

CONCEPT

# SUPPORTING FAMILIES AND OUR OWN: STRATEGIES TO MINIMIZE THE EMOTIONAL BURDEN OF FAMILIES AND FIRST RESPONDERS DURING AND AFTER A PREHOSPITAL CARDIAC ARREST RESUSCITATION

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## ABSTRACT

Out-of-hospital cardiac arrest (OHCA) can have significant adverse sequelae for the patient's families that additionally impact the responding EMS clinicians. Despite advances in medicine, 90% of OHCAs result in death. The sudden and unexpected nature of these events, adds to the complexity of grief for the surviving family members. OHCA specifically has been shown to have deleterious mental health impacts on EMS clinicians who have self-reported experiencing negative emotions after delivering bad news to families such as a death notification. Given the grim prognosis associated with OHCA outcomes and the associated emotional fallout, we must find ways to better support our patients, their families, and EMS clinicians.

The goal of this paper is to offer strategies that can be used by EMS clinicians to better address the emotional burden experienced by families during an OHCA resuscitation. Many prehospital clinicians receive limited training around the psychological and emotional consequences that accompany OHCA scenarios.

Currently no national curriculum or writings have covered the concept of how to run an emotionally supportive OHCA. The following is an expert consensus of recommendations from a multidisciplinary group of experienced EMS clinicians, child life specialists, licensed clinical social workers and physicians with backgrounds in emergency medicine, palliative care and EMS. The strategies outlined would ideally be utilized by first responders to anticipate and subsequently support the emotional needs of families. The strategies include ways to enhance communication, help combat common misperceptions from families around cardiac arrest, and prepare EMS clinicians for what to do if a resuscitation is unsuccessful. Ultimately, the goal of this paper is to provide tools to help EMS clinicians better engage with families to minimize the emotional impact on all involved.

## INTRODUCTION

Cardiac arrests are some of the most emotionally fraught calls for EMS clinicians and for the families affected by them. Annu-

ally more than 350,000 OHCA occur in the US (Benjamin et al, 2019). Despite advances in medicine greater than ninety percent of these OHCA end in the patients death (Benjamin et al, 2019).

The patients are not the only victims of these tragedies; often families are left devastated by the loss of their loved one as well. The sudden and unexpected nature of these events often leads to traumatic experiences and complicated grief. A study of over 27,000 people found the unexpected death of a loved one was most likely to be rated as the worst traumatic experience by respondents, even if they had been exposed to other significant past traumas (Keyes et al, 2014). Furthermore, the unexpected death of a loved one increases one's risk for a multitude of psychiatric disorders including post-traumatic stress disorder, depression, and substance misuse (Keyes et al, 2014). This poses the question: Are EMS clinicians solely treating patients in cardiac arrest, or are they treating the families as well? In 2011, the National Association of EMS Physicians (NAEMSP) released a position statement in support of the termination of OHCA, which has led to a national shift, with many arrests being called in the field. As a result, EMS clinicians are not only the first healthcare clinicians most families interact with, but likely the only clinicians, given the low number of patients successfully resuscitated. Only a small portion of patients will be brought to the hospital, so for many families the EMS teams will be responsible for updating the family, delivering any bad news, providing emotional support, and explaining the next steps for their loved one. There is a paucity of research around how families are impacted by first responders breaking bad news, but we do know that poor communication from in hospital-based teams when delivering bad news has been associated with increased psychological distress, anxiety, and depression (Ellis & Tattersall, 2009). It is reasonable to assume that poor communication techniques would have a similar impact when utilized by EMS clinicians. EMS clinicians must work diligently to minimize the emotional impacts families experience during cardiac arrests.

The emotional impact of OHCA often extend past that of families and affects EMS clinicians as well. With the added burden of having to tell families that a loved one has died, there is likely additional emotional strain on EMS clinicians. A recent study of more than 1000 U.S. based EMS clinicians reported 86% of respondents have given a death notification within the last year (Tillett, Martell, Crispo, & Strout, 2022). That same study demonstrated greater than half of respondents reporting negative sequelae including intrusive thoughts, lost sleep or emotional difficulty related to delivering bad news, with 7% of respondents experiencing these effects "frequently" (Tillett, Martell, Crispo, & Strout, 2022). This may be adding insult to injury as first responders have also been found to have up to five times the rate of post-traumatic stress disorder and depression compared to the general public (Heyman, Dill, & Douglas, 2018). EMS clinicians specifically have been found to have rates of suicide 1.39 times that of non-EMS clinicians and firefighters, even when accounting for the dangers of firefighting and the high prevalence of suicide in the profession. It is imperative that we do all that we can to support first responders' mental health and one way we may be able to accomplish this is to adequately prepare them to support families during a cardiac arrest resuscitation. In the aforementioned study of 1000 US based EMS clinicians, 42% reported not receiving any education around the subject of breaking bad news, and 96% of respondents felt additional training would be helpful (Tillett, Martell, Crispo, & Strout, 2022). To our knowledge, no stan-

standardized national training or curriculum currently exists that prepares EMS clinicians to run an emotionally supportive OHCA or break bad news in the prehospital environment.

The goal of this paper is to address the question: how can EMS clinicians approach the family of an OHCA to decrease the emotional burden on families? Ideally by enacting some of the strategies detailed, EMS clinicians can more effectively minimize the emotional impact on families and the emotional fallout they themselves are at risk of experiencing. This paper does not address the delivery of bad news itself. Additional writings around the topic of breaking bad news exist, including the Prehospital Guide to Making Death Notifications, and we would recommend all prehospital clinicians become comfortable with the techniques of delivering bad news (Tillett, Jacobs, & Crispo, 2024). Unfortunately, there is limited data around the topic of how to support families during an OHCA. Each OHCA is unique in its location, variety of people present, and evolution. The prehospital environment is very different from a resuscitation bay in an ER with a multitude of staff and a quiet family room for family discussions, and thus requires a unique and thoughtful approach. The contents of this paper stem from the collective experiences of veteran EMS clinicians, a licensed clinical social worker, a child life specialist, and physicians with backgrounds in emergency medicine, EMS and palliative care. The intent of the following is to lay the groundwork for a thoughtful approach by EMS clinicians to address some of the most common issues that may occur and offer suggestions on how to best navigate them. Each EMS clinician should always follow their protocols and be thoughtful in tailoring their approach to the needs of each family and that of their own crews during these calls.

#### STRATEGIES TO MINIMIZE EMOTIONAL BURDEN.

##### *ASSIGN A FAMILY LIAISON:*

Incorporate a family liaison into a pit crew approach to a cardiac arrest. The family liaison will help cognitively offload the clinician running the resuscitation while being able to focus full attention on the family. Many ERs do this with a social worker or experienced RN to keep the family informed so others can focus on the resuscitation. If no liaison is available for the family due to lack of personnel, a team member must briefly address the family and let them know you will update them shortly. An example would be “I’m Lt. X from the fire department, and we are going to do everything we can to help your husband. We need to focus on him for the next several minutes, but I promise we will answer all your questions as soon as we can.” When sufficient personnel arrive, a family liaison should be assigned.

##### *IDENTIFY WHO IS PRESENT:*

Anyone present should be identified not only for information gathering purposes, but to ensure any decision making and notifications are made correctly. It may seem small, but you do not want to mistake a patient’s neighbor checking in on them for their spouse. This will also help later when discussing termination of a resuscitation and determining how much information to divulge.

*ASK THE PATIENT'S NAME:*

If you can, ask the patient's name and refer to the patient by name. This will help show you and your team care and will help in rapport building. "They are giving medicine to help try and restart David's heart" is much more humanizing and will resonate more with family than not using the patient's name.

*ASK FOR THEIR UNDERSTANDING:*

It is important for the family liaison to ask, "What is your understanding of what is happening to David right now?" The public's understanding of cardiac arrest is quite different from medical personnel, and laypersons often have limited understanding of survival rates let alone other potential sequelae such as permanent neurologic damage. For example, one review of three medical drama TV shows found a 75% survival rate after cardiac arrest (Diem, Lantos, & Tulskey, 1996). Furthermore, the majority of older patients surveyed based their knowledge around CPR from television (Schonwetter, Teasdale, Taffet, Robinson, & Luchi, 1991). Often the media portrays people waking up and acting normal after CPR, which for most patients will be far from the case. Establishing the families' understanding may help you guide them or explain what the next steps are, and better manage expectations; a key component in preparing families for a potentially poor outcome.

*ASK ABOUT CODE STATUS:*

This may not always be applicable but especially for elderly patients asking if a patient has a DNR or if they had ever expressed their wishes if their heart were to stop may be indicated. Sometimes in the stress of a loved one collapsing or being found down, families may not think about a DNR or wishes already laid out by a loved one. When asking about code status, avoid statements such as asking "would they want us to do everything" instead opt for statements such as "Does David have a DNR, or did he ever express his wishes if his heart were to stop? Did he ever say if he would want to die a natural death, or would he want things like what we are currently doing, such as CPR and to potentially be kept alive by machines such as a ventilator?" Often families, given their misunderstandings about CPR, don't understand that cardiac arrest patients rarely wake up unhindered and most must remain on a ventilator for a period of time, may have an extended hospital stay and may have significant permanent deficits. If the family is unsure, defaulting to full code status is appropriate. Do not delay CPR to discuss these options unless the patient is clearly a DNR.

*ALLOW THE FAMILY TO BE PRESENT:*

Ask the family if they would like to witness the resuscitation. Asking can help them have a sense of control. Recent studies have demonstrated benefits to families who choose to be present for resuscitations in hospital-based settings, including reduced anxiety and symptoms consistent with post-traumatic stress (Jabre et al, 2013; De Stefano et al, 2016). These studies did not demonstrate increased medico-legal issues, increased stress for care teams, and did not interfere with medical efforts (Jabre et al, 2013; De Stefano et al, 2016). Allowing families to watch with their own eyes the intense efforts and

compassion of the team attempting to save their loved one may help them feel that every possible effort was exhausted. Make sure someone remains with the family to talk them through what is occurring.

*UPDATING FAMILY AND AVOIDING MEDICAL JARGON:*

Whoever is speaking to the family should provide continued updates. The high stress nature means it will be easy for family members to be overwhelmed so short simple sentences that avoid medical jargon are best. Avoid saying things like “he is in respiratory arrest, so they are intubating him” instead say “He is not breathing on his own, so the team is placing a breathing tube to breathe for him.” A conscious effort to slow speech cadence and carefully choose words will help make sure you are communicating in a way family can follow.

*AVOID BEING OVERLY OPTIMISTIC, IT IS OK TO BE HONEST:*

When providing updates it’s important to focus on what is occurring. Many clinicians instinctively want to reassure families when we see them in pain, but the majority of cardiac arrests will not survive, and we must avoid the urge to be overly optimistic or to give false hope. Being honest that a patient is not responding favorably to interventions and expressing concerns is also appropriate. An example may be “We have given several rounds of medications and shocked him several times, but his body is not responding. I worry his heart might not be able to be restarted.” This may be painful for them to hear but it will help prepare the family mentally for the likely outcome of the patient’s death in this situation. Put another way, it is always preferred to exceed expectations than under perform.

*ADDRESS EARLY WHY YOU ARE NOT TRANSPORTING THE PATIENT:*

Families may have preconceived notions about what a hospital may be able to offer and may think you need to transport the patient. Follow your local protocols and guidelines for transport during medical cardiac arrest, as resources and capabilities vary greatly, but current research supports continued on scene resuscitation over transport during most active medical cardiac arrest resuscitations (Grunau, et al, 2020). Letting families know early on why you are remaining on scene may be beneficial in helping align the families understanding of how the resuscitation is being run. Say something like “The best chance to restart David’s heart is restarting it here now; we have everything we need right here, and if we try to transport him it will likely hurt his chances.”

*GIVE TASKS IF FAMILY IS INTERFERING IN CARE:*

Some family or people may need to feel involved and could hinder the resuscitation. Giving them a task especially if you have limited resources may be of benefit, i.e., asking them to hold an IV bag, or flashlight. Sending them to gather a patient’s medication bottles is another task that may help mitigate this issue until a clinician is available to speak with family directly.

*SHOW RESPECT FOR THE PERSON:*

The physical acts of a resuscitation can be both brutal and emotionally jarring. Protecting a patient’s dignity can greatly impact a family’s perception of efforts and whether they

are perceived as caring or not. This includes small acts, such as protecting a patient's head as you move them to the floor to start CPR, or throwing a blanket over their private areas if they are naked or have soiled themselves.

*SUCCESSFUL RESUSCITATION:*

If your team successfully achieved return of spontaneous circulation and the patient is to be transported, this is great! Keep in mind, the chance of survival to neurologically intact discharge is still low. It is important that someone, ideally whoever has been acting as the family liaison, explain to them the next steps, especially if the clinician running the resuscitation is still providing care. Avoid being overly optimistic, as the probability of re-arrest and permanent sequelae is still very high. Explain to the family that the patient remains critically ill and, while their heart is beating again on its own, this may not be survivable and is at risk of stopping again. Explain the next steps, such as transport to the ER. Offer to call and update any family who is not there if you are able. Arranging a ride to the hospital for a family member is also reasonable. Returning moved furniture and picking up trash, if you do not anticipate a criminal investigation, is appropriate and meaningful. Despite the initial resuscitation of the patient, this is still a traumatic experience for families, and these little steps may greatly improve their perception of the situation.

*FAILED RESUSCITATION NEXT STEPS:*

If a resuscitation is unsuccessful and the family has been notified of the death, allow them some time to process. Make sure to let the families know you are there for them and willing to help in any way you can. It is important to give them some time to process the events, and when they are ready explain the next steps. Families are often overwhelmed and not sure what to do next. Being familiar with and explaining these steps can help keep them from spiraling emotionally. This may include a death investigation from police or contacting a funeral home. Law enforcement may handle the majority of this but being aware of your local guidelines is key. Families will often want to see their loved ones, and it is important to let them know you will let them see their loved one, but it may take some time for law enforcement to complete their investigation prior to them being allowed. Offering to call additional family members is appropriate. While it is important to return to service in a timely manner, a few extra minutes on scene may have a huge impact on the family and their perception of what has transpired.

*BEREAVEMENT PACKET:*

This is a packet to leave behind with families after a death that includes information about the next steps for families. This is an easy thing to set up before calls and carry on each unit. It can include simple items such as pertinent phone numbers and a letter from your department expressing your condolences. These packets can provide information on local bereavement groups, contact information for the medical examiner, financial resources, and a list of local funeral homes, as well as contact information for local social services agencies. Additional items such as a memory book to place photos could also be included. Additional resources for addressing bereavement in children may be considered in cases where young children or grandchildren are affected.

*DEBRIEF WITH TEAM AFTERWARDS:*

Discussing what went well and what could be done better is important after any cardiac arrest. Including and being thoughtful about the death notification and how family was supported throughout may help improve future interactions for families. Doing so as a group can also help less experienced clinicians learn and grow from the experience as well as potentially mitigate some of the emotional impact they may also feel.

*FAMILY ROLE IN THE DECISION TO TERMINATE RESUSCITATION:*

Inviting family to contribute to the decision to terminate resuscitation can be beneficial for family and EMS clinicians. It may help family to feel empowered in a situation in which they are otherwise helpless. . It allows EMS clinicians and family to be in on the care provided.

There are several options to allow for family involvement. One approach is to speak to the family in a separate room or area and explain the extensive resuscitation efforts that sadly have been unsuccessful. Another approach is to have family present while resuscitation is being performed, and explain that, despite the active resuscitation efforts, their body is not responding. When a decision is made to terminate resuscitation, this can be communicated as a recommendation to the family. It is also appropriate to ask families' permission to cease efforts, which helps align them with your team and give them a sense of control. If a loved one is resistant to the recommendation to terminate resuscitation, it is important to communicate in a direct but sensitive manner such as "I wish that the CPR we are doing would bring back your loved one, but it has not worked and they have died." It can be helpful to summarize the extensive resuscitation efforts in order to reinforce that everything possible has been done to try to resuscitate their loved one. If you encounter ongoing resistance, consulting an online medical command physician, in accordance with local protocol, to discuss further may help ease family concerns.

*ADDITIONAL CONSIDERATIONS*

*RELIGION:*

For some families, religion may play large role in coping with loss, grief, and bereavement. A family may ask you to join them in prayer, which is your own personal decision. It is appropriate to join them or to politely decline. Regardless, it is important to remain nonjudgmental and not interject your personal religious beliefs into their moment of crisis.

For families who do seek support from religion it is okay to ask about this in a neutral way such as, "Is religion or faith something that is important to you at a time like this?" If they respond yes, offer to contact a clergy member or other religious resource (i.e., rabbi chaplain, priest, etc.) on their behalf, or recommend that they do so.

*PEDIATRIC CARDIAC ARRESTS:*

Pediatric cardiac arrests are often felt to be one of the most traumatic of patient exposures and carry a significant emotional burden. More detailed information on discussing a pediatric death with families can be found in the Pre-hospital breaking Bad News Guide (Tillett, Jacobs, & Crispo, 2024). A study looking at pediatric resuscitation in hos-

pitals where parents were present or nearby found that, while emotional support was appreciated, parents reported that ongoing real time updates and information was the most important thing for them and guided their perception team investment in their child (Stewart, 2019). Parents should also be asked how involved they would like to be and if they want to be present during the arrest.

*CHILD PRESENCE DURING AN ADULT CARDIAC RESUSCITATION:*

Supporting a child who is witnessing a cardiac resuscitation is challenging and little literature exists around this topic (Benjamin et al, 2019). A child that is present through an active resuscitation will likely require ongoing support, communication and emotional care during and after the event to help minimize the traumatic impact of that experience. The following considerations should be taken when deciding how and when to support a child.

*SETTING-*

During an OHCA it may be best to move the child to a safe and separate location away from where their loved one is receiving care. Locating a family support person to stay with the child is helpful. Using supportive language and naming emotions can feel validating to the child, "You are doing a great job being brave while our team is here. It can be scary to see a loved one have an emergency." Explain to the child how the team is helping their loved one (see language below). Exposure to traumatic experiences without information and support creates opportunities for misunderstanding and harm.

*AGE-*

Younger children will likely not understand why their loved one needs emergency care and what caused their loved one to become very ill. Children 3-6 years old often have "magical thinking" and believe they caused the medical emergency. It is important to provide a developmentally appropriate explanation of why their loved one has stopped talking and moving, and how EMS is helping them in a special way. "Your Dad's heart is not working, and we need to help his heart pump blood to his body. You did not do anything to cause this emergency." If the child witnesses the active resuscitation, the EMS provider can offer simple information such as, "They are using their hands to push on his chest to help his heart pump blood." Some children may do better away from the emergency and benefit from an adult's comforting presence and distraction. Older children may ask to stay present through the resuscitation. They will need to be supported and talked through what they are seeing to ensure understanding. Always be conscientious of parental wishes, if expressed, as well as different expectations amongst different cultures.

## DISCUSSION

OHCA occur in a wide variety of dynamic environments that are often chaotic, and are invariably unique. No document address all potential issues that arise and there is no 'one size fits all' approach or algorithm than can be successfully applied to each of these challenging calls. Large amounts of time and training are dedicated to the medical aspect of cardiac arrest, but little is focused on all those traumatized by these events. The lack of attention to the trauma that families and clinicians are exposed to during a cardiac arrest is disproportionate to the deleterious emotional burden it can leave us with.



Improving the education and training of EMS clinicians to help better support families and each other during OHCA is necessary. Training on how to run an emotionally supportive cardiac arrest, and communication of difficult news, should be incorporated into the education of all EMS clinicians. It is our hope that this paper will help lead to future research, writings, and ultimately a national curriculum to better prepare EMS clinicians for this difficult and important part of their job. If we continue to fail to support and educate our EMS clinicians on this topic, we will continue to leave them ill prepared for the inevitable calls of devastated families in a desperate time of need.

## REFERENCES

- Benjamin, E., Mutner, P., Alonso, A., et al. (2019). Heart disease and stroke statistics 2019 update. *Circulation*, 139, e56-e528. <https://doi.org/10.1161/CIR.0000000000000659>
- De Stefano, C., Normand, D., Jabre, P., et al. (2016). Family presence during resuscitation: A qualitative analysis from a national multicenter randomized clinical trial. *PLOS One*, 11(6), e0156100. doi: 10.1371/journal.pone.0156100
- Diem, S., Lantos, J., & Tulskey, J. (1996). Cardiopulmonary resuscitation on television. *New England Journal of Medicine*, 334, 1578-1582. <https://doi.org/10.1056/NEJM199606133342406>
- Ellis, P., & Tattersall, M. (2009). How should doctors communicate the diagnosis of cancer to patients? *Annals of Medicine*, 31(5), 336-341. <https://doi.org/10.3109/07853899908995900>
- Grunau, B., Kime, N., Leroux, B., et al. (2020). Association of intra-arrest transport vs continued on-scene resuscitation with survival to hospital discharge among patients with out-of-hospital cardiac arrest. *JAMA*, 324(11), 1058-1067. <https://doi.org/10.1001/jama.2020.14185>
- Heyman, M., Dill, J., & Douglas, R. (2018). The Ruderman white paper on mental health and suicide of first responders. *Ruderman Family Foundation*. Retrieved from [https://rudermanfoundation.org/white\\_papers/police-officers-and-firefighters-are-more-likely-to-die-by-suicide-than-in-line-of-duty/](https://rudermanfoundation.org/white_papers/police-officers-and-firefighters-are-more-likely-to-die-by-suicide-than-in-line-of-duty/)
- Jabre, P., Belpomme, V., Azoulay, E., et al. (2013). Family presence during cardiopulmonary resuscitation. *New England Journal of Medicine*, 368, 1008-1018. <https://www.nejm.org/doi/full/10.1056/NEJMoa1203366>
- Keyes, K., Pratt, C., Galea, S., McLaughlin, K., Koenen, K., & Shear, M. (2014). The burden of loss: Unexpected death of a loved one and psychiatric disorders across the life course in a national study. *American Journal of Psychiatry*, 171(8), 864-871. <https://doi.org/10.1176/appi.ajp.2014.13081132>
- Schonwetter, R., Teasdale, T., Taffet, G., Robinson, B., & Luchi, R. (1991). Educating the elderly: A CPR resuscitation before and after intervention. *Journal of the American Geriatrics Society*, 39, 372-377. <https://doi.org/10.1111/j.1532-5415.1991.tb02902.x>
- Stewart, S. (2019). Parent's experience during a child's resuscitation: Getting through it. *Journal of Pediatric Nursing*, 47, 58-67. <https://doi.org/10.1016/j.pedn.2019.04.019>
- Tillett, Z., Jacobs, S., & Crispo, M. (2024). Breaking bad news in the prehospital setting: A guide for EMS clinicians. *International Journal of Paramedicine*, (6), 163-170. <https://doi.org/10.56068/GLAR2701>
- Tillett, Z., Jacobs, S., Crispo, M. (Pending Publication) The prehospital guide to making death notifications - *Maine Medical Center Emergency Department*

- Tillett, Z., Martell, J., Crispo, M., & Strout, T. (2022). An assessment of out-of-hospital provider education and sequelae around breaking bad news. *Annals of Emergency Medicine*, 80(4 Suppl), S43. <https://doi.org/10.1016/j.annemergmed.2022.08.108>
- Vigil, N., Grant, A., Perez, O., et al. (2019). Death by suicide-The EMS profession compared to the general public. *Prehospital Emergency Care*, 23(3), 340-345. <https://doi.org/10.1080/10903127.2018.1514090>