



OPTIMIZING EMERGENCY DEPARTMENT OUTCOMES: ENHANCING HEALTHCARE TEAM RESPONSE STRATEGIES FOR IMPROVED PATIENT CARE

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Abstract

The emergency department (ED) plays a critical role in healthcare delivery, serving as the frontline resource for patients with urgent and emergent medical needs. Enhancing ED outcomes involves a comprehensive approach to optimize healthcare team response strategies, streamline processes, and prioritize patient-centered care. Interprofessional collaboration and effective communication among ED team members—including physicians, nurses, technicians, and social workers—enable coordinated and efficient care delivery. Key strategies include robust triage processes, the integration of technology such as electronic health records, and ongoing training and simulation exercises to improve emergency response times and overall performance. Data-driven quality improvement initiatives provide valuable insights for refining care delivery, while efficient resource management optimizes patient flow and ensures the effective use of staff, space, and equipment. Ultimately, these efforts lead to better patient outcomes, higher satisfaction, and a positive overall healthcare experience. Prioritizing staff well-being and promoting continuous quality improvement are essential for sustaining optimal ED performance.

Keywords: Optimizing, emergency department, outcomes, enhancing healthcare, team response, improved patient care.

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Introduction

In today's healthcare system, the emergency department (ED) is a critical frontline resource for patients with urgent and emergent medical needs. As a gateway to the broader healthcare network, the ED must balance the challenges of high patient volumes, unpredictable case severity, and resource constraints while providing exceptional patient care. The effectiveness of emergency department outcomes is therefore crucial for the well-being of patients and the overall efficiency of healthcare delivery [1].

Optimizing emergency department outcomes requires a comprehensive approach that involves enhancing healthcare team response strategies and patient care protocols. By focusing on key areas such as rapid assessment and triage, streamlined patient flow, effective communication, and interprofessional collaboration, EDs can deliver faster, more accurate care to patients in need [2]. Additionally, implementing evidence-based clinical practices and leveraging advanced technology can further support healthcare teams in making informed decisions and providing high-quality care.

Enhancing healthcare team response strategies is fundamental to improving patient care in the emergency department. Well-coordinated teams, including physicians, nurses, physician assistants, and support staff, must work cohesively to quickly evaluate and treat patients while minimizing delays. This coordination extends to ensuring smooth transitions of care both within the department and when patients are transferred to other units or facilities.

Moreover, patient-centered care plays a significant role in optimizing outcomes. Understanding patients' needs and concerns and involving them in their care decisions can lead to better satisfaction and adherence to treatment plans. Additionally, improving ED infrastructure, such as utilizing fast-track systems for less severe cases and ensuring access to diagnostic tools, can help streamline the patient journey and reduce wait times.

Ultimately, the goal of enhancing healthcare team response strategies and optimizing emergency department outcomes is to deliver timely, efficient, and compassionate care to patients. By continuously evaluating and refining these strategies, healthcare institutions can improve patient outcomes, satisfaction, and overall system performance.

The primary goal of quality improvement is to enhance patient outcomes, particularly in the emergency department (ED). Timely and effective care is crucial in these situations. By comprehending the challenges, evaluating current

performance and implementing quality improvement projects, areas in need of enhancement can be pinpointed and addressed, resulting in better outcomes [3].

The ability to provide quality emergency care services depends on various factors, including a well-trained workforce, acuity level, available resources, leadership and management. Prompt and efficient service delivery during emergencies is crucial for better health outcomes. Numerous studies have highlighted challenges and operational issues in the emergency department (ED), such as overcrowding, insufficient inpatient beds, prolonged length of stay (LOS), high inpatient census and improper resource allocation [4]. To enhance care delivery, hospital administrators must streamline processes, allocate resources appropriately, monitor and evaluate outcomes.

Strategies for providing health services

Healthcare process improvement is one of the primary drivers of a transformation strategy that aims to improve the quality of care while reducing costs. Healthcare operations include hospital admission, discharge, billing, emergency department (ED) operations, transporting patients to different facilities, medication management, patient flow, and more. As such, healthcare operations impact operations, patient experience, and job satisfaction of clinicians across the health system. With such broad scope, continuous improvement of the data-driven healthcare process is a key goal for health systems committed to better care at lower costs [5].

Health service delivery strategies focus on improving the quality, efficiency, and accessibility of healthcare services provided to patients. These strategies aim to enhance patient outcomes, streamline healthcare processes, and optimize resource utilization. A central focus is patient-centered care, which prioritizes the needs, preferences, and values of patients in care delivery [6]. This includes fostering open communication and shared decision-making between patients and providers and tailoring care plans to individual needs to ensure continuity of care.

Integrated care is another crucial strategy that promotes collaboration and coordination among different healthcare providers and disciplines. This approach involves developing integrated care pathways to guide patients through their care journey seamlessly and utilizing multidisciplinary teams to provide comprehensive care, ultimately improving patient outcomes [7]. Telehealth and remote monitoring offer virtual consultations and remote care options, increasing access to healthcare

services and convenience, especially in remote or underserved areas [8].

Optimizing workflow processes is essential for reducing wait times and improving patient flow within healthcare facilities. Strategies such as implementing standard operating procedures and checklists enhance consistency and efficiency, while Lean and Six Sigma methodologies identify and eliminate waste. Evidence-based practice integrates the latest research findings and clinical guidelines into care protocols, promoting continuous education and training for healthcare providers to stay up-to-date with best practices [9]. Quality improvement initiatives involve monitoring and evaluating key performance indicators to identify areas for improvement and engaging in continuous quality improvement cycles to enhance care delivery. Patient feedback and outcomes data inform quality improvement efforts. Resource management and optimization focus on the efficient use of staffing, supplies, and equipment to match patient demand, while scheduling and capacity management strategies balance workload and resources [10].

Community engagement and outreach play a significant role in developing partnerships with community organizations and resources to support patient care and improve community health. This includes conducting health education and prevention programs and addressing social determinants of health through targeted community initiatives. Safety and risk management strategies protect patients and healthcare providers through safety protocols, risk assessments, and fostering a culture of safety and accountability [11].

Finally, ensuring health equity and access involves identifying and addressing disparities in healthcare access and outcomes among different patient populations. Promoting culturally competent care and language services meet the needs of diverse patient groups, while equitable distribution of healthcare resources and services across all communities is essential [8]. By adopting these health service delivery strategies, healthcare organizations can improve patient care and outcomes while ensuring efficient use of resources and enhancing the overall healthcare experience.

Roles of ED team

Emergency personnel face the challenge of managing a constant flow of patients entering the emergency department (ED) while dealing with inconsistent patient discharge rates. The limited availability of inpatient beds, coupled with the increasing demand for emergency care, leads to a situation known as emergency department overcrowding, which requires that emergency

nurses, social workers, midwifery nurses, as well as nursing and emergency technicians, play an effective role, cooperate with each other, and work as a team to enhance and improve emergency department outcomes and to improve patient care [12].

In the emergency department (ED), the healthcare team plays a critical role in providing timely and efficient patient care. Each member of the team has specific responsibilities that contribute to the overall functioning of the ED and the well-being of patients. The main roles of various ED team members:

Roles of Emergency Nurses in ED:

Emergency nurses play a vital role in the emergency department (ED), providing essential care to patients during critical moments and supporting the overall functioning of the department. One of their key responsibilities is triage and assessment, as they are often the first point of contact for patients entering the ED. By quickly evaluating patients' conditions and prioritizing care based on severity, emergency nurses help direct patients to the appropriate treatment area and ensure those with urgent needs receive prompt attention.

Nurses in the ED provide direct patient care, which includes administering medications, managing wounds, and performing various medical procedures such as intubation, catheterization, or placing intravenous lines. They closely monitor patients' conditions and promptly report any changes to the appropriate medical staff to ensure the best outcomes.

As patient advocates, emergency nurses ensure that patients' needs and concerns are addressed. They communicate with patients and their families, providing crucial information about treatment plans, potential risks, and expected outcomes. This support extends to educating patients and their families about their conditions, medications, and post-discharge care to promote adherence to treatment plans.

Emergency nurses collaborate closely with physicians, physician assistants, nurse practitioners, and other healthcare professionals to provide comprehensive care. This teamwork helps coordinate treatment plans and ensures efficient patient management throughout the ED.

Maintaining accurate and thorough patient records is a crucial aspect of emergency nursing. Nurses document patients' medical histories, treatment plans, and responses to care, which is essential for continuity of care and legal requirements.

In the fast-paced environment of the ED, nurses must excel at crisis management and problem-

solving. They remain calm under pressure, managing medical emergencies and unexpected complications with quick thinking and effective decision-making. Additionally, they uphold infection control protocols to prevent the spread of infections throughout the department.

Lastly, emergency nurses must manage their own stress while providing emotional support to patients and their families during challenging times. Ongoing learning and professional development are crucial for keeping their skills and knowledge current, enabling them to deliver the highest quality care in the ever-evolving field of emergency medicine.

Roles of Social Workers in ED:

Social workers play an essential role in the emergency department (ED) by providing critical support to patients and their families during challenging and often stressful times. Their expertise in addressing psychosocial and practical concerns can greatly improve patient care and outcomes. The roles of social workers in the ED include:

- **Psychosocial Assessment:** Social workers assess patients' and families' psychosocial needs upon admission to the ED. They identify emotional, social, and financial issues that may impact the patient's health and treatment.
- **Crisis Intervention:** Social workers are trained to provide immediate support and counseling to patients and families experiencing crises such as trauma, grief, or distress. They offer emotional support and help patients navigate difficult situations.
- **Care Coordination and Discharge Planning:** Social workers collaborate with the healthcare team to develop comprehensive care plans, including discharge plans, that address patients' needs beyond the hospital. This may involve arranging follow-up care, providing referrals to community resources, and ensuring continuity of care.
- **Resource Connection:** Social workers connect patients and families with community resources, such as housing assistance, transportation services, or financial aid programs. These resources can help alleviate non-medical stressors that may affect the patient's recovery and well-being.
- **Advocacy:** Social workers advocate for patients' needs and rights, ensuring they receive appropriate care and services. They also advocate for patients who may be facing challenges such as abuse, neglect, or discrimination.

- **Family Support:** Social workers provide support and counseling to patients' families, helping them cope with their loved one's medical situation and offering guidance on navigating the healthcare system.
- **Ethical and Legal Guidance:** Social workers may provide guidance on ethical and legal issues, such as advance directives, end-of-life decisions, or guardianship. They help patients and families understand their rights and make informed choices.
- **Cultural Competence:** Social workers bring cultural sensitivity to patient care, ensuring that treatment plans consider patients' cultural beliefs, values, and preferences. This approach promotes respect and understanding between healthcare providers and patients.
- **Patient Education:** Social workers educate patients and families about available support services and coping strategies. This education empowers patients to take an active role in their care and recovery.
- **Collaboration with Healthcare Team:** Social workers collaborate with physicians, nurses, and other healthcare professionals to provide a holistic approach to patient care. Their involvement helps ensure that patients receive comprehensive support that addresses both medical and non-medical needs.

By providing a range of psychosocial services and support, social workers in the ED contribute significantly to the overall well-being of patients and their families. Their expertise complements the medical care provided by other healthcare team members, leading to improved patient outcomes and experiences.

Roles of Midwifery Nurses in emergency department:

Midwifery nurses play a specialized and crucial role in the emergency department (ED) by providing expert care for pregnant women and new mothers, particularly in situations involving obstetric emergencies. Their knowledge and skills in maternity care contribute significantly to the safety and well-being of both mothers and infants. The roles of midwifery nurses in the ED include:

- **Provide care for pregnant women experiencing obstetric emergencies:** Midwifery nurses are trained to assess and manage obstetric emergencies such as preeclampsia, placental abruption, or ectopic pregnancy. They work quickly to stabilize the patient and initiate appropriate interventions to ensure the safety of both mother and baby.

- Assist with labor and delivery, including managing complications that may arise: In the event of a labor and delivery situation in the ED, midwifery nurses play a key role in facilitating the birth process. They monitor fetal and maternal vital signs, manage labor progression, and address complications such as fetal distress or prolonged labor.
- Educate and support expectant mothers on prenatal and postnatal care: Midwifery nurses provide education to expectant and new mothers on prenatal care, labor and delivery, and postpartum recovery. This education includes guidance on nutrition, breastfeeding, infant care, and recognizing signs of complications.
- Collaborate with physicians and other team members to ensure safe maternal and infant care: Midwifery nurses work closely with obstetricians, emergency physicians, and other healthcare professionals to coordinate and deliver optimal care for pregnant women and newborns. Their collaboration helps ensure that all aspects of maternal and infant health are addressed.
- Offer emotional support and guidance to new parents: Midwifery nurses provide emotional support and reassurance to new parents during what can be a stressful and emotional time. They help parents navigate the challenges of childbirth and newborn care, offering guidance and answering questions to ease concerns.

Midwifery nurses' expertise in maternal and infant care is essential in the ED, where rapid assessment and intervention can be lifesaving. Their role complements the emergency medical team, ensuring that pregnant women and their infants receive the highest standard of care during emergency situations.

Roles of Nursing and Emergency Technicians in emergency department:

Nursing and emergency technicians, often referred to as emergency medical technicians (EMTs) or nursing assistants, play a crucial role in the emergency department (ED) by supporting the clinical team and contributing to efficient and effective patient care. Their work encompasses a variety of tasks that are essential to the smooth operation of the ED. Key roles of nursing and emergency technicians include:

- Assist nurses and physicians with patient care tasks: Nursing and emergency technicians perform various clinical tasks such as drawing blood, performing electrocardiograms (EKGs), or applying splints. Their assistance allows nurses and physicians to focus on more complex aspects of patient care.

- Help transport patients: These technicians help transport patients within the ED and to other hospital units as needed. Safe and efficient transportation of patients ensures timely access to imaging, laboratory tests, or other treatments.
- Prepare and maintain treatment rooms and equipment: Nursing and emergency technicians prepare treatment rooms and equipment for use, ensuring cleanliness and organization. This maintenance is vital for infection control and the readiness of resources for the next patient.
- Provide basic patient care and comfort measures: Technicians provide essential patient care such as assisting with mobility, helping patients use the restroom, or providing blankets. These comfort measures contribute to the overall patient experience and satisfaction.
- Serve as a vital link in communication and collaboration: Nursing and emergency technicians act as intermediaries within the ED team, relaying information between nurses, physicians, and other healthcare professionals. Their role in facilitating communication helps maintain continuity and coordination of care.

The combined efforts of emergency nurses, social workers, midwifery nurses, and nursing and emergency technicians create a dynamic and effective team in the emergency department. Together, they provide comprehensive, coordinated care that addresses the medical, emotional, and social needs of patients during their ED visit. This teamwork ensures that patients receive high-quality care in a timely and compassionate manner.

The positives of cooperation between emergency team members (emergency nurses, social workers, midwifery nurses, nursing and emergency technicians)

Cooperation between emergency team members, including emergency nurses, social workers, midwifery nurses, nursing and emergency technicians, brings numerous positive benefits to the emergency department (ED) and the overall quality of patient care. These advantages include:

- Improved Patient Outcomes: When emergency team members work together, they leverage their diverse expertise to provide comprehensive care. This collaborative approach leads to more accurate diagnoses, effective treatment plans, and better overall patient outcomes.

- **Enhanced Efficiency:** By working as a cohesive unit, emergency team members can streamline processes and reduce delays in patient care. This efficiency ensures that patients receive timely attention, leading to quicker recovery times and shorter stays in the ED.
- **Better Communication:** Cooperation fosters open and clear communication among team members, allowing them to share important information about patients' conditions, treatment plans, and potential concerns. This communication ensures that all members of the team are on the same page and working towards the same goals.
- **Holistic Care:** Emergency departments often encounter patients with complex needs, including medical, psychological, and social issues. Collaboration between emergency nurses, social workers, midwifery nurses, and technicians allows for a more holistic approach to patient care, addressing all aspects of a patient's well-being.
- **Increased Staff Support:** Teamwork creates a supportive work environment where members can rely on each other for help and advice. This support can reduce stress and burnout, leading to higher job satisfaction and better performance.
- **Flexibility and Adaptability:** A cooperative team can adapt more effectively to changing situations and unexpected challenges in the ED. When team members can rely on each other, they can handle emergencies more smoothly and adjust treatment plans as needed.
- **Professional Growth and Development:** Working closely with colleagues from different disciplines exposes team members to new perspectives and knowledge. This exposure can contribute to professional growth and development, leading to more skilled and versatile healthcare providers.
- **Improved Patient Experience:** When emergency team members collaborate effectively, patients receive coordinated care and clear communication about their treatment plans. This positive experience can lead to higher patient satisfaction and trust in the healthcare system.
- **Enhanced Safety:** Cooperation among team members improves patient safety by ensuring that multiple sets of eyes and expertise are involved in each patient's care. This collaboration can catch potential errors or oversights, leading to safer and more reliable treatment.

- **Better Resource Utilization:** When emergency team members work together, they can better allocate resources such as staff, equipment, and space. This optimal utilization of resources ensures that the ED operates efficiently and can provide high-quality care to all patients.

Overall, the cooperation between emergency team members leads to a more effective and efficient emergency department, benefiting both patients and healthcare providers alike.

Enhancing emergency department outcomes

Enhancing emergency department (ED) outcomes requires a multifaceted approach that focuses on optimizing healthcare team response strategies to improve patient care. One pivotal aspect is fostering interprofessional collaboration among physicians, nurses, technicians, and other healthcare professionals. By encouraging teamwork through regular meetings and communication exercises, the ED can ensure a more coordinated and efficient delivery of care [20].

Additionally, streamlining triage processes is essential for promptly attending to patients based on the severity of their condition. Clear and efficient triage protocols help prioritize urgent cases, thus optimizing the allocation of ED resources and minimizing wait times for all patients. Rapid Assessment and Treatment (RAT) teams or processes can further expedite the identification and management of critical patients, contributing to better outcomes overall [21].

The integration of technology, such as electronic health records (EHR) and other digital tools, plays a crucial role in enhancing ED outcomes. These systems streamline patient information management, enabling faster access to critical data and facilitating better decision-making by healthcare providers [5]. Continuous training and simulation exercises are paramount for improving emergency response times and overall performance in the ED. Ongoing education helps staff refine their skills, stay updated on best practices, and adapt to evolving situations effectively. Patient-centered care remains a cornerstone of ED success. Prioritizing clear communication, respect, and compassionate treatment fosters positive patient experiences, enhances satisfaction, and promotes adherence to treatment plans [12].

Furthermore, data-driven quality improvement initiatives are essential for identifying areas of strength and opportunities for enhancement within the ED. By collecting and analyzing performance data, healthcare teams can implement targeted interventions to optimize patient care delivery continuously. Efficient resource management is

another critical component of successful ED operations. Proper allocation of staff, space, and equipment helps optimize patient flow and ensures that resources are utilized effectively [7]. Establishing clear communication protocols, such as the SBAR (Situation, Background, Assessment, Recommendation) framework, facilitates effective information exchange among healthcare team members, promoting seamless coordination and collaboration [21].

Finally, providing support for ED staff to manage stress and prevent burnout is essential for maintaining focus and delivering high-quality care consistently. By prioritizing staff well-being, the ED can sustain a positive work environment conducive to optimal patient outcomes.

Conclusion

Enhancing emergency department (ED) outcomes requires a comprehensive approach that incorporates optimizing healthcare team response strategies, streamlining processes, and prioritizing patient-centered care. By fostering interprofessional collaboration and clear communication among physicians, nurses, technicians, social workers, and other healthcare professionals, emergency departments can deliver coordinated and efficient care.

Strategies such as effective triage, the integration of technology, and continuous training for staff help improve patient flow and response times, leading to better overall outcomes. Additionally, prioritizing patient-centered care enhances patient satisfaction and encourages adherence to treatment plans.

Data-driven quality improvement initiatives provide valuable insights into areas of strength and opportunities for improvement within the ED, allowing healthcare teams to continuously refine and enhance care delivery. Efficient resource management ensures the optimal allocation of staff, space, and equipment, supporting effective patient care.

Ultimately, the combination of these approaches creates an environment where emergency departments can provide timely, compassionate, and high-quality care to patients in need. By addressing the complex challenges of emergency care and promoting the well-being of both patients and staff, healthcare institutions can achieve better outcomes and improve the overall healthcare experience.

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