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September 2025

This monthly current awareness bulletin aims to highlight relevant reports and peer-reviewed literature in emergency and unscheduled care. The bulletin focuses on efforts to improve patient flow, reduce waiting times and alternative care models.

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References

Arakelyan S., et al. (2025) **'Opportunities for Optimising Care Transitions of Adults with Multiple Long-Term Conditions: A Qualitative Interview Study.'** ***BMC Geriatrics 25*(1), 607.**
BACKGROUND: The number of adults with multiple long-term conditions (MLTC) who experience frequent care transitions is rising. Improving care transitions for adults MLTC is important because transitions between and within care settings commonly lead to preventable adverse events. We explored multidisciplinary professional perspectives and experiences of managing care transitions for patients with MLTC to identify opportunities for improvement.
METHOD(S): Qualitative interviews with 30 health and social care professionals in four Scottish integrated Health and Social Care Partnerships. Data were collected between May 2023 and March 2024. Thematic analysis was used, guided by the Sustainable Integrated Chronic Care Models for Multimorbidity: Delivery, Financing, and Performance (SELFIE) framework.
RESULT(S): Care transitions were described as lacking person-centredness and consistency. Variability in decisions on cross-boundary acute care pathways was largely attributed to human factors (e.g., ease of arranging referrals, a lack of trust or awareness of Hospital at Home service) by hospital specialist staff, but to clinical complexity and home environment limitations (physical and social) by community staff. Ineffective interprofessional relationships and poor communication across

services were common experiences, significantly driven by a lack of integration between IT systems affecting timely access to information and by services having different priorities and pressures. Workforce shortages, knowledge gaps in managing MLTC, and long-standing capacity issues in social care were identified as important barriers to effectively managing transitions.
CONCLUSION(S): We identified multiple system-level barriers to providing high-quality and safe care transitions. We proposed key improvement opportunities, highlighting the need for using system engineering and systems thinking approaches, underpinned by the active engagement of patients, carers, professionals, and wider stakeholders to drive meaningful and sustainable change in transitions of care.

British Geriatrics Society/UK Hospital at Home Society. (2025) ***Hospital at Home for frailty: Current situation and future potential.***
https://www.bgs.org.uk/HospitalAtHomeFrailty

Chua E., et al. (2025) 'Exploring Prehospital Emergency Care Challenges and Interventions to Reduce Emergency Department Overcrowding: A Qualitative Meta-Synthesis.' ***BMJ Open 15*****(8) (pagination), Article Number: e097457. Date of Publication: 12 Aug 2025.**
Background Challenges within prehospital emergency care (PEC) have significant implications for the provision of emergency department (ED) care. However, ED overcrowding is a prevalent issue with negative impacts on patient outcomes. It can be attributed to multiple factors, such as non-emergency attendances, inaccessible alternative care service pathways (ACSPs) and inefficiencies in emergency medical service operations. ED overcrowding has prompted healthcare systems worldwide to implement interventions. These include tele-triaging, virtual ED and non-conveyance protocols that primarily aim to reduce demand for ED care and increase the supply of alternative services. However, despite such efforts, there remain unaddressed limitations that prevent PEC interventions from being successfully implemented. Moreover, prior studies and reviews have found mixed results, and that ED overcrowding interventions remain underused. Therefore, there is a need for this qualitative systematic review and meta-synthesis to capture the complexities of implementation challenges and identify enablers required to complement PEC interventions. Objectives This systematic review and meta-synthesis aims to offer a consolidated overview of PEC interventions intended to reduce ED overcrowding. It focuses on presenting international perspectives on the current challenges these interventions face. The enablers presented in this review could also better inform the actions taken by healthcare systems aiming to implement similar interventions. Methods A comprehensive search of PubMed, Embase, Cumulative Index to Nursing and Allied Health Literature Complete, PsycINFO, Web of Science and Scopus was conducted to obtain a set of qualitative studies. Following a quality appraisal with the

Critical Appraisal Skills Programme tool, data from the included studies were extracted and meta-synthesised. Results A final 21 qualitative intervention-based studies were included. Through these studies, four themes were identified: (1) types of PEC interventions to alleviate ED demands and right-site patients, (2) perceived benefits of interventions, (3) challenges in implementing interventions and (4) key enablers for successful implementation of interventions. Our results describe key factors such as the importance of ACSPs and support for PEC healthcare workers in the form of standardised guidelines, as well as education and training. Conclusion We further discuss how enablers can integrate into current PEC systems to complement the interventions explored. Discussions are concentrated on several key interventions (tele-triaging, virtual ED and non-conveyance protocols) as they were perceived to hold significant potential in addressing PEC challenges and could be further elevated through various enablers. Overall, we could conclude that each intervention needs to be complemented by enablers to optimise its benefits.

Crawford, M. (2025) 'Quality Improvement Project to Reduce Length of Stay for Patients with Urinary Tract Infections in an NHS Hospital Trust.' *BMJ Open Quality 14*(3) (pagination), Article Number: e002998. Date of Publication: 04 Aug 2025.

The bed day reduction improvement project for patients with urinary tract infections was commissioned at Frimley Health NHS Foundation Trust as inpatient length of stay (LOS) has been increasing over time, with noticeable variance between conditions and treatment pathways. A multidisciplinary group was formed with staff from infection control, urology and medicine. A3 thinking (a quality improvement method) was used to define the problem, analyse the data, complete root cause analysis and test change. The project aimed to impact the whole hospital system; however, using quality improvement methodology, the area with the biggest potential impact was focused on which was the emergency department. This is because positive changes made at the front end cause better outcomes throughout the pathway. Change ideas included reducing urine sample errors by improving labelling, increasing the number sent off by making the sample collection process easier for staff, increasing the use of Same Day Emergency Care Unit (SDEC) to avoid unnecessary admissions by raising awareness of the pathway with doctors and designing a pathway direct from triage to SDEC. A link was demonstrated, through audit, between sample errors/not sent and prolonged LOS, confirming the opportunity of reducing sample errors. White-topped urine sample errors reduced by 50% following the process change. The work done to reduce errors has led to an approximate 10 days per month bed day saving, improving patient experience, care and staff morale. There was no significant increase in urine samples sent, the urology SDEC use increased marginally and the triage pathway was implemented. The project was unable to link the individual changes to a reduction in the outcome

measure of bed days.

Cucurachi S., et al. (2025) **'Barriers and Facilitators to the use of Virtual Wards: A Systematic Review of the Qualitative Evidence.'** ***International Journal for Quality in Health Care 37*****(3) (pagination), Article Number: mzaf065. Date of Publication: 01 Jul 2025.**

Background Virtual wards offer an alternative to traditional inpatient care, delivering acute care, monitoring, and treatment at home to prevent hospital admissions or facilitate early discharge. The aim of our qualitative systematic review was to understand the barriers to and facilitators for the successful implementation and sustainability of virtual wards from the perspective of any involved stakeholder, using behavioural change models. Methods The review protocol was registered on PROSPERO (CRD42024519627). The following databases were searched: Medline, EMBASE, CINAHL, PsycINFO, and Academic Search Complete. A three-stage deductive content analysis, as recommended for applying the COM-B (Capability, Opportunity, and Motivation-Behaviour) model and TDF (Theoretical Domains Framework) to qualitative data, was conducted to categorize and map the barriers and facilitators to virtual wards identified in the included studies, using the TDF domains as a guiding framework. Results Searches initially identified 7489 articles. Sixteen studies met the inclusion criteria. Common barriers for patients and family members were a lack of language skills, technical skills, and medical knowledge. Caregivers were also required to take on significant medical responsibilities, while patients had to remain self-motivated. The introduction of appropriate training was seen as a valuable facilitator. Healthcare providers faced numerous technological barriers that had the potential to affect care delivery. Strong leadership was an essential facilitator for effective care coordination in virtual wards. From a healthcare system perspective, the availability of resources - such as staffing, equipment, and funding - along with standardized protocols, is crucial for the successful implementation of virtual wards. Conclusions Virtual wards can ease hospital capacity issues and support the delivery of safe and effective care in patients' own homes. However, to realize this potential, we must understand the barriers to, and facilitators of, the use and successful implementation of virtual wards for patients, carers, and healthcare professionals. This understanding will allow targeted strategies and interventions to be developed to support both the delivery and receipt of care on virtual wards.

Holzinger F., et al. (2025) **'Could Low-Acuity Emergency Medical Services Patients be Redirected to Primary Care? Findings from a Multi-Center Survey in Berlin, Germany.'** ***BMC Emergency Medicine 25*****(1) (pagination), Article Number: 138. Date of Publication: 01 Dec 2025.**

Background: Emergency medical services (EMS) are frequently used by low-acuity patients, which contributes to emergency department (ED) crowding. The feasibility of EMS transporting low-acuity patients directly to general practitioner (GP) practices remains a matter of debate. We therefore investigated the circumstances of EMS utilization in patients who subsequently receive ambulatory treatment in the ED. We wanted to find out how often a primary care (PC) consultation could have been a suitable alternative in such cases.
Method(s): Low-acuity ED utilizers transported by EMS were surveyed on demographics and medical characteristics and asked about the appropriateness and acceptability of a potential PC redirection, supplemented with case assessments by EMS personnel. Additionally, treatment documentation from both the ED and EMS was analyzed. Descriptive statistics were conducted. Associations between categorical variables were examined by Chi^2 tests.
Result(s): A total of n = 358 low-acuity EMS participants were recruited. Participants had a mean age of 47.6 years; gender f/m: 58.1%/41.9%. In the hospital, 71.8% were assigned to the Manchester triage system (MTS) category 3 and 28.0% to category 4. A third of the patients had decided to alert EMS at their discretion, while other people (e.g., relatives, colleagues) had been involved twice as often. Patients most commonly cited severe symptoms and related fears as reasons for engaging EMS services. EMS personnel categorized the complaints as treatable by a GP in 37.0%, while 44.5% of patients would have been open to PC management. However, these assessments exhibited substantial discrepancies, as evidenced by a Cohen's Kappa coefficient of approximately 0.1. From a preclinical perspective, only 24.4% of cases met the criteria for potentially realistic diversion. These encompassed both patient openness to alternative care pathways and EMS discernment of cases as potentially appropriate.
Conclusion(s): PC diversion is estimated to be feasible for a maximum of a quarter of ED outpatients. Markers for potential management in PC show highly discrepant results, and there is no validated system or score for preclinical identification of patients eligible for safe redirection. As EMS is intended for high-acuity emergencies, such patients could potentially also benefit from options like telemedicine care at home or alternative transportation. Trial registration: German Clinical Trials Register (DRKS00023480); date: 27/11/2020.

Janke A.T., et al. (2025) **'Short-Stay Hospitalizations and Hospital Capacity Constraints.'** ***Annals of Emergency Medicine 86*(3), 225–231.**
Study objective: Mismatches in the supply and demand for hospital care are important causes of emergency department (ED) crowding. The extent to which short-stay hospitalizations contribute to overall hospital capacity constraints has not been well described.
Method(s): Retrospective cross-sectional analysis of hospitalizations at 4 US EDs

(January 2018 to June 2024). Total occupancy hours were calculated by subtracting hospital departure from ED disposition timestamps. Short stays were defined as lengths of stay less than or equal to 48 hours, inclusive of hospital-based observation stays. We reported, as a percentage of ED-related total hospital occupancy hours, the proportion made up by short stays, in addition to reporting hospital boarding in the ED by total hours.
Result(s): We examined 625,233 total hospitalizations across 2,147,525 ED visits and 4 sites, representing 85,508,996 hospital occupancy hours. Short-stay hospitalizations made up 33.6% of hospitalizations through the ED. From 2018 to 2024, short-stay hospitalizations statistically significantly decreased as a proportion of ED hospitalizations (annualized percent change -1.2% [95% confidence interval (CI) -2.0% to -0.4%]), but the change was not statistically significant for inhospital occupancy hours contributed by short stays (-0.4% [95% CI -0.9% to 0%]). Hospital boarding in the ED increased (+0.6% [95% CI 0.3% to 0.9%]). Overall, short stays made up 7.6% of total inhospital occupancy hours related to ED hospitalizations.
Conclusion(s): Short-stay hospitalizations comprise a small fraction of ED-related hospital occupancy hours and do not explain increasing hospital boarding in the ED. Targeting short-stay hospitalizations may be useful in some cases but will have little impact overall on mitigating acute care capacity constraints.

Lafuente C., and Rahim, M. (2025) 'Evaluating Large Language Models on Hospital Health Data for Automated Emergency Triage.' *International Journal of Computer Assisted Radiology and Surgery* (pagination), Date of Publication: 2025.

Purpose: Large language models (LLMs) have a significant potential in healthcare due to their ability to process unstructured text from electronic health records (EHRs) and to generate knowledge with few or no training. In this study, we investigate the effectiveness of LLMs for clinical decision support, specifically in the context of emergency department triage, where the volume of textual data is minimal compared to other scenarios such as making a clinical diagnosis.
Method(s): We benchmark LLMs with traditional machine learning (ML) approaches using the Emergency Severity Index (ESI) as the gold standard criteria of triage. The benchmark includes general purpose, specialised, and fine-tuned LLMs. All models are prompted to predict ESI score from a EHRs. We use a balanced subset (n = 1000) from MIMIC-IV-ED, a large database containing records of admissions to the emergency department of Beth Israel Deaconess Medical Center.
Result(s): Our findings show that the best-performing models have an average F1-score below 0.60. Also, while zero-shot and fine-tuned LLMs can outperform standard ML models, their performance is surpassed by ML models augmented with features derived from LLMs or knowledge graphs.
Conclusion(s): LLMs show value for clinical decision support in scenarios with limited

textual data, such as emergency department triage. The study advocates for integrating LLM knowledge representation to improve existing ML models rather than using LLMs in isolation, suggesting this as a more promising approach to enhance the accuracy of automated triage systems.

Loo G.H., et al. (2025) **'Telehealth Strategies and Emergency Department Demand: A Scoping Review.'** ***Health and Technology 15*****(4), 677–689.**
Purpose: Emergency department (ED) overcrowding is a global challenge exacerbated by rising patient demand and inefficient care pathways. Telehealth has emerged as a promising strategy to mitigate ED demand, but its effectiveness and implementation factors remain understudied. To explore the range of telehealth initiatives that have impacted ED demand, and to identify common facilitators and barriers to their deployment.
Method(s): All sources were located from Embase, MEDLINE, the Web of Science Core Collection, Cochrane Library, and SCOPUS in September 2024. Studies retrieved were limited to those published in English and after 2019. Studies were categorised by their various characteristics and implementation factors were identified and grouped thematically.
Result(s): Of 1,502 screened records, 45 studies met the inclusion criteria. Most (n = 33) reported reduced ED demand, while four studies noted increased demand, and eight drew no conclusions. Synchronous telehealth was the most common modality (n = 37), primarily used for triage and follow-up. The key groups of enablers identified were provider-related (n = 15) and policy-related (n = 9). The main group of barriers identified was patient-related (n = 14).
Conclusion(s): Telehealth strategies generally contributed to reducing ED demand. Key facilitators were provider engagement and regulatory support, while the most common barrier was patient acceptance.

NHS Kent Community Health.***Emergency Hospital Visits Drop by nearly 70 Per Cent Thanks to Innovative Care Trial [online]***

Nunes A.L., et al. (2025) **'Impact of Artificial Intelligence on Hospital Admission Prediction and Flow Optimization in Health Services: A Systematic Review.'** ***International Journal of Medical Informatics 204*****(pagination), Article Number: 106057. Date of Publication: 01 Dec 2025.**
Background: Artificial Intelligence (AI)-assisted prediction of hospital admission is an innovative tool that optimizes resource allocation and improves patient flow within emergency departments. Health institutions need to decongest these departments to maintain sustainability and become efficient. Increasing demand and excessive competition for limited resources directly contribute to these challenges.

Objective(s): This systematic review aims to evaluate the use of artificial intelligence in the prediction of hospital admissions, evaluating the accuracy of machine learning models, their impact on clinical decision- making, and their role in the optimization and allocation of resources.
Method(s): A systematic review of studies published between 2019 and 2024 followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Studies were selected based on a pre-defined Population, Intervention, Comparison, and Outcome (PICO) framework, and methodological quality was assessed using the Quality In Prognosis Studies (QUIPS) and the Checklist for Artificial Intelligence in Medical Imaging (ChAMAI) tools.
Result(s): A total of 20 studies were included; most of the studies evaluated were retrospective. AI-based models demonstrated superior accuracy (85 % to 95 %) compared to traditional methods, with Random Forest (RF) and Neural Networks outperforming classical statistical models. Studies incorporating unstructured data through Natural Language Processing (NLP) have significantly improved patient flow and resource allocation. The integration of predictive analytics resulted in a reduction in avoidable hospitalizations, optimized bed occupancy, and a decrease in emergency room overcrowding.
Conclusion(s): AI-driven admission prediction is promising in the hospital setting, as it improves efficiency and allows for proactive and rapid decision-making, optimizing available resources. Future research is promising and should focus on prospective studies to validate practical applicability.

Odorizzi S., et al. (2025) **'Time Motion Analysis of Emergency Physician Workload in Urgent Care Settings.'** ***Western Journal of Emergency Medicine 26*(4), 804–809.**
Introduction: The Predictors of Workload in the Emergency Room (POWER) study, published in 2009 using data from 2003, examined the workload of emergency physicians using the Canadian Triage and Acuity Scale (CTAS) as a surrogate marker. Many hospitals use a case-mix formula incorporating annual census and POWER's study data to determine staffing levels. However, significant changes in emergency medicine have occurred since its publication, including the implementation of electronic health record systems, increased patient complexity, real-time dictation software, and human health resource challenges due to the COVID-19 pandemic. In this study we aimed to quantify the time required to perform tasks during the care of ambulatory emergency department (ED) patients. Our secondary objective was to stratify these times based on CTAS and clinician factors.
Method(s): We conducted a prospective observational time-motion study in the urgent care section of a tertiary-care, academic ED with 90,000 visits annually, 70% of which are ambulatory. Research assistants shadowed physicians on two 8-hour shifts daily (8 am-12 am) from July 12-August 14, 2022, tracking the time taken by

physicians to perform tasks. We calculated aggregate task times per patient.
Result(s): We observed 1,204 patient encounters over 65 shifts by 37 unique physicians. The mean treatment time was 21.6 minutes (95% confidence interval [CI] 19.9-23.3) for ambulatory CTAS 2 patients; 22.5 minutes (95% CI 21.2-23.6) for CTAS 3 patients; 19.7 minutes (95% CI 17.9-21.6) for CTAS 4 patients; and 17.4 minutes (95% CI 14.9-19.9) for CTAS 5 patients. Compared to the previous 2003 POWER study data, CTAS 4 and 5 patient assessment times took 31% and 58% longer, respectively. Total assessment time by CTAS was statistically significant only comparing CTAS 5 patients to all others (P = .02). Physicians who dictated their charts spent 34% less time (2.1 minutes per patient) charting than those who typed them.
Conclusion(s): The average time to see an ambulatory ED patient was 21.7 minutes. Low-acuity urgent care patients take longer to assess now than 20 years ago. The CTAS alone is a poor marker of workload for ambulatory patients, necessitating a reassessment of staffing and compensation formulas.

Ong C.Y., et al. (2025) **'Extending Hospital-at-Home to Nursing Homes: Findings from a Novel Care Model in Singapore.'** ***Frontiers in Public Health 13*****, 1595535.**
Background: We implemented a Hospital-at-Nursing Home (HaNH) pilot program in a nursing home to reduce acute hospital bed utilization and allow residents to receive right-sited care in familiar environments.
Method(s): A prospective data collection of the Hospital-at-Home (HaH) program was conducted from November 2023 to December 2024 in a regional general hospital.
Result(s): 16 HaNH enrollments were completed, comprising three admission avoidance cases and thirteen early supported discharges. Pneumonia (56.3%) and urinary tract infections (18.8%) were the most common diagnoses. The median length of stay was three days (range 1-12, IQR 4). One mortality occurred within the program in the HaNH in alignment with the patient's preferred place of care and death, supported by palliative care. Comparisons with a non-institutionalized HaH cohort (n = 349) had a higher risk of escalation to the actual hospital facility (RR = 5.45, 95% CI: 1.71-17.42, p = 0.0025; aRR = 1.32, 95% CI: 0.35-4.96). HaNH patients had increased vulnerability, with higher post-discharge mortality (RR = 10.9, 95% CI: 2.16-55.21, p = 0.004; aRR = 3.38, 95% CI: 0.83-13.71) and emergency visits (RR = 3.18, 95% CI: 1.72-5.88, p = 0.0002; aRR = 2.00, 95% CI: 1.18-3.36), though readmission risk was non-significant.
Conclusion(s): These preliminary findings suggest that while HaNH may alleviate hospital bed shortages, patients in nursing homes are at increased risk of deterioration and require careful selection and support.

Ouellet S., et al. (2025) **'Strategies to Improve the Quality of Nurse Triage in Emergency Departments: A Systematic Review.'** ***International Emergency Nursing 81*, 101639.**

AIM: This systematic review aimed to assess the impact of implementation strategies for nursing triage on quality outcomes and to examine barriers and facilitators to their implementation in the emergency department (ED). DATA SOURCES: Embase, PubMed, CINAHL, Cochrane Library, Web of Science, PsycINFO and ProQuest Dissertations & Theses.
METHOD(S): This systematic review included quantitative and qualitative studies published from January 1990 to April 2024 that evaluated strategies to improve ED triage. Study quality was assessed with the Mixed Methods Appraisal Tool (MMAT). The benefits of the strategies were reported using descriptive statistics (quantitative studies) and themes and subthemes (qualitative studies). Barriers and facilitators were identified using the Behavior Change Wheel framework.
RESULT(S): Three main implementation strategy categories to improve the quality of nursing triage were identified: education (64%), technology (30%), and audit and feedback (6%). All strategies demonstrated short-term benefits, including increased triage accuracy and improved triage knowledge and skills. The most frequently reported barriers were workload and overcrowding, while facilitators included nurses' experience, interprofessional collaboration, and a culture of continuous improvement.
CONCLUSION(S): Comprehensive approaches, including education, technology, and regular audits with feedback, are associated with improved triage quality outcomes. Continuous training, active nurse participation in tool development, and the use of validated audit tools are essential. These measures could ensure rigorous nursing triage in EDs and enhance care safety by optimizing patient prioritization as they enter healthcare systems. This review underscores the need for further research on implementation strategies to enhance effective and safe patient prioritization in the ED.

Scala A., et al. (2025) **'Predicting Patient Risk of Leaving without being seen using Machine Learning: A Retrospective Study in a Single Overcrowded Emergency Department.'** ***BMC Emergency Medicine 25*(1) (pagination), Article Number: 121. Date of Publication: 01 Dec 2025.**

Emergency department (ED) overcrowding has become a critical issue in hospital management, leading to increased patient wait times and higher rates of individuals leaving without being seen (LWBS). This study aims to identify key factors influencing LWBS rates and to develop a predictive model using machine learning (ML) techniques. A retrospective analysis was conducted on 80,614 ED visits recorded at Maresca Hospital in Torre del Greco, Italy, between 2019 and 2023. Statistical analyses were performed to examine correlations between patient

characteristics, operational variables, and LWBS occurrences. Four ML classification algorithms-Random Forest, Naive Bayes, Decision Tree, and Logistic Regression-were evaluated for their predictive capabilities. Random Forest demonstrated the highest performance on the minority class, achieving an overall accuracy of 72%. Feature importance analysis highlighted waiting time, triage score, and access mode as significant predictors. These findings suggest that predictive modeling may support hospital resource planning and patient flow management strategies to reduce LWBS rates.

Scott A.M., et al. (2025) **'The Impact of Telehealth Care on Escalation to Emergency Care: A Systematic Review and Meta-Analysis.'** ***Journal of Telemedicine and Telecare 31*****(8), 1059–1077.**
ObjectiveWe compared the impact of accessing healthcare (1) by telehealth (via telephone or video) vs face-to-face; and (2) by telephone vs video telehealth care, on escalation to emergency care.MethodsWe searched Medline, Embase and Cochrane CENTRAL to 24 July 2023; and conducted a citation analysis on 19 September 2023. We included randomised controlled trials. Risk of bias was assessed using Cochrane Tool 2. We calculated risk ratios for dichotomous outcomes and standardised mean difference for continuous outcomes.ResultsTen trials compared telehealth (five telephone, four video, one both) to face-to-face care. Six were overall low, three some concerns and one high risk of bias. There were no differences between telehealth and face-to-face for visits to the emergency department (RR 1.07, 95% CI 0.89 to 1.29), hospitalisations up to 12 months (RR 0.89, 95% CI 0.56 to 1.41), deaths or other adverse events. Costs of care were similar, as were patient satisfaction scores.Six trials compared telephone to video telehealth: three were overall low, two some concerns, and one high risk of bias. There were no differences between telephone and video for visits to the emergency department (RR 0.67, 95% CI 0.41 to 1.12), hospitalisations (RR 1.04, 95% CI 0.73 to 1.48), deaths, other adverse events, costs, or patient satisfaction. Healthcare provider satisfaction was high.ConclusionsTelehealth care - delivered by telephone or by video - may be an appropriate alternative to face-to-face provision of care, as it does not increase the likelihood of escalation of care to the emergency department for patients in primary care, hospital outpatients, post-discharge patients or residents in aged care.

Siu A.L., and Leff, B. (2024) **'Importance of Early Consideration of Scaling and Sustainability for Aging-Related Care Models: Case Study of Hospital at Home.'** ***Journal of the American Geriatrics Society 72*****(12), 3647–3655.**
For aging-related research, there is a pressing need to attend to the dissemination and implementation of evidence-based interventions. Some aging-related interventions with established effectiveness may be poorly disseminated and implemented due to behavioral, organizational, payment, or other constraints. To

provide insight into the beginning to end process of translation and implementation, we present a case history of the three-decade progression of Hospital at Home (HaH) now nearing national dissemination. We summarize research at various phases with particular attention to implementation considerations. Reviewing over three decades of HaH-related research dating from initial discovery to translation and implementation, we found that the content and importance of different constructs (e.g., inner practice vs. outer environmental setting) and the choice of implementation strategies differed depending on implementation context (testing of effectiveness, scaling, or sustainability). Early effectiveness studies mostly examined implementation issues related to the intervention, the practice setting, and the individuals involved. However, explicit and early consideration of scale and sustainment was not the primary focus. For example, HaH program intake is primarily through hospital emergency departments (ED). Initial efforts would have benefited from incorporating strategies (e.g., incorporating ED leadership into program leadership) to address night and weekend admissions. Many regulatory barriers did not surface during initial considerations. Considering implementation issues late may contribute to delay in bringing discoveries to population impact. The experience with HaH suggests that scale and sustainability bear earlier consideration because barriers and facilitators to implementation are likely to be different in content and importance at different phases of implementation.

Strumann C., et al. (2025) **'Utilization of Acute Medical Services in General Practice: A Retrospective Routine Data Analysis.'** ***International Journal of Emergency Medicine 18*****(1) (pagination), Article Number: 147. Date of Publication: 01 Dec 2025.**

Background: The increasing utilization of emergency departments by patients with acute but non-emergency medical needs contributes to overcrowding in emergency care. Previous research has mainly focused on hospitals and out-of-hours care centres. The role of general practitioners providing primary care during office hours for emergency and acutely ill patients has not yet been considered intensively. This analysis aimed to quantify and describe the documented outpatient utilization behaviour of patients with acute care needs in primary care practices during office hours.
Method(s): The retrospective cohort study used routine data from 16 German primary care practices in 2022 and 2023 from the Supraregional Health Service Research Network. Acute care cases were identified as consultations without a prior appointment or those with a same-day appointment. Statistical analyses included bivariate and multivariate analyses.
Result(s): A total of 873,732 consultations involving 90,020 patients were analysed. When considering only the first visit of an acute episode, 60.6% of cases were

classified as acute. Patients seeking acute care were younger (51.9 vs. 58.3 years, p < 0.001) and more likely to visit the practice on Mondays (Odds Ratio: 1.48, p < 0.001) or at the weekend (Odds Ratio: 13.91, p < 0.001). Nonspecific health factors, respiratory-, musculoskeletal- and cardiovascular reasons for encounter dominated. The majority of acute cases (80%) did not seek any further health service on the same day, while approximately 19% of patients were referred to a specialist and 3% were admitted to a hospital within 14 days.
Conclusion(s): The effective management of acute cases by primary care practices highlights the potential for strengthening this sector to enhance the quality and efficiency of emergency care.

Sultani K., et al. (2025) **'Transforming Acute Care: A Scoping Review on the Effectiveness, Safety and Implementation Challenges of Hospital-at-Home Models.'** ***BMJ Open 15*****(8) (pagination), Article Number: e098411. Date of Publication: 08 Aug 2025.**
Objectives The hospital-at-home (HaH) model has gained traction as a viable alternative to traditional inpatient care, allowing patients to receive care in their own homes. Despite its growing popularity, there is a lack of comprehensive research addressing effectiveness, safety and factors critical to the successful implementation of HaH programmes. We conducted a scoping review to comprehensively map and summarise the evidence on both admission avoidance and early-supported discharge up until now. Design A scoping review of randomised controlled trials (RCTs), conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analysis: extension for Scoping Reviews (PRISMA-ScR) guidelines. Data sources Ovid MEDLINE, Embase, CINAHL and Web of Science were systematically searched up to July 2024 Eligibility criteria for selecting studies We included English-language RCTs published from 2005 onwards, involving adults (>=18 years) receiving acute care at home who would otherwise require hospital admission. Eligible studies evaluated admission avoidance or early supported discharge within HaH settings for acutely ill patients. Studies focusing on outpatient care, non-acute conditions or interventions not aligning with the widely accepted HaH definition were excluded. COVID-19-related studies were also excluded to avoid context-specific bias. Data extraction and synthesis Two reviewers independently extracted data on study characteristics, interventions and outcomes including mortality, length of stay, escalation rates, costs and patient and caregiver satisfaction. Implementation facilitators and barriers were also collected. Discrepancies were resolved by a third reviewer. Results were synthesised descriptively in accordance with PRISMA-ScR guidelines. Results Nine RCTs were identified. The review shows that the HaH model is at least as safe as usual care, with lower or comparable mortality rates. Length of stay varied, with some studies reporting longer stays in the HaH group due to cautious clinical practices. Cost

analyses often indicate lower healthcare costs with staffing as the largest expense. Patient and caregiver satisfaction was high, but essential implementation factors were not clearly addressed. Conclusion The HaH model represents a promising alternative to acute inpatient care for suitable patients. Future research should focus on conducting larger RCTs, expanding the range of conditions suitable for HaH. Despite favourable clinical outcomes, substantial implementation barriers remain underexplored in current RCTs. This underscores the need to identify strategies for successful implementation, including the integration of technological advancements and qualitative insights into patient and caregiver experiences.

YlaMattila J., et al. (2025) **'The Effect of Emergency Department Occupancy on the Revisitation Rate within Seven Days among Patients Discharged by Triage.'** ***BMC Emergency Medicine 25*****(1) (pagination), Article Number: 157. Date of Publication: 01 Dec 2025.**

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.
Method(s): 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.
Result(s): 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).
Conclusion(s): 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.

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