

Jacobs Journal of Nursing and Care

Research Article

The Perspectives of Emergency Personnel Regarding Ways to Improve Trauma Patient Handoffs in the Resuscitation Room

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Received: 05-13-2015

Accepted: 07-21-2015

Published: 08-10-2015

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Abstract

Introduction: The current standard practice is for pre-hospital personnel to give a brief and concise patient handoff report when bringing a trauma patient to the emergency department resuscitation room. However, lack of communication skills on the part of hospital and pre-hospital personnel can lead to frustration and inaccurate communication of vital information that can influence patient care. When hospital personnel attempt to begin patient care prior to the completion of report, vital information can be missed and pre-hospital personnel often have to repeat critical patient history, delaying the transfer process.

Methods: A survey monkey questionnaire was sent to emergency medical technicians, paramedics and flight nurses to solicit their perspectives regarding ways to improve trauma patient handoffs in the resuscitation room of an academic medical center.

Results: One hundred thirty five participants responded. Respondents stressed the importance of slowing down, avoiding interruptions during the handoff report, limiting the number of individuals in the resuscitation room, having one point of contact, using a report voice, and paying attention to the pre-hospital provider. Respondents emphasized the merits of not beginning to provide care until the conclusion of the handoff report.

Conclusion: Patient handoffs for trauma patients in the resuscitation room can be improved if pre-hospital and hospital-based personnel communicate clearly, respect the roles of other providers, and allow time for a complete report prior to providing care. Allowing for a brief, concise, uninterrupted handoff report can improve the quality of care that is provided to trauma patients.

Keywords: Handoff Report; Resuscitation Room; Trauma; Communication; Emergency Medical Technicians; Paramedics; Flight Nurses

Introduction

Trauma is the leading cause of morbidity and mortality in the United States. It is associated with immense healthcare costs and the need for timely and accurate coordination between multidisciplinary providers [1]. It is vital that proper communication between pre-hospital and hospital-based personnel occur during a short period so that transfer of care can occur in a responsible manner. In 2008, the World Health Organization identified that development of standard procedures for communication during patient handovers was one of their top five priorities for developed countries [2]. In 2006, patient handover was included as a patient safety parameter by the Joint Commission on Accreditation of Healthcare [3].

The current standard practice is for pre-hospital personnel to give a brief and concise patient handoff report when bringing a trauma patient to the emergency department resuscitation room. However, lack of communication skills on the part of both hospital and pre-hospital personnel can lead to frustration and inaccurate communication of vital information that in turn influences the quality of patient care. When hospital personnel attempt to begin patient care prior to the completion of report, vital information is often missed, pre-hospital personnel have to repeat critical patient history, and the transfer process is delayed [4].

A number of studies have examined issues that affect the accuracy and quality of handoff reports from the perspective of physicians and residents [5,6]. In addition, a number of studies looking at factors that influence the quality of handover reports have been completed outside the United States primarily in Australia [7-10] England [11,12] and Denmark [5]. Paramedics, nurses and physicians reported that constant interruptions, workload, strained relationships and lack of clarity about transfer or responsibility contributed to frustration and potential for errors [7]. Researchers reported that nurses and doctors felt that it was necessary to have a structured handover format and formal protocols for specific content that needed to be conveyed [10].

Two researchers who analyzed audiotaped pre-hospital and videotaped in-hospital handovers reported that information was lost 25 % of the time during pre-hospital telephone communication and 33 % of the time during in-hospital reports [8]. Researchers also videotaped handovers and had emergency room clinicians and paramedics comment on their own practices and use that data to design a new handover protocol [9]. The amount of information that had to be repeated was reduced from 67 % to 33 % following adoption of the protocol.

Researchers surveyed participants from one ambulance service and four emergency departments [12]. Doctors mentioned needing to ask that the report be repeated to hear specific aspects of patient history or to clarify treatments. Paramedics were frustrated when staff focused on providing care rather than listening. Nurses were frustrated when long reports were given which delayed care.

Literature reviews have shown that loss of information during handover reports leads to longer emergency room stays. Lack of active listening by emergency room personnel results in a need to repeat the report and delays the provision of care [5]. Dawson and colleagues reviewed the literature and reported that lack of respect for pre-hospital personnel and lack of a structure during handover reports were critical elements that caused problems [4].

There is an absence of research that has been conducted within the United States that includes the perspectives of emergency medical technicians, paramedics and flight nurses regarding ways to improve trauma patient handoffs in the resuscitation room. There is not yet sufficient research to inform evidence-based handover strategies [13]. The purpose of this study was to obtain the perspectives of emergency medical technicians, paramedics and flight nurses regarding how to improve patient handoffs in the resuscitation room of an academic medical center.

Methods

Following IRB approval, a Survey Monkey questionnaire was sent via e-mail to emergency medical technicians, paramedics and flight nurses to identify ways to improve trauma patient handoffs in the resuscitation room of a 619 bed academic medical center with a level 1 trauma center. Supervisors at each of the ambulance companies that transport patients to the resuscitation room were asked to forward the Survey Monkey link to their 2060 employees. One hundred thirty five responses were obtained.

Twenty-seven females (20 %) and 108 (80 %) males responded. Seventeen (12.59 %) emergency medical technicians, 92 (68.15 %) paramedics, and 26 (19.26 %) flight nurses responded. Sixteen (11.85 %) individuals were between 20 and 29, 60 (44.44 %) were between 30 and 39, 36 (26.66 %) were between 40 and 49, 19 (14.07 %) were between 50 and 59 while 2 (1.48 %) were older than 59. One hundred and six respondents (78.51 %) were White, 1 (0.74 %) was African American, 6 (4.44 %) were Hispanic / Latino, and 12 (8.88 %) listed their ethnicity as 'Other' while 10 individuals did not respond to this question. Twenty-five respondents (18.52 %) stated they had worked in their role for less than 5 years, 38 (28.15 %) stated they had worked for 5 to 10 years, 29 (21.48 %) stated they had worked for 11 to 15 years, 20 (14.81 %) stated they had worked for 16 to 20 years, and 23 (17.04 %) stated they had worked for more than 20 years. Eleven (8.15 %) individuals

reported transporting a trauma patient to the given emergency department on a daily basis, 36 (26.67 %) reported weekly transports, 51 (37.78 %) reported monthly transports, and 37 (27.41 %) stated they rarely transport patients to the given emergency department.

Twenty-seven (20.00 %) individuals reported they were always able to give a thorough, uninterrupted handoff report, 77 (57.04%) reported they were sometimes able to do so, 20 (14.81 %) reported they were rarely able to do so, and 11 (8.15 %) reported they were never able to do so. Participants were also asked to respond to a qualitative question “How can the patient handoff process be improved in the resuscitation room?”

Two researchers reviewed the qualitative responses and identified repetitive themes. A list of meanings was compiled and clustered to determine if the themes overlapped and / or accurately reflected the essence of the participant’s perspectives [14]. Each researcher re-read the responses as they checked for “incongruities, puzzles, and unifying repeated concerns” [15, p. 113]. When a finding was identified that both researchers did not agree on, they returned to the original responses and re-examined the meanings that were presented by the participants. Consensus regarding findings was achieved using this approach. Numerous quotes are included in the results section below so that readers are able to participate in consensual validation of the data and assess whether the interpretations match participants’ experiences [16].

Results

Emergency medical technicians, paramedics and flight nurses identified six themes that would improve the handoff process in the resuscitation room. Those themes included: 1) slowing down and being calmer, 2) having fewer people present while identifying one point of contact, 3) not requiring a triage report before a resuscitation room report, 4) listening without interruption, 5) being respectful, and 6) creating a scripted handoff guideline. Select quotes are included in each of these areas to illustrate the perspectives of pre-hospital personnel.

Slow down: Be calmer. Don’t grab

Don’t touch the patient until the transporting medics authorize moving the patient from their gurney and report is completed. Don’t start grabbing anything until the patient is on your gurney. Thirty seconds is not likely to change outcome yet it is likely to ensure a complete report and proper transfer of care is completed. Have less involvement of hospital staff in moving patients. Have more patience and decrease the apparent competition between staff members to get their tasks done.

I often feel as though the residents have no interest in our report or hearing about the trauma. They just want to get hands on the patient often times with complete disregard for patient

safety. I have seen the pulling out of lines. These patients are not objects they are individuals in need of our care.

Do not grab the patient off our gurney until we are ready to transfer them. When we arrive a handful of people will grab the board the patient is secured to and try to move them off our ambulance gurney before they are ready to be transferred causing intravenous lines (IVs) to be ripped out, monitor cables or oxygen tubing to become wrapped around the patient, creating a tangled mess. In their haste to transfer the patient over to the hospital gurney, hospital staff may not unlatch all the seat belts, or they unlatch straps that are securing the patient to the backboard, which causes the patient to shift in an unsafe manner compromising spinal precautions. Allow us to remove our equipment before anyone takes the patient off the gurney - it will save time and allow people to do their work rather than us trying to fight the “mob” to get our equipment back. Going slower is faster. It is distracting to have hands placed on the patient while report is happening.

Have fewer people there: Identify one point of contact

Almost every time I have had to give a handoff report, there are at least 10 people, if not more, with no one clearly identifying themselves as the person I need to speak to. When giving a report I will attempt to speak loudly so the room can hear, but it is usually interrupted by someone doing their patient assessment with two or three people asking different questions of the patient or myself. Many of the answers I already have for them but getting interrupted mid-sentence doesn’t answer anything. I understand this is a learning facility, and doctors, nurses, surgeons, etc., need to get their hands on the patient but there doesn’t need to be so many people in the room. The room is so crowded at times, the person scribing information isn’t identifiable or can’t hear the patient transfer information. Only one person should ask questions pertaining to the patient at a time, it gets very confusing and frustrating when three doctors ask multiple questions while the scribe taking notes is constantly repeating, “What was that? Can you repeat that?” Give us at least 30 to 60 seconds of silence to give our run down and if you have questions ask them after that. Time is crucial.

Identifying who the primary physician and nurse treating the patient are would make it easier to get the right information to the right people. There are so many nurses, doctors, technicians, etc. in the room; it’s difficult to identify them. It would help to have the receiving physician and scribe close together so the report can be given without interruption or the need to repeat information to multiple people with different roles.

Let us know who is in charge. There are usually a bunch of medical students and a very crowded room so you start talking giving your report and you don’t get much feedback to know if

anyone is listening or more importantly who is listening. The room is filled with personnel with different colored scrubs on. You don't know who is a doctor, respiratory therapist, nurse, X-ray technician, Scribe, emergency room technician, etc. It would be nice to have one person who takes charge of receiving your report, who is a spokesperson for all the others in the room, who facilitates getting the information to everyone else.

Have the lead person who will be overseeing the care introduce themselves as the paramedic enters the room. Everyone comes into the room at different times during the hand off and wants the report started over again. One main doctor or nurse should be responsible for receiving the report. Not knowing who is listening or if anyone is actually listening, makes report less effective. Most of the time the flight crew will give report "to the room" and then find the scribe nurse and give report again to make sure somebody has the information.

Don't make us stop at triage

The hospital spent untold millions of dollars relocating and remodeling the emergency department, presumably to help speed things up. However, the entire system still requires incoming ambulances to funnel through a single triage station at the front door. It is inefficient and time-consuming. Ambulance personnel end up having to give a handoff report twice.

We need to spend less time in the front giving patient information to the clerk. Do not have the triage nurse ask for basic information that was obtained via the radio report. Allow the ambulance to transfer the patient straight to the trauma room where the trauma team is waiting.

Report Voice: Yelling

Problems can have to do with the paramedic's "report voice" (clear, non-hurried) and the receiving crew's level of calm. If the emergency room crew is rattled or has a new (nervous) leader, it tends to set a negative tone for the entire report.

As long as the pre-hospital provider knows to "yell" report over the crowd, there is no problem. If a timid report is given then hand off is unsuccessful because too many people are asking questions that have already been answered. Residents and nurses are a noisy bunch.

The attending, fellow or student is usually yelling, "airway intact" etc. and ignoring the transport report/staff. I personally don't usually have an issue. I can speak loudly and have been coming here over 10 years but I see many of our timid newbies get stepped on.

Listen without interrupting: Silence is needed

Pay attention to the initial report so things aren't missed and need to be repeated multiple times. Give the Paramedic 60 seconds of complete silence. We completely understand that you

need to get in to the patient to start an assessment but please let us finish talking first because some of the story is missed and then you end up asking us to repeat what we just said.

We need to have 1 to 2 minutes of silence while giving a report. The staff needs to listen to the medics report before starting their assessment and yelling results out over the medic's report. It would be nice if the primary doctor would let you know he or she is ready so that the medic does not have to stop and restart report. Let the medic finish talking before asking questions. Make sure only the doctors and the nurse scribe are the ones asking questions. Fewer interruptions are needed. Uninterrupted reports make it easier to give all the information without losing track of where you were in your report.

It would be an improvement to be allowed a period of time, without being talked over with comments, to give a report. Upon arrival it often seems that the doctors are immediately starting their own assessment, many people are talking and emergency transport personnel often seem to be the ones not listened to. Lots of interruption occurs and often with questions that were already answered. We can't identify who is leading the team and ultimately responsible for the patient.

Be respectful: Pay attention

Save the patient from unnecessary repetition and show some respect for pre hospital caregivers! Let us talk, have the docs listen and pay attention to what is being said. When we come in with a patient everybody needs to stop and listen for 30-45 seconds for report. Obviously if the patient condition doesn't warrant that time say in a code situation then things will need to be adjusted. With most of the patients that are brought in 30 seconds will not make a difference to patient care. I feel disrespected when we arrive. Nobody listens to report and then 2 minutes later the residents ask me questions that were covered in my report. I usually just talk to the attending that stands in the back of the room. I have found that they are the only ones who are courteous to me.

Give the first responders the same respect you would expect to receive. Lose the arrogant attitude. Remind the residents that although they have very important work to do, they know nothing of the scene and/or the events that brought the patient to them. They need to listen to the field personnel; I have been doing this over 20 years. I can give a thorough trauma report in less than 30 seconds.

I warn every patient that when we arrive at the emergency room, it will be very loud because everyone wants to talk at the same time. I tell them to remain calm and answer all questions to the best of their ability. I warn them that they will be asked the exact same questions that I have asked them in our ten to twenty minutes together. When we arrive, I do vocal exercises so that when I enter the trauma room, I can speak loud enough to talk over the intern. That's usually about the time the intern

asks me if I brought the patient's helmet in with me, to which I reply," I just told you he was a restrained driver in a sedan with airbag deployment. He wasn't wearing a helmet in his car." I get the impression that most of the people in the room would rather do a full assessment on their own and aren't particularly interested in my pre-hospital assessment, aside from the few questions they have regarding the scene or the mechanism of injury. I try to make my hand off as brief as possible while still fulfilling my duty to provide continuation of patient care.

Clarify what information is needed: Create a scripted handoff guideline.

Sometimes I have felt like I'm just talking and what I was saying was not needed because no one is listening. Clarifying what information you want during handoff would be helpful.

Attentive listening during a scripted hand off report is needed. It would help to communicate to the docs what the County protocols are and why we did or didn't do stuff because of protocol. You need to let us know what information you think is critical. Using a scripted handoff guide would be a good idea.

Discussion

Results of this study were consistent with those of other researchers who reported ambulance personnel were frustrated when hospital-based staff continued to perform tasks during handover report rather than listen [7,12,17]. The results are also consistent with researchers who found lack of active listening during clinical handover was problematic [7] and lack of respect for pre-hospital personnel was an issue [4].

Limitations

Although the hospital patients and staff are diverse, the sample of emergency medical technicians, paramedics, and flight nurses (n = 135) who responded to the survey were primarily (78.51 %) White. The survey asked about participant experiences at only one academic medical center. Larger studies are needed to determine if perspectives from other groups and hospitals are similar.

Implications for Emergency Nurses

Handover reports in the emergency room are stressful given the multiple conflicting priorities that nurses encounter when caring for trauma patients in noisy, chaotic, cramped, and life threatening situations. Paramedics, emergency medical technicians, nurses, and physicians have different perspectives regarding how much and what information is necessary during a handover report and how that information should be shared. There is a need for interdisciplinary education and use of multidisciplinary case studies or role-plays to help sensitize nurses to the culture, work values, communication styles, roles, strengths, limitations, competencies, and priorities of paramedics, emergency medical technicians, and physicians

[18]. Nurses are in an excellent position to advocate for evidence-based, scripted report formats.

Conclusions

Effective and accurate handover reports are critical to continuity and quality of care. To ensure the handoff process goes as smoothly as possible it is important to allow pre-hospital personnel to have a period of uninterrupted time to share their report before care is initiated. The exception would be if the patient would be harmed by not immediately intervening. An uninterrupted report decreases the need to repeat information and speeds transfer of care. It is also necessary to decrease the perception that different providers must immediately compete to get tasks done. In reality, slower, more deliberate care and cooperation between providers is needed. It is vital to be respectful of pre-hospital personnel and their knowledge regarding what happened in the field that is relevant to the patient's treatment. Understanding the perspective of diverse providers is essential if an effective transfer of care is to occur. Pre-hospital personnel also need to "command" respect by using a report voice and being assertive when giving report. It is important both to minimize the number of personnel who are present during report and to identify a primary point of contact who asks questions and records relevant data. Also, it is necessary to avoid delaying treatment by requiring duplicate reports in both the triage area and the resuscitation room. Use of standardized communication protocols, communication tools, and acronyms / mnemonics can be helpful in ensuring that consistent, relevant, timely, and comprehensive information is shared [9].

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