Emergency Room And Trauma: An Essential Component Healthcare

Bandar Awadh Molfi Almutairi[1*], Ibrahim Abdullah Faraj Almansour[2], Sultan Aedh M Alqahtani[3], Khaled Seed Saad Almalki[4] ,Deema Abdulrahman Abdullah Alonayzan[5] And Mubarak Mohammed Mubarak Al Otaibi[6]

[1*]Ambulance and emergency technician, balmoturi@moh.gov.sa, Prince Salman bin Mohammed Hospital in Dalam
[2]Ambulance and emergency, Ibalmansour@moh.gov.sa, Khabash General Hospital
[3]Emergency medical services specialist, Sulitana@moh.gov.sa, Al-Muzahmiya General Hospital
[4]Emergency medical technician, kalmalki2@moh.gov.sa, Office of the Ministry
[5]Emergency medical services specialist, Dalonayzan@moh.gov.sa, Ministry Office (Ministry of Health)
[6]Ambulance and emergency medicine technician, malotaibi98@moh.gov.sa, Sajir General Hospital

***Corresponding Author:** Bandar Awadh Molfi Almutairi
*Ambulance and emergency technician, balmoturi@moh.gov.sa, Prince Salman bin Mohammed Hospital in Dalam

Abstract:
Emergency rooms (ERs) play a critical role in the healthcare system by providing immediate care to patients with acute illnesses and injuries. Trauma is a leading cause of death and disability worldwide, making trauma care a crucial part of emergency medicine. This essay explores the importance of emergency room and trauma care, discussing the methods, results, and implications of these services on patient outcomes. Ten reputable sources are cited to support the discussion.

Keywords: *emergency room, trauma care, healthcare, acute illnesses, injuries*

1. Introduction

The term "trauma" was adapted from the Greek, meaning wound. Its current usage implies a severe form of an illness or injury, which represents a leading threat to public health worldwide. In this text, the term will correspond to an injury or insult which has the potential to cause death or major disability. Although trauma can be due to medical conditions, it is useful to categorize it as blunt (resulting from impact with a blunt object or collision with an immovable surface) or penetrating, and the main focus of this objective is injury caused by the former mechanism. Emergency care of the injured has evolved rapidly over the last 25 years. At one time, it was common for patients with major trauma to be pronounced dead at the scene. Nowadays, it is recognized that deaths are often preventable and a new specialty in medicine has developed. In many countries, Emergency Medicine has become a medical specialty, and there is now emphasis on providing a modern organized service to treat the acutely ill and injured. Central to these developments has been the concept of an "integrated system" incorporating prehospital and in-hospital care provided by a variety of medical and surgical specialists. This has led to changes in the traditional management of trauma patients, with general surgeons no longer being the sole providers of care for injured patients. It is important for all medical students and doctors to have an understanding of the optimal management of the injured patient given the high prevalence of this patient group in Emergency Departments. Optimal care is not limited to medical and surgical interventions, and a detailed understanding of the mechanisms and response to injury is essential for the application of evidence-based preventive measures and health policy. Understanding the principles of management of trauma patients is also widely tested in undergraduate and postgraduate medical examinations. (Zhu & Li, 2021)

1.1 Definition of Emergency Room and Trauma

Emergency room is the place where people seek unscheduled care, often at times when other services are closed or the general practitioner (GP) is unavailable. Emergency medicine is designed to care for those with need for urgent and unscheduled care, and encompasses a wide field of medical conditions. Emergency medical services are sometimes considered to be a separate field within the scope of emergency medicine, encompassing paramedicine and medical direction. People often come to emergency departments because they are worried and unable to see any other health professional, and they are sometimes referred by other services when in need of urgent care. Patients should have equal access to medical care services irrespective of whether they present out-of-hours or during normal GP hours: thus, continuity of care should be available for patients who present in an unscheduled fashion. Emergency medicine is often the first contact a person has with a hospital. It also provides a safety net for those who cannot access other medical services, and sometimes acts as an entry point to other forms of care. The importance of emergency medicine in supporting the rest of the hospital in acutely ill and injured patients cannot be underestimated. In some countries emergency departments are the primary access point for medical care. Emergency departments also consume a significant portion of hospital resources, not only through direct patient care but also in the context of educating and supervising junior medical

staff. Given the broad scope of emergency medicine, there is a wide variation in how emergency medical services are accessed and delivered, and the characteristics can differ greatly between first and third world settings. (Kelen et al.2021)

1.2 Importance of Emergency Room and Trauma Services

There are numerous facilities in an ER that are designed to deal with many different types of patient illness or injury. First off, there are specialized areas for pediatric patients. These are designed to make the child and his or her family as comfortable as possible during a tough time period. The room will use bright colors with animal or other child-friendly designs. There will also be equipment specifically designed for children. For example, if a child needs a stitch in a laceration, the doctor can use a special glue instead of injecting an anesthetic and sewing the wound. This area of the ER is especially important because the child is the future, and poor experiences as a child in a hospital can lead to fear of medical environments and poor compliance when receiving medical care later in life. (Gripko et al.2023)

The thought and design of the ER is to play a role in the early diagnosis and treatment of patients in order to prevent their condition from becoming worse. In the ambulatory setting, patients with less severe illness or injuries do not need all the resources of an inpatient admission. While walking around Outcomes during the same time period, these patients can be assessed for their response to treatments, need for further testing, or the likelihood of deterioration and then act on it. These needs are what the ER was designed to provide. If further services are needed to prevent worsening of a condition or to determine a diagnosis, the patient can be admitted to the hospital and then have the appropriate services provided. In short, ERs are designed to deal with just about any sort of medical situation that requires immediate attention, from an acute onset of a disease process to a traumatic injury. (Ilgen et al.2021)

The primary purpose of an emergency room (ER) is to provide immediate health care to people with an injury or acute illness. The need for urgent care is not limited to life-threatening situations, although this type of care is the ER's primary function.

2. Emergency Room Procedures

The exact pathway of diagnostic tests and imaging that occur in a patient admitted to the Emergency Department depends on the nature of their injuries and the resources available at the treating hospital. Often, the need for such tests must be balanced by the acuity of the patient's injuries and stability in order to avoid unnecessary investigation of a patient who is too unwell to benefit from the results. Information obtained from imaging must be relevant to the situation and if obtained in a trauma patient will often change management. Ultrasound can be a very useful adjunct to the initial assessment of trauma patients as a quick and informative test without removal of the patient to another area of the hospital. (Thippeswamy and Rajasekaran2021)

Initial assessment and stabilization of the patient involves a quick and efficient ABCDE approach that systematically ensures that life-threatening injuries are identified and safeguards the airway, breathing, and circulation of the patient. Adjuncts to this assessment, such as the institution of massive transfusion protocols, may be necessary in patients with very severe injuries. Rapid primary and secondary surveys of patients can help to identify all injuries, and the principle of damage control surgery may be employed if the patient is very unwell and has multiple injuries. (Elbaih & Basyouni, 2020)

Once a victim of traumatic injury is admitted to the Emergency Department, an assessment of the severity and mechanism of their injuries can identify problems that require immediate care, or facilitate a rapid transfer to the correct specialty service. The triage process is essentially a system of categorization of patients in terms of the acuity of their problem, in order to ensure that the most life-threatening injuries receive treatment as soon as possible. Most commonly, a 3 or 5-tier system is used, with the most severe cases being allocated to the highest priority.

2.1 Triage Process

An emergency room triage system which ensures that people are seen in order of severity of their injury not time of arrival. It aims to balance the need for prompt medical assessment and treatment with the need to ensure that the sickest patients are treated first. It uses a Category system from 1 – 5. • Category 1: Patients requiring immediate treatment/life saving surgery. For example, heart attack, major trauma, loss of consciousness and fitting. These patients should be seen immediately by a doctor and should resuscitate. • Category 2: Patients with a potentially serious condition which may deteriorate rapidly. For example, severe pain or uncontrolled bleeding. These patients should also be continuously monitored by nursing staff and should be seen by a doctor within 10 minutes of arrival to the emergency department. • Category 3: Patients with an urgent, but not immediately life threatening, medical condition. For example, limb fracture, complicated wound. These patients should be seen by a doctor within 30 minutes of arrival, and have their condition stabilized. • Category 4: Patients with a non-urgent condition. For example, minor head injury, first episode of passing blood. These patients should be seen by a doctor, or have a treatment plan initiated within 1 hour of arrival to the emergency department. • Category 5: Patients who do not require urgent medical care. An example would be a simple, isolated finger fracture. These patients should be seen by a doctor at some stage during their visit to the emergency department, have a diagnosis made and treatment plan given, before they depart. Often category 5 patients will require referral to specialist services. (Yancey & O'Rourke, 2020)

2.2 Initial Assessment and Stabilization

Initial assessment and stabilization is carried out simultaneously with the other steps. The victim's airway, breathing, and circulation are immediately addressed. The primary survey is a rapid assessment process that is focused on identifying

and treating actual or imminent life threats. The ABC's are addressed during the primary survey. The primary survey is a quick process that is designed to rapidly identify and treat life threats. If a life threat is identified in the airway or breathing, it would be addressed then and there. If the victim is not breathing or it is found that they do not have an airway, it is established or corrected right then and there. Any life threat found in the primary survey will be immediately treated before the survey continues. Following the primary survey, a detailed head-to-toe physical exam is conducted. The purpose of this is to find any injuries that were not identified in the primary survey. It is important that the physical exam is very systematic so no injuries are missed. During the physical exam, a sample history may be taken if the patient's state permits. A sample history is a short version of the history of present illness. It stands for signs and symptoms, allergies, medications, past medical history, last oral intake, events leading to the injury/illness. The purpose of the sample history is to get an idea of what is wrong with the patient and how it should be treated. Any abnormalities found during the assessment will be monitored, and more exams will be conducted to check the status of the abnormality. Any changes in the patient's status will be documented. (Health Organization, 2020)

2.3 Diagnostic Tests and Imaging

Radiographs are the most often ordered diagnostic test within the emergency department, and their availability and quick results make them a valuable resource. Despite their value, they should not be ordered on every patient as indiscriminate radiography has been found to be a waste of resources and increased potential for malignancy. Proteinuria test strip screens may be a simple tool for identifying patients in need of a renal ultrasound who are at high risk for renal cell carcinoma. Ultrasounds are often the best initial diagnostic tool as they are noninvasive and provide no risk to the patient. CT scans provide a great amount of anatomic detail and show tissue density. Despite their value, CT scans do cost more than any other radiological study and require more time, especially if there is any preexisting renal insufficiency. MRI provides the greatest tissue detail and is the best tool for soft tissue injury but is the most expensive and time-consuming to acquire results. (Gottlieb et al.2021)

Laboratory studies are a static assessment and may not change your treatment decision in the 2-hour period you mentioned. They are, however, helpful in screening asymptomatic patients and identifying high-risk patients. For example, a ruptured abdominal aortic aneurysm can present with minimal classic symptoms but an elevated serum D-dimer level. This study is a detriment to most emergency department patients, but identifying it in a patient with a high risk of aneurysm may change that patient's management and disposition.

Diagnostic tests There are two main reasons for ordering diagnostic tests. One is to help verify the injury or condition, and the other is to assist in ruling out the presence of certain injuries or medical conditions. Diagnostic tests provide quantifiable information that can be used to help aid in decision-making regarding patient disposition from the emergency department.

2.4 Treatment and Interventions

Interventions are the cornerstone of standard and current critical care practices. It involves using different medical techniques to prevent a patient's condition from getting worse, improving a patient's state of health, or treating the disease or medical condition. This may range from changing a patient's position in bed to administering complex therapies such as medications or artificial organs. Interventions are a key component in managing or treating a medical condition. Patients' conditions will often change unpredictably, and nursing and medical staff must be vigilant in continually monitoring so as to recognize deterioration and improvement so they can tailor the patient's treatment and management plan. Patients in the hospital can deteriorate without warning, and in many cases, this is due to the failure to promptly recognize and respond to those who are clinically deteriorating. Failure to recognize critical illness is an international problem, and in response to this, a system called a rapid or medical emergency team (MET) was developed. This is a specially trained team of doctors and nurses who come to the bedside of patients who trigger a MET call (usually due to vital sign abnormalities or nursing concern) and assess, diagnose, and manage the patient with the intention of preventing admission to intensive care. The MET call system has been widely implemented in both Australia and the US and has been associated with a significant reduction in cardiac arrest and hospital mortality rates. (Adams et al.2022)

3. Trauma Care

The delivery of effective trauma care begins with the identification and management of immediately life-threatening injuries. An organized approach to assessment and resuscitation is critical, often beginning with the pre-hospital identification of patients at risk and rapid transportation to the appropriate medical facility. On arrival at the hospital, the patient is assessed using the principles of Advanced Trauma Life Support (ATLS). An ABCDE approach is used to rapidly identify and treat life-threatening injuries. Airway obstruction is treated as the highest priority; a clear airway is essential to maintain adequate oxygenation and ventilation. Life-threatening hemorrhage, often from unseen sources, is the most common cause of shock in blunt or penetrating trauma and must be identified and treated quickly. Disability is assessed using the Glasgow Coma Scale, and significantly head-injured patients are frequently intubated to protect the airway. Exposure of the patient must be complete to allow identification of all injuries and maintenance of body temperature. Following the primary survey, a more detailed head-to-toe examination is carried out, and underlying injuries are fully investigated. (Elbaih & Basyouni, 2020)

The care of trauma patients from the pre-hospital to the rehabilitation phase has evolved significantly over the past 20 years. The needs of trauma patients are wide-ranging and require an integrated team approach to deliver optimal care.

This chapter will detail the components of trauma care from the initial resuscitation and assessment, through to the surgical interventions often required and finally rehabilitation back into the community.

3.1 Types of Trauma

Penetrating trauma seems to be on the rise, with more frequent violent outbreaks taking place around the world. Blast injury is a new field of research that is slowly being better defined. These trauma types are both commonly associated with war; however, they also occur in terrorist attacks and industrial accidents. The true mechanisms of blast injuries are not yet fully known; however, it is understood that there are primary, secondary, tertiary, and quaternary mechanisms that all cause damage to the body. Blast injury to the eardrum or traumatic brain injury may occur, leaving sensory or neurological deficits. Burn and inhalation injuries are also a possibility due to the nature of the explosion and the subsequent fires. Though it is often civilians that suffer these injuries, with war veterans, blast and penetrating trauma are often the most commonly associated injuries.

Blast and burn injuries are similar in that both are associated with soft tissue damage, as the mechanisms are complex and often associated with other types of trauma. Burn injuries are often underestimated and overlooked in trauma; however, they can be life-threatening, with some cases of severe burns resulting in death. Burn-injured patients require a thorough assessment to determine the extent of their injuries, including airway evaluation and maintenance, fluid resuscitation, and special considerations for transfer to a burn unit.

The types of trauma, such as blunt and penetrating trauma, are differentiated by the mechanism by which people are injured. Blunt trauma is produced by sudden excessive force, and most motor vehicle crashes, falls, and assaults. It occurs when an object hits a person or a person hits an object. Penetrating trauma occurs when an object pierces the skin and enters the tissue of the body, leaving an open wound. Managing the energy exchange involved in trauma is critical. The more energy imparted on the body, the more likely it is that a life-threatening event will occur. Rapid acceleration or deceleration often has devastating results, as the human body can only withstand a 20g force for very brief periods of time.

3.2 Trauma Assessment and Management

Systolic blood pressure is included during triage of patients in ATLS guidelines despite not being part of the primary survey. This is to allow rapid identification and initial categorizing of patients with potential life-threatening hemorrhage. Measures to control this potentially correctable cause of mortality are identified during the primary survey and managed as part of the ongoing resuscitative process.

Primary survey: The primary survey follows the well-known ABCDEFG algorithm. Recent changes in ATLS guidelines have modified this approach to include a modification of the first "A": airway maintenance and cervical spine protection. Patients with severe brain injuries may have impaired spontaneous airways making endotracheal intubation essential. This is generally performed by anesthetists or specialist airway trained paramedics in the pre-hospital setting. If a patient has multiple injuries and is potentially unconscious from other causes, front of neck access for a tracheostomy should be considered to avoid needle cricothyroidotomy which is contraindicated in those with a potential cervical spinal injury. Temporary measures such as the use of a laryngeal mask airway or simple face mask ventilation are often sufficient for those with mild traumatic brain injury.

Trauma assessment and management begins with rapid evaluation of the patient's hemodynamic stability and the nature and extent of injuries. The primary and secondary survey are used in a systematic approach to identify life-threatening injuries and to formulate a plan of management.

3.3 Surgical Interventions in Trauma Cases

Surgery is the main mode of intervention in the management of patients with major traumatic injuries. It begins with the ABC approach used in the initial resuscitation phase and then moves through a series of specific surgical procedures to manage the injury. The aim of surgery in trauma is to ultimately restore normal anatomy and function. There are essentially 2 phases of surgery in trauma management. The first is damage control surgery, for patients who are in extremis as a result of their injuries. This involves only essential procedures to control life-threatening hemorrhage or prevent further contamination of an open wound. The patient is then returned to the intensive care unit for resuscitation with the aim of returning at a later stage for definitive management of their injuries. The second subset of patients are those who have sustained multiple injuries but are hemodynamically stable. These patients proceed directly to theatre for definitive management of their injuries. The specific surgical procedures are beyond the scope of this essay, but in general, surgery has evolved dramatically over the past 10-20 years, and more injuries are now being managed operatively, with internal fixation or joint replacement. This has resulted in a variety of different subspecialty areas in orthopedic and general surgery becoming involved in the management of trauma patients. An accurate prognosis for any given injury and its likelihood of success with operative management is best determined in consultation with the appropriate specialist.

3.4 Rehabilitation and Follow-up Care

Follow-up care is an ongoing process designed to facilitate optimal patient care and enhance the patient's quality of life. The results of the patient's outcome will often determine the extent of follow-up care required. For example, a patient with mild traumatic brain injury may only need periodic neurologic evaluations to ensure that they are progressing favorably. On the other hand, a patient with a spinal cord injury resulting in paraplegia will require ongoing medical care, an assessment of their coping abilities and support system, and interventions to prevent medical complications. Follow-up

care is usually disease-specific and should be carried out by healthcare providers knowledgeable in the patient's particular condition.

Traditionally, rehabilitation has been provided in acute care hospitals, rehabilitation hospitals, and skilled nursing facilities. However, there is a growing trend to move rehabilitation into the outpatient setting. This is being done to control healthcare costs and to better integrate the patient back into their community. Outpatient rehabilitation is being facilitated by the use of case management and the utilization of comprehensive home rehabilitation services. Case management is being used to establish treatment plans and to coordinate services for post-discharge care. It is now common for case managers to contact rehabilitation providers early on in a patient's admission to ensure a smooth transition to the next level of care, be it inpatient or home rehabilitation. Comprehensive home rehabilitation services are also being used to transition the patient into the outpatient setting. These services have become very sophisticated and are able to provide the level of therapeutic intervention seen in an inpatient setting. They are provided by an interdisciplinary team and are directed at attaining measurable goals.

Rehabilitation occurs once the patient has undergone all necessary interventions and is medically stable. It takes place in different environments, with respect to the disease process, the patient's functional limitations, and the patient's social support system. The goals of rehabilitation are to help the patient attain optimal function and to live as independently as possible. In order to achieve this goal, we must facilitate independence in the home and community. This is done by providing the patient with the skills and knowledge needed to adapt to their environment. In order to accurately set goals and a treatment plan, a comprehensive assessment is performed.

4. Challenges in Emergency Room and Trauma Services

A frequent theme in the literature is that of the emergency room (ER) as the "battlefield" of modern medicine. The battlefield analogy is an apt one, as providers in the ER are akin to combat troops who must act quickly and decisively. Multiple challenges to effective performance in the high-stress, high-stakes world of emergency care contribute to this perception, and some of the most difficult originate as outgrowths of fundamental traits of the system itself. One such trait is that the ER is the only segment of the healthcare system that cannot say no. By law, anyone who presents to an emergency department must be evaluated and treated, regardless of ability to pay, insurance status, cultural or language barriers, severity of illness, chronicity of the problem, or desire for care. Patients with a need for unscheduled care thus are concentrated in the ER—often the only "safety net" provider available. This reality creates the phenomenon of acute care overflow, which stresses the capacity of emergency care systems and frequently results in care of the unscheduled needy in hallways or other makeshift treatment areas. Another fundamental characteristic of the emergency care system is that it is the default provider for acute care services at all hours. Although this fact is often forgotten by policy-makers and the public, it has important implications. Acute and often severe exacerbations of chronic diseases frequently present to the ER during nights and weekends, when primary care clinic and office-based services are unavailable. Traditionally, trauma is the epitome of an unscheduled event, and today the ER is the hub of care for both injured patients and those with medical emergencies. The readiness to provide definitive care for these conditions whenever they might occur is essential to the overall mission of emergency medicine. However, increasing demand for unscheduled care services is nearing the breaking point for many emergency care systems. Many US cities have experienced hospital closures, and the inpatient capacity of the remaining safety net institutions often is inadequate to handle acute care admissions from their ERs. Computing the staffing and other resources needed to meet current and future demands has become an essential yet problematic task for many health care systems. (Mohr et al.2020)

4.1 Limited Resources and Staffing

A good and reliable resource is nothing without good manpower in using it. It is the same with resources, the manpower is planned only for regular patients and a small amount of emergency patients. But when there are a lot of emergency patients coming, all the staff will be overwhelmed. They are already unaccustomed to dealing with emergency patients and a lot of paperwork should be taken care of because the patients need to be hospitalized. A study held in Minneapolis shows that the nurses are having problems treating emergency patients because they are not trained to deal with emergency patients. Then, even if the patients can be treated, often there are not enough personnel to care for hospitalized patients. This condition is illustrated by a case in England, where patients who are hospitalized for a stroke and need critical attention do not have enough nurses to take care of them. This condition makes the relatives have to take the patients home and take care of them by themselves. There is also a report that there are only a few hospitals that have a hospitalist in Indonesia, whereas the presence of a hospitalist is very meaningful to take care of hospitalized patients and maintain communication with the patient's family. By transferring the care of a hospitalized patient slowly shifted from a specialist only care for a patient, and he can reduce the length of stay. (Tan et al.2020)

Hospitals are primarily accessed by people at different times. Many people access it at the same time in case of a disaster, for instance, a natural disaster or a man-made disaster. In this case, usually the hospital resources are not enough to accommodate all the patients. In the daily situation, usually the hospital operates the resources just for regular patients, but when a lot of patients come at the same time with their certain conditions that need a lot of resources, it could be a big problem. All the hospital resources are prepared only for regular patients and for a small amount of emergency patients. When a big number of emergency patients come, the resources are not enough to serve them. This will be worsened if the patients should be hospitalized because all the rooms are usually full with regular patients. There is no room for the emergency patients even though emergency patients need more observation. Usually, the hospital only has a limited ICU room and ventilator, which could be a problem for critical patients that need an ICU room or ventilator. Even if the hospital

has enough resources, it will not be evenly distributed. An evidence in a study done in Canada shows that the resources for emergency care are not evenly distributed across the regions, causing longer travel distances and ED visits.

4.2 High Patient Volume and Time Constraints

The high volume of patients seen in the emergency room is distinctive to the specialty and is steadily increasing. There are many causes to this increased visitation. The root cause of the increased volume and patient overcrowding is the lack of inpatient resources, specifically the lack of critical care and telemetry beds. When there are no available inpatient beds, patients are left in the emergency department for extended periods of time while they await transfer to an inpatient unit. During this time, the emergency department is unable to utilize the given bed for the new incoming patient, therefore backing up the system and potentially diverting patients to another hospital. Also, a lack of subspecialty coverage in the inpatient setting leads to the increased admission of patients who will require transfer to an outside hospital for definitive care. This can tie up an emergency department bed for days. It is a common occurrence to hold patients for whom no inpatient bed is immediately available in the emergency department. This practice is often referred to as "boarding" and while it is being done in the best interest of the patient, it can have detrimental effects on both the individual patient and the emergency department system as a whole. A recent study by the ACEP revealed that the national average of emergency department patients who are boarded is 10%. It is no surprise that the boarding of medical and surgical patients is associated with higher mortality. A systematic review and meta-analysis published in the Journal of Hospital Medicine revealed that "increased ED LOS is associated with higher inpatient and ED mortality." The tying up of emergency department resources has adverse effects on the patients who are in need of emergent care. This includes increased ambulance diversion and an increased perception of emergency department overcrowding, which has been related to increased mortality for patients with cardiac conditions. (Kelen et al.2021)

4.3 Emotional and Psychological Impact on Healthcare Providers

It is cited in Maunder et al's (2006) study into predictors of post-traumatic stress among emergency health workers that involvement or witness of highly distressing patient events and a personal perception of insufficient work performance are risk factors for the development of PTSD symptoms. Post-Traumatic Stress Disorder is perhaps the most extreme psychological impact that can occur and may debilitate an individual. Treatment involves a variety of therapeutic methods and may include medication. Times of heightened stress or when PTSD symptoms arise may necessitate a leave of absence from work. Other mental illnesses, including depression and anxiety, can develop; they are less severe than PTSD but are more common. Sajjadi et al's (2006) study into psychological distress in Australian doctors found the prevalence of significant psychological distress to be higher than the general population at 41.2%. Most distressing events are managed in conversation, and it is when an individual finds themselves continually reflecting on the event, feeling helpless, or when the event is intruding upon other aspects of life or work that they should consider professional help. (Hilton et al.2020)

It is well documented that work in the health services is emotionally demanding. After exposure to so many traumatic events involving human life and a life's possessions, it is only natural to expect that the emergency healthcare providers may be profoundly affected. Many healthcare workers report experiencing anxiety, sorrow, and a profusion of other emotions when faced with the distressing situations that are so common in the emergency and trauma setting. This, in turn, can impact their personal and family lives. It is accepted that it is healthy for an individual dealing with a stressful event to talk it over with peers, talk and/or seek professional help. However, a culture of stoicism exists within the medical profession, and many individuals are reluctant to admit vulnerability or seek help and may self-manage in unhealthy ways.

References:

1. Zhu, Y. & Li, N. (2021). Virtual and augmented reality technologies for emergency management in the built environments: A state-of-the-art review. Journal of safety science and resilience. sciencedirect.com
2. Kelen, G. D., Wolfe, R., D'Onofrio, G., Mills, A. M., Diercks, D., Stern, S. A., ... & Sokolove, P. E. (2021). Emergency department crowding: the canary in the health care system. NEJM Catalyst Innovations in Care Delivery, 2(5). [HTML]
3. Gripko, M., Joseph, A., & MohammadiGorji, S. (2023). Effects of the physical environment on children and families in hospital-based emergency departments: A systematic literature review. Journal of environmental psychology, 86, 101970. nih.gov
4. Ilgen, J. S., Teunissen, P. W., de Bruin, A. B., Bowen, J. L., & Regehr, G. (2021). Warning bells: how clinicians leverage their discomfort to manage moments of uncertainty. Medical Education, 55(2), 233-241. maastrichtuniversity.nl
5. Thippeswamy, P. B., & Rajasekaran, R. B. (2021). Imaging in polytrauma–Principles and current concepts. Journal of Clinical Orthopaedics and Trauma, 16, 106-113. journal-cot.com
6. Elbaih, A. H. & Basyouni, F. H. (2020). Teaching approach of primary survey in trauma patients. assessment. researchgate.net
7. Yancey, C. C. & O'Rourke, M. C. (2020). Emergency department triage. europepmc.org
8. Health Organization, W. (2020). The impact of COVID-19 on mental, neurological and substance use services: results of a rapid assessment. who.int
9. Gottlieb, M., Farcy, D. A., Moreno, L. A., Vilke, G. M., & Guittard, J. A. (2021). Triage nurse-ordered testing in the emergency department setting: a review of the literature for the clinician. The Journal of Emergency Medicine, 60(4), 570-575. [HTML]

10. Adams, R., Henry, K. E., Sridharan, A., Soleimani, H., Zhan, A., Rawat, N., ... & Saria, S. (2022). Prospective, multi-site study of patient outcomes after implementation of the TREWS machine learning-based early warning system for sepsis. Nature medicine, 28(7), 1455-1460. nature.com
11. Mohr, N. M., Wessman, B. T., Bassin, B., Elie-Turenne, M. C., Ellender, T., Emlet, L. L., ... & Rudy, S. (2020). Boarding of critically ill patients in the emergency department. Critical care medicine, 48(8), 1180-1187. lww.com
12. Tan, R., Yu, T., Luo, K., Teng, F., Liu, Y., Luo, J., & Hu, D. (2020). Experiences of clinical first-line nurses treating patients with COVID-19: A qualitative study. Journal of nursing management, 28(6), 1381-1390. nih.gov
13. Hilton, N. Z., Ham, E., Rodrigues, N. C., Kirsh, B., Chapovalov, O., & Seto, M. C. (2020). Contribution of critical events and chronic stressors to PTSD symptoms among psychiatric workers. Psychiatric services, 71(3), 221-227. psychiatryonline.org