

EVIDENCE WORKSHEET Guideline 10.5: Legal & Ethical Issues Related to Resuscitation Family presence during resuscitation [ADULT PATIENTS]	
ARC Subcommittee: BLS	Worksheet author: Suzanne DAVIES Guideline author: Julie CONSIDINE
Clinical questions: 1. In adult patients who have sustained cardiac arrest (P) does family presence during resuscitation (I) compared to no family presence during resuscitation (C) <i>affect patient survival (O)?</i> 2. In adult patients who have sustained cardiac arrest (P) does family presence during resuscitation (I) compared to no family presence during resuscitation (C) <i>impair resuscitation team performance (O)?</i> 3. In adult patients who have sustained cardiac arrest (P) does family presence during resuscitation (I) compared to no family presence during resuscitation (C) <i>have adverse effects on families (O)?</i>	
Search Strategies: A. The Cochrane Library (CDSR, CENTRAL, DARE) ((resuscitation) AND (family)).ti,ab and as a keyword <i>Search results: 37</i> B. MEDLINE (1950 – current) [(exp family) OR (exp professional-family relations) OR (exp visitors to patients) OR ((parent\$ or family) adj (presence or attendan\$ or participat\$)).ti,ab.] AND [(exp resuscitation) OR ((CPR or resuscitation).ti,ab.) OR (trauma adj (resuscitation or activation)).ti,ab.] <i>Search results 1391</i> C. EMBASE [(‘family’/exp) OR (‘relative’/exp) OR (‘human relation’/exp) OR (‘child parent relation’/exp) OR (‘family attitude’/exp)] AND [(‘resuscitation’/exp) OR (‘cpr’ OR ‘cardiac arrest’ OR ‘trauma resuscitation’ OR ‘resuscitation’):ab] <i>Search results 369</i>	
Databases / sources searched: In addition to the electronic databases detailed above, backward and forward searching was undertaken in Scopus, hand searching of reference lists of relevant articles, text-word based grey literature searches in Google Scholar.	
Inclusion / exclusion criteria: Included were comparative trials, cohort studies, observational studies or interview studies reporting patient clinical outcomes, family psychological/emotional outcomes or resuscitation process outcomes after a family witnessed resuscitation by healthcare	

professionals?

Excluded were case reports, non-systematic reviews, letters, editorials and opinion pieces. Also excluded were studies reporting 'attitudes' of healthcare professionals (as opposed to observations). Studies not available in English and studies not available in full (abstract-only) were also excluded.

Search results:

The combined searches outlined above yielded 1423 studies, which were assessed for inclusion as evidence.

Number of papers / studies meeting criteria for further review: 9

One (1) LOE II randomised controlled trial, three (3) LOE III-2 cohort studies, three (3) LOE IV case series and two (2) studies of manikin models of resuscitation provided the evidence for this guideline.

Methodological quality, levels of evidence & outcomes of studies examining the effect of family presence in resuscitation of adults:

Good

The methodological quality of the study is high with the likelihood of any significant bias being minimal

Fair

The methodological quality of the study is reasonable with the potential for significant bias being likely.

Poor

The methodological quality of the study is weak possessing considerable and significant biases

1. Studies *supportive* of family presence for patient survival:

Good							
Fair							
Poor							
	I	II	III-1	III-2	III-3	IV	Extrapolated evidence
	NH&MRC levels of evidence						

2. Studies *neutral* for family presence for patient survival:

Good							
Fair							
Poor							
	I	II	III-1	III-2	III-3	IV	Extrapolated evidence
	NH&MRC levels of evidence						

3. Studies *opposing* family presence for patient survival.

Good							
Fair							
Poor							
	I	II	III-1	III-2	III-3	IV	Extrapolated evidence
NH&MRC levels of evidence							

Endpoints:

A = Return of spontaneous circulation **C** = Survival to hospital discharge
B = Survival of event **D** = Intact neurological survival
E = Minimal adverse effects **F** = Other endpoint

4. Studies *supportive* of family presence not impairing resuscitation team performance:

Good				Pasquale 2010 [B]		Meyers 2000 [B] Doyle 1987 [B]	
Fair		Robinson 1998 [B]				Oman 2010 [B]	Bjorshol 2011 [A]
Poor							
	I	II	III-1	III-2	III-3	IV	Extrapolated evidence
NH&MRC levels of evidence							

5. Studies *neutral* for family presence not impairing resuscitation team performance:

Good							
Fair							
Poor							
	I	II	III-1	III-2	III-3	IV	Extrapolated evidence
NH&MRC levels of evidence							

6. Studies *opposing* family presence not impairing resuscitation team performance (i.e: studies suggesting family presence impairs resuscitation team performance):

Good							
Fair							Fernandez 2009 [A]
Poor							
	I	II	III-1	III-2	III-3	IV	Extrapolated evidence
NH&MRC levels of evidence							

Endpoints:

A = CPR process outcomes B = Observed interruptions to care not further defined

7. Studies *supportive* for family presence not having adverse effects on families.

Good		Holzhauser 2006 [A]		Leske 2010 [B] Pasquale 2010 [B]		Doyle 1987 [A] Meyer 2000 [A]	
Fair							
Poor							
	I	II	III-1	III-2	III-3	IV	Extrapolated evidence
NH&MRC levels of evidence							

8. Studies *neutral* for family presence not having adverse effects on families.

Good							
Fair							
Poor							
	I	II	III-1	III-2	III-3	IV	Extrapolated evidence
NH&MRC levels of evidence							

9. Studies *opposing* family presence for not having adverse effects on families.

Good							
Fair							
Poor							
	I	II	III-1	III-2	III-3	IV	Extrapolated evidence
NH&MRC levels of evidence							

Endpoints:

A = Response to survey / interview (unvalidated) B= Response to validated survey/ interview tool to assess psychological / emotional state

Treatment recommendation:

Class B: Based on the current evidence family members of adult patients undergoing cardiac or trauma resuscitation should be given the option to be present, ideally with a hospital-assigned support person. Each hospital should have a family presence policy and staff education strategy in place.

Reviewer's final comments and assessment of benefit / risk:

The vast majority of studies on family presence in resuscitation are surveys assessing the attitude of health professionals to the idea of an institutional family presence policy. While this is understandable in the context of identifying barriers to the implementation of policy, there is a dearth of studies comparing actual family or patient outcomes associated with family presence. Most that have reported outcomes have are studies of adult family members accompanying paediatric patients. This review located only nine (9) studies reporting outcome for adult family members.

Survival outcomes:

No identified studies reported survival outcomes associated with family presence during the resuscitation of adult patients.

Resuscitation team performance:

One fair quality LOE II randomised controlled trial reported that family presence during resuscitation did not interrupt resuscitation, or delay the decision to discontinue resuscitation [Robinson 1998]. One good quality LOE III-2 cohort study [Pasquale 2010] found that clinicians reported that family presence did not impeded or interrupt the resuscitation. Three LOE IV case series [Meyers 2000, Doyle 1987 – good quality, Oman 2010 – fair quality] found that the presence of family members did not impair the resuscitation team performance. This was supported by Bjorshol and colleagues (2011) in a study that modelled a 'stressful' family presence during a manikin resuscitation scenario, finding that this was not associated with poorer quality of CPR delivery.

One study, a fair quality manikin study (extrapolated evidence), reported that simulated 'family presence stress' resulted in a significantly longer time to the delivery of the first shock, and the delivery of fewer shocks during the scenario. However, chest compressions, intubation and drug administration were not affected.

Adverse effects on family members:

One LOE II good quality randomised controlled trial [Holzhauser 2006], two good quality LOE III-2 cohort studies [Leske 2010, Pasquale 2010] and two good quality LOE IV case series [Doyle 1987, Meyer 2000] all found that being present during the trauma or cardiac resuscitation of a family member did not have detrimental emotional or psychological impacts. Most studies reported that being present at the resuscitation was actually associated with improved measures of coping and positive emotional outcomes.

Citation List:

Bjorshol 2011

Bjorshol CA, Myklebust H, Nilsen KL, Hoff T, et al. Effect of socioemotional stress on the quality of cardiopulmonary resuscitation during advanced life support in a randomized manikin study. Crit Care Med 2011; 39 (2): 300-4

The aim of this study was to evaluate whether socioemotional stress affects the quality of cardiopulmonary resuscitation during advanced life support in a simulated manikin model. DESIGN: A randomized crossover trial with advanced life support performed in two different conditions, with and without exposure to socioemotional stress. SETTING: The study was conducted at the Stavanger Acute Medicine Foundation for Education and Research simulation center, Stavanger, Norway. SUBJECTS: Paramedic teams, each consisting of two paramedics and one assistant, employed at Stavanger University Hospital, Stavanger, Norway. INTERVENTIONS: A total of 19 paramedic teams performed advanced life support twice in a randomized fashion, one control condition without socioemotional stress and one experimental condition with exposure to socioemotional stress. The socioemotional stress consisted of an upset friend of the simulated patient who was a physician, spoke a foreign language, was unfamiliar with current Norwegian resuscitation guidelines, supplied irrelevant clinical information, and repeatedly made doubts about the paramedics' resuscitation efforts. Aural distractions were supplied by television and cell telephone. MEASUREMENTS AND MAIN RESULTS: The primary outcome was the quality of cardiopulmonary resuscitation: chest compression depth, chest compression rate, time without chest compressions (no-flow ratio), and ventilation rate after endotracheal intubation. As a secondary outcome, the socioemotional stress impact was evaluated through the paramedics' subjective workload, frustration, and feeling of realism. There were no significant differences in chest compression depth (39 vs. 38 mm, $p = .214$), compression rate (113 vs. 116 min⁻¹, $p = .065$), no-flow ratio (0.15 vs. 0.15, $p = .618$), or ventilation rate (8.2 vs. 7.7 min⁻¹, $p = .120$) between the two conditions. There was a significant increase in the subjective workload, frustration, and feeling of realism when the paramedics were exposed to socioemotional stress. CONCLUSION: In this advanced life support manikin study, the presence of socioemotional stress increased the subjective workload, frustration, and feeling of realism, without affecting the quality of cardiopulmonary resuscitation.

Extrapolated evidence (manikin model). Fair quality. Randomised, crossover trial of 38 ALS scenarios, performed by paramedic teams on manikins. Intervention group were exposed to simulated stress and interference from 'relatives' (n=19), the control group performed manikin - ALS cardiac arrest scenario without simulated stress/interference (n=19). The primary outcome was CPR 'quality' assessed by chest compression depth and rate, no-flow time, time to defibrillation, time to intubation, and ventilation rate. No significant differences were reported in any of these parameters.

Doyle 1987

Doyle CJ, Post H, Burney RE, Maino J, Keefe M, Rhee KJ. Family participation during resuscitation: An option. Ann Emerg Med 1987; 16 (6): 673-5

We began to question the fairness of a policy to exclude close family members from the treatment room during attempted resuscitation of cardiac arrest victims. In 1982, after 13 of 18 surviving relatives (72%) who were surveyed about their experiences during the attempted resuscitation of a family member responded that they would have liked to be present during the resuscitation. We report the results of a program instituted at that time that allowed selected family members to be present during resuscitation efforts. A chaplain or nurse asked family members if they wished to be present in the resuscitation room, and those accepting were accompanied by a supporting emergency staff member who explained the milieu of the code room. None of the participants interfered with resuscitation efforts. Seventy persons who participated were later contacted by one of the chaplains and asked to complete a survey form. Forty-four of 47 respondents (94%) who had been present during resuscitation believed that they would participate again. Thirty-six (76%) thought that adjustment to the death or grieving was facilitated by their witnessing the

resuscitation; 30 (64%) felt that their presence was beneficial to the dying family member. We conclude that laypersons may wish to be with family members who may be dying even though resuscitation efforts are being made, and that it is reasonable to inquire about this wish. This experience has assisted the grieving process for many and has not interrupted or adversely affected medical efforts at resuscitation.

Level IV case series. Good quality. 51 people (adults & children) who were with a relative during attempted resuscitation in one hospital ED responded to a postal survey, 20 staff were also surveyed. As reported in abstract, majority of relatives reported positive emotional outcomes. Staff reported no incidents where resuscitation performance was impeded.

Fernandez 2009

Fernandez R, Compton S, Jones KA, Velilla MA. The presence of a family witness impacts physician performance during simulated medical codes. Crit Care Med 2009; 37 (6): 1956-60

To determine whether the presence and behaviour of a family witness to cardiopulmonary resuscitation (CPR) impacts critical actions performed by physicians. DESIGN: This was a randomized comparison study of physicians' performance during a simulated cardiac arrest with three different family witness states. SETTING: This study was conducted at the Wayne State University Eugene Applebaum College of Pharmacy and Health Science's Center for Healthcare Simulation. SUBJECTS: Second-year and third-year emergency medicine (EM) residents from the Wayne State University Department of Emergency Medicine-affiliated residency programs and Michigan State University-affiliated EM residency programs. INTERVENTION: Thirty teams comprised of one second-year and one third-year EM resident were randomly assigned to one of the three groups: 1) no family witness; 2) a non-obstructive "quiet" family witness; and 3) a family witness displaying an overt grief reaction. MEASUREMENTS AND MAIN RESULTS: Each pair was assessed for time to critical actions (e.g., minutes to CPR and drug administration) and for resuscitation-based performance outcomes (e.g., number of shocks) during a simulated cardiac arrest. The time to critical events was similar across groups with respect to initiating CPR, attempting to intubate the patient, and pronouncing the death of the patient. However, the time to deliver the first defibrillation shock was longer for the overt reaction witness group (2.57 minutes) as compared with the quiet (1.77 minutes) and no family witness (1.67 minutes) groups. Additionally, fewer total shocks were delivered in the overt reaction witness groups (4.0 minutes) vs. the quiet (6.5 minutes) and no family witness groups (6.0 minutes). CONCLUSION: The presence of a family witness may have a significant impact on physicians' ability to perform critical actions during simulated medical resuscitations. Further study is necessary to see if this effect crosses over into real clinical practice and if training ameliorates this effect.

Extrapolated evidence (manikin model). Fair quality. Randomised, controlled trial of 30 ALS scenarios, performed by 2-person physician teams on manikins. Intervention groups were exposed to (1) simulated overt stress from a 'relatives' (n=10) or (2) a non-obstructive quiet family witness (n=10). The control group performed manikin - ALS cardiac arrest scenario without simulated stress/interference (n=10). The study assessed clinical process measures and found that in the group exposed to simulated 'overt' stress from relatives, the time to delivery of first shock (2.57 vs 1.77, 1.67 min, $p<0.05$) was significantly longer and the number of shocks delivered were significantly fewer (4.0 vs 6.5, 6.0, $p<0.05$) than in the other groups. There were no differences in time to chest compressions, time to intubation or time to drug administration.

Holzhauser 2006

Holzhauser K, Finucane J, de Vries S. Family presence during resuscitation: a randomised controlled trial of the impact of family presence. Aus Emerg Nur J 2006; 8 (4): 139-47

This study was undertaken to determine the effects on relatives of family presence in an emergency resuscitation room during resuscitation. Methods: This study was undertaken using a randomised controlled trial using survey methodology. The setting was the ED of a major tertiary referral teaching hospital in Queensland. Participants were relatives over 18 years of age, related to patients meeting the inclusion criteria. Relatives were randomly assigned to either control group

(established protocol - relatives' waiting room) or experimental group (given the option to be present during resuscitation with a support officer). Results: 100% of the intervention group were 'glad' they were present. An association was found between those who were present (and their relative survived) and their belief that their presence was beneficial to the patient. Conclusions: Relatives find it beneficial to be in the resuscitation room. Their presence helped with communication between staff and family, and helped relatives to cope.

Randomised, controlled trial (non-blinded) LOE II. Good quality. Examined the effect on relatives of presence during resuscitation compared with relatives not present (waiting room 'usual care'). Found that 100% of the intervention group were glad they were present, 96% felt if aided in the grieving process. 71.2% of the control group participants felt that if they had been present during the resuscitation, it would have helped them grieve.

Leske 2010

Leske JS and Brasel K. Effects of family-witnessed resuscitation after trauma prior to hospitalization. J Trauma Nur 2010; 17 (1): 11-8

The purpose of this study was to examine the effects of family-witnessed resuscitation (FWR) in patients experiencing trauma from motor vehicle crashes and gunshot wounds prior to hospitalization. Family members of 33 patients (motor vehicle crashes: n = 19, 57%; gunshot wounds: n = 14, 43%) participated in this study. Within 1 to 2 days after admission to critical care, families who witnessed resuscitation and those who did not witness resuscitation were asked to participate. Reliable and valid measures for family resources, coping, problem-solving communication, and well-being were used. Results indicated that scores for family resources, coping, problem-solving communication, and well-being were no different in families who witnessed resuscitation compared with those who did not witness resuscitation prior to hospitalization in this study. The effects of FWR during the prehospital time period are not detrimental to family members.

Cohort study (LOE III-2 – good quality) of adult relatives who witnessed the prehospital resuscitation of a traumatically injured adult family member (n=16) compared to a matched group of relatives who were not present during the prehospital resuscitation of a family member (n=17) Participants completed validated survey instruments measuring coping and well-being, with no differences reported between the two groups.

Meyers 2000

Meyers T, Eichhorn DJ, Guzzetta C, Clark A, Klein J, Taliaferro E, Calvin A. Family Presence During Invasive Procedures and Resuscitation: The Experience of Family Members, Nurses, and Physicians. Am J Nur 2000; 100 (2): 32-43

Little research has been reported on the effects of families at the bedside while their loved ones undergo cardiopulmonary resuscitation (CPR) or invasive procedures (IPs). Basing our protocol for family presence (FP) on guidelines developed by the Emergency Nurses Association and using quantitative and qualitative methods, we conducted a descriptive study in the emergency department of our regional level-I trauma center. We surveyed 39 family members and 96 health care providers (60 registered nurses, 22 physician residents, and 14 attending physicians), following 43 instances of FP (which included 24 emergency IPs and 19 incidences of CPR), regarding the attitudes and experiences of those interviewed, including perceived benefits of and problems arising from FP. We found that families perceived visitation as a positive experience and that they believed being with the patient was their right. Family members involved in FP viewed themselves as active participants in the care process, which met their needs for knowing about, providing comfort to, and connecting with the patient. All the participating family members surveyed believed that visitation was helpful to them and noted that they would do it again. We found that family members who visited with their loved ones during emergency care suffered no ill psychological effects. The views of the health care providers differed significantly: more nurses (96%) and attending physicians (79%) supported FP during resuscitation, than did residents (19%) ($p = 0.001$

for both comparisons). And though 88% of our health care providers thought FP should be continued at our institution, the approval rate for FP was significantly higher among nurses than among residents (98% and 50%, respectively; $p < 0.001$). Thirty-eight percent of providers expressed concern about possible disruptions by family members during the visits, though no such incidents occurred during the study. We concluded that the benefits of FP justify implementing family presence programs. In November 1999, our institution, Parkland Health & Hospital System, approved a hospital-wide protocol for family presence during IPs and CPR.

Case series LOE IV. Good quality. 43 instances of family presence at either CPR or an emergency invasive procedure in the ED of a level 1 trauma centre (USA). Family members were interviewed after the incident. The mortality rate of patients was 56%. 100% of family members reported that they would 'do it again', and 100% found the experience important and helpful in the grieving process. 98% of family reported that they had the right (and the obligation) to accompany their family member. No incidents of disruptions to the medical care of patients occurred in the study.

Oman 2010

Oman KS and Duran CR. Health care providers' evaluations of family presence during resuscitation. J Emerg Nursing 2010; 36 (6): 524-33

The benefits of family presence (FP) during resuscitation are well documented in the literature, and it is becoming an accepted practice in many hospitals. There is sufficient evidence about health care provider (HCP) and family attitudes and beliefs about FP and little about the actual outcomes after family witnessed resuscitation. The purpose of this study was to evaluate FP at resuscitations.

METHODS: A descriptive design was used to collect data at an academic medical center in the western U.S. There were 106 resuscitations during the study period. Family presence was documented on 31 (29%) records. One hundred and seventy-four health care provider names were listed on the resuscitation records, and 40 names (23%) were illegible or incomplete. The convenience sample of 134 HCPs was invited to complete an electronic survey and 65 (49%) responded. **RESULTS:** Respondents indicated that family members were able to emotionally tolerate the situation (59%), did not interfere with the care being provided to the patient (88%). In addition, team communication was not negatively affected (88%). A family facilitator was present 70% of the time, and it was usually a registered nurse (41%). Twenty-one narrative comments were summarized to reflect the following themes: 1) family presence is beneficial; 2) family presence is emotional; 3) a family facilitator is necessary. **DISCUSSION:** These study findings demonstrate that having families present during resuscitations does not negatively impact patient care, is perceived to benefit family members and that a dedicated family facilitator is an integral part of the process. *LOE IV case series. Fair quality.*

This study was a survey of health care professionals who were a part of the resuscitation team responding to "Code Blue cardiac arrest" alerts in a US hospital. The response rate for the survey was 49%, most respondents were nursing staff and many respondents referred to the same incident(s) in their answers, leading to the possibility of non-response bias. 59% of the survey respondents felt that the family member(s) were able to tolerate the situation and 88% reported that family members neither interfered with the resuscitation team performance nor impeded communication within the resuscitation team.

Pasquale 2010

Pasquale MA, Pasquale MD, Baga L, Eid S, Leske J. Family presence during trauma resuscitation: ready for primetime? J Trauma 2010; 69 (5): 1092-9

The concept of family presence during trauma resuscitation (FPTR) remains controversial. Healthcare providers have expressed concern that resuscitation of severely injured trauma patients is inappropriate for family members as they may have psychological distress, disrupt resuscitative efforts, or misinterpret provider actions, which can ultimately impact satisfaction with care. The minimal evidence that exists is descriptive or anecdotal. **METHODS:** Using a previously developed FPTR protocol, a prospective, comparative study assessing 50 adult family members, who were present ($n = 25$) or not present ($n = 25$) with the severely injured adult family member during

resuscitation, was conducted. Family member anxiety was assessed using State-Trait Anxiety Inventory, satisfaction using a Revised-Critical Care Family Needs Inventory, and well-being using Family Member Well-being Index within 48 hours of intensive care unit admission. Mean total scores were compared for both groups with independent t tests. Significance was set at $p < 0.05$. RESULTS: Age and Injury Severity Score were statistically equivalent in all patients. Anxiety, satisfaction, and well being were not statistically different in family members present compared with those not present during resuscitation. There were no untoward events during resuscitation efforts. Family members present felt they benefited the patient and gained a better understanding of the situation. Conversely, family members not present commented that they would have preferred to be present during resuscitation. CONCLUSIONS: Family members present during trauma resuscitation suffered no ill psychological effects and scored equivalent to those family members who were not present on anxiety, satisfaction, and well-being measures. Quality of care during trauma resuscitation was maintained. The fact that all the family members would repeat experience again supports the idea that FPTR was not too traumatic for those who chose to be present.

LOE III-2 prospective cohort. Good quality. This study compared used validated measures of well being, anxiety and satisfaction to compare a cohort of participants who were present during the trauma resuscitation of an adult family member (n=25) with a cohort of participants who were not able to be present in the same situation (n=25). Only the families of trauma patients who survived and were admitted to intensive care were included. No differences were found in any measures between cohorts. No untoward patient events were observed during the study and healthcare provider surveys indicated that family presence did not impede or disrupt the resuscitation. Several providers stated that family member presence was beneficial in several instances as the family members provided valuable information regarding the patient's past medical history.

Robinson 1998

Robinson SM, Mackenzie-Ross S, Hewson GLC, Egleston C, Prevost AT. Psychological effect of witnessed resuscitation on bereaved relatives. The Lancet 1998; 352 (9128): 614-7

Established practice is for the relatives of critically ill patients to be excluded from the clinical area during resuscitation. We aimed to discover whether relatives wanted to be present during the resuscitation of a family member and whether witnessing resuscitation had any adverse psychological effects on bereaved relatives. Methods: In this pilot study, relatives of patients who required resuscitation were given the option to remain with the patient during resuscitation or were not given this choice and directed to the relatives' room (control group). The unit of randomisation was the patient who required resuscitation and not the relatives. One close relative was paired with each patient. All relatives were accompanied by a chaperone who gave emotional support and provided technical information on the resuscitation. Relatives were followed up 1 month after the resuscitation. We used a questionnaire to ask about the decision to be present or absent during resuscitation. Bereaved relatives also completed five standardised psychological questionnaires to assess anxiety, depression, grief, intrusive imagery, and avoidance behaviour. Findings: 25 patients underwent resuscitation (13 in witnessed resuscitation group, 12 in control group). Three patients in the witnessed group survived, all the control-group patients died. Two relatives in each group were lost to follow-up. Thus, eight relatives who witnessed resuscitation and ten control-group relatives were followed up. Interpretation: In the context of the emergency department, routine exclusion of relatives from the resuscitation room may no longer be appropriate.

Small, pilot randomised controlled trial (n=18). LOE II. Fair quality. This trial used validated questionnaires to compare the psychological effects of witnessing the unsuccessful cardiac / trauma resuscitation of a family member with a group that did not witness the unsuccessful resuscitation of a relative. On arrival in the ED, a close family member was randomly assigned to accompanying (intervention n=8) or not accompanying (control n=10) the patient during the attempted

resuscitation. There were no reported adverse psychological effects among the relatives who witnessed resuscitation, all of whom were satisfied with their decision to remain with the patient. The clinical team became convinced of the benefits to relatives of allowing them to witness resuscitation if they wished, so the trial was terminated. The clinical team reported that at no time was the resuscitation interrupted because of the presence of a relative.

Reviews not included as evidence.

Boudreaux ED, Francis JL and Loyacano T. Family presence during invasive procedures and resuscitations in the emergency department: A critical review and suggestions for future research. Ann Emerg Med 2002; 40 (2): 193-205

Study objective: We examine the literature relating to family presence in the emergency department, with a specific emphasis on parental experiences and presence during invasive procedures and family presence during cardiopulmonary resuscitation and resuscitation. Methods: An electronic search and examination of resulting references was conducted using the words, "family centered care," "parent participation," "parent presence," "family presence," and "emergency department," "accident and emergency department," "procedure," "invasive procedure," and "resuscitation." Articles related to out-of-hospital emergency medical services were excluded. Also, articles were included only if the manuscript was based on an empirical study and if the manuscript was published in a peer-reviewed journal. Results: Twenty articles, primarily composed of survey research, were included in this review. Research suggests that families want to be given the option and, when given the option, often choose to remain during invasive procedures and resuscitations. Those who remain generally report favorable experiences and feel it is beneficial to the patient and themselves. Providers, however, have mixed opinions regarding family presence. Nurses may have a more favorable view toward family presence during invasive procedures than physicians. Among physicians, it appears that greater age and experience may be associated with more favorable opinions of family presence. Randomized controlled trials are mixed regarding whether family presence actually helps the patient. Conclusion: Despite what appear to be promising data regarding the benefits of family presence, this area of research is in the initial phases of development with many limitations that are discussed. Recommendations for future research are presented.

Review

Boucher M. Family-witnessed resuscitation. Emerg Nur 2010; 18 (5): 10-4

Family-witnessed resuscitation is a controversial subject for healthcare professionals and support for the practice is not universal (Albarran and Stafford 1999, Kissoon 2006). Research suggests, however, that the advantages of this form of resuscitation for relatives far outweigh the disadvantages, and that hospital staff can support the practice without hindering the clinical care of patients. This article explores the ethical issues raised, as well as the views of patients, families and staff on the subject, and suggests that there should be guidelines on the practice in all emergency departments where it is likely to take place.

Review

Halm MA. Family Presence During Resuscitation: A Critical Review of the Literature. Am J Crit Care 2005; 14 (6): 494-511

Presence of patients' families during resuscitation has emerged as an important practice issue, sparking considerable controversy worldwide. Early advocates of allowing patients' families to be present during resuscitation faced more resistance than did current advocates because the former had little or no scientific research results to support their ideas. In the past 15 years, a number of quantitative studies, especially descriptive surveys, have been conducted. Qualitative researchers have also explored the lived experience of family members present during resuscitation and less

commonly the perspectives of patients and healthcare providers. In this review of the literature, the current state of the science is critically reviewed and the ethical-theoretical perspectives of respective researchers and staff participants in the reviewed studies are discussed. Surveys were used to collect data in most studies to date. Limitations of these designs include small convenience samples, low response rates, use of retrospective surveys and the associated potential selection bias, and lack of consistency in survey instruments, factors that make comparison of findings between studies difficult. Recommendations to address the gaps in the current state of knowledge about family members' presence during resuscitation are discussed. Experimental and qualitative methods are especially needed to investigate the effect of family presence during resuscitation on patients, families, nurses and physicians, and other multidisciplinary staff members.

Hodge AN, Marshall AP. Family presence during resuscitation and invasive procedures. Collegian 2009; 16 (3): 101-18

The practice of allowing family to be present during patient resuscitation or invasive procedures (Family Presence) is gaining acceptance in North America and the United Kingdom in controlled circumstances. Research into Family Presence has demonstrated multiple benefits for the patient, family and health care team. These advantages include helping the family to understand the severity of the illness/trauma and to see that appropriate attempts were undertaken to save their loved one. Family Presence can also facilitate improved communication between the health care team and family. In spite of evidence supporting Family Presence as a useful practice for patient, family and health care team, the use of Family Presence is uncommon within Australian emergency departments and hospitals. Clear expectations at organisational, governmental and professional levels are essential to effectively implement this approach. To be supported in the clinical area, the success of a Family Presence program requires an inclusive approach to program development. A critical component of a successful Family Presence program is a family facilitator who is adequately prepared for the role and committed to supporting the family during resuscitation or invasive procedures. Research exploring Family Presence in Australia is lacking and highlights the need for context specific research in this area.

Review

Moore H. Witnessed resuscitation: staff issues and benefits to parents. Paed Nur 2009; 21 (6): 22-5

Should relatives be made welcome in a resuscitation room to witness emergency medical treatment of a family member? This is a major issue in emergency departments worldwide. Attitudes of staff and relatives are mixed, and the benefits suggest further long-term research is needed to review the psychological effects on loved ones. This article will consider the background of witnessed resuscitation, as well as the views of both staff and relatives involved. The research will be evaluated and implications for practice explored. [References: 41]

Review