**Clinical question.**

During cardiac arrest in infants or children (P), does the presence of family members during the resuscitation (I) compared to their absence (C) improve patient or family outcome measures (O)?

**Is this question addressing an intervention/therapy, prognosis or diagnosis?** Intervention/Therapy

**State if this is a proposed new topic or revision of existing worksheet.** Revision of existing worksheet

**Conflict of interest specific to this question.**

Do any of the authors listed above have conflict of interest disclosures relevant to this worksheet? No

**Search strategy (including electronic databases searched).**

Search was performed using the Cochrane Library, Medline, Embase, and the AHA Endnote database.

Search Terms: Family Presence, Parental Presence, Resuscitation, Heart Arrest. No limits on search beyond search terms in initial search.


The references of all articles obtained in the search, including review articles on the topic, were reviewed to assure that all relevant articles had been captured. Additionally, since the review on this topic performed by this author in 2005, I kept copies of all articles on this topic that I have encountered in the intervening 5 years. Those were also reviewed to ensure that they had been captured in the search.

**State inclusion and exclusion criteria**

The following articles were excluded from review: With the exception of case reports and case series, articles that did not present data (i.e. opinion pieces, descriptions of programs, position statements, consensus documents, and ethical analyses). Review articles were used to assure that all relevant data-based studies had been included, but they themselves were not included in the analysis. Studies looking at parental or familial presence during anesthesia induction, dental procedures and procedures performed outside of resuscitation were excluded. Survey research that only addressed provider or public attitudes regarding the presence of family members during a resuscitation or that assessed prevalence of current practices were excluded as these do not address the PICO question at issue. Abstract only articles were excluded.

Articles included in initial analysis include those that focus on resuscitation and involve the collection of data or case series and case reports. Both adult and pediatric studies were included in the initial analysis.

**Number of articles/sources meeting criteria for further review:**

29 Articles met criterion for further review.


Two of those dealing exclusively with children are case reports recounting experiences with parents present during unsuccessful resuscitation of children or adolescents: Andrews 2004, Dill 2005. One of the papers addresses trauma resuscitation of children (Dudley 2009).

In addition to these 29 articles, the reviewer reviewed the results of one major consensus conference on the topic (Henderson 2005), six critical literature reviews of the literature regarding family presence during resuscitation of adults (Walker 2007) or adults and children (Axelsson 2005, Boudroux 2002, Halm 2005, Redley 2004, Moreland 2005), one systematic review of parent presence for invasive procedures and cardiopulmonary resuscitation (Dingeman 2007), and two informal literature reviews on family presence during resuscitation of children (Sacchetti 2003, Eppich 2003). The purpose of these reviews was to identify any studies missed in my own search strategy.
### Summary of evidence

#### Evidence Supporting Clinical Question

| Good          | Dudley 2009   | Tinsley 2008 (E1,2,4,5) | O'Connell 2003 (E3) | Mangurten 2006 (E1,3,4,5) | Holzhauser 2006* (E1,3,4,5) | Robinson 1998 # (E1,5) | Boyd 2000 # (E3) | Benjamin 2004 # (E4) | Eichhorn 2001** (E4) | Duran 2007 (E1,2,4,5) | Jones 2005 (E1,4) | Boie 1999 (E1) |
|---------------|---------------|-------------------------|----------------------|---------------------------|---------------------------|-----------------------|-------------------|---------------------|----------------------|----------------------|-------------------|----------------
| Fair          |               |                         |                      |                           | Engel 2007** (E1,3)       | McGahey-Oakland 2007 (E1,2,5) | Eichhorn 2001** (E4) | Duran 2007 (E1,2,4,5) | Jones 2005 (E1,4) | Boie 1999 (E1)     |                   |
| Poor          |               |                         |                      |                           | Hanson 1992** (E1,4,5)    | Meyers 2000** (E1,3,4)     | Meyers 1998** (E1,4) | Andrews 2004 (E1,5) | Dill 2005 (E1,5) | Gold 2006 (E1,5)  |                   |

1 2 3 4 5

#### Level of evidence

*Study does not reveal age of victims

# Studies involving adult victims only (no child victims)

**Study involves children and adult victims of resuscitation

% Study involves trauma resuscitation

E1-Desire to be present at resuscitation of family member

E2-Have been present at resuscitation of family member and would recommend to others

E3-Family Presence did not negatively impact resuscitation

E4-Family Presence perceived as beneficial to the patient

E5-Family Presence reported as beneficial to the person present
Evidence Neutral to Clinical question

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*Study does not reveal age of victims
E1-Desire to be present at resuscitation of family member
E2-Have been present at resuscitation of family member and would recommend to others
E3-Family Presence did not negatively impact resuscitation
E4-Family Presence perceived as beneficial to the patient
E5-Family Presence reported as beneficial to the person present

Van der Woning 1999* (E1,2,5)
Weslien 2006# (E1)

Evidence Opposing Clinical Question

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*Study does not reveal age of victims
# Studies involving adult victims only (no child victims)
**Study involves children and adult victims of resuscitation
+Study looks at the EMS environment only.
E1-Desire to be present at resuscitation of family member
E2-Have been present at resuscitation of family member and would recommend to others
E3-Family Presence did not negatively impact resuscitation
E4-Family Presence perceived as beneficial to the patient
E5-Family Presence reported as beneficial to the person present

Compton 2006**+ (E3)
Historically, family members have been excluded from being present during the resuscitation of a child or other relative. Surveys (not formally reviewed here) have suggested that healthcare providers hold a range of opinion concerning the presence of family members at resuscitation. Over time, as the practice of family presence during resuscitation has become more commonplace, provider attitudes have become more receptive and supportive of the practice. Physicians have displayed more reluctance than nurses with regard to allowing relatives into the resuscitation room. Several commentaries have expressed theoretical concerns with the practice that include the potential for family members to become disruptive or interfere with resuscitation procedures, the possibility of family member syncope, and the possibility of increased exposure to legal liability. It is important to note that while not allowing relatives to be present during a resuscitation is the historical norm, there is no data to provide a foundation for that norm.

This review suggests that what data is available would support the practice of family presence at resuscitation. The findings of those studies that look at the experience of parental presence at the resuscitation of the child are consistent with the findings of those studies looking at family presence during resuscitation of adult patients. Most of these pediatric studies are LOE 4, with only two LOE 3 studies and one LOE 2 study for review.


These studies also suggest that family presence did not negatively affect stress or performance among staff (Boyd 2000, Mangurten 2006, O’Connell 2003) and that family presence was not disruptive (Meyers 2000, Doyle 1987, Engel 2007, O’Connell 2003, Mangurten, 2006, Holzhauser 2006, Dudley 2009). In the sole study of parental presence at pediatric trauma resuscitation (Dudley 2009), at least one staff member reported some disruption from family presence in 11% of resuscitations. This disruption was limited to talking of interrupting in most of those cases, and there was staff agreement about disruptive behavior in only 2% of the resuscitations. No family member was asked to leave the room and there was no interference with procedures in that study.


There is no data to suggest that allowing family members to be present at resuscitation in the hospital setting causes harm to the patient, family members (Dudley 2009, Mangurten 2006, McGehey-Oakland 2007), or the staff. Only two studies suggested that the experience could have negative consequences. One (van der Woning 1999, 186; LOE 4, Poor) of these identified three patients who described the experience as negative and regretted having been present. That study did not evaluate whether that regret translated into a harm (i.e. impaired their ability to grieve or impacted their quality of life negatively). The other study was the sole study done with EMS providers and relates specifically to the EMS environment (Compton 2006, LOE 4, Fair). Compton identified a significant number of EMS providers who reported feeling threatened by family members during the resuscitation, felt that family members often interfered with their ability to perform resuscitations, and felt that family members had a negative impact on the resuscitation. The EMS experience is sufficiently different than the hospital environment that it can’t be reliably extrapolated to the more controlled hospital environment. The presence of few providers, absence of support staff, a chaotic and uncontrolled environment where emotions may be running high all set the EMS environment apart from the hospital environment. On the other hand, it’s also not clear how one could keep family from being present in an EMS field environment. While this study raises significant questions about the risks of family presence to EMS personnel, its findings cannot easily be extrapolated to the in-hospital environment.
This findings of this review are consistent with studies that have looked at parental presence during invasive (mostly non-resuscitation) procedures performed on children in an ED or ICU setting (Bauchner 1991, Bauchner 1996, Boie 1999, Haimi-Cohen 1996, Powers 1999, Sacchetti 1996, Sacchetti 2005, Wolfram 1996, Wolfram 1997). These studies also suggest that most parents wish to be present for invasive procedures on their children (Bauchner 1991, Boie 1999, Haimi-Cohen 1996, Sacchetti 1996), they almost never interfere with the staff (Sacchetti 2005), staff performance is not negatively compromised when family members are present (Bauchner 1996, Wolfram 1996, Wolfram 1997), and parents who are present at invasive procedures experience similar (Haimi-Cohen 1996) or reduced (Bauchner 1996, Powers 1999, Wolfram 1996, Wolfram 1997) anxiety compared to parents who are not present.

The available data would support offering family members the opportunity to be present during the resuscitation of a close relative, including the presence of parents at a child’s resuscitation. There is no data to suggest that allowing family members to be present for invasive procedures or resuscitation causes harm to the patient, family members, or the staff in the hospital setting. A few studies (Benjamin 2004, Berger 2004, Eichhorn 2001, McMahon-Parkes 2009) raise the important issue of how adult patients feel about having family members present during resuscitation. A significant minority of patients would not want family members present, validating the importance of trying to discern adult patient preferences when possible and respecting that preference when known. One study suggests little difference based upon ethnicity (Jones 2005).

Given the absence of any data that suggests the presence of relatives in the resuscitation room is harmful, and given the existence of data that suggests families want to be present and that being present is not harmful and 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 to this). While there is no data to assess the importance of having a dedicated staff person available to support family members during a resuscitation, the presence of a dedicated support person seems important, and should be recommended.

The literature to date assesses only the presence of adult family members. I would be reluctant to recommend that young children be allowed in the resuscitation room because their immaturity may not allow them to understand what is happening or why.

Acknowledgements:

Citation List


Reviewer: Level 4; Poor, completely subjective assessment. Pediatric, Resuscitation, Supportive.

This is a case report by an ED nurse who brought in parents of a 15 year old trauma victim during a particularly gruesome resuscitation. While she reports that some staff members were unhappy about this, the parents needed to be present and benefited from being there. At no point did the parents seem disturbed by the resuscitation, but they did feel that they needed to be present. Primary value of this report is the absence of evidence that family was harmed by being present.


Reviewer: This is a systematic review of the literature on the topic of family presence during resuscitation and acute care procedures.


Reviewer: Level 4, Fair: Adults, Resuscitation, Supportive. This retrospective survey was performed in a British ED among next of kin of patients over the age of 16 who had died after unsuccessful resuscitation. 49% had witnessed the collapse of their family member and most were not present for the ED resuscitation. The findings suggest that most adult relatives would like to be asked if they wish to be present in the resuscitation room even though some would not stay.


Reviewer: Level 2, Fair: Pediatric, Invasive Procedures, Supportive. This observational study describes behavior in one ED about 15 years ago. An observer collected data on physician-parent encounters and behavior surrounding invasive ED procedures. Resuscitation was not included. Two-thirds of parents chose to remain for the procedure. Almost half of parents who did not remain for the procedure would have liked to remain, but were either asked to leave, were not given the option of staying, or were subject to body language that suggested they leave.


Reviewer: Level 1, Good: Pediatric, Invasive Procedures, Supportive. A rare RCT looking at invasive procedures (not resuscitation) and the impact of parental presence on provider anxiety, parent satisfaction, and child pain level. Randomization to three groups: parent present and given instructions on how to help their child, parent present without instruction, and parents not present. Used validated objective measurement instruments for anxiety on both parents and clinicians 10 minutes after the procedure and used objective pain measurement methods for children during the procedures. No differences emerged between the three groups with respect to successful performance of the procedure, clinician anxiety, or pain level of child. Parents who were not present did display significantly MORE anxiety than parents who were present. This study suggests that parental presence does not negatively affect ability to perform invasive procedures or clinician anxiety, and it does reduce parental anxiety.


Reviewer: Level 4, Fair: Adult, Resuscitation, Supportive with limits (consent of adult patient is important). This abstract (full published article not available) is unique in asking the opinion of potential adult patients about their preferences regarding having relatives present at a resuscitation. While most would want a family member present, 21% did not. Of those who would prefer to have family members present, most wanted only certain members present. The preference of the adult person being resuscitated is an important element of this discussion.


Reviewer Comments: LOE4, Poor. Convenience sample, no controls, hypothetical, adults only. This study used a convenience sample of persons approached in the waiting are of an emergency department (family members of ED patients) who took a self-administered survey that included a description of CPR. They were asked to rank answers on a 5 point Likert scale regarding their preferences for attending a relative’s CPR, having a relative attend their CPR, and having a relative attend their CPR if the relative expressed a desire to attend. Thirty-one persons were enrolled. Participants expressed a moderate preference to be present at a relative’s CPR (Aggregated mean 3.82 on scale of 5), a moderate preference (3.74) to have a spouse present at ones own CPR, uncertainty regarding whether other relative should be present at one’s own CPR and a preference not to have minor children present at one’s own CPR. In the situation that a relative expressed the desire to be present for one’s own CPR, participants expressed a moderate preference to have spouse, parent, adult child, and sibling present. The findings of this survey are consistent with other studies that have shown a preference to be present at a relative’s resuscitation. Participants also expressed a moderate interest in having adult relatives attend their own CPR, especially when the family member expressed interest in being present. Notable, however, is that a significant number of participants were not comfortable with relatives being present.


Reviewer: Level 4, Fair: Pediatric, Invasive procedures and Resuscitation, Supportive. This study used a survey consisting of scenarios. Respondents were parents waiting in an ED waiting room. Surveyed attitudes toward invasive procedures
including those that might accompany a resuscitation. This study suggests that most parents think that they would want to be present for invasive procedures and would want to be present if their child were likely to die. Most important finding is that nearly all parents wish to be asked.


Reviewer: All ages, Invasive Procedures and Resuscitation, Supportive. Critical Review. The only formal critical review of this topic in the literature concludes that most of the data on this topic suggest that the practice of family presence at resuscitation is beneficial, but warns that this area of research is in the initial phases of development and contains many limitations.


Reviewer: Level 3, Fair: Adult, Resuscitation, Supportive. Questionaire attempted to gauge stress among ED staff following ADULT cardiopulmonary arrest resuscitations. Found no difference in self-reported stress symptoms between those who participated in a resuscitation with relatives present and those participating in resuscitation with no relatives present.


Reviewer: Level 5, Fair: Pediatric, Resuscitation and Invasive Procedures, Does not directly address the question. This is a survey of resident attitudes and perceptions regarding family member presence during pediatric invasive procedures and resuscitation. It does not measure the actual impact of family presence on ability to perform or stress of residents.


Reviewer: LOE 4, Fair. Pediatric and Adult, Resuscitation, Not supportive, Survey of Paramedics. This study is the only one done with family presence at resuscitation in the field as experienced by EMS providers. The results are also different from in-hospital studies in that significant numbers of EMS providers reported feeling threatened by family members during the resuscitation, felt that family members often interfered with their ability to perform resuscitations, and felt that family members had a negative impact on the resuscitation. The EMS experience is sufficiently different than the hospital environment as to require a separate analysis. The presence of few providers, absence of support staff, a chaotic and uncontrolled environment where emotions may be running high all set this environment apart. On the other hand, it’s not clear how one could keep family from being present in an EMS field environment.


Reviewer: LOE 4, Poor. This is a single case report of a nurse’s experience having parents be present during an unsuccessful trauma resuscitation in an 8-year-old and her meeting with the family several months later. Her conclusion was that it was important for the family to be present.


Reviewer: This is a systematic review with 15 studies meeting inclusion criteria. All studies included in this systematic review were also included in the review for this worksheet. The authors review found that the studies all demonstrated that parents prefer to have the choice about whether they remain at their child’s side during complex invasive procedures and resuscitation, do not generally interfere with their child’s care during invasive procedures or resuscitation and serious parental interference was not reported in any of the studies. They also revealed that apprehensions and controversy abound among clinicians regarding this practice.

Reviewer: Level 4, Poor: No ages listed, Resuscitation, Supportive. This paper reports on the experience of an institution that implemented a program to allow family member presence at resuscitations in the 1980s, and represents the first study in this area. The methodology is a bit loose, but they did find that no family member interfered with a resuscitation, that almost all would participate again, and that most felt their adjustment to death or grieving had been aided by their presence at the resuscitation.


Reviewer: Level 2, Good: Pediatric, Trauma Resuscitation, Supportive. This is a nicely done study that demonstrates that family presence at trauma resuscitation of children was felt to be helpful and important by parents, and that parents did not interfere with the resuscitation in any significant way. While at least one staff member reported disruptive behavior in 11% of the resuscitations, there was agreement of staff members about disruptive behavior in only 2%. Furthermore, most reports of disruption involved talking or interrupting. No parent was asked to leave and there was no interference with procedures.


Reviewer: LOE 4, Fair. Adults and Children, Resuscitation and Invasive Procedures, Supportive. Survey of clinicians, adult patients, and adult family members regarding attitudes toward family presence. Response rates were 95 to 99% for patients and family members, but below 20% for clinicians. Most value is in survey of patients and family members. 31% of the family member sample had experience with being present during resuscitation of a family member, and while the survey did not explore that experience specifically, of the 19 who had been present, 17 said the experience had been helpful to them and 18 would do it again in a similar situation. In general, patients and family members felt they should be offered the opportunity to be present at resuscitation of a loved one (or have a family member present at their own).


Reviewer: LOE 4, Fair. Pediatric and Adult, Invasive procedures (8) and Resuscitation (1), Qualitative methodology, Supportive. Small numbers. This study is unique in that the investigators interviewed patients about having had family members present. Interviews were about 2 months after the event. All 9 patients believed that having family members present at the time of crisis was beneficial, and none of them reported any negative feelings.


Reviewer: LOE 4, Fair. This is a letter to the editor reporting on a survey of all providers at a single academic institution on their experience with family presence during resuscitation (Response rate 78% of 210 providers). The primary finding was that self-reported prior experience with family presence was a strong predictor of provider support for the practice. The authors conclude that experiencing family presence allows providers to witness the benefits to family members and alleviates concerns that there will be negative consequences. This seems to be a reasonable conclusion.


Reviewer: Pediatrics, Invasive Procedures and Resuscitation, Supportive. This is one of three reviews of the literature on family presence at pediatric resuscitation. While not a formal critical review, the authors conclude that family member presence should be an option for invasive procedures and resuscitations (including CPR) when all members of the resuscitation team are in agreement and a support person can be present for the family.


Reviewer: LOE 4, Poor. Children, Resuscitation, Generally supportive, Survey. This survey of critical care and emergency medicine providers (99% physicians) is primarily attitudinal, but 83% of respondents had experience with family presence during the resuscitation of a child. While there are no objective measurements here, about half who had participated in a resuscitation with family members present felt it was helpful to the family, and most would want the option for a resuscitation involving his or her own child.

Reviewer: Level 4, Poor: Adults, Resuscitation, Supportive. This survey of adult ICU patients and their relatives demonstrated the desire of almost all patients and family members to have their views regarding family presence at resuscitation sought before ICU admission.


Reviewer: Abstract only, so excluded from final analysis. In general, this abstract found that most surveyed adults support family presence at resuscitation.


Reviewer: Level 1, Good: Pediatric, Procedures (LP), Supportive. Another RCT, this one comparing anxiety of parents present for lumbar puncture in their child and those not present. Used objective validated anxiety measurement tool (STAI—same instrument used by Bauchner 1996 above). Anxiety scores did not differ between the two groups and all parents who stayed during the procedure stated that they would choose to be present should a second procedure be necessary.


Reviewer: This larger study contains a small portion devoted to nurses’ attitudes towards family presence at resuscitation. It does not systematically address the question of benefit or harm of the practice, so was excluded from final analysis.


Reviewer: Level 4, Poor: All ages, Resuscitation, Supportive. Description of a 9 year experience at one institution with allowing family members to be present for resuscitations. Surveyed 47 family members. 64% felt their presence had been helpful to the dying family member, and 76% felt their adjustment to the death of the family member had been made easier by their presence in the room during the resuscitation.


Reviewer: LOE 4, Poor. Adults, Resuscitation, Supportive. This is an abstract only, and excluded from final analysis for that reason. Survey of patients and accompanying family members in clinic—i.e. not facing resuscitation imminently or in the past. Therefore, speculative/hypothetical. Does show a fair amount of concurrence of opinion between patients and their family members.


Reviewer: Pediatric, Consensus, Resuscitation, Supportive. Consensus Statement regarding family presence for pediatric resuscitation. Conclude that family presence should be considered as an option for families during pediatric resuscitation and procedures.


Reviewer: LOE 1, Fair. Ages of Patients Unclear, Resuscitation, Supportive. Randomized Controlled trial with family members randomized to wait in waiting room (n=39) or invited to be present during resuscitation (n=60). Contacted one
month later for survey/interview of experiences. Findings show that relatives value being present during resuscitation, many feel it helped them cope with the final outcome, and no adverse events or outcomes were identified.


Reviewer: Level 4; Fair: Convenience Sample, Hypothetical, Pediatric, Looks at procedures including resuscitation. First study to look at ethnicity. In general, found that parents prefer to be actively engaged in soothing their child and coaching their child rather than just observing, but that upwards of 80% wish to be present. Few ethnic differences.


Reviewer, LOE 4, Good. Pediatric, Resuscitation and Invasive Procedures, Supportive. Survey of family members and providers following actual experience of being present during resuscitation or invasive procedure of a child in the Pediatric ED. Family members did not interfere with care, parents described the experience as beneficial, a no parent had traumatic memories 3 months after the event.


Reviewer: LOE 4, Fair. No age, Resuscitation, Supportive. Telephone Survey of Public Attitudes. This survey shows general public support for offering family member presence at resuscitation. However, it does not really address the question at issue—i.e. whether family member presence at resuscitation leads to favorable outcomes to patient or family. It also is speculative in that audience had no experience with this situation.


Reviewer: LOE 4, Fair, All Children, Resuscitation, Supportive, ED environment. This study has a couple of significant flaws. First, it has a very small sample (25 approached) and even smaller response rate (10 family members). Second, 9 of the 25 approached declined to participate because of lack of emotional readiness to discuss their resuscitation experience. This group is just as large as the group included in the analysis, yet could represent a very different population in terms of their experience witnessing resuscitation. While of the 10 persons they interviewed, all supported being given the option of family presence at a child’s resuscitation, none appeared to have suffered harm by being present (normal scores on the PTSD scale), most would recommend it to other parents, and most experienced benefit from the experience (i.e. facilitated healing and felt reassured that everything had been done), it cannot be assumed that the same is true for the 9 who declined to participate.


Reviewer: LOE 3, Fair. Adults, Resuscitation, Supportive. Case Control study, but methodology is qualitative making comparisons a bit more of a challenge. Participants included patients (n=21) who had been resuscitated successfully and controls (n=40) included patients coming to emergency room but without experience of resuscitation. Suggests that both patients and family members benefit in different ways from family presence, patients support family presence, but also recognize that it should not interfere with the resuscitation.


Reviewer: Level 4, Poor: All ages, Resuscitation, Supportive. Interviewed families who had recently had a family member (age range 8-90) die in ED. Most family members believe there is benefit to being present at resuscitation and would like to have the option offered to them.

Reviewer: Level 4, Poor: All ages, Resuscitation and invasive procedures, Supportive. Surveyed a convenience sample of 39 adult family members and 96 health care providers involved in resuscitation with family member present. Surveyed beliefs about their experience. Most importantly, health care providers reported that no disruptions occurred as a result of family member presence and 97% described the behavior of family members as appropriate during the resuscitation. 95% of nurses, 77% of attending physicians and 66% of residents reported being comfortable with family members present. Almost all family members felt they had a right to be present and should be given the option. Most had a positive view of the experience and felt it was helpful to be present.


Critical Review of the literature of family presence for resuscitation and invasive procedures in the ED. Identified 21 studies and 1 unpublished dissertation for review.


Reviewer: LOE 3 Good (Chart Review) and 4 Fair (Survey of providers). Pediatric, Trauma Resuscitation, Supportive, Cross-Sectional Survey of members of the trauma team performed immediately after resuscitation to assess a structured program for family presence at pediatric trauma resuscitation. This was combined with retrospective chart review of all trauma activations. Perhaps most important result is that of 197 patients with who had a family member enter the room during resuscitation, no family member interfered with medical care. Patients with family presence were compared to those without with regard to time to completion of trauma interventions and no significant differences were noted between the groups. Most providers also supported family presence.


Reviewer: Level 2, Fair: Pediatric, Procedures, Supportive. Evaluated invasive procedures in PICU. Compared two non-randomized groups of parents: those present for procedure and those not present. Assignment was based on attending (some gave parents the option, others did not. Anxiety measured using a self-report survey. Parental anxiety related to the procedure was significantly reduced by being present. There was one instance where nurse felt parent’s presence was harmful to nurse and that parent. Biggest problem with this study is assignment technique. Cannot determine whether procedure related anxiety was reduced because parent was present, parent was invited to be present, or because those attending physicians were more reassuring.


Reviewer: Critical review focusing on the ED setting. Identified 24 studies that focus on resuscitation and/or procedures.


Reviewer: Level 2, Fair: Adult, Resuscitation, Supportive. Randomized controlled trial. Used 5 different measures at 1 and 6 months after resuscitation to measure psychological effect of witnessed resuscitation. While there were no significant differences between the two groups, and all were satisfied with their decision to be present during resuscitation, this study lacked sufficient power to detect small differences between the groups.


Reviewer: Level 4, Fair: Pediatric, Invasive procedures, Supportive. Looks at parental presence during procedures in an ED. Surveyed parents who had been present for a procedure and staff who had also been present. Three children were critically ill during procedures. Over 90% of parents and staff felt parental presence was a good idea.

Reviewer: Pediatric, Invasive Procedures and Resuscitation, Supportive. This is a third review article on family presence at pediatric resuscitation. Not a formal critical review.


Reviewer: Level 4, Fair: Pediatric, Invasive Procedures including intubation. Supportive. In 97% of cases there was no interference with care by family members observing a pediatric procedure. In the two cases that involved “interference,” one was a mother with near syncope, the other was a mother that felt pain control was inadequate and who cooperated after an explanation.


Reviewer: LOE 3, Good, Pediatric, Resuscitation, Supportive. Compared parents who were present at resuscitation and those who were not. This is perhaps the best designed study available to assess parental presence at pediatric resuscitation. It compares parents’ actual experiences with either being present or being barred from being present.


Reviewer: LOE 4, Poor. Age of victims not listed, resuscitation, neutral. This study represents a qualitative analysis of five family members of witnessed resuscitation of a relative. It is not clear if any of those resuscitated survived. Seven family members were originally interviewed and two withdrew from study, further impairing the generalizability of a study with a very small number of subjects. Findings of these interviews suggest that while some felt witnessing resuscitation was helpful, at least three of the interviewees regretted having witnessed the event described it as a negative experience. Apart from that, however, the study does not document long-term harmful effects of having witnessed the resuscitation and did not evaluate whether, even while regretted, it might have been helpful in coming to terms with the death of a relative. Overall, it is very difficult to generalize much of anything meaningful from this study with regard to the PICO question.


Reviewer: LOE 4, Poor. Adult, Resuscitation. Qualitative methodology involving interviews with 17 adult relatives (41 invited to participate) of patient’s who underwent resuscitation 5-34 months previously. Most patients died during resuscitation. Only two of the 17 interviewees were present in the resuscitation room and some who were not were not at all familiar with the sorts of procedures involved in resuscitation. The two who were present were not asked by anyone if they wanted to be present, but simply went in. One was asked to leave and refused. In other words, family presence was not encouraged at this institution which may alter findings. Study participants varied in their views about whether they would have wanted to be present. They agreed that it should not be required. This study did not speak to whether benefit or harm would result from family presence and in that sense has minimal relevance to the PICO question.


Reviewer: Level 1, Good: Pediatric, Invasive Procedure (venipuncture), Supportive. Randomized controlled Trial: parent present vs. parent absent. Looked at venipuncture in ED among 8-18 year olds. Level of “distress” was self-reported by parents and and patients. Suggests that distress of parent and child is lower when parent is present for this procedure.


Reviewer: Level 1, Good: Pediatric, Invasive Procedure (venipuncture), Supportive. Similar to above study except with younger age group. Randomized 96 subjects into two groups: parent-present vs. parent-absent. This study looked at venipuncture in ED among 1-7 year olds. Patient distress (based on CHEOPS) and parental distress (based upon self-report) were significantly lower in the parent-present group. Health care provider distress (by self-report) was also significantly
lower in the parent-present group. Did not analyze the number of venipuncture attempts in each group or attempt to control for this confounder. Authors simply state that confounding is unlikely since 92% of all venipunctures required only one or two attempts.