014;42:1991-2000.
- 80. Wall RJ, Engelberg RA, Gries CJ, et al: Spiritual care of families in the intensive care unit.

 Crit Care Med 2007;35:1084-1090.
- 81. Curtis JR, Treece PD, Nielsen EL, et al: Randomized trial of communication facilitators to reduce family distress and intensity of end-of-life care. Am J Respir Crit Care Med 2015;193:154-162.
- 82. Shelton W, Moore CD, Socaris S, et al: The effect of a family support intervention on family satisfaction, length-of-stay, and cost of care in the intensive care unit. Crit Care Med 2010;38:1315-1320.
- 83. Moore CD, Bernardini GL, Hinerman R, et al: The effect of a family support intervention on physician, nurse, and family perceptions of care in the surgical, neurological, and medical intensive care units. Crit Care Nurs Q 2012;35:378-387.
- 84. Perrault C, Coates A, Collinge J, et al: Family support system in newborn medicine: Does it work? follow-up study of infants at risk. J Pediatr 1986;108:1025-1030.

- 85. Kinsala E: Focus on. the VERY IMPORTANT PARTNER program: Integrating family and friends into the health care experience. Prog Cardiovasc Nurs 1999;14:103-110.
- 86. Zeschke J: Diminishing the experience of anxiety for parents of children admitted into the pediatric intensive care unit. Pediatric Critical Care Medicine 2011;1):A166-A167.
- 87. Trochelman K, Albert N, Spence J, et al: Patients and their families weigh in on evidence-based hospital design. Crit Care Nurse 2012;32:e1-e10.
- 88. Shahheidari M, Homer C: Impact of the design of neonatal intensive care units on neonates, staff, and families: A systematic literature review. J Perinat Neonatal Nurs 2012;26:260-6; quiz 267-8.
- 89. Heinemann A, Hellstrom-Westas L, Nyqvist KH: Factors affecting parents' presence with their extremely preterm infants in a neonatal intensive care room. Acta Paediatrica 2013;102:695-702.
- 90. Byers JF, Yovaish W, Lowman LB, et al: Co-bedding versus single-bedding premature multiple-gestation infants in incubators. JOGNN 2003;32:340-347.
- 91. Beck SA, Weis J, Greisen G, et al: Room for family-centered care a qualitative evaluation of a neonatal intensive care unit remodeling project. Journal of Neonatal Nursing 2009;15:88-99.

- 92. Watson J, DeLand M, Gibbins S, et al: Improvements in staff quality of work life and family satisfaction following the move to single-family room NICU design. Adv Neonatal Care 2014;14:129-136.
- 93. McAdam JL, Dracup KA, White DB, et al: Symptom experiences of family members of intensive care unit patients at high risk for dying. Crit Care Med 2010;38:1078-1085.
- 94. Stremler R, Dhukai Z, Wong L, et al: Factors influencing sleep for parents of critically ill hospitalised children: A qualitative analysis. Intensive Crit Care Nurs 2011;27:37-45.
- 95. Halm MA, Titler MG, Kleiber C, et al: Behavioral responses of family members during critical illness. Clin Nurs Res 1993;2:414-437.
- 96. Holzapfel L, Demingeon G, Piralla B, et al. A four-step protocol for limitation of treatment in terminal care. an observational study in 475 intensive care unit patients.

 Intensive Care Med 2002;28:1309-1315.
- 97. Sedillot N, Holzapfel L, Jacquet-Francillon T, et al: A five-step protocol for withholding and withdrawing of life support in an emergency department: An observational study. European Journal of Emergency Medicine 2008;15:145-149.
- 98. Sjokvist P, Sundin P, Berggren L: Limiting life support experiences with a special protocol.

 Acta Anaesthesiologica Scandinavica 1998;42:232-237.

- 99. Treece PD, Engelberg RA, Crowley L, et al: Evaluation of a standardized order form for the withdrawal of life support in the intensive care unit. Crit Care Med 2004;32:1141-1148.
- 100. Davidson JE. Facilitated Sensemaking A Strategy and New Middle-Range Theory to Support Families of Intensive Care Unit Patients. Crit Care Nurs 2010;30: 28-39.
- 101. Melnyk, BM, Bullock T, McGrath, J, et al: Translating the evidence-based NICU COPE program for parents of premature infants into clinical practice: impact on nurses' evidence-based practice and lessons learned. J Perinat Neonatal Nurs 2010; 24: 74-80.
- 102. Curtis JR, White DB. Practical guidance for evidence-based ICU family conferences.

 Chest 2008; 134: 835-43. doi: 10.1378/chest.08-0235.
- 103. Baile WF, Buckman R, Lenzia R, et al: SPIKES-A six-step protocol for delivering bad news: application to the patient with cancer. Oncologist 2000; 5: 302-11.

Table 1. Recommended Applications of FCC Guidelines on Nursing Interventions, Nurse Leaders and Nursing Research

Guideline Areas	Direct Nursing Care	ICU Nursing Leadership	Nursing Research
Family Presence:	Encourage family presence,	Amend resuscitation team policies to	Identify outcomes associated
Family visitation policies	welcome family on rounds,	add a family liaison, provide education	with family facilitators. Studies
Presence during rounds	prepare family for presence	for clinical nurses on how to adjust to	looking at 'presence preference'
Presence during	on rounds, offer presence	family presence, offer debriefings for	and outcomes associated with
resuscitation	during resuscitation.	staff following change in practice.	adhering to the preference either
			to stay home or be present are
			needed.
Family Support:	Teach families meaningful	Develop family education programs,	Evaluate outcomes associated
Assisting in care	bedside care activities, refer	adopt a framework such as facilitated	with post-ICU clinics, peer to peer
Post ICU clinics	families to peer-to-peer	sense-making ¹⁰⁰ or Creating	support programs and methods
	support programs, write	Opportunities for Parent	to teach family members how to

Use of diaries and follow	caring messages in diaries	Empowerment (COPE) ¹⁰¹ to support	function in the surrogate
up	and teach families how to	family inclusion in care. Develop a peer-	decision-maker role are
Surrogate decision making	use the diary. Refer patients	to-peer support program. Develop a	warranted. Further study is
	for debriefing on dairies at	diary program.	needed to understand effective
	end of ICU stay or post-		methods to launch a diary
	discharge.		program and associated
			outcomes.
	I	L	
Communication:	Advocate for family	Develop structure for conferences.	Best practices in development of
Routine family meetings	conferences, assess and	Consider adoption of communication	communication training programs
Communication training	report potential conflict	methods, such as VALUE ¹⁰² or	have yet to be discovered. The
(role/play, simulation)	between family and clinical	SPIKES. ¹⁰³ Provide training	nature of the programs (discipline
	team. Be aware of	opportunities for staff to develop best	specific or interdisciplinary),
	importance of empathetic	practice communication strategies.	duration of programs, and style of
	listening and proactive	Ensure debrief facilities available.	instruction require further study

	communication with	Develop written information for	to determine what yields the best
	families.	families about specific ICU experiences.	clinical/family outcomes.
Consultation Services:	Be aware of local	Consider available consultation	Evaluation work to assess and
Ethics	consultation services	services, identify gaps in service	quantify outcomes of nurses as
Palliative care	available e.g. palliative care,	provision, and work to develop future	part of interdisciplinary team
Psychological	ethics consultation,	service plans in order to support ICU	required. Determine impact of
support/counseling	psychologist services, social	families. Ensure information available	early psychological interventions
Social work/physical	workers and spiritual	for staff to make timely referrals.	for families. More detailed
therapy	support. Know how and	Consider developing role of family	exploration of specialized family
	when to refer families,	navigators (care coordinator or	support liaisons and education to
	especially in conflict and	communication facilitator) for family	support this role is needed.
	end-of-life situations.	members.	

Operations and Physical	Engage in decision-making	Develop and implement protocols to	Evaluate effectiveness of clinical
Environment:	about care and support	ensure adequate and standardized use	protocols at end-of-life. Policies
Engagement in decisions	family members in this.	of sedation and analgesia during	of family centered care are widely
ICU Design (noise	Know local and hospital-	withdrawal of life support.	endorsed, yet there is no
reduction, comfort)	wide policies the support	Review/develop hospital-wide FCC	established best practice to
End of Life support	FCC. Consider noise levels	policies. Ensure noise awareness and	standardize these efforts. Simple
	within the ICU environment	noise reduction practices are included	nursing issues, such as the effect
	and take action to minimize	in orientation programs for new ICU	of consistency in staffing, or the
	disruption to families e.g.	staff.	delivery of culturally sensitive
	use of single room, reduce	Consider availability of family sleep	care has not been evaluated in
	monitor alarms. Monitor for	surfaces in/near to the ICU.	the ICU environment. Empirical
	signs of sleep deprivation in		evidence regarding outcomes of
	families and work to		family space in ICU design is
			required.

develop a schedule of rest	
periods.	