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AHC Media

Family Presence During Pediatric Resuscitations and Invasive Procedures

Family presence during pediatric resuscitation was a topic long neglected. The impact we have on a child in cardiopulmonary arrest is minimal; the impact we have on a family lasts their lifetime. We technically switch from pediatric resuscitation to family resuscitation when all medical efforts have been exhausted. The authors provide a critical review of the literature and ways to assist the family who has just lost their child.

— Ann M. Dietrich, MD, Editor

Introduction

Pediatric resuscitations are relatively rare in emergency medicine, in part due to public health measures, including vaccinations, and public safety measures, such as child restraints and the back to sleep campaign. It has been estimated that approximately 40,000 American children younger than age 15 years die each year, and 20% die or are pronounced dead in outpatient sites, primarily the emergency department (ED).[1] The primary causes of pediatric death under age 14 include accidents (unintentional injuries); congenital malformations, deformations, and chromosomal abnormalities; and cancer. (*See Table 1.*)

Pediatric resuscitations pose specific challenges in the ED, including challenges regarding dosing, procedures, and family and staff stress. There is an important obligation to support the grieving family at the end of life and following a pediatric death. This may be particularly difficult because there is not a pre-existing relationship with the patient and family.

Traditionally, health care personnel believed that family presence during a resuscitation, especially that of a child, would create excessive stress for all parties involved. This belief has been challenged and a new tradition established regarding the concept of family presence at the bedside during resuscitative efforts. Family presence is defined as the attendance of family member(s) in a location that affords visual or physical contact with the patient during resuscitation or an invasive procedure.[2] Numerous studies have been published demonstrating the psychological benefits of family presence during resuscitation and numerous organizations have now endorsed this practice.

The practice was studied extensively in the 1990s, as organizations and authors began to challenge the dogma that it was detrimental to allow families to witness resuscitative efforts. Numerous studies demonstrated the beneficial effects to grieving families.[3,4,5,6,7]

In the ensuing time period, the practice of allowing families to be present during resuscitation became more commonplace. Today, there is widespread variation in whether families are invited to be present, who makes the decision, the use of a facilitator, and organizational and institutional policies and guidelines.

The acceptance of family presence during a pediatric resuscitation has evolved

Executive Summary

- ACEP, AAP, and several other prominent pediatric and critical care organizations have endorsed the practice of offering parents the choice about being present during invasive procedures and resuscitations.
- The majority of the literature supports providing the parents the choice to be able to remain with their children during procedures, including resuscitative efforts.
- There have also been psychological benefits with family members who remained present during resuscitations by lowering their anxiety and depression scores, having fewer disturbing memories, and lowering degrees of intrusive imagery and post-traumatic avoidance behavior.

since the initial endorsement by the American Heart Association (AHA) in 2000,[8] followed by that of the American Academy of Pediatrics (AAP), the American College of Emergency Physicians (ACEP), and the Society of Critical Care Medicine. In September 2003, a National Consensus Conference on Family Presence During Pediatric Cardiopulmonary Resuscitation and Procedures was held, and representatives from 18 national organizations agreed on recommendations for family presence.[9]

The AAP and ACEP collaborated on two important joint policy statements, "Patient- and Family-Centered Care and the Role of the Emergency Physician Providing Care to a Child in the Emergency Department" and "Death of a Child in the Emergency Department" (*See Table 2 and Table 3*).

Compassionate care at the end of life is an important component of emergency care. ACEP policy underscores the importance of compassionate multidisciplinary care and encourages family presence near the end of life (*See Table 4*). ACEP, AAP, and several other prominent pediatric and critical care organizations have endorsed the practice of offering parents the choice about being present during invasive procedures and resuscitations. Despite numerous published research studies demonstrating benefits, family presence in some locations remains a controversial practice.

Family Perspectives

Despite organizational endorsements of family presence, there still remains great apprehension for various reasons, including parent's potential dissatisfaction, anxiety among family members and caregivers, the possible ill effects of witnessing the procedure, and the fear of possible disruptive behavior.

The question has been addressed about the link between satisfaction and one's involvement or presence during resuscitation. It is well accepted that pediatric care should be centered on the parents being essential partners in their children's care; parents want the choice. Through decades of research, it appears to be a growing trend that parents would rather be present than not. Bauchner et al reported in 1991 that less than half of the parents surveyed would want to be present if their child was undergoing an invasive procedure in the ED.[10] In comparison, a decade later, according to Boie et al, 83% of parents would want to be present during resuscitation efforts.[8] The conclusions that have been echoed in the literature support that parents wish to have a choice about being present. However, one survey conducted reported no differences in satisfaction, involvement, nor change in preferences among a group of parents present and not present during resuscitation.[11] These findings of no significant relationship between parental satisfaction and self-reported presence during resuscitation are consistent with a randomized, controlled trial in 2000 and an observational study in 1996 reporting comparable levels of satisfaction between parents present and not present during their children's

Table 1. Pediatric Mortality and Leading Causes of Death

Pediatric Mortality	Ages 1-4 years	Ages 5-14 years
Number of deaths in 2010	4316	5279
Deaths per 100,000 population	26.5	12.9

Leading Causes of Death	
Ages 1-4 years	**Ages 5-14 years**
Accidents (unintentional injuries)	Accidents (unintentional injuries)
Congenital malformations, deformations and chromosomal abnormalities	Cancer

Source: Centers for Disease Control. FastStats. Child Health. Available at: www.cdc.gov/nchs/fastats/children.htm. Accessed Feb. 18, 2014.

Table 2. Patient- and Family-centered Care and the Role of the Emergency Physician

Patient- and Family-centered Care (PFCC) and the Role of the Emergency Physician Providing Care to a Child in the ED

The American Academy of Pediatrics and the American College of Emergency Physicians support the following:

- Knowledge of the patient's experience and perspective is essential to practice culturally effective care that promotes patient dignity, comfort, and autonomy.
- The patient and family are key decision makers regarding the patient's medical care.
- The interdependence of child and parent, patient and family wishes for privacy, and the evolving independence of the pediatric patient should be respected.
- The option of family member presence should be encouraged for all aspects of ED care.
- Information should be provided to the family during interventions, regardless of the family's decision to be present or not.
- PFCC encourages collaboration with other health care professionals along the continuum of care and acknowledgment of the importance of the patient's medical home to the patient's continued well-being.
- Institutional policies should be developed for provision of PFCC through environmental design, practice, and staffing in collaboration with patients and families.

Reaffirmed by the ACEP Board of Directors, April 2012.
Originally approved by the ACEP Board of Directors and the American Academy of Pediatrics Board of Directors, June 2006.

Source: American College of Emergency Physicians. Patient- and Family-Centered Care and the Role of the Emergency Physician Providing Care to a Child in the Emergency Department. Available at: www.acep.org/Clinical—Practice-Management/Patient–and-Family-Centered-Care-and-the-Role-of-the-Emergency-Physician-Providing-Care-to-a-Child-in-the-Emergency-Department/. Accessed Feb. 18, 2014.

anesthesia induction.[12,13] In general, parents do not want clinicians to make a decision on their behalf whether they should stay or leave their child's bedside.[8] Their presence has been shown to reduce anxiety for both the patient and the family,[6,14,15] and also to console during the grieving process.[16] The majority of the literature supports providing the parents the choice to be able to remain with their children during procedures, including resuscitative efforts.[4,8,17] (*See Table 5.*)

There is always concern that the parents' presence might result in interference with medical care. However, a survey of 274 parents who were enrolled in a multiphase pre-post survey of clinician perceptions and practice from the perspective of clinicians and parents experiencing the same procedure indicated that interference on the part of the parents occurs infrequently, about 2% of the time.[18] In addition, there were no significant adverse effects found with the behavior among family members during an invasive procedure or during resuscitation.[19,20,21] On the contrary, family presence can be useful for gathering important information that can prove to be pertinent for the patient's continued care, as well as for providing physical and emotional support for the pediatric patient during a procedure. Lastly, experience has shown that parents accept the death of their child, and have an improved grieving experience, when they have been present during the resuscitation.

As family-centered care has been more widely accepted and implemented within pediatric intensive care units and EDs across the nation, there still lacks uniformity among the implementation of family presence. Two separate concerns with the universal acceptance of family presence that remain important active topics include the long-term effects on the family members and the effects of other family members who happen to be present during a procedure and/or resuscitation because of their proximity to the room. This includes the possible ill effects of parent presence on parental stress, coping, and bereavement.[21,22,23] Most parents believed that their presence during invasive procedures and resuscitations helped their child or helped them.[24] Parents agreed that their presence provided them reassurance in allowing them to let their child know they loved him/her and helped them to know that everything possible had been done to treat their child.[25] There have also been psychological benefits with family members who remained present during resuscitations by lowering their anxiety and depression scores, having fewer disturbing memories, and lowering degrees of intrusive imagery and post-traumatic avoidance behavior 3 months after the event.[7] Lastly, the topic of other family's presence during invasive procedures and/or resuscitation has yet to be fully explored. One survey conducted by Gaudrealt et al reported the impact of parents' witnessing a critical resuscitative event

on another child in the pediatric intensive care unit, which suggests that uniform institutional guidelines should be implemented.[26] There is some evidence that family presence may be associated with post-traumatic stress disorder.[27] Family education, counseling, and follow-up support are essential.

Several studies have documented qualitative comments from families who have been present during pediatric resuscitations:[20,21,39]

"I wouldn't want my loved one to die with strangers."

"It would be very important to be with him in his last moments of life."

"We see stuff like this on TV—it's not such a shock for people. Families will know if they can handle it."

"I would have less guilt to cope with if I had been there."

"Love has many forms."

"I needed to be there."

"Natural"

"Powerful"

"Scary, but I'd still rather be there."

"It would have been harder to sit in the waiting room's sterile environment."

"The experience he is going through, we are going through together."

"It was hard watching it, but it made me feel better because I knew what they were doing to my baby."

"Treasuring the memories of those last minutes together"

"Because I'm the mother, he's my child, and my obligation is for me to be there by his side."

Health Care Provider Perspectives

Understanding perspectives of health care providers can facilitate the promotion of family presence during resuscitation and barriers to this important practice.

Several recent studies have demonstrated that a majority of health care providers favor family presence, ranging from 76-97%.[28,29,30,31,32] A recent study by Gold et al studied 1200 pediatric critical care and emergency medicine providers from professional association mailing lists. Of the 521 who responded, 83% reported participation in pediatric resuscitation with family members present and, of those, more than half thought it was helpful for the family and two-thirds believed that parents wanted the option.

Table 3. Death of a Child in the Emergency Department

Joint Statement by the American College of Emergency Physicians and the American Academy of Pediatrics

The death of a child in the emergency department (ED) is an event with emotional, cultural, procedural, and legal challenges that often distinguish it from other deaths.

The American College of Emergency Physicians and the American Academy of Pediatrics support the following principles:

- **Emergency physicians should use a family-centered and team-oriented approach when a child dies in the ED.**
- **Emergency physicians should provide personal, compassionate, and individualized support to families while respecting social, religious, and cultural diversity.**
- **Emergency physicians should notify the child's primary care physician of the death and, as appropriate, work with the primary care physician in follow-up of postmortem examination results.**
- **EDs should incorporate procedures to organize resources and staff to provide a coordinated response to a child's death. These include:**
  - **Working with the primary care physician to ensure notification of subspecialty physicians of the death of their patient.**
  - **Educating staff as to the resources available to assist families.**
  - **Facilitating identification and management of a medical examiner's case and identification and reporting of cases of child maltreatment.**
  - **Promulgating liaisons with other individuals and organizations that may assist families, communities, and staff.**
  - **Assisting ED staff, out-of-hospital providers, and others who are experiencing critical incident stress.**
  - **Facilitating organ procurement and obtaining consent for postmortem examinations when appropriate.**

Reaffirmed by ACEP Board of Directors and the American Academy of Pediatrics, October 2008.
Originally approved by ACEP Board of Directors, February 2002, and the American Academy of Pediatrics Board of Directors, June 2002.

Source: American College of Emergency Physicians. Death of a Child in the Emergency Department. Available at: www.acep.org/Clinical—Practice-Management/Death-of-a-Child-in-the-Emergency-Department/. Accessed Feb. 18, 2014.

Table 4. Ethical Issues at the End of Life

The American College of Emergency Physicians believes that:

- **Emergency physicians play an important role in providing care at the end of life (EOL).**
- **Helping patients and their families achieve greater control over the dying process will improve EOL care.**
- **Advance care planning can help patients formulate and express individual wishes for EOL care and communicate those wishes to their health care providers by means of advance directives (including state-approved advance directives, DNR orders, living wills, and durable powers of attorney for health care).**

To enhance EOL care in the emergency department, the American College of Emergency Physicians believes that emergency physicians should:

- **Respect the dying patient's needs for care, comfort, and compassion.**
- **Communicate promptly and appropriately with patients and their families about EOL care choices, avoiding medical jargon.**
- **Elicit the patient's goals for care before initiating treatment, recognizing that EOL care includes a broad range of therapeutic and palliative options.**
- **Respect the wishes of dying patients including those expressed in advance directives. Assist surrogates to make EOL care choices for patients who lack decision-making capacity, based on the patient's own preferences, values, and goals.**
- **Encourage the presence of family and friends at the patient's bedside near the end of life, if desired by the patient.**
- **Protect the privacy of patients and families near the end of life.**
- **Promote liaisons with individuals and organizations in order to help patients and families honor EOL cultural and religious traditions.**
- **Develop skill at communicating sensitive information, including poor prognoses and the death of a loved one.**
- **Comply with institutional policies regarding recovery of organs for transplantation.**
- **Obtain informed consent from surrogates for postmortem procedures.**

Revised and approved by the ACEP Board of Directors titled, "Ethical Issues at the End of Life," June 2008.
Originally approved by the ACEP Board of Directors titled, "Ethical Issues in Emergency Department Care at the End of Life," September 2003.

Source: American College of Emergency Physicians. Ethical Issues at the End of Life. Available at: www.acep.org/Clinical—Practice-Management/Ethical-Issues-at-the-End-of-Life/. Accessed Feb. 18, 2014.

Ninety-three percent would allow family presence in some situations, but not all.[33] Other studies have also demonstrated that providers believe that family members should be allowed to be present for some procedures, but not all.[34]

Health care providers have expressed specific concerns associated with allowing family presence during resuscitation and invasive procedures. Some clinicians are distressed about the possibility of parental interference with patient care, although several studies have demonstrated that this concern is not valid.[30] Another concern is the potential distraction to providers' attention on the resuscitative efforts. Other concerns include performance anxiety, psychological stress to families, staffing shortages, high patient volumes, hindering educational training, potential violation of patient confidentiality, and lastly, that this practice may trigger litigation by inexperienced observers misunderstanding the medical activities.[34]

Published evidence has refuted many of these provider concerns. A recent study showed that family-witnessed CPR did not affect resuscitation characteristics, patient survival, or the level of emotional stress in the medical team and did not result in medicolegal claims.[35] Family presence does not interfere with patient care.[21] Despite provider concerns about potential medicolegal risk, evidence does not support any increase in risk when allowing family presence.[36]

A recent study demonstrated that although provider stress is common following resuscitative efforts, provider stress is unaffected by presence or absence of family in the room.[37] Providers who have experience with family presence favor the practice more than those without experience.[5] Provider education can have an important impact on allowing family presence.[38,39]

Residents have specific concerns regarding procedure or resuscitation failure or impact on training.[40] Faculty education of residents is important to relieve unfounded

Table 5. Experience of Families During Cardiopulmonary Resuscitation in a Pediatric Intensive Care Unit

Question	Response	N	%
Where were you located?	Outside room	9	43
	Inside room	4	19
	Near bed	8	38
Do you wish you could have been located somewhere else?	Yes	4	19
	No	17	81
Were you scared?	Yes	6	29
	No	15	71
Did you leave the room at any time?	Yes	3	14
	No	18	86
Did you have contact with your child?	Yes	12	57
	No	9	43
Do you believe that your presence brought comfort to your child?	Yes	15	71
	No	3	14
	Don't know	3	14
Do you believe that your presence helped you cope with the death of your child?	Yes	14	67
	No	6	29
	No answer	1	5
Do you recommend being present for CPR to other families?	Yes	16	76
	No	1	5
	No opinion	4	19
Name one thing that helped most during CPR	Being present	6	43
	Staff updates	5	24
	Other family present	1	5
	Hope	1	5
	Touching patient	1	5
	No answer	4	19
Anything the staff could have done to help during CPR?	Better updates	1	5
	Professional behavior	1	5
	Nothing	16	76
	No answer	3	14

Source: Tinsley C, Hill JB, Shah J, et al. Experience of families during cardiopulmonary resuscitation in a pediatric intensive care unit. *Pediatrics* 2008;122:e799-804.

concerns of emotional stress and medicolegal risk. In general, nurses are highly supportive of family presence.[41,42,43] The Emergency Nurses Association strongly supports family presence, recently revising its first educational program in 1995, titled Presenting the Option for Family Presence.[44]

The AHA supports family presence as taught during the Pediatric Advanced Life Support Course, starting with its 2002 update as one of the evidence-based changes. In its 2005 guideline, the AHA states, "In the absence of data documenting harm and in light of data suggesting that it may be helpful, offering select family members the opportunity to be present during a resuscitation seems reasonable and desirable (assuming that the patient, if an adult, has not raised a prior objection)."[45]

Table 6. Recommendations on Family Presence During Pediatric Procedures and Cardiopulmonary Resuscitation

These recommendations have been endorsed by the Ambulatory Pediatrics Association and by the American Academy of Pediatrics

Consider family presence (FP) as an option for all families during pediatric procedures and CPR.

Offer FP as an option when the care to the child will not be interrupted and after an assessment for:

- Combative and threatening behavior
- Extreme emotional volatility
- Behaviors consistent with intoxication or altered mental status
- Disagreement among family members
- Threat to the safety of the health care team

If family is not provided with the option for FP, document the reasons why FP was not offered.

Consider the safety of the health care team at all times.

In-hospital transport and transfer setting should have written policies and procedures for FP; these should include but not be limited to:

- Definition of a facilitator
- Definition of family member, legal guardian, etc.
- Definition of procedure
- Preparation of the family, including explanations, descriptions, and role of the family
- Process of escorting the family in and out of the treatment room
- Handling disagreements
- Providing support for the staff

Health care policies regarding FP should undergo legal review.

Educate all health care providers:

- Include education in FP in all core curricula for health care providers at all levels
- Include this education also in health care settings as part of hospital orientation

Promote research to include, but not be limited to, investigation of:

- Best methods for education of providers
- Long-term outcomes of FP on the patient, family, and staff
- Best means of approaching and instructing families
- Best practices for FP
- Reasons why families may decline the opportunity to be present
- Cost-effectiveness of FP
- Potential legal ramifications of implementing or not implementing FP
- Relation of FP to consent issues regarding tissue donation or autopsy
- Relation of FP to pain management

Source: Henderson DP, Knapp JF. Report of the National Consensus Conference on Family Presence During Pediatric Cardiopulmonary Resuscitation and Procedures. *J Emerg Nurs* 2006;32:23-29.

Practical Guidelines

Institutional guidelines and policies can be helpful in promoting family presence. Unfortunately, a recent study of emergency and critical care nurses found that only 5% of hospitals had a policy on family presence and only 27% of the nurses were aware of the Emergency Nurses Association guidelines.[46] A recent consensus conference of 18 professional organizations developed recommendations for the implementation of family presence (*See Table 6*).

The Creation and Implementation of Written Protocol/ Guidelines

It is essential to have solidified a structured set of guidelines that will formalize the family presence procedure and ensure the best experience.[47] A successful protocol may include the use of trained facilitators, family assessment, number of visitors, preparing the family, facilitator's role in the care area, surrogate decision making, post-event family support, and post-event staff support.

The Emergency Nurses Association recommends that facilities develop a family presence policy that identifies "project champions" — people who will be committed to the policy's realization.[48] With this being said, there should be a committee organized to develop such a set for every institution. It would be in the best interest to include clinicians, mid-level providers, nursing staff, pastoral care, and parents to be an active part of the committee. The providers should be from various medical fields including emergency medicine, general pediatrics, pediatric intensive care, social services/care, and child life services. Importantly, it would be prudent for one to include parents who have had both positive and negative experiences with being present during an invasive procedure and/or resuscitation. This would also include those parents who were at a hospital that

did not have an implemented protocol, and were never asked whether they would want to be present.

Once the protocol is established, education and communication are key, and should include formal training sessions for all medical personnel. Furthermore, an in-depth review of the protocol will be carried out, as well as training exercises and workshops with simulation scenarios. Specifically, a program should be established to enhance relational and communication skills (PERCS) that includes parent facilitator training workshops to employ highly realistic simulation with pediatric mannequins and professional actors portraying parents.[49,50,51] Additionally, increasing awareness has been noted as an essential component to the communication process. Hosting speakers to discuss the research on the topic of family presence during a resuscitation and providing written documentation of this support would be part of the mandatory training.[29] For those who have committed to this role but are unable to attend the training workshop, an educational DVD and self-learning packet should be made available.[52]

Assignment of Key Players

A person with a strong clinical background and plenty of experience should be assigned the role of the supportive staff member (SSM) for the family members during an invasive procedure and/or resuscitation. This person should accept the job voluntarily, should be provided sufficient training regarding the role he/she is to perform, and more importantly should be committed to obtaining additional education on the bereavement and supportive process that will need to take place. The institution should schedule this specific health care role daily to guarantee the availability of trained personnel around the clock. Lastly, this role will also include facilitating a debriefing session for both the family and the resuscitation team as needed or requested. (*See Table 7.*)

Table 7. The Ideal Supportive Staff Member

- A person who is sincerely interested in the role
- A person who has been working clinically for at least 5 years (at least an RN training level)
- A person who is PALS and ACLS/BLS trained and current with his/her certifications
- A person who has been a staff member at the particular institution for at least 5 years
- A person who is committed to completing formal training (instruction and simulation) prior to the start of the job
- A person who is willing to work as a full-time employee for the institution
- A person who believes in the family choice during pediatric invasive procedures and/or resuscitation
- A person who has strong leadership and communication skills
- A person who feels very comfortable with hosting a debriefing session
- A person who has administrative experience

The Procedure

The SSM should first speak with the family members outside of the medical room to afford better communication and prepare them for the experience. The SSM should directly ask about their wishes to be present, and should then explain in simple terms what is expected during the time they are in the medical room. The SSM then will need to make a decision based on his/her feelings about whether the family member(s) can cope with being present.[40] It is also recommended that the physician involved with the resuscitation make the final determination of family presence, and most importantly, if there are any suspicions of abuse, the SSM has the right to refuse to allow family to be present.[21] It should be noted that the number of people allowed to be present should be limited. Lastly, the SSM should review with the family members what is going to take place and further discuss their expectations. Once in the room, the family members will be in continued direct communication with the SSM. There should be a designated area in the resuscitation room that provides adequate seating for the family as well as a direct line of vision of the patient care. Family members should be warned that if any disruptive behavior ensues, they will be immediately escorted outside of the room and allowed to return only if they are able to control their actions. Additionally, family members will be allowed to leave and reenter the room at their leisure if they become uncomfortable with the situation. And if they so choose, family also can be given the option to sit in another room and await periodic updates from the SSM. The SSM remains dedicated to the family and should be in continuous communication during the resuscitation by providing support, guidance, and information. The SSM should allow for open dialogue and questions. Lastly, the SSM will be able to facilitate the families' ability to touch and/or talk to the patient during the resuscitation, without compromising the resuscitation and/or procedure environment.

Lastly, the SSM will be responsible for the bereavement process as well as the staff debriefing session. During the minutes following an unsuccessful resuscitation, the SSM should remain available to address the family's concerns and questions. The SSM should be instrumental in

directing the communication that will follow between the physician and the family. The SSM should be able to provide emotional support during this time of unrest for the family, and can call in additional support from pastoral care and/or social services depending on the availability at the current institution. Clearly this is a difficult role, but is vital with the initiation of the family's healing process. Once again, it should remain part of the process so that the entire resuscitation teams have the opportunity to further discuss the events of the resuscitation as directed by the SSM.

References

1. Knapp J, Mulligan-Smith D, American Academy of Pediatrics Committee on Pediatric Emergency Medicine. Death of a child in the emergency department. *Pediatrics* 2005;115:1432-1437.
2. Emergency Nurses Association. Family Presence at the bedside during invasive procedures and cardiopulmonary resuscitation. 2005. Available at: www.ena.org/about/position/pdfs/4e6c256b26994e319f66c65748bfbdbf.pdf. Accessed Feb. 1, 2014.
3. Meyers TA, Eichhorn DJ, Guzzetta CE. Do Families want to be present during CPR? A retrospective survey. *J Emerg Nurs* 1998;24:400-405.
4. Sacchetti A, Paston C, Carraccio C. Family members do not disrupt care when present during invasive procedures. *Acad Emerg Med* 2005;12:477-479.
5. Powers KS, Rubenstein JS. Family presence during invasive procedures in the pediatric intensive care unit: A prospective study. *Arch Pediatr Adolesc Med* 1999;153:955-958.
6. Robinson SM, Mackenzie-Ross S, Campbell Hewson GL, et al: Psychological effect of witnessed resuscitation on bereaved relatives. *Lancet* 1998;352:614-617.
7. Boie ET, Moore GP, Brummet C, et al. Do parents want to be present during invasive procedures performed on their children in the emergency department? A survey of 400 parents. *Ann Emerg Med* 1999;34:70-74.
8. American Heart Association in Collaboration with the International Liaison Committee on Resuscitation. Guidelines 2000 for cardiopulmonary resuscitation and emergency cardiovascular care, pediatric advanced life support and pediatric basic life support. *Circulation* 2000;102(Suppl):1253-1342.
9. Henderson DP, Knapp JF. Report of the National Consensus Conference on Family Presence During Pediatric Cardiopulmonary Resuscitation and Procedures. *J Emerg Nurs* 2006;32:23-29.
10. Bauchner H, Waring C, Vinci R. Parental presence during procedures in an emergency room: Results from 50 observations. *Pediatrics* 1991;87:544-548.
11. Ebrahim S, Singh S, Parshuram CS. Parental satisfaction, involvement, and presence after pediatric intensive care unit admission. *J Crit Care* 2013;28:40-45.
12. Blesch P, Fisher ML. The impact of parental presence on parental anxiety and satisfaction. *AORN J* 1996;63:761-768.
13. Palermo TM, Tripi PA, Burgess E. Parental presence during aneasthesia induction for outpatient surgery of the infant. *Paediatr Anaesth* 2000;10:487-491.
14. Wolfram RW, Turner ED. Effects of parental presence during children's venipuncture. *Acad Emerg Med* 1996:3:58-64.
15. Haimi-Cohen Y, Amir J, Harel L, et al. Parental presence during lumbar puncture: Anxiety and attitude toward the procedure. *Clin Pediatr* 1996:35:2-4.
16. Tinsley C, Hill JB, Shah J, et al. Experience of families during cardiopulmonary resuscitation in a pediatric intensive care unit. *Pediatrics* 2008;122:e799-804.
17. Mangurten J, Scott SH, Guzzetta CE, et al. Effects of family presence during resuscitation and invasive procedures in a pediatric emergency department. *J Emerg Nurs* 2006:32:225-233.
18. Curley M, Meyer E, Scoppettuolo LA, et al. Parent presence during invasive procedures and resuscitation: Evaluating a clinical practice change. *Am J Respir Crit Care Med* 2012;186:1133-1139.
19. Sacchetti A. Paston C, Carraccio C. Family members do not disrupt care when present during invasive procedures. *Acad Emerg Med* 2005;12:477-479.
20. O'Connell KJ, Farah MM, Spandorfer P, Zorc JJ. Family presence during pediatric trauma team activation: An assessment of a structured program. *Pediatrics* 2007;120:e565-574.
21. Dudley NC, Hansen KW, Furnival RA, et al. The effect of family presence on the efficiency of pediatric trauma resuscitations. *Ann Emerg Med* 2009;53:777-784.
22. Compton S, Levy P, Griffin M, et al. Family-witnessed resuscitation: Bereavement outcomes in an urban environment. *J Palliat Med* 2011;14:715-721.
23. Leske JS, Brasel K. Effects of family-witnessed resuscitation after trauma prior to hospitalization. *J Trauma Nurs* 2010;17:11-18.
24. Dingeman RS, Mitchell EA, Meyer EC, Curley MA. Parent presence during complex invasive procedures and cardiopulmonary resuscitation: A systematic review of the literature. *Pediatrics* 2007;120:842-854.
25. Mangurten JA, Scott SH, Guzzetta CE, et al. Family presence: Making room. *Am J Nurs* 2005;105:40-48.
26. Gaudrealt J, Carnevale FA: Should I stay or should I go? Parental struggles with witnessing resuscitative measure on another child in the pediatric intensive care unit. *Pediatr Crit Care Med* 2012:13:146-151.
27. Compton S, Grace H, Madgy A, Swor RA. Post-traumatic stress disorder symptomology associated with witnessing unsuccessful out-of-hospital cardiopulmonary resuscitation. *Acad Emerg Med* 2009;16:226-229.
28. Meyers TA, Eichhorn DJ, Guzzetta CE, et al. Family presence during invasive procedures and resuscitation. *Am J Nurs* 2000;100:32-42.
29. Fein JA, Ganesh J, Alpern ER. Medical staff attitudes toward family presence during pediatric procedures. *Pediatr Emerg Care* 2004;20:224-227.
30. Beckman AW, Sloan BK, Moore GP, et al. Should parents be present during emergency department procedures on children, and who should make that decision? A survey of emergency physicians and nurse attitudes. *Acad Emerg Med* 2002;9:154-158.
31. Waseem M, Ryan M. Parental presence during invasive procedures in children: What is the physician's perspective? *South Med J* 2003;96: 884-887.
32. Boudreaux ED, Francis JL, Loyacano T. Family presence during invasive procedures and resuscitation in the emergency department: A critical review and suggestions for

future research. *Ann Emerg Med* 2002;40:193-205.
33. Gold KJ, Gorenflo DW, Schwenk TL, Bratton SL. Physician experience with family presence during cardiopulmonary resuscitation in children. *Pediatr Crit Care Med* 2006;7:428-433.
34. McClenathan BM, Torrington KG, Uvehara CF. Family member presence during cardiopulmonary resuscitation: A survey of US and international critical care professionals. *Chest* 2002;122:2204-2211.
35. Jabre P, Belpomme V, Azoulay E, et al. Family presence during cardiopulmonary resuscitation. *N Engl J Med* 2013;368:1008-1018.
36. Nibert L, Ondrejka D: Family presence during pediatric resuscitation: An integrative review for evidence-based practice. *J Pediatr Nurs* 2005;20:145-147.
37. Boyd R: Witnessed resuscitation by relatives. *Resuscitation* 2000;43:171-176.
38. Edwards EE, Despotopulos LD, Carroll DL. Changes in provider perceptions of family presence during resuscitation. *Clin Nurse Spec* 2013;27:239-244.
39. Mian P, Warchal S, Whitney S, et al. Impact of a multifaceted intervention on nurses' and physicians' attitudes and behaviors toward family presence during resuscitation. *Crit Care Nurse* 2007;27:52-61.
40. Bradford KK, Kost S, Selbst SM, et al. Family member presence for procedures: The resident's perspective. *Ambul Pediatr* 2005;5:294-297.
41. Fulbrook P, Albarran JW, Latour JM. A European survey of critical care nurses' attitudes and experiences of having family members present during cardiopulmonary resuscitation. *Int J Nurs Stud* 2005;42:557-568.
42. Ellison S. Nurses' attitudes toward family presence during resuscitative efforts and invasive procedures. *J Emerg Nurs* 2003;29:515-521.
43. MacLean SL, Guzzetta CE, White C, et al. Family presence during cardiopulmonary resuscitation and invasive procedures: Practices of critical care and emergency nurses. *Am J Crit Care* 2003;12:246-257.
44. Eckle, N., Ed. Presenting the option for Family Presence. Dallas, TX: Emergency Nurses Association; 2007.
45. American Heart Association. 2005 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation* 2005;112:(Suppl):IV1-IV211.
46. MacLean SL, Guzzetta CE, White C, et al. Family presence during cardiopulmonary resuscitation and invasive procedures: Practices of critical care and emergency nurses. *J Emerg Nurs* 2003;29:208-221.
47. Bradley C, Lensky M, Brasel K. Implementation of a family presence during resuscitation protocol #233. *J Palliat Med* 2011;14:98-99.
48. Emergency Nurses Association. Presenting the option for family presence. 2nd ed. Park Ridge, IL: The Association; 2001.
49. Browning DM, Meyer EC, Truog RD, Solomon MZ. Difficult conversations in health care: Cultivating relational learning to address the hidden curriculum. *Acad Med* 2007;82:905-913.
50. Meyer EC, Sellers DE, Browning DM, et al. Difficult conversations: Improving communication skills and relational abilities in health care. *Pediatr Crit Care Med* 209;10:352-359.
51. Meyer EC, Brodksy D, Hansen AR, et al. An interdisciplinary, family-focused approach to relational learning in neonatal intensive care. *J Perinatol* 2011;31:212-219.
52. Curley M. *Cardiovascular and Critical Care Nursing Program at Children's Hospital, Boston*. Training parent facilitators. Brooklyn, NY: Icarus Films/Fanlight Productions; 2007.

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Pediatric Emergency Medicine Reports

CME Objectives

Upon completion of this educational activity, participants should be able to:

- recognize specific conditions in pediatric patients presenting to the emergency department;
- describe the epidemiology, etiology, pathophysiology, historical and examination findings associated with conditions in pediatric patients presenting to the emergency department;
- formulate a differential diagnosis and perform necessary diagnostic tests;
- apply up-to-date therapeutic techniques to address conditions discussed in the publication;
- discuss any discharge or follow-up instructions with patients.

CME Questions

1. What is the leading cause of death in children under age 4?
   a. Accidents
   b. Cancer
   c. Congenital disorders
   d. Heart disease
   e. Pulmonary disease

2. What is the leading cause of death in children between ages 5-14?
   a. Accidents
   b. Cancer
   c. Congenital disorders
   d. Heart disease
   e. Pulmonary disease

3. Which of the following interventions has a positive effect on providers to allow family presence during resuscitative efforts?
   a. Chaplain presence
   b. Hospital policy
   c. Increased staffing levels
   d. Organizational policy
   e. Staff education

4. According to published research, which group of health care providers is most supportive of family presence?
   a. Mid-level providers
   b. Nurses
   c. Physicians
   d. Residents

5. Regarding medico-legal risk of family presence, which of the following is true?
   a. Family presence results in increased malpractice claims.
   b. Family presence results in increased malpractice claims if no facilitator is assigned.
   c. Family presence does not result in increased malpractice claims.
   d. Family presence results in decreased malpractice claims.

6. Which of the following is ***not*** a recommended strategy to improve family satisfaction with family presence during resuscitative efforts?
   a. Institutional policy or guideline
   b. Post event surveys
   c. Preparing the family prior to entering the room
   d. Staff education
   e. Trained facilitator

7. Which of the following is ***not*** supported by ACEP's End of Life policy?
   a. Communicate promptly and appropriately with patients and their families about EOL care choices
   b. Elicit the patient's goals for care before initiating treatment
   c. Encourage the presence of family and friends at the patient's bedside near the end of life, if desired by the patient
   d. Promote postmortem procedures for educational purposes without family consent
   e. Protect the privacy of patients and families near the end of life

8. Which of the following is a relative contraindication to family presence during a resuscitation?
   a. Suspicion of child abuse
   b. Level 3 trauma center
   c. Newly trained medical staff
   d. Resident in training
   e. Low-volume emergency department

9. Which component is recommended with the implementation of the Family Presence Policy to ensure its success?
   a. A quick implementation of the policy so that there is no time for review and debate
   b. A dedicated staff member to support the family members during the resuscitation
   c. A set of guidelines that are only to be followed some of the time
   d. A disregard for the thoughts and opinions of the outside staff members on its implementation
   e. An individual dedicated for its initiation without the support of a committee

10. The studies all support that the implementation of family presence is a key component that should be practiced routinely. Which of the following is true to its routine practice?
    a. The main priority still remains with the quality and safety of patient care
    b. All staff should listen and not voice their concerns during family presence
    c. The physician should never be asked about their desires for family presence
    d. The priority should be with family member education and the procedure second
    e. The safety of the environment should not be addressed

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Family Presence During Pediatric Resuscitations and Invasive Procedures

Pediatric Mortality and Leading Causes of Death

Pediatric Mortality

	Ages 1-4 years	Ages 5-14 years
Number of deaths in 2010	4316	5279
Deaths per 100,000 population	26.5	12.9

Leading Causes of Death

Ages 1-4 years	Ages 5-14 years
Accidents (unintentional injuries)	Accidents (unintentional injuries)
Congenital malformations, deformations and chromosomal abnormalities	Cancer

Source: Centers for Disease Control. FastStats. Child Health. Available at: www.cdc.gov/nchs/fastats/children.htm. Accessed Feb. 18, 2014.

Patient- and Family-centered Care and the Role of the Emergency Physician

Patient- and Family-centered Care (PFCC) and the Role of the Emergency Physician Providing Care to a Child in the ED

The American Academy of Pediatrics and the American College of Emergency Physicians support the following:

- Knowledge of the patient's experience and perspective is essential to practice culturally effective care that promotes patient dignity, comfort, and autonomy.
- The patient and family are key decision makers regarding the patient's medical care.
- The interdependence of child and parent, patient and family wishes for privacy, and the evolving independence of the pediatric patient should be respected.
- The option of family member presence should be encouraged for all aspects of ED care.
- Information should be provided to the family during interventions, regardless of the family's decision to be present or not.
- PFCC encourages collaboration with other health care professionals along the continuum of care and acknowledgment of the importance of the patient's medical home to the patient's continued well-being.
- Institutional policies should be developed for provision of PFCC through environmental design, practice, and staffing in collaboration with patients and families.

Reaffirmed by the ACEP Board of Directors, April 2012.
Originally approved by the ACEP Board of Directors and the American Academy of Pediatrics Board of Directors, June 2006.

Source: American College of Emergency Physicians. Patient- and Family-Centered Care and the Role of the Emergency Physician Providing Care to a Child in the Emergency Department. Available at: www.acep.org/Clinical—Practice-Management/Patient–and-Family-Centered-Care-and-the-Role-of-the-Emergency-Physician-Providing-Care-to-a-Child-in-the-Emergency-Department/. Accessed Feb. 18, 2014.

The Ideal Supportive Staff Member

- A person who is sincerely interested in the role
- A person who has been working clinically for at least 5 years (at least an RN training level)
- A person who is PALS and ACLS/BLS trained and current with his/her certifications
- A person who has been a staff member at the particular institution for at least 5 years
- A person who is committed to completing formal training (instruction and simulation) prior to the start of the job
- A person who is willing to work as a full-time employee for the institution
- A person who believes in the family choice during pediatric invasive procedures and/or resuscitation
- A person who has strong leadership and communication skills
- A person who feels very comfortable with hosting a debriefing session
- A person who has administrative experience

Death of a Child in the Emergency Department

Joint Statement by the American College of Emergency Physicians and the American Academy of Pediatrics

The death of a child in the emergency department (ED) is an event with emotional, cultural, procedural, and legal challenges that often distinguish it from other deaths.

The American College of Emergency Physicians and the American Academy of Pediatrics support the following principles:

- Emergency physicians should use a family-centered and team-oriented approach when a child dies in the ED.
- Emergency physicians should provide personal, compassionate, and individualized support to families while respecting social, religious, and cultural diversity.
- Emergency physicians should notify the child's primary care physician of the death and, as appropriate, work with the primary care physician in follow-up of postmortem examination results.
- EDs should incorporate procedures to organize resources and staff to provide a coordinated response to a child's death. These include:
  - Working with the primary care physician to ensure notification of subspecialty physicians of the death of their patient.
  - Educating staff as to the resources available to assist families.
  - Facilitating identification and management of a medical examiner's case and identification and reporting of cases of child maltreatment.
  - Promulgating liaisons with other individuals and organizations that may assist families, communities, and staff.
  - Assisting ED staff, out-of-hospital providers, and others who are experiencing critical incident stress.
  - Facilitating organ procurement and obtaining consent for postmortem examinations when appropriate.

Source: American College of Emergency Physicians. Death of a Child in the Emergency Department. Available at: www.acep.org/Clinical—Practice-Management/Death-of-a-Child-in-the-Emergency-Department/. Accessed Feb. 18, 2014.

Ethical Issues at the End of Life

The American College of Emergency Physicians believes that:

- Emergency physicians play an important role in providing care at the end of life (EOL).
- Helping patients and their families achieve greater control over the dying process will improve EOL care.
- Advance care planning can help patients formulate and express individual wishes for EOL care and communicate those wishes to their health care providers by means of advance directives (including state-approved advance directives, DNR orders, living wills, and durable powers of attorney for health care).

To enhance EOL care in the emergency department, the American College of Emergency Physicians believes that emergency physicians should:

- Respect the dying patient's needs for care, comfort, and compassion.
- Communicate promptly and appropriately with patients and their families about EOL care choices, avoiding medical jargon.
- Elicit the patient's goals for care before initiating treatment, recognizing that EOL care includes a broad range of therapeutic and palliative options.
- Respect the wishes of dying patients including those expressed in advance directives. Assist surrogates to make EOL care choices for patients who lack decision-making capacity, based on the patient's own preferences, values, and goals.
- Encourage the presence of family and friends at the patient's bedside near the end of life, if desired by the patient.
- Protect the privacy of patients and families near the end of life.
- Promote liaisons with individuals and organizations in order to help patients and families honor EOL cultural and religious traditions.
- Develop skill at communicating sensitive information, including poor prognoses and the death of a loved one.
- Comply with institutional policies regarding recovery of organs for transplantation.
- Obtain informed consent from surrogates for postmortem procedures.

Source: American College of Emergency Physicians. Ethical Issues at the End of Life. Available at: www.acep.org/Clinical—Practice-Management/Ethical-Issues-at-the-End-of-Life/. Accessed Feb. 18, 2014.

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