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Emergency Department Patient Flow

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August 2025

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Book a session today at https://forms.office.com/e/HyiSXfDaYV (these sessions will be held on a monthly basis)

Delayed discharges: why it's hard to say how many are due to social care capacity

We don't know how many delayed discharges are due to lack of social care capacity, say Simon Bottery and Sarah Arnold, and that's because we stopped counting.

Urgent and emergency care plan 2025/26 – The UEC Plan sets out how we'll resuscitate urgent and emergency care, with a focus on getting patients out of corridors, keeping more ambulances on the road, and enabling those ready to leave hospital to do so as soon as possible.

Delivery plan for recovering urgent and emergency care services.
NHS Providers; 2025.
https://nhsproviders.org/resources/delivery-plan-for-recovering-urgent-and-emergency-care-services
[This briefing provides a full summary of the delivery plan for recovering urgent and emergency care services, and outlines our view and how we've contributed to this agenda.]

1. **Acute coronary syndrome rule-out strategies in the emergency department: an observational evaluation of clinical effectiveness and current UK practice**

Publication Date: 2025

Journal: Emergency Medicine Journal : EMJ 42(9), pp. 585–592

Abstract: Competing Interests: Competing interests: CR is now employed by Pfizer limited, however Pfizer did not fund or support the study and was not in any way involved in the writing of this manuscript.; Background: Numerous strategies have been developed to rapidly rule-out acute coronary syndrome (ACS) using high-sensitivity troponin. We aimed to establish their performance in terms of

emergency care length of stay (LOS) in real-world practice.; Methods: A multicentre observational cohort study in 94 UK sites between March and April 2023. Recruitment was preferably prospective, with retrospective recruitment also allowed. Adults presenting to the ED with chest pain triggering assessment for possible ACS were eligible. Primary outcome was emergency care LOS. Secondary outcomes were index rate of acute myocardial infarction (MI), time to be seen (TTBS), disposition and discharge diagnosis. Details of ACS rule-out strategies in use were collected from local guidelines. Mixed effects linear regression models tested the association between rule-out strategy and LOS.; Results: 8563 eligible patients were recruited, representing 5.3% of all ED attendances. Median LOS for all patients was 333 min (IQR 225, 510.5), for admitted patients was 460 min (IQR 239.75, 776.25) and for discharged patients was 313 min (IQR 221, 451). Heterogeneity was seen in the rule-out strategies with regard to recommended troponin timing. There was no significant difference in LOS in discharged patients between rule-out strategies defined by single and serial troponin timing (p=0.23 and p=0.41). The index rate of acute MI was 15.2% (1301/8563). Median TTBS was 120 min (IQR 57, 212). 24.4% (2087/8563) of patients were partly managed in a same day emergency care unit and 70% (5934/8563) of patients were discharged from emergency care.; Conclusion: Despite heterogeneity in the ACS rule-out strategies in use and widespread adoption of rapid rule-out approaches, this study saw little effect on LOS in real-world practice. Suspected cardiac chest pain still accounts for a significant proportion of UK ED attendances. ED system pressures are likely to be explanatory, but further research is needed to understand the reasons for the unrealised potential of these strategies.

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2. **Discrete event simulation and agent-based modelling of distributed situation awareness in patient flow management**

Authors: Alhaider, Abdulrahman A.;Lau, Nathan;Alotaik, Osama and Davenport, Paul B.

Publication Date: 2025

Journal: Scientific Reports 15(1), pp. 30068

Abstract: Competing Interests: Declarations. Competing interests: The authors declare no competing interests.; Patient flow management heavily relies on effective communication or transactions of situation awareness (SA) amongst hospital staff to minimize patients' length of stay. Modelling SA transactions quantitatively could help identify inefficiencies and test potential solutions. This paper presents quantitative modelling of distributed situation awareness (DSA) with discrete event simulation (DES) and agent-based modelling (ABM) to capture and assess the transactions and distribution of SA for intrahospital transportation in patient flow management. The quantitative model was built on a qualitative DSA combined network for intrahospital transportation, observations, and historical data, followed by validation with t-tests by comparing transport time and number of patients transported between model outputs and historical data. Further, the model was used to test two proposed interventions for eliminating SA deficiencies revealed by prior qualitative DSA research: (1) updating the charge nurse before picking up patients, and (2) updating the X-ray unit before arriving. T-tests on the simulation results of 1500 replications revealed that the first intervention yielded significant reductions in mean transport time and cancelation rate, while the second intervention yielded a significant increase in transport time compared to the historical operational data. To our knowledge, this work is the first quantitative modelling research on DSA that is being assessed against operational data. The findings affirm that DSA is a promising framework for analyzing communication and coordination in complex systems and assessing system-level SA quantitatively.

3. **Self-referral trends to a virtual emergency department following initial presentation: A retrospective exploratory analysis**

Authors: Baines, Belinda L.;Lawrence, Joanna;Hutton, Jennie;Sher, Loren;Semciw, Adam I.;Boyd, James H.;Jessup, Rebecca L.;Miller, Suzanne M. and Talevski, Jason

Publication Date: 2025

Journal: Australasian Emergency Care 28(3), pp. 221–226

Abstract: Competing Interests: Declaration of Competing Interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Objective: The Victorian Virtual Emergency Department (VVED) provides emergency care for patients across Victoria, Australia with non-life-threatening concerns. This study aims to explore subsequent self-referral patterns of patients after initial presentation to the VVED.; Methods: A retrospective cohort study was conducted in 42,921 VVED patients between October 2020 and June 2024. Subsequent self-referral rates among VVED patients who were initially referred through a health care provider (HCP) referral pathway were compared to those who self-referred upon their first presentation. Descriptive statistics and multivariable logistic regression modelling were used.; Results: Patients were more likely to self-refer on their second presentation if they self-referred on their first presentation (88 % vs 40 %; $p < 0.001$). Multivariable logistic regression analyses showed significantly lower odds of subsequent self-referral in all HCP referral pathways compared to the self-referral group. Patients referred through pathways without an HCP present had higher odds of subsequent self-referral than those referred via pathways with a HCP present (OR=1.19, 95 % CI: 1.10-1.28).; Conclusions: Patients who self-refer to the VVED initially are more likely to continue self-referring to the service. Further research is needed to explore factors that may enhance the likelihood of self-referral to virtual emergency care services.

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4. **The urinary microbiome distinguishes symptomatic urinary tract infection from asymptomatic older adult patients presenting to the emergency department**

Authors: Bradley, Evan S.;Stansky, Celina;Zeamer, Abigail L.;Huang, Ziyuan;Cincotta, Lindsey;Lopes, Abigail;Potter, Linda;Fontes, Theresa;Ward, Doyle V.;Bucci, Vanni;McCormick, Beth A. and Haran, John P.

Publication Date: 2025

Journal: Virulence 16(1), pp. 2546063

Abstract: Older adults suffer from a high rate of asymptomatic bacteriuria (ASB), in which urinalysis may appear positive (presence of bacteria, white blood cells, and nitrates), often triggering initiation of antibiotics in acute care settings, without actual urinary tract infection (UTI) present. To investigate the urinary microbiome of older adults being tested for UTI, we enrolled a convenience sample of 250 older adult Emergency Department patients who had microscopic urinalysis ordered as part of their routine clinical care. Urinalysis results were classified as positive or negative, and patients were classified as being symptomatic or asymptomatic based on established diagnostic guidelines. We sought to determine if features of the urinary microbiome differed between positive and negative urinalysis (UAs) and symptomatic and asymptomatic patients with positive UAs. The same urine sample used for clinical testing was sequenced and analyzed for bacterial taxa, metabolic pathways, and known bacterial virulence factors. After exclusion of anatomical abnormalities and filtering for sequencing quality, 152 samples were analyzed (5 negative UAs, 147 positive UAs, among which 68 were asymptomatic, and 79 symptomatic). Positive UA samples showed significantly lower alpha diversity (2.29 versus 0.086, $p < 0.01$) and distinct community composition based on beta-diversity (PERMANOVA on Bray-Curtis distance $p < 0.01$). Alpha and beta diversity did not significantly differ

between asymptomatic and symptomatic patients. Machine learning classifiers combining clinical covariates other than specific signs and symptoms and microbiome features (taxa, metabolic pathways, or virulence factors) revealed mostly microbiome features as predictive of symptomatic UTI over clinical features.

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5. **Clinical and demographic factors associated with increased risk of postpartum readmission among patients presenting to the emergency department by 6 weeks postpartum**

Authors: Corry-Saavedra, Kate;Murphy, Aisling and Mei, Jenny Y.

Publication Date: 2025

Journal: The Journal of Maternal-Fetal & Neonatal Medicine : The Official Journal of the European Association of Perinatal Medicine, the Federation of Asia and Oceania Perinatal Societies, the International Society of Perinatal Obstetricians 38(1), pp. 2466210

Abstract: Objective: Postpartum emergency department (ED) visits complicate 12% of births and rates of postpartum readmission are on the rise. While there are a wide range of etiologies, prior studies have sought to delineate causes and risk for readmission. Furthering our understanding of risk factors and etiologies for postpartum readmissions may help develop quality metrics and targeted strategies to address the rising rate of readmissions. We aimed to characterize demographic and perinatal characteristics in postpartum ED visits and evaluate risk factors for readmission.; Methods: A retrospective cohort study was performed on all ED visits that took place within 42 days of delivery at a single tertiary care center between 2017 and 2022. Inclusion criteria were age 18 years or above and both delivery and ED visit/readmission at the institution. Exclusion criteria included patients who did not deliver at the study institution, previable deliveries (<24 weeks gestation), intrauterine fetal demise, and termination of pregnancy. Chief complaint was used to determine the main reason for presentation to the ED. Patients who presented with concern for elevated blood pressures had hypertension listed as their chief complaint. Maternal demographics and delivery outcomes were compared between patients who were readmitted to those managed outpatient.; Results: Of 16162 deliveries, 548 (3.4%) patients presented to the ED for total 616 encounters. 52 (9.5%) patients presented to the ED more than once. Out of the patients who presented to the ED, 221 (40.3%) patients were readmitted, 8 of whom were readmitted twice (1.3%). The majority (63%) of ED visits occurred within 14 days of delivery. Hypertension was the most common reason for presenting to the ED (23.8%), followed by GI complaints (10.8%) and vaginal bleeding (9.7%). Advanced maternal age, higher BMI, Black race, chronic hypertension, maternal medical comorbidity, and longer postpartum length of stay were all associated with higher likelihood of being readmitted. Multivariate logistic regression controlling for potential confounders found higher risk of readmission with hypertensive disorder of pregnancy (adjusted odds ratio aOR], 2.28; 95% confidence interval CI], 1.57-3.3; $p < 0.001$), preeclampsia with severe features (aOR, 1.91; 95% CI, 1.07-3.42; $p = 0.03$), and presenting for hypertension (aOR, 5.69; 95% CI, 3.56-9.09; $p < 0.001$). There were also higher odds of readmission with any delivery complication (aOR, 1.77; 95% CI, 1.24-2.52; $p = 0.002$) and having more than one ED visit (aOR, 3.42; 95% CI, 1.86 to 6.28; $p < 0.001$).; Conclusion: Most ED visits took place within 2 weeks of delivery, and postpartum hypertension was the leading cause. Risk of readmission after an ED visit was higher for patients with medical comorbidities, hypertensive disorders of pregnancy, and delivery complications. Future research is needed to evaluate patient-centered models to improve outcomes and support patients during the postpartum period.

6. **Optimizing early surgical sepsis management in the emergency department: Risk factors, early detection, and management: A scoping review**

Authors: Espat, Nikita Nunes;Lee, Philip;Baum, Samuel;Chin, Brian;Zagales, Ruth;Yates, Zackary;Amin, Quratulain;Schuemann, Kathleen R. and Elkbuli, Adel

Publication Date: 2025

Journal: The American Journal of Emergency Medicine 95, pp. 133–139

Abstract: Competing Interests: Declaration of competing interest Authors have nothing to disclose.; Background: This scoping review aims to evaluate the current literature on early sepsis management for surgical patients presenting to the emergency department (ED), with a focus on predisposing risk factors, early diagnostics, and timing of management to determine best practices for optimizing outcomes.; Methods: A structured literature review was conducted using PubMed, EMBASE, ProQuest, Cochrane, and Google Scholar to identify relevant studies on sepsis in surgical patients, including those with traumatic injuries, presenting to the ED. Eligible studies investigated adult patients (≥18 years) with sepsis or suspected sepsis, reporting on risk factors, diagnostic tools, or timing of management.; Results: Out of 1155 studies identified, 18 met the inclusion criteria, comprising 14 retrospective and 4 prospective cohort studies. Independent risk factors for surgical patients developing sepsis included older age (OR 1.01, P < 0.001), male gender (P < 0.001), and having comorbidities such as diabetes (OR 1.2, P = 0.005). Elevated biomarkers like C5a and lactate were significantly associated with sepsis severity. Early initiation of sepsis management was associated with a significantly lower mortality risk compared to delayed treatment.; Conclusion: This review identified several modifiable and non-modifiable risk factors relevant to sepsis prediction in surgical ED patients, as well as diagnostic tools tailored to this population. Early detection and timely initiation of sepsis management are crucial to reducing mortality and improving outcomes. Further research is needed to refine sepsis care in the ED.

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7. **Formative Evaluation to Inform Implementation of Sepsis Bundles in Emergency Departments**

Authors: Frank, Hannah E.;Sarani, Nima;Hayes, Jacqueline F.;Martinez, Ruben G.;Goldstein, Jessyca;Evans, Laura;Phillips, Gary;Dellinger, R. P.;Portelli, David;Schorr, Christa;Terry, Kathleen M.;Harmon, Lori;Townsend, Sean and Levy, Mitchell M.

Publication Date: 2025

Journal: Annals of Emergency Medicine 86(3), pp. 264–274

Abstract: Study Objective: Sepsis bundles are effective in reducing mortality for sepsis, the leading cause of admissions to intensive care units. However, little is known about factors that hinder and facilitate the delivery of sepsis bundles in emergency departments. Guided by the Exploration, Preparation, Implementation, and Sustainment (EPIS) Framework, the objective of the present study was to characterize determinants of implementing sepsis bundles in emergency departments in the United States.; Methods: A formative evaluation guided by the EPIS was conducted with nurses, physicians, and pharmacists using qualitative interviews (N=66 interviews) and quantitative surveys (N=86 surveys). Qualitative interviews were analyzed using a matrix-guided rapid analytic approach. Quantitative surveys were analyzed descriptively.; Results: Scores on quantitative measures indicated that participants perceived evidence-based interventions positively and had moderately positive perceptions of implementation climate and organizational readiness for change. Qualitative results indicate barriers aligned with the EPIS constructs of outer context (eg, perceived rigidity related to Centers for Medicare & Medicaid Services bundle requirements), inner context (eg, alert fatigue), bridging factors (eg, staffing shortages), and innovation factors (eg, concerns about fluid overload). Participants reported facilitators including nurse-driven protocols (inner context) and bundles being straightforward (innovation factors).; Conclusions: Findings highlight areas that warrant attention during sepsis bundle implementation efforts in emergency departments, including staff turnover, hesitancy in initiating bundles, competing or misaligned priorities related to bundle implementation, and developing hospital cultures that promote sepsis bundle compliance. These findings will be used to tailor

implementation strategies that will support bundle compliance in a hybrid type II effectiveness-implementation trial. (Copyright © 2025 American College of Emergency Physicians. Published by Elsevier Inc. All rights reserved.)

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8. **Screening and assessment of falls risk in the emergency department**

Authors: Fulbrook, Paul;Miles, Sandra J.;Jordan, Faye;Hazelwood, Sarah and Lee, Hwee Yong Debbie

Publication Date: 2025

Journal: Australasian Emergency Care 28(3), pp. 179–185

Abstract: Competing Interests: Declaration of Competing Interest All authors report no conflicts of interest.; Background: Falls are a source of harm, repeat emergency department visits and hospital admission for older adults. Undertaking a comprehensive geriatric screening including falls-risk is recommended in guidelines for optimal older adult emergency department care.; Methods: A pragmatic prospective cohort study was undertaken to evaluate use of further falls-risk screening in older adults in a large tertiary Australian hospital emergency department. Primary outcome measures of interest were length of stay; discharge destination; 30-day and 90-day re-presentations.; Results: Of 651 eligible cases, 320 were randomly recruited for further screening following consent. The implementation cohort spent an average 45 m longer in the emergency department with a greater proportion admitted to the short stay unit, staying there longer than a comparison cohort. There were significantly fewer 30-day fall-related representations (2.9 %) in the implementation cohort.; Conclusions: Despite a small reduction in emergency department re-presentation within 30 days in the implementation cohort, hospital admission was not reduced. Further research is needed to examine any cost-benefit ratio of additional falls-risk screening and intervention in emergency departments. (Copyright © 2025 The Authors. Published by Elsevier Ltd.. All rights reserved.)

9. **Refresher training for emergency department triage nurses - A scoping review**

Authors: Hinds, Amanda;Kay, Susan and Evans, Kiah

Publication Date: 2025

Journal: Australasian Emergency Care 28(3), pp. 204–212

Abstract: Competing Interests: Declaration of Competing Interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Background: Triage nurses have under five minutes to assess patients; prioritise urgency and assign wait times. Triage accuracy is vital for patient safety and Emergency Department (ED) efficiency. Guidelines for triage nurse refresher training are unclear. This review aimed to describe the evidence on ED triage nurse refresher training.; Methods: This scoping review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR), searching Medline, Embase and CINAHL databases from 2007 to 2024.; Results: Eighteen studies were included. Problem-based learning, lectures, simulation, and project learning were identified as effective education strategies, with multiple teaching methods frequently used. Cost and delivery mode affected refresher training. Tiredness, patient context, and nurses' forming personal rules over time negatively impacted accuracy, while clear guidelines and flowcharts helped maintain it.; Conclusions: Triage refresher training enhances nurses' accuracy. Clear guidance on minimum standards along with visible resources, guidelines and flowcharts further improve triage accuracy. Further research is needed to understand the long-term effects on patient safety and ED patient flow. (Copyright © 2025 The Authors. Published by Elsevier Ltd.. All rights reserved.)

10. **Absence of risk factors cannot exclude abnormal imaging findings in older delirious emergency department patients**

Authors: Jordano, James O.;Lee, Sangil and Han, Jin H.

Publication Date: 2025

Journal: The American Journal of Emergency Medicine 95, pp. 49–52

Abstract: Competing Interests: Declaration of competing interest The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Jin Han reports financial support was provided by National Institute of Health. Jin Han reports financial support was provided by National Center for Research Resources. Jin Han reports financial support was provided by National Center for Advancing Translational Sciences. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Introduction: Head computed tomography (CT) is routinely performed in older delirious emergency department (ED) patients, but little evidence-based guidance exists as to when it should be obtained. We sought to determine if the absence of risk factors was sufficient to not obtain a head CT in this population.; Methods: This was a secondary analysis of two prospective observational studies. Delirious ED patients ≥ 65 years old were included. We evaluated risk factors most associated with abnormal head imaging, including anticoagulant use, recent head trauma, focal neurological deficits, headache, or altered level of consciousness. Our primary outcome was "Positive composite head CT"-an acute pathological finding on the index hospitalization head CT OR, if a patient did not receive a head CT, as an acute pathological finding on imaging or new neurological diagnosis within 30 days post-ED visit. Sensitivities, specificities, and likelihood ratios (LR) with 95 % confidence intervals were calculated.; Results: A total of 160 patients were included. The median (IQR) age was 76 (69, 83) years old. There were 25 (15.6 %) older delirious patients with a positive composite head CT. Having any risk factor was 92.0 % (81.4-100.0 %) sensitive and 13.3 % (7.6-19.1 %) specific for a positive CT, with a negative LR of 0.6 (0.3-2.43) and positive LR of 1.1 (0.9-1.2).; Conclusion: In older ED delirious patients, the proportion of positive CTs was high. The absence of any risk factor minimally decreased the likelihood of having a positive head CT. Our data suggests that head CTs should be considered in all older ED patients with delirium. (Copyright © 2025 The Authors. Published by Elsevier Inc. All rights reserved.)

11. **Development and validation of an advanced data analytics model to support strategic point-of-care testing utilization decisions in the emergency department**

Authors: Leon-Justel, Antonio;Jimenez-Barragan, Marta;Navarro-Bustos, Carmen;Martin-Perez, Salomon;Garrido-Castilla, Jose;Morales-Barroso, Isabel;Oltra-Hostalet, Fernando;Fernandez-Gallardo, Maria;Diaz-Luque, Ana;Eugenio-Pizarro, Antonia;Luque-Cid, Antonio and Sanchez-Mora, Catalina

Publication Date: 2025

Journal: Journal of Medical Economics 28(1), pp. 871–884

Abstract: Aims: This study was carried out to address potential uncertainties about how point-of-care testing (POCT) improves patients' outcomes in emergency department (ED). The main aim was to develop and validate a model based on advanced data analytics to evaluate POCT's impact in patients' outcomes and ED patients' flow.; Materials and Methods: We built a discrete event model simulation (DEMS) to represent workflow of a Spanish ED. Historical data from ED, published evidence and expert estimates were used to support the model. Different scenarios of progressive utilization of POCT in patients' care triaged as Emergency Severity Index (ESI) level 3 were compared to standard-of-care

(SoC) in terms of time-to-first medical intervention (TFMI), time-to-disposition decision (TDD), total length of stay (LoS) and patient workflow.; Results: In POCT maximum utilization scenario (60% of ESI-3 patients), time savings reached 27.44, 14.58 and 13.96 min of TFMI, 55.77, 13.64 and 13.97 min of TDD and 89.60, 18.55 and 13.98 min of LoS (ESI-3, 4 and 5 patients, respectively). Statistically significant reductions were found for all time outcomes in every POCT scenario for ESI-3, 4 and 5 patients. Internal validation didn't show differences between model results and real data.; Limitations: Simplifications were made due to theoretical nature of computer-simulation models. Some input data and assumptions regarding individual process times were derived from interviews. Theoretical distributions were assumed; other activities outside the ED were considered as a disruption to the system; finally, findings reflect experience of a single ED.; Conclusions: Advanced data analytics has become a useful tool in analyzing lots of processes. Our study showed that advanced data analytics has become an exceptional tool in clinical laboratories and exemplifies how POCT incorporation in ED for care of ESI-3 patients reduces physicians' workload and waiting times of ESI-3, 4 and 5 patients, thus optimizing the patients' medical journey.

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12. **Patient Satisfaction With the Level of Competence of the Triage Nurse in Hospital Emergency Departments**

Authors: López Hernández, Meritxell;Puig-Llobet, Montserrat;Higon Fernández, Sergio;Franco Freirut, Marta;Moreno Mateos, Yolanda and Galimany Masclans, Jordi

Publication Date: 2025

Journal: Journal of Clinical Nursing 34(9), pp. 3893–3907

Abstract: Aims: To analyse the level of patient satisfaction regarding the care received in triage and its relationship with the competency level of clinical nurses in a hospital setting.; Design: A cross-sectional, prospective and multicentre study of nurses in hospital emergency triage and the patients they attended.; Method: Data were collected between October and November 2019 using two questionnaires; one collected sociodemographic factors, professional experience of the nurse and the competency assessment questionnaire for clinical nurses in the hospital setting (COM_VA). The other questionnaire recorded the age of patients, reason for consultation, pain and the Patient Satisfaction with Emergency Nursing Care Scale (CECSS). The abstract includes an indication of the chosen checklist, specifically the STROBE checklist for descriptive observational studies.; Results: The study included a sample of 624 patients and 77 nurses. The findings indicated that the nurses' level of competence, with an average score of 8.61, is significantly correlated with patient satisfaction. A total of 90.2% of patients reported being satisfied with the care they received during triage, highlighting the technical competence and empathy of the nurses as highly valued attributes. However, areas for improvement were identified, particularly in pain management and addressing the emotional needs of patients. Other factors related to nursing competence that influenced patient satisfaction included perceived safety in clinical practice and the sense of respect from the multidisciplinary team. Additionally, the intensity of pain experienced by patients during triage was a significant determinant of their overall satisfaction.; Conclusions: The results of this study indicate that the higher the level of nursing competence, the more satisfied the patients. In addition to knowledge and skills in triage, aspects such as empathy, concern and assertive listening influence patient satisfaction, and, therefore, perceived quality of care.; Reporting Method: In preparing the manuscript, the authors adhered to the relevant EQUATOR guidelines and the STROBE checklist for descriptive observational studies.; Public or Patient Contribution: No public or patient or professional contribution outside of participation for data collection purposes.; Trial Registration: N/A. This was not a clinical trial. (© 2024 The Author(s). Journal of Clinical Nursing published by John Wiley & Sons Ltd.)

13. **Risk factors for emergency department visits and readmissions for postpartum hypertension**

Authors: Mei, Jenny Y.;Alexander, Sabrina;Muñoz, Hector,E. and Murphy, Aisling

Publication Date: 2025

Journal: The Journal of Maternal-Fetal & Neonatal Medicine : The Official Journal of the European Association of Perinatal Medicine, the Federation of Asia and Oceania Perinatal Societies, the International Society of Perinatal Obstetricians 38(1), pp. 2451662

Abstract: Objective: Postpartum hypertension accounts for 15 to 20% of postpartum Emergency Department (ED) visits and readmissions in the United States. Postpartum readmission is a quality metric and target of quality improvement as it indicates poor control of hypertension and can portend increased morbidity. We aim to evaluate risk factors for postpartum ED visits and readmissions for hypertension.; Methods: This was a retrospective cohort study of all birthing patients with peripartum hypertension at a single tertiary care center over a 5-year period (2017-2022). Inclusion criteria were age 18 years or above, existing diagnosis of chronic hypertension or hypertensive disease of pregnancy diagnosed during the intrapartum or postpartum course, and both delivery and ED visit or readmission at the study institution. Maternal baseline and intrapartum characteristics were chart abstracted. Primary outcome was ED visit or readmission (EDR) for postpartum hypertension. Patients who had EDR within 42 days of delivery were compared to those who underwent routine outpatient surveillance. For all analyses, p values were two-way, and the level of statistical significance was set at p 50% elevated blood pressures within the 24 h prior to discharge (16.5% vs 11.9%, p = 0.046). In a multivariable logistic regression controlling for prenatal aspirin use, mode of delivery, postpartum hemorrhage, and chorioamnionitis, a higher risk of EDR remained for maternal age ≥40 years (aOR, 1.56; 95% confidence interval (CI), 1.11-2.20; p = 0.011), PO anti-hypertensives at discharge (aOR, 4.05; 95% CI, 2.86-5.73; p < 0.001), preeclampsia with severe features (aOR, 2.50; 95% CI, 1.83-3.42; p < 0.001), and history of IV anti-hypertensive exposure (aOR, 9.30; 95% CI, 6.20-13.95; p < 0.001).; Conclusions: Maternal age of 40 years and above, chronic hypertension, preeclampsia with severe features, prescription of anti-hypertensives on discharge, and elevated blood pressures leading up to discharge are associated with postpartum ED visits or readmissions for hypertension. Risk factor identification can aid in the development of predictive tools to determine high risk groups and interventions to reduce ED visits and readmissions.

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14. **Changes in hospital utilization following peer-led intervention for substance use disorders in hospital emergency departments**

Authors: Nordeck, Courtney D.;Oros, Marla;Raley, Heather;Smith, Sadie and Gryczynski, Jan

Publication Date: 2025

Journal: The American Journal of Emergency Medicine 95, pp. 167–172

Abstract: Competing Interests: Declaration of competing interest I have nothing to declare.; Background: Emergency departments (EDs) often treat patients with substance use disorders for a variety of medical problems. The Mosaic Group's Reverse the Cycle (RTC) intervention integrates peer recovery coach (PRC) support within EDs to address substance use through universal screening, peer-led interventions, initiation of medications for opioid use disorder, and facilitating linkage to community-based care.; Methods: This study evaluated RTC services in seven Maryland hospitals (N = 10,462). Data on RTC services were linked with statewide hospital utilization data in the 6 months pre- and 6 months post- intervention. Generalized estimating equations were used to examine any hospital utilization, all-cause ED visits, all-cause inpatient admissions, and overdose-related hospital utilization among 6566 patients who received an RTC intervention.; Results: Among patients eligible for RTC services, approximately 60 % received an intervention from PRCs. Patients who received an RTC intervention had a significant reduction in ED utilization (predicted probabilities PP] = 0.83 pre vs. 0.50

post) and overdose-related hospital events (PP = 0.07 pre vs. 0.04 post), but an increase in inpatient admissions (PP = 0.21 pre vs. 0.28 post; all Ps < 0.001).; Conclusion: Most ED patients who were eligible for services received an RTC intervention. Overall, patients who received an intervention subsequently reduced their acute care utilization, with a substantial reduction in ED utilization. The observed increase in inpatient admissions may reflect the high medical acuity of this population. The findings underscore the value of embedding PRCs within EDs and the potential to alter broader patterns of acute care utilization among people who use substances.

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15. **Effects of cold needle and ShotBlocker applied in the emergency department on pain and satisfaction in intramuscular injection pain: A randomized controlled trial**

Authors: Ordu, Yadigar;Polat, Hilal Türkben and Küçükceran, Kadir

Publication Date: 2025

Journal: Australasian Emergency Care 28(3), pp. 157–162

Abstract: Competing Interests: Declaration of Competing Interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this study.; Background: The most commonly reported side effect of intramuscular injection is pain. Cold needles and ShotBlocker can be used as non-pharmacological methods for pain relief. This study aims to determine the effect of cold needle and ShotBlocker on pain and satisfaction in intramuscular injection pain.; Methods: This is a triple-blind, randomized controlled study. The study was conducted on 120 patients (40: control, 40: cold needle, 40: ShotBlocker) who presented to the emergency department of a university hospital in Turkey for cyanocobalamin injection in July-August 2024. Data were collected using a patient identification form, visual pain scale (VPS), and injection satisfaction scale. SPSS statistical package (version 22.0; SPSS, Inc., USA) was used to analyze the data.; Results: In the study, the groups were found to be similar except for age and continuous drug use. The pain scores of the control group were significantly higher than those of the cold needle and ShotBlocker groups. Injection satisfaction was significantly higher in the cold needle and ShotBlocker groups than in the control group.; Conclusion: Both the Cold Needle and the ShotBlocker can be used as effective methods to reduce pain associated with intramuscular injections and improve injection satisfaction. Both methods are non-pharmacological, inexpensive, and easy to use, and they can be used safely and effectively in all clinical settings.

16. **Risk of compassion fatigue among emergency department nurses: a systematic review and meta-analysis**

Authors: Pan, Yunyun;Wang, Xiaoyou and Jin, Wanglu

Publication Date: 2025

Journal: BMC Emergency Medicine 25(1), pp. 155

Abstract: Competing Interests: Declarations. Ethical approval: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). As this study involves the summary and analysis of other studies, it does not involve medical ethics approval or patient-informed consent. Competing interests: The authors declare no competing interests.; Background: Emergency nurses face heightened vulnerability to compassion fatigue due to chronic exposure to trauma and high-stress environments,

potentially compromising both their well-being and patient care quality. However, comprehensive syntheses of its prevalence and modifiable factors remain limited.; Methods: Observational studies on the risk and factors influencing the occurrence of compassion fatigue among emergency department nurses were included by searching the CNKI, Wanfang, Vip, China Biomedical Literature Database, PubMed, Cochrane Library, Embase, and Web of science databases from inception to December 2024. Data were statistically analysed using RevMan 5. 2 software.; Results: Eleven cross-sectional studies were included, with seven (n = 2,385 nurses) reporting risk estimates. Random-effects meta-analysis indicated significantly elevated compassion fatigue risk (OR = 3.48, 95%CI:1.66-7.30, P = 0.001). Subgroup analysis indicated numerically higher risk among Chinese nurses (OR = 4.33, 95%CI:2.12-8.86, P < 0.0001) versus US nurses (OR = 1.73, 95%CI:0.16-19.11, P = 0.65), though without significant subgroup differences (P = 0.47). Descriptive analysis showed that factors such as personal characteristics and work-related factors were associated with compassion fatigue.; Conclusion: There is a high risk of developing compassion fatigue among emergency department nurses. While point estimates suggested higher risk in China than the US, this difference lacked statistical significance. Factors such as personal characteristics and work-related factors were associated with compassion fatigue. (© 2025. The Author(s).)

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17. **A Scoping Review of Secondary Traumatic Stress in Nurses Working in the Emergency Department or Trauma Care Settings**

Authors: Park, Hyeri;Kim, Heeyeon and Kim, Heejung

Publication Date: 2025

Journal: Journal of Advanced Nursing 81(9), pp. 5304–5314

Abstract: Aim: To synthesise recent literature related to secondary traumatic stress in nurses, specifically working in emergency and trauma care.; Design: A scoping review.; Methods: The Joanna Briggs Institute methodology and PRISMA for Scoping Reviews were used.; Data Sources: The literature search was conducted in November 2023 using PubMed, EMBASE and CINAHL.; Results: The selected papers were published between 2009 and 2023, with a significant portion adopting Figley's definition of secondary traumatic stress: the consequence of witnessing other people's abnormal distressing events. Eight papers conceptualised secondary traumatic stress as a separate concept from compassion fatigue and four treated secondary traumatic stress as a subcomponent of compassion fatigue. Factors associated with secondary traumatic stress were categorised into personal, occupational and symptomatic factors. Specifically, age, gender, years of experience and work shift were the most frequently mentioned factors.; Conclusion: Many nurses experience secondary traumatic stress when working in emergency departments or traumatic care settings. However, more research is required to establish a consistent conceptualisation, operationalisation and impacts of risk factors. Further research should be conducted that considers job-related and individual factors of secondary traumatic stress. In addition, it is necessary to develop psychological and occupational nursing interventions to help nurses at high risk for secondary traumatic stress.; Implications for the Profession And/or Patient Care: This review emphasises the significance of early detection and treatment for nurses with a high risk of occupational distress by synthesising articles addressing secondary traumatic stress-associated factors.; Impact: An understanding of secondary traumatic stress is critical to protect nurses working in trauma care settings alongside emergency departments. Based on our study findings, evidence-based assessments of high-risk groups should be conducted, considering personal, occupational and symptomatic factors. In addition, secondary traumatic stress could be a multilevel phenomenon requiring both individual and institutional support.; Reporting Method: PRISMA-ScR was used in this scoping review.; Patient or Public Contribution: No patient or public contribution. (© 2025 The Author(s). Journal of Advanced Nursing published by John Wiley & Sons Ltd.)

18. **Cost-effectiveness of the transition from conventional to high-sensitivity troponin assay for the investigation and management of suspected acute coronary syndrome in the emergency department**

Authors: Pincombe, Aubyn;Gray, Jodi;Hickling, Siobhan;Sanfilippo, Frank;Briffa, Tom;Cullen, Louise;Chew, Derek;Hillis, Graham;Fatovich, Daniel;Rankin, Jamie;Nedkoff, Lee;Scanlan, Samuel;Hickman, Peter E.;Stapleton, Stuart;Parsonage, William;Mitra, Biswadev;Schneider, Hans G.;Wilkes, Garry;Robinson, Teagan and Karnon, Jonathan

Publication Date: 2025

Journal: American Heart Journal 287, pp. 107–118

Abstract: Background: Switching from conventional to high-sensitivity cardiac troponin (hs-cTn) assays with sex-specific reference rates for threshold troponin levels enables detection of smaller amounts of myocardial damage. However, the real-world impact of these assays on patient outcomes and health service costs is poorly understood. We investigated the cost-effectiveness of switching to hs-cTn assays for patients presenting to Australian Emergency Departments (EDs) with suspected acute coronary syndrome (ACS) with a 12-month follow-up period.; Methods: Using linked administrative data from 9 tertiary hospitals for patients aged 20 and above who presented to ED with suspected ACS between March 2011 and November 2015, we applied a difference-in-differences methodology to compare costs and major adverse cardiac events between hospitals switching to hs-cTn assays and hospitals continuing to use conventional assays.; Results: We identified 179,681 consecutive patients, of whom 87,019 presented during the preperiod and 92,662 the postperiod. Switching to hs-cTn was associated with a reduction in the cost of the index event (-$1,022, 95% CI: -$1,034, -$1,009), a reduction in total costs at 12 months (-$1,373, 95% CI: -$1,387, -$1,360) and a reduction in the percentage of patients experiencing a MACE outcome within 12-months (-0.55%, 95% CI: -0.88%, -0.21%). The reduction in MACE outcomes was larger for female patients (-1.17%, 95% CI: -1.19%, -1.14%) than for all patients and for males.; Conclusions: The switch to hs-cTn is highly cost-effective across all patients and for each sex. The reduction in MACE outcomes and costs within 12 months are greater for females than for males.

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19. **Contextual influences on adaptation in four types of hospital teams: An ethnographic study**

Authors: Sanford, Natalie;Lavelle, Mary;Markiewicz, Ola;Reedy, Gabriel;Rafferty, Anne Marie;Darzi, Ara and Anderson, Janet E.

Publication Date: 2025

Journal: Applied Ergonomics 128, pp. 104529

Abstract: Competing Interests: Declaration of competing interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Background: Healthcare quality and safety efforts increasingly focus on understanding how complex systems adapt to maintain operations during disruptions. This paper explores team adaptation within hospitals, examining how different types of teams respond to misalignments between demand and capacity.; Aim: To explore whether different types of teams experience different types of demand capacity misalignments, and whether and how teams differ in how they adapt. The overall goal was to identify whether and how different types of teams might have different requirements to support their adaptive capacity and system resilience.; Methods: This study used ethnographic observations to collect data from five wards in a large London hospital: two surgical wards, an older adult ward, a critical care unit, and the Acute Assessment Unit (AAU) specifically

designed to expedite patient flow from the Emergency Department. A typology of hospital teams and the CARE Model 2.0 framework were used to analyse misalignments and adaptations.; Results: All team types experienced misalignments, but their adaptations in response to misalignments varied. Team design, structure, and membership influenced adaptation strategies. Structural and satellite teams, with stable membership, had fewer misalignments and coordinated adaptations effectively. Hybrid teams, with both stable and unstable members, were more vulnerable due to their fragmented interactions. Coordinating teams, integrating representatives from multiple areas, faced challenges due to conflicting priorities and information changes.; Conclusions: Different hospital teams adapt in different ways to misalignments. Team features influence adaptation strategies. Designing and supporting adaptive teams is crucial for improving healthcare quality and safety. Future research should focus on adaptive teamwork and explore interventions to enhance team adaptive capacity.

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20. **Are acute asthma presentations to the emergency department an opportunity for optimising long-term management? A qualitative study on beliefs and behaviours of healthcare professionals**

Authors: Skene, Imogen;Griffiths, Chris;Pike, Katherine;Bloom, Benjamin Michael;Pfeffer, Paul and Steed, Liz

Publication Date: 2025

Journal: Emergency Medicine Journal : EMJ 42(9), pp. 608–614

Abstract: Competing Interests: Competing interests: IS received a PhD studentship from AUKCAR. This work is funded by Asthma+ Lung UK as part of the Asthma UK Centre for Applied Research AUK-AC-2012-01 and AUK-AC-2018-01]. PP has attended advisory boards for AstraZeneca, GlaxoSmithKline and Sanofi; has given lectures at meetings/webinars, with/without honoraria, supported by AstraZeneca, Chiesi and GlaxoSmithKline; has attended international conferences with AstraZeneca; has taken part in clinical trials sponsored by AstraZeneca, GlaxoSmithKline, Novartis, Regeneron and Sanofi; is conducting research funded by GlaxoSmithKline for which his institution receives remuneration and quality improvement activity at his institution supported by AstraZeneca. KP has given lectures at meetings/webinars, with/without honoraria, supported by Sanofi; has taken part in clinical trials sponsored by AstraZeneca. IS and BMB are conducting quality improvement activities at their institution supported by AstraZeneca.; Background: Guidelines recommend Emergency Department (ED) healthcare professionals (HCPs) ensure patients have a supply of inhaled corticosteroid on discharge after an acute asthma presentation. By optimising medication, acute asthma presentations to EDs are a potentially reachable moment to improve long-term asthma management as well as treating the acute exacerbation. Optimising medication for long-term asthma management requires behavioural changes from HCPs, which may be considered unacceptable or unfeasible. Understanding health beliefs and attitudes of HCPs who provide asthma treatment in emergency care is a critical step in determining whether interventions could be developed to address this.; Aims: To explore the health beliefs, attitudes and behaviours of HCPs involved in the care of adult patients presenting to the ED with asthma.; Methods: UK HCPs, purposively sampled for profession, experience and work setting, were invited to participate in a semi-structured face-to-face or online interview. These were conducted between November 2021 and June 2022. Eligible participants had experience of caring for patients with asthma in either the ED or primary care setting. Interviews were analysed with reflective thematic analysis.; Results: 19 HCPs were interviewed. Four themes were identified, constructed around the beliefs and behaviours of HCPs: (1) Compassionate understanding, that is, recognising the accessibility of ED, patients' self-management and the emotional aspects of exacerbations, (2) Doing what is right for the patient, that is, maximising a reachable moment, (3) Tensions of capacity in the system, that is, acknowledging workload within ED and (4) ED as providers of preventative care.; Conclusion: This study found HCPs recognise both the accessibility of the ED as

a place for patients to seek help and that there are potential opportunities to optimise asthma control, but there are barriers to overcome. ED professionals may be willing to make changes in the best interests of the patients if they can follow guidelines and receive training.

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21. **The Impact of Suctioning on Oxygenation During Rapid Sequence Intubation in the Emergency Department: A Multi-Center Pilot Randomized Controlled Trial**

Authors: Strayer, Reuben J.;Oliver, Matthew;Chen, Aaron;Gerges, Louis and Caputo, Nicholas D.

Publication Date: 2025

Journal: The Journal of Emergency Medicine 76, pp. 88–94

Abstract: Competing Interests: Declaration of competing interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Background: Recent trends in emergency airway management encourage longer periods of suction, and the use of more powerful suction devices. Whether the intensity of oropharyngeal suction during laryngoscopy causes more rapid desaturation is unknown.; Study Objective: This study aimed to determine whether longer duration of suction leads to more significant desaturation in Emergency Department patients undergoing Rapid Sequence Intubation (RSI).; Methods: A multicenter pilot randomized controlled trial was conducted at 3 academic tertiary care level 1 trauma centers. Emergency Department patients undergoing RSI and laryngoscopy were randomized to either as needed suction or constant suction. The primary outcome was the decrease in oxygen saturation from the time the laryngoscope blade entered the mouth until endotracheal tube confirmation.; Results: A total of 76 patients were enrolled (37 in as needed suction, 39 in constant suction). The median absolute drop in saturation was 0% (IQR 0-1) in the as needed suction group and also 0% (IQR 0-0) in the constant group (p = 0.321).; Conclusion: The study found that constant suctioning during Emergency Department laryngoscopy facilitated by RSI does not cause more rapid desaturation compared to as needed suctioning. However, the reliability of these results is limited by the small sample size and convenience sampling which likely skewed the cohort to patients less likely to develop hypoxia. Further studies are needed to confirm these findings and their implications for emergency airway management. (Copyright © 2025 Elsevier Inc. All rights reserved.)

22. **Development of a Fall Risk Score for Older Adults Incorporating Electronic Health Record and Emergency Department Screening Measures**

Authors: Suffoletto, Brian;Steube, Micaela;Mayer, Waverly;Toth, Caitlin;Ashenburg, Nick;Lin, Michelle and Losak, Michael

Publication Date: 2025

Journal: Academic Emergency Medicine : Official Journal of the Society for Academic Emergency Medicine

Abstract: Background: Older adults have high rates of falls after Emergency Department (ED) discharge; yet existing screening tools either underperform or are too difficult to deploy. This study aimed to evaluate a parsimonious predictive model for falls within 6 months post-ED discharge, utilizing both typical electronic health record (EHR) data and brief ED-based screenings.; Methods: In a prospective cohort study from September 2023 to May 2024, 412 community-dwelling adults aged ≥ 60 years who ambulate without assistance were enrolled during ED visits. Baseline data included

EHR-derived variables (e.g., comorbidities, medication use) and ED screens (e.g., living situation, fall history). Participants were followed for 6 months to document fall occurrences. Multivariable LASSO logistic regression models to predict any fall were then constructed: Model 1 (EHR), Model 2 (ED screens), and Model 3 (combined). Model performance was evaluated using discrimination and calibration metrics, including area under the receiver operating characteristic (AUC) curves.; Results: Of the 356 participants with complete follow-up, 104 (29.2%) experienced at least one fall. Model 3 demonstrated superior predictive performance (AUC = 0.75) compared to Model 1 (AUC = 0.67) and Model 2 (AUC = 0.71). Significant predictors in the combined model included anemia (OR = 3.19), use of oral hypoglycemics (OR = 2.26), living with less than two other people (OR = 3.79), infrequently leaving home (OR = 1.97), and a history of ≥ 3 falls in the prior 6 months (OR = 12.11). A risk score made up of 9 items (6 EHR; 3 ED screen) categorizing participants as high risk (score 6-25) or low risk (score 0-5) resulted in sensitivity = 64%, specificity = 75%, positive likelihood ratio = 2.54, and negative likelihood ratio = 0.49.; Conclusions: Integrating EHR data with brief ED-based screenings enhances the prediction of fall risk among older adults post-ED discharge. The developed risk score effectively stratifies patients into low versus high risk, facilitating targeted prevention interventions. Further validation in independent cohorts is needed. (© 2025 Society for Academic Emergency Medicine.

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23. **Comparative Safety and Efficacy of Four Intraosseous Devices for Vascular Access in the Emergency Department: A Systematic Review and Network Meta-Analysis**

Authors: Suman, Swati;Mishra, Prakash Ranjan;Mishra, Paulina and Pandey, Shivam

Publication Date: 2025

Journal: The Journal of Emergency Medicine 76, pp. 64–78

Abstract: Competing Interests: Declaration of competing interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Background: Intraosseous (IO) devices are increasingly being utilized for rapid vascular access in emergency departments (ED) and other time-sensitive conditions where intravenous access is challenging. In spite of their growing use, there is a paucity of literature addressing their safety and efficacy profiles, and it is needed to guide their current status in clinical practice and policy.; Objectives: To compare the safety and efficacy of four different types of IO devices utilized in EDs: battery-powered drill, automatic, semi-automatic spring-loaded, and manual devices.; Methods: A systematic review and network meta-analysis was conducted. Studies on human subjects (excluding neonates) requiring IO access were included. Risk of bias and network meta-analysis was performed, with risk ratios (RR) and 95% confidence intervals (CI) calculated. Pairwise analysis of studies and surface under cumulative ranking curve (SUCRA) ranking of all devices were done.; Results: Ten studies (783 participants) were included. Battery-powered drill device (RR 1.30, 95% CI 1.10-1.54), followed by manual device (RR 1.27, 95% CI 0.99-1.62) and automatic device (RR 1.20, 95% CI 0.99-1.44), showed higher incidence of success rates when compared with semi-automatic spring-loaded device. The SUCRA ranking also showed the highest cumulative probability of battery-powered drill (RR 1.30, 95% CI 1.10-1.54). Safety data were pooled in a tabular form.; Conclusion: This meta-analysis provides insights that, although battery-powered drill device showed the best outcomes, the wide confidence intervals and lack of statistically significant differences between devices highlight the need for further research with larger sample sizes and standardized safety reporting protocols, to establish conclusions regarding optimal IO device for EDs.; Research Question: What are the comparative safety and efficacy profiles of four different intraosseous devices, that is, battery-powered drill device, automatic device, semi-automatic spring-loaded device, and manual device, used for vascular access during resuscitation in the ED?; Registration: PROSPERO No.: CRD42024602219, url: https://www.crd.york.ac.uk/prospero/export_details_pdf.php.

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24. **Implementing HIV prevention in the emergency department: Strategies and outcomes from seven California emergency departments**

Authors: White, Douglas A. E.;Packel, Laura;Garcia-Chinn, Maria;Godoy, Ashley;Jewett, Montana;Burns, Molly;May, Larissa;Collins, Destiny;Azimian, Kian;Burson, Leslie;Coyne, Christopher;Blumenthal, Jill;Woods-Roberts, Tashema;Terp, Sophie;Axeen, Sarah;Kearl, Yvette Liza;Lyon, Kristopher and McCoy, Sandra I.

Publication Date: 2025

Journal: The American Journal of Emergency Medicine 95, pp. 115–123

Abstract: Competing Interests: Declaration of competing interest Douglas A.E White, Larissa May, Christopher Coyne, Jill Blumenthal, Tashema Woods-Roberts, Sophie Terp, Yvette Liza Kearl, and Kristopher Lyon report receiving grant funding by Gilead Sciences to support, in part, the HIV screening and prevention efforts at their respective institutions. Sandra I. McCoy is an employee of Gilead Sciences, outside the scope of the submitted work. This work was conducted when she was employed by the University of California, Berkeley School of Public Health.; Background: Emergency departments (ED) are critical access points for individuals at increased risk for acquiring HIV infection. Expanding ED-based HIV screening programs to provide HIV prevention services (HPS), including pre-exposure prophylaxis (PrEP), may fill an important public health gap.; Materials and Methods: This was a mixed-methods, type 3 hybrid implementation effectiveness study of seven California EDs that integrated HPS for HIV negative patients between September 2021 and March 2023. A data collection instrument was used to obtain care cascade metrics. Semi-structured interviews were performed to understand the procedures for determining HPS eligibility and for making HPS referrals.; Results: All EDs had pre-existing HIV screening programs. Protocols were heterogeneous, sites used HPS navigators, and none initiated same-day PrEP. There were steep drop-offs at each cascade step. Of the 104,309 patients that tested HIV negative across all sites, 1851 (1.8 %) were eligible for a HPS referral, of which 1548 (83.6 %) received ED HPS information. After receiving ED HPS information, 988 (63.8 %) were referred to an outpatient HPS appointment. Of those who were referred and linkage data was available (N = 696), 497 (71.4 %) attended their outpatient HPS appointment. Two sites reported that 29 of the 39 patients who attended an appointment (74.4 %) were started on PrEP. We identified three models used to identify HPS eligibility (Behavioral Risk Assessment, STI-based Risk Assessment, and Automated Risk Assessment) and two models for making HPS referrals (Primary and Secondary).; Conclusion: ED HIV screening programs can be leveraged to implement HPS. Different models for identifying and referring eligible patients to HPS allow for flexible integration. Each model has strengths and weaknesses for addressing the prevention care cascade and for informing practice.

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25. **A scoping review of randomised controlled trials in vascular access devices in emergency departments**

Authors: Xu, Hui Grace;Zhao, Yang Camila;Duff, Jed and Marsh, Nicole

Publication Date: 2025

Journal: Australasian Emergency Care 28(3), pp. 186–196

Abstract: Competing Interests: Declaration of Competing Interest Nil.; Aims: To synthesise findings from randomised controlled trials (RCTs) on vascular access devices (VADs) in emergency departments (EDs).; Background: VADs play a critical role in EDs, enabling rapid delivery of supportive therapies to address urgent medical needs. This scoping review will map current evidence and determine areas to focus future research priorities.; Methods: Following Arksey and O'Malley's scoping

review framework, a comprehensive search was conducted (2012-2024) across four databases. RCTs that focused on peripheral intravenous catheters, central venous catheters, arterial catheters, or intraosseous catheters in an ED setting were included.; Results: 48 RCTs were included, a majority focused on peripheral intravenous catheters (n = 41, 85 %), followed by central venous catheters (n = 4, 8 %), arterial catheters (n = 2, 4 %), and intraosseous catheters (n = 1, 3 %). The findings were categorised by intervention type, including vessel visualisation technology, catheter design, dressing and securement design, distraction techniques, topical anaesthetics, inserter models, and other related techniques. The top three most frequently reported outcomes were insertion success (n = 21), time to successful insertion (n = 20), and catheter-related complications (n = 19).; Conclusion: This review provides ED clinicians with current evidence on VAD technologies and techniques, enabling them to select and implement the most effective options into daily practice reduce costs and improve patient satisfaction.

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26. **The effect of emergency department occupancy on the revisitation rate within seven days among patients discharged by triage**

Authors: Ylä-Mattila, Jari;Eidstø, Anna;Nevanlinna, Jalmari;Huhtala, Heini;Koivistoinen, Teemu and Mustajoki, Sami

Publication Date: 2025

Journal: BMC Emergency Medicine 25(1), pp. 157

Abstract: Competing Interests: Declarations. Ethics approval and consent to participate: This study was performed in accordance with the Declaration of Helsinki. The Tampere University Hospital research director approved (research diary no. R24278) this retrospective register-based study. Finnish law states that patient consent and an ethics committee statement are not required, if there are no patient interventions 32]. Consent for publication: Not applicable. Competing interests: The authors declare no competing interests.; Background: Emergency department (ED) crowding has been repeatedly shown to affect patient outcomes negatively. However, there is limited research on its impact on patients immediately discharged by the triage team. This study aimed to evaluate the effect of ED occupancy level on the rates of ED revisitation and hospitalization within seven days among patients discharged or redirected by the triage team.; Methods: An observational single-center study was conducted at the Tampere University Hospital ED from January 1, 2023, to December 31, 2024. The study population consisted of patients who were discharged or redirected by the ED triage team. These patients were divided into two groups: (1) patients who revisited the ED within seven days and (2) patients who did not return within seven days. A subgroup analysis focused on revisits that resulted in hospitalization. ED occupancy at the time of triage was considered as a predicting factor for revisitation and hospitalization. Age, sex, triage shift, and the updated Charlson Comorbidity Index (uCCI) were adjusted for in a multivariable logistic regression analysis.; Results: Of the 180,267 ED visitors during the study period, 8.8% (n = 15,910) were discharged by the triage team. Of these, 8.7% (n = 1392) revisited the ED within seven days, and 16.2% (n = 225) of the revisiting patients were hospitalized. In the multivariable analyses, the highest quartile of ED occupancy was associated with an increased likelihood of ED revisitation (odds ratio OR]: 1.29, 95% confidence interval CI]: 1.06-1.57). Older age was linked to both revisitation and hospitalization (OR for a 1-year increase 1.01 95% CI: 1.01-1.02] and 1.02 95% CI: 1.02-1.03], respectively). The uCCI score was also associated with revisitation and hospitalization (OR for a 1-point increase 1.13 95% CI: 1.07-1.18] and 1.23 95% CI: 1.13-1.33], respectively).; Conclusions: The highest ED occupancy quartile was associated with a modestly increased likelihood of an ED revisit but not hospitalization within seven days after being discharged by the triage team. Furthermore, age and comorbidities were associated with both revisitation and hospitalization.; Trial Registration: Clinical trial number: not applicable.

27. **The T2 nurse - A novel role to reduce time to treatment for critically ill patients in a metropolitan emergency department**

Authors: Zaouk, Helen;Piza, Michael;Naz, Sabrina;Santos, Aaron de Los;Fenech, Jordan;Bivona, Kelly;Cruceanu, Robbie and Kourouche, Sarah

Publication Date: 2025

Journal: Australasian Emergency Care 28(3), pp. 240–246

Abstract: Competing Interests: Declaration of Competing Interest Nil conflicts of interest are declared.; Background: Delayed access to treatment in the Emergency Department for patients presenting with time-critical presentations leads to increased morbidity and mortality. This study aimed to determine if the introduction of a novel 'T2 Nurse' nursing role to initiate assessment and treatment for time-critical (category 2) patients reduces time to treatment (TTT).; Methods: This pre/post-implementation pilot study used routinely collected performance data from all category 2 patients presenting to an emergency department in NSW, Australia from January 2023 to July 2024 using regression analysis.; Results: 17,332 pre-implementation records and 16,989 post-implementation records were examined. The mean average TTT pre-implementation was 27 min compared to 12 min during the program, with a mean daily average TTT reduced by 15.4 min post-implementation. After adjusting for seasonal variation, the T2 program significantly reduced average waiting time by approximately 8 min. There was a sustained increase in performance targets with over 80 % of category 2 patients seen within the recommended time post-implementation (a 42 % increase).; Conclusion: The implementation of a T2 nurse role led to statistically and clinically significant sustained improvements in TTT particularly when the T2 Nurse initiates treatment, which may lead to improved health outcomes.

28**. Healthcare workers' perceptions of patient safety culture in emergency departments: a scoping review.**

Authors: Kim MJ.

Publication Date: 2025

Journal: BMJ Open;15(6):e097086

Abstract: [Although research on patient safety culture in emergency departments has increased, the findings remain limited in their generalisability due to a lack of diverse methodologies. Qualitative studies are needed to deepen the understanding of patient safety culture in multifaceted contexts. This review contributes to the academic field by bringing us closer to developing tailored interventions that can foster a positive patient safety culture in emergency departments.

29**. The influence of continuous improvement and clinical practice on emergency department (ED) operational performance.**

Authors: Mitreska K.

Publication Date: 2025

Journal: *Journal of Health Organization and Management*;39(5):605-627

30**. A process improvement study on patient flow from emergency department to intensive care unit. [Abstract**

Authors: Nikita N.

Publication Date: 2025

Journal: International Journal of Health Care Quality Assurance;38(3):144-157.