

Impact of Interdisciplinary Coordination between Nursing, Medical Secretaries, and Emergency Services on Patient Outcomes

Afaf Saad Alotaibi¹, Abdullah Najr Alqhtani², Ahad Mohammed Alotaibi³,
Salem Mohammed Saad Alkhathami⁴, Khalid Abdullah Alghidani⁵,
Hassan Mohammed Hamoud Asiri⁶, Amal Fawaz Alshehri⁷,
Hamad Sultan Hamad Almusabbihi⁸, Faisal Dhafer Alahmari⁹,
Raed Humaidi Alharbi¹⁰

¹Specialist Community and Public Health Nursing, PSMMC Region, Riyadh KSA

²Senior Nursing Education Specialist, PSMMC Region, Riyadh KSA

^{3,4}Nursing specialist, PSMMC Region, Riyadh KSA

⁵Nursing technician, Qassim Armed Forces Hospital, Riyadh KSA

^{6,7,8}Medical Secretary, PSMMC Region, Riyadh KSA

^{9,10}Emergency Medical Specialist, PSMMC Region, Riyadh KSA

ABSTRACT

Working together effectively within the emergency department (ED) is key for nurses, medical secretaries and emergency medical services (EMS) to deliver timely, safe and quality patient care. Interdisciplinary coordination enhances communication, optimizes the flow of work and assists with continuity of care in the transition from prehospital to discharge. This review will examine the impact of interprofessional working in these professions and the published research on the impact of collaboration on the outcomes for the patient with regard to emergency health care. The evidence that is available suggests that effective communication and well-defined roles of the professionals has been shown to reduce treatment delays, errors, and medical incidents, improve patient safety, shorten hospital stays and improve patient satisfaction. However, nurses and medical secretaries are also key players in the clinical decision making process, as they coordinate clinical care and facilitate the documentation and management of patient care.

EMS professionals timely assess, stabilize and transfer to hospital staff for timely intervention. Common communication tools and interprofessional education and interprofessional systems of electronic health records are also highlighted in the review as ways to ensure collaboration between professions. There are, however, staffing, communication, workload and overcrowding issues that need to be addressed in order to facilitate team working and effective health care provision. In conclusion, enhancing interdisciplinary communication among nurses, medical secretaries, and EMS is crucial for optimizing ED efficiency and patient care. The quality and safety of emergency care can be enhanced through collaborative practice, communication and organizational support, and engaging in further research to develop and test stronger interdisciplinary care models to enhance clinical outcomes and care delivery in the emergency environment.

Keywords: Interdisciplinary coordination; Nursing; Medical secretaries; Emergency medical services (EMS); Emergency department; Patient outcomes; Teamwork; Communication; Patient safety; Emergency care.

INTRODUCTION

As one of the most time sensitive and complex areas of health care, patient outcomes in emergency care are influenced not only by clinical knowledge, but also by the ability of multi-professional working across the various specialties involved [1]. Modern Emergency Departments (EDs) are extremely dynamic and have to deal with unpredictable patient numbers, a wide range of clinical presentations and quick decision making. The capacity of nurses to integrate efficiently with medical secretaries and emergency medical services (EMS) workers however, is an important factor in ensuring timely assessment, good communication, continuity of care and better patient outcomes in these settings [2]. This interdisciplinary coordination affects the critical outcomes such as treatment delay, patient safety, mortality, length of stay, patient's satisfaction, and the use of resources [3].

Emergency care is increasingly provided by multiple healthcare professions and the need for patient centered care is growing. The roles of a physician, nurse, medical secretary and EMS personnel are of course all important in the context of diagnosis and treatment, but all of these roles play a part in making an ED run efficiently. Nurses conduct triage, check patients, give treatment, organize clinical interventions and continually advocate for patients [4]. Medical secretaries coordinate patient registration, documentation, scheduling, communicating with diagnostic units, insurance verification and manage electronic health records [5]. EMS professionals provide prehospital care, provide important information to fellow EMS personnel during transit, stabilize the very critically ill patient and ensure a smooth handoff when the patient arrives at the hospital. These professionals work collaboratively to create an integrated health pathway that reduces delays and enhances health outcomes [6].

This interdisciplinary approach is crucial to provide the high-quality care needed by patients in the emergency environment as no single healthcare professional can be expected to possess all the skills and expertise they require to effectively deal with the complex needs of patients [7]. Good team working assists sharing of clinical information, making clinical decisions together, respecting each other and coordinating tasks [8]. It has been identified that lack of communication, lack of proper documentation, lack of prompt information sharing and unclear roles are among the top causes of adverse events in emergency medicine [9]. Communication breakdown is identified as a major component of adverse medical events that can be prevented and it is known to break down throughout all aspects of emergency care; structured interdisciplinary collaboration is an integral component of medical care. This has led to the recognition of the need for team working and communication in patient safety programmes by healthcare organisations globally [10].

Nurses form the biggest profession group in EDs and are the primary interface between patients and other health care workers [11]. They are not just tasked with patient care, but are also involved in triage prioritization, medication administration, 24-hour monitoring of patient physiology, patient education, discharge planning and communication with physicians and allied health professionals. Emergency nurses are often involved in patient handover with EMS and medical secretaries' role in ensuring accurate patient documentation and timely processing of investigations and referrals [12]. The coordination of nursing contributes to identifying patient deterioration in a timely fashion, timely implementation of evidence based interventions, timely reduction in delay in treatment and better continuity of care. On the other hand, poor nursing communication has been linked to higher instances of medication errors, duplication of services, longer wait time and worse patient outcomes.

While medical secretaries are not as well known as other healthcare professionals in medical research, their role in the efficiency of the ED is significant [13]. They serve as the heart and soul of the administrative coordination, ensuring smooth communication between patients, healthcare providers, laboratories, imaging centers, insurance companies, and hospital management. Patient Continuity of Care throughout the patient journey depends on accurate patient registration, timely documentation, appointment scheduling, electronic records management and communication support [14]. Administrative process may cause investigation delays, lost documents, wrong patient, billing mistakes and disruption of clinical workflow. Hence, medical secretaries are key to enabling clinical teams to access accurate patient information at instant, enabling swift decision making and minimizing avoidable delays in the provision of health care services during emergency situations [15].

EMS serves as the initial source of professional healthcare for many patients with serious illnesses or injuries. EMS professionals carry out rapid clinical evaluations, begin lifesaving procedures, transport patients and stabilize them on the way to the hospital, and give prehospital data to the receiving hospital [16]. Good communication between EMS teams and ED staff helps hospitals to be ready with the appropriate person, equipment, and treatment in place prior to the patient's arrival. Standardised handover procedures enable the correct transfer of information about the patient, vital signs, interventions carried out, medications given and suspected diagnoses [17]. Prehospital communication has been linked to reduced door-to-treatment time, better trauma care, stroke and myocardial infarction outcomes and survival rate. However, inadequate or substandard handover exchanges can result in missed or incorrect diagnoses, re-assessment, unnecessary investigations and poor patient safety outcomes [18].

Advancements in electronic health records (EHRs), computerized physician order entry (CPOE) systems, telemedicine and digital communication technologies have revolutionized the way interdisciplinary coordination is carried out in emergency care environments [19]. Integrated information systems allow the sharing of patient information in real time across the entire EMS to the nurse, medical secretary, doctor, lab services and radiology department. Digital communication minimizes transcription mistakes, increases the accuracy of documentation, enables faster clinical decision making and promote seamless care within cross settings of health care. But technology alone will not solve communication problems without the backbones of standard work processes, staff training, organizational leadership, and a team culture. Successful

interdisciplinary coordination will continue to rely on human factors like teamwork, professional trust, role clarity and mutual accountability [20].

There are a number of organizational arrangements that enhance communication among health care providers. Structured communication devices such as SBAR (Situation, Background, Assessment, Recommendation) and TeamSTEPPS (Team Strategies and Tools to Enhance Performance and Patient Safety) have been demonstrated to improve communication, teamwork, patient safety and clinical efficiency [21]. Multidisciplinary simulation training has also facilitated interprofessional working and provided healthcare professionals with safe environments to practise emergency situations, with a positive effect on leadership and communication, situational awareness and coordinated decision making [22]. These interventions highlight the need for team working across the disciplines in order to minimise preventable adverse events and enhance ED performance.

Although there is increased awareness of interdisciplinary working, there are still obstacles to effective coordination between the nursing profession, medical secretaries and emergency services [23]. For example, staffing issues, under-resourced EDs, high turnover, workload, lack of communication, hierarchical cultures, lack of interprofessional education, technology issues, and lack of administrative support are common barriers. These barriers can lead to delayed treatment, documentation inaccuracies, lack of communication, staff fatigue, decreased job satisfaction and patient safety issues [24]. To solve these problems, healthcare organizations need to invest in workforce development, standardized communication protocols, integrated information systems, leadership involvement, and ongoing quality improvement efforts that lead to a culture of collaboration.

With the growing complexity in delivery of emergency care, it is now necessary to understand the impact that interdisciplinary coordination has on the whole process of the delivery of emergency healthcare, not only between the medical secretaries and the medical staff, but also between the medical staff and the personnel of the emergency medical services. There are many studies that study nursing teamwork, EMS communication, or healthcare administration separately; however, there are fewer studies that look at the holistic impact of the nursing and EMS professionals on the patient.

An analysis of their shared interactions offers an insight into the importance of communication, effective processes and team working to patient safety, clinical effectiveness, healthcare efficiency and overall quality of service provision in the emergency setting. This study will, therefore, aim to assess the effect of interdisciplinary co-ordination between nursing staff, medical secretaries and emergency services on patient outcome, particularly the speed of treatment, communication effectiveness, patient safety, efficiency of health care and overall quality of emergency care services.

REVIEW

1. Concept of Interdisciplinary Coordination in Emergency Healthcare

Interdisciplinary coordination is the coordinated interaction between health professionals of various disciplines to provide comprehensive, safe and patient-centred care. Integrated coordination between nurses, doctors, medical secretaries, emergency medical services (EMS), lab personnel, radiologists, pharmacists and administrative personnel is needed in the event care environment. While multidisciplinary care is characterized by multiple professionals providing services in their own areas of expertise, interdisciplinary care includes a focus on shared decision making, communication, accountability, and intervention [25].

Emergency departments are busy, time-critical and have fluctuating patient numbers. Coordinated effort allows for instant patient triage, timely diagnostic testing, quick treatment initiation and quick transfer of patients between departments. Interdisciplinary group work is recognized as one of the essential components of healthcare of high quality and patient safety as a requirement by international bodies, such as World Health Organization (WHO) and Institute of Medicine (IOM). Numerous studies have shown that the collaborative efforts of a well-coordinated team cut down on clinical mistakes, waiting times, patient satisfaction, and clinical outcomes.

Interdisciplinary collaboration is rooted in communication. The use of standard communication tools like SBAR (Situation–Background–Assessment–Recommendation), structured handover procedures and multidisciplinary rounds enhances information sharing among health care workers. Communication starts from the moment the EMS team assesses the situation during an emergency and progresses through the entire process of triage, diagnosis, treatment, admission,

discharge, and/or referral. Each health care professional brings different skill sets to the team, but is committed to the same goal of achieving patient-centered outcomes.

Table 1. Components of Effective Interdisciplinary Coordination in Emergency Departments

Component	Description	Expected Outcome
Effective communication	Real-time exchange of accurate clinical information	Reduced medical errors
Shared decision-making	Collaborative treatment planning	Faster clinical decisions
Defined professional roles	Clear responsibilities among staff	Improved workflow
Mutual respect	Recognition of each discipline's expertise	Better teamwork
Standardized protocols	SBAR, TeamSTEPPS, checklists	Enhanced patient safety
Integrated documentation	Electronic health records	Continuity of care

2. Role of Nurses in Emergency Department Coordination

The greatest professional group in the ED is the emergency nurse and they are the hub of all patient care. They are not just responsible for patient care, but patient assessment, patient triage, medication administration and monitoring, patient education, discharge planning, and physician coordination with the laboratory, radiology, EMS and medical secretary [26]. Triage is one of the most important nursing duties as it involves deciding a patient's priority according to the severity of their illness. Correct triage can drastically minimise treatment delay and increase survival rate of critically ill patients. Nurses also plan several concurrent interventions and make sure that communication is effective between the health care providers.

There is evidence that leadership in nursing has a significant impact on improving efficiency in the ED. The experienced Emergency Nurse communicates quickly with the patient, activates emergency response teams and communicates with the physician. In addition, nurses participate in Infection Prevention, Medication Safety, Patient Advocacy and Quality Improvement efforts.

That better nurse staffing ratios are related to reduced mortality, fewer adverse events, reduced length of stay, and increased satisfaction has been shown in several studies. On the other hand, staffing shortages can cause staff burnout, communication problems, higher medication error rates, and delayed treatments.

Table 2. Nursing Responsibilities and Their Influence on Patient Outcomes

Nursing Responsibility	Coordination Role	Effect on Patient Outcomes
Patient triage	Prioritization of care	Reduced waiting time
Continuous monitoring	Early deterioration detection	Lower mortality
Medication administration	Coordination with physicians	Reduced medication errors
Patient education	Discharge coordination	Lower readmission rates
Documentation	Information continuity	Improved care quality
Emergency response	Team coordination	Faster interventions

3. Contribution of Medical Secretaries to Emergency Care Efficiency

The medical secretary is one very significant personnel of a medical practice. They are responsible for patient registration, appointment scheduling, insurance verification, managing electronic health records, referrals and records and communication.

Medical secretaries aren't always involved in medical research, but they do have a real impact on the movement of patients in the ER. Precise patient identification helps to prevent medical mistakes and streamlines the documentation process, which helps to keep laboratory testing, imaging and specialist consultations from being delayed.

With the use of EHR, medical secretaries' duties have expanded. These are for data entry accuracy, inter-departmental communication, confidentiality and clinical documentation. Workflow is improved with reduced admin and wait times.

Administrative delays have been shown to be a major factor in ED overcrowding. So, the communication, patient satisfaction and operational efficiency of medical secretaries and clinicians can be enhanced.

Table 3. Functions of Medical Secretaries in Emergency Departments

Function	Coordination Activity	Clinical Benefit
Patient registration	Accurate demographic recording	Correct patient identification
Electronic documentation	Real-time record updating	Continuity of care
Referral management	Coordination with specialists	Reduced treatment delays
Appointment scheduling	Patient flow management	Shorter waiting time
Communication support	Departmental coordination	Improved workflow
Insurance verification	Administrative processing	Faster admissions

4. Emergency Medical Services (EMS) and Prehospital Coordination

Many severely ill or injured persons have the first contact with the health care system through Emergency Medical Services (EMS). EMS workers conduct a quick assessment, engage in stabilization, implement emergency treatments and provide hospital information prior to their arrival [28].

The pre-hospital communication allows the hospital's emergency department to have the means ready, a medical team in place and even manage the activation of special units such as stroke units or trauma units. Standardized handovers increase the accuracy of information and decrease treatment delays.

Research has demonstrated reduction in D2B times for MI, D2N times for stroke thrombolysis, and trauma resuscitation time using Structured EMS to Hospital communication.

Mobile electronic health records, telemedicine, GPS tracking, and digital communications are just a few technological innovations that have enhanced EMS coordination. But, there can still be communication breakdown when transferring patients. Mobile electronic health records, telemedicine, GPS tracking, and digital communications are just a few technological innovations that have enhanced EMS coordination. But, there can still be communication breakdown when transferring patients.

Table 4. Impact of EMS Coordination on Emergency Patient Outcomes

EMS Activity	Coordination with Hospital	Patient Outcome
Prehospital assessment	Early notification	Faster triage
Patient stabilization	Treatment preparation	Improved survival
Structured handover	Accurate information transfer	Reduced medical errors
Telemedicine support	Remote specialist consultation	Better clinical decisions
Real-time communication	Resource allocation	Reduced treatment delays
Transport coordination	Continuity of care	Shorter emergency stay

5. Communication Strategies Enhancing Interdisciplinary Collaboration

- SBAR Communication Model
- TeamSTEPPS Framework
- Closed-loop communication
- Daily multidisciplinary rounds
- Electronic health records
- Clinical decision support systems
- Simulation-based interdisciplinary training

6. Impact of Interdisciplinary Coordination on Patient Outcomes

- Mortality reduction
- Medical error prevention
- Reduced emergency department length of stay
- Improved patient satisfaction
- Better clinical efficiency
- Lower hospital readmissions
- Cost-effectiveness
- Improved quality indicators

7. Barriers to Effective Interdisciplinary Coordination

- Staff shortages
- Overcrowding
- Communication failures
- Role ambiguity
- Burnout
- Technological limitations
- Administrative workload
- Hierarchical culture

8. Strategies to Strengthen Interdisciplinary Coordination

- Interprofessional education
- Simulation training
- Leadership development
- Standardized communication protocols
- Artificial intelligence support
- Integrated electronic health records
- Continuous quality improvement
- Policy recommendations

DISCUSSION

The review highlights the importance of a good working relationship between the nurse, the medical secretary and the emergency medical service (EMS) for the best possible results of emergency care. In hospital ED, effective communications, team decision making and streamlined workflow can improve the efficiency, decrease patient risk, and speed up patient treatment [29].

Nurses are vital coordinators in patient care, conducting triage, monitoring patients, providing treatment and communication between health care professionals. Moreover, medical secretaries play a crucial role in the timely and accurate processing of patient information, ensuring that administrative workflows run smoothly and efficiently while minimizing the risk of errors and delays. The role of the EMS officer is essential in this process, as the prehospital assessment of the patient, the stabilisation of the individual and communication with the hospital, in which early emergency interventions can be planned, are all crucial [30].

The review also states that standardised communication and multi-disciplinary collaboration and digital health tools enhance continuity of care and reduce avoidable health care errors. However, a lack of staff, overcrowding, heavy staff workloads and communication problems are still impacting on staff working together and the effectiveness of the ED.

CONCLUSION

Safe, timely and patient-centred emergency care relies heavily on the ability of the nursing profession, medical secretaries and the Emergency Medical Services to communicate with one another in an interdisciplinary manner. Effective collaboration, effective communication, standardization of procedures and integration of health information systems will make for better patient safety, fewer treatments, better flow and better clinical outcomes. Staffing, communication and administrative workload continue to be an ongoing challenge, but collaborative working and interprofessional learning and support and technology co-ordination can make a significant difference to the quality of emergency care provided. Additional studies on the testing of an integrated interdisciplinary approach are recommended for future studies to maximize patient outcomes and system performance.

In conclusion, an improvement of interdisciplinary coordination – through the establishment of communication protocols, health information systems, and interprofessional training – is a powerful way to advance the safety, effectiveness and quality of emergency health care. Further research is needed to evaluate the use of models which also include a nurse, medical secretaries and EMS to aid evidence-based improvements to the delivery of emergency services.

REFERENCES

1. Jin Y, Maimaitiming M, Li J, Hoving DJ, Yuan B. Coordination of care to improve outcomes of emergency medical services. *Cochrane Database Syst Rev*. 2023 Mar 10;2023(3):CD015316. doi: 10.1002/14651858.CD015316. PMCID: PMC9999672.
2. Mostafa R, El-Atawi K. Strategies to Measure and Improve Emergency Department Performance: A Review. *Cureus*. 2024 Jan 24;16(1):e52879. doi: 10.7759/cureus.52879. PMID: 38406097; PMCID: PMC10890971.
3. Pini R, Ralli ML, Shanmugam S. Emergency Department Clinical Risk. 2020 Dec 15. In: Donaldson L, Ricciardi W, Sheridan S, et al., editors. *Textbook of Patient Safety and Clinical Risk Management* [Internet]. Cham (CH): Springer; 2021. Chapter 15. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK585618/> doi: 10.1007/978-3-030-59403-9_15
4. Bendowska A, Baum E. The Significance of Cooperation in Interdisciplinary Health Care Teams as Perceived by Polish Medical Students. *Int J Environ Res Public Health*. 2023 Jan 5;20(2):954. doi: 10.3390/ijerph20020954. PMID: 36673710; PMCID: PMC9859360.
5. Charan GS, Kalia R, Dular SK, Kumar R, Kaur K. Challenges faced by doctors and nurses in the emergency department: An integrated review. *J Educ Health Promot*. 2025 Jan 31;14:2. doi: 10.4103/jehp.jehp_462_24. PMID: 40104379; PMCID: PMC11913184.
6. Fernandes A, Ray J. Improving the safety and effectiveness of urgent and emergency care. *Future Healthc J*. 2023 Nov;10(3):195-204. doi: 10.7861/fhj.2023-0085. PMID: 38162221; PMCID: PMC10753205.
7. Kongkar R, Ruksakulpiwat S, Phianhasin L, Benjasirisan C, Niyomyart A, Ahmed BH, Puwarawuttipanit W, Chuenkongkaew WL, Adams J. The Impact of Interdisciplinary Team-Based Care on the Care and Outcomes of Chronically Ill Patients: A Systematic Review. *J Multidiscip Healthc*. 2025 Jan 30;18:445-457. doi: 10.2147/JMDH.S497846. PMID: 39902192; PMCID: PMC11789502.
8. Pavedahl V, Muntlin Å, Von Thiele Schwarz U, Summer Meranius M, Holmström IK. Fundamental care in the emergency room: insights from patients with life-threatening conditions in the emergency room. *BMC Emerg Med*. 2024 Nov 17;24(1):217. doi: 10.1186/s12873-024-01133-4. PMID: 39551728; PMCID: PMC11571529.
9. Rowe A, Knox M. The Impact of the Healthcare Environment on Patient Experience in the Emergency Department: A Systematic Review to Understand the Implications for Patient-Centered Design. *HERD*. 2023 Apr;16(2):310-329. doi: 10.1177/19375867221137097. Epub 2022 Dec 21. PMID: 36541114; PMCID: PMC10133779.
10. Kashwani R, Kumari A. Healthcare Startup Incubators in India: Successes, Shortcomings, and Systemic Gaps. *Bull Health Sphere*. 2026;1(1). DOI: 10.63150/bhs.2026.02.
11. Reynolds TA, Sawe H, Rubiano AM, et al. Strengthening Health Systems to Provide Emergency Care. In: Jamison DT, Gelband H, Horton S, et al., editors. *Disease Control Priorities: Improving Health and Reducing Poverty*. 3rd edition. Washington (DC): The International Bank for Reconstruction and Development / The World Bank; 2017 Nov 27. Chapter 13. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK525279/> doi: 10.1596/978-1-4648-0527-1_ch13
12. Samadbeik M, Staib A, Boyle J, Khanna S, Bosley E, Bodnar D, Lind J, Austin JA, Tanner S, Meshkat Y, de Courten B, Sullivan C. Patient flow in emergency departments: a comprehensive umbrella review of solutions and challenges across the health system. *BMC Health Serv Res*. 2024 Mar 5;24(1):274. doi: 10.1186/s12913-024-10725-6. PMID: 38443894; PMCID: PMC10913567.
13. Rosen MA, DiazGranados D, Dietz AS, Benishek LE, Thompson D, Pronovost PJ, Weaver SJ. Teamwork in healthcare: Key discoveries enabling safer, high-quality care. *Am Psychol*. 2018 May-Jun;73(4):433-450. doi: 10.1037/amp0000298. PMID: 29792459; PMCID: PMC6361117.

14. Vaisi-Raygani A, Moradi M, Salari N, Fattahi Z, Hadadian F. Resilience and nursing care quality in emergency departments: a 2024 study in Kermanshah, Iran hospitals. *BMC Nurs.* 2025 Sep 2;24(1):1152. doi: 10.1186/s12912-025-03749-8. PMID: 40898286; PMCID: PMC12403539.
15. Sartini M, Carbone A, Demartini A, Giribone L, Oliva M, Spagnolo AM, Cremonesi P, Canale F, Cristina ML. Overcrowding in Emergency Department: Causes, Consequences, and Solutions-A Narrative Review. *Healthcare (Basel).* 2022 Aug 25;10(9):1625. doi: 10.3390/healthcare10091625. PMID: 36141237; PMCID: PMC9498666.
16. Gupta A, Arya S, Yadav P, Gupta A, Raj A, Maurya T, Kaur P. Barriers, Challenges, and Facilitators Experienced by Healthcare Professionals in Providing Immediate and Efficient Care in the Emergency Department: A Mixed-Methods Study. *Cureus.* 2025 Jun 15;17(6):e86089. doi: 10.7759/cureus.86089. PMID: 40671979; PMCID: PMC12264021.
17. Institute of Medicine (US) Committee on the Work Environment for Nurses and Patient Safety; Page A, editor. Keeping Patients Safe: Transforming the Work Environment of Nurses. Washington (DC): National Academies Press (US); 2004. Appendix B, Interdisciplinary Collaboration, Team Functioning, and Patient Safety. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK216180/>
18. Bhati D, Deogade MS, Kanyal D. Improving Patient Outcomes Through Effective Hospital Administration: A Comprehensive Review. *Cureus.* 2023 Oct 26;15(10):e47731. doi: 10.7759/cureus.47731. PMID: 38021686; PMCID: PMC10676194.
19. Will KK, Johnson ML, Lamb G. Team-Based Care and Patient Satisfaction in the Hospital Setting: A Systematic Review. *J Patient Cent Res Rev.* 2019 Apr 29;6(2):158-171. doi: 10.17294/2330-0698.1695. PMID: 31414027; PMCID: PMC6676761.
20. Karam M, Chouinard MC, Poitras ME, Couturier Y, Vedel I, Grgurevic N, Hudon C. Nursing Care Coordination for Patients with Complex Needs in Primary Healthcare: A Scoping Review. *Int J Integr Care.* 2021 Mar 19;21(1):16. doi: 10.5334/ijic.5518. PMID: 33776605; PMCID: PMC7977020.
21. Warren JL, Warren JS. The Case for Understanding Interdisciplinary Relationships in Health Care. *Ochsner J.* 2023 Summer;23(2):94-97. doi: 10.31486/toj.22.0111. PMID: 37323516; PMCID: PMC10262946.
22. Zaboli A, Turcato G, Brigiari G, Massar M, Ziller M, Sibilio S, Brigo F. Emergency Departments in Contemporary Healthcare: Are They Still for Emergencies? An Analysis of over 1 Million Attendances. *Healthcare (Basel).* 2024 Dec 3;12(23):2426. doi: 10.3390/healthcare12232426. PMID: 39685048; PMCID: PMC11641709.
23. Young M, Smith MA. Standards and Evaluation of Healthcare Quality, Safety, and Person-Centered Care. [Updated 2025 Feb 24]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2026 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK576432/>
24. Hansen K, Boyle A, Holroyd B, Phillips G, Bengner J, Chartier LB, Lecky F, Vaillancourt S, Cameron P, Waligora G, Kurland L, Truesdale M; IFEM Quality and Safety Special Interest Group. Updated framework on quality and safety in emergency medicine. *Emerg Med J.* 2020 Jul;37(7):437-442. doi: 10.1136/emmermed-2019-209290. Epub 2020 May 13. PMID: 32404345; PMCID: PMC7413575.
25. Walsh A, Bodaghkhani E, Etchegary H, Alcock L, Patey C, Senior D, Asghari S. Patient-centered care in the emergency department: a systematic review and meta-ethnographic synthesis. *Int J Emerg Med.* 2022 Aug 11;15(1):36. doi: 10.1186/s12245-022-00438-0. PMID: 35953783; PMCID: PMC9367087.
26. Hedqvist AT, Herrera MJ. Ambulance clinicians' perspectives on interprofessional collaboration in prehospital emergency care for older patients with complex care needs: a mixed-methods study. *BMC Geriatr.* 2025 May 30;25(1):394. doi: 10.1186/s12877-025-05975-w. PMID: 40448003; PMCID: PMC12124084.
27. Persson MH, Søndergaard J, Mogensen CB, Skjøl-Årtil H, Andersen PT. Healthcare professionals' experiences and attitudes to care coordination across health sectors: an interview study. *BMC Geriatr.* 2022 Jun 21;22(1):509. doi: 10.1186/s12877-022-03200-6. PMID: 35729544; PMCID: PMC9210644.
28. Buljac-Samardzic M, Doekhie KD, van Wijngaarden JDH. Interventions to improve team effectiveness within health care: a systematic review of the past decade. *Hum Resour Health.* 2020 Jan 8;18(1):2. doi: 10.1186/s12960-019-0411-3. PMID: 31915007; PMCID: PMC6950792.
29. Albertson EM, Chuang E, O'Masta B, Miake-Lye I, Haley LA, Pourat N. Systematic Review of Care Coordination Interventions Linking Health and Social Services for High-Utilizing Patient Populations. *Popul Health Manag.* 2022 Feb;25(1):73-85. doi: 10.1089/pop.2021.0057. Epub 2021 Jun 16. PMID: 34134511; PMCID: PMC8861924.
30. Khatri R, Endalamaw A, Erku D, Wolka E, Nigatu F, Zewdie A, Assefa Y. Continuity and care coordination of primary health care: a scoping review. *BMC Health Serv Res.* 2023 Jul 13;23(1):750. doi: 10.1186/s12913-023-09718-8. PMID: 37443006; PMCID: PMC10339603.