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Unscheduled care

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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.

If you require specific information, please contact us via email.

References

Cheng M., et al. (2025) **'Effectiveness of Admission-Avoidance Hospital at Home as Alternative to Routine Hospital Care in Older Adults: A Systematic Review and Meta-Analysis.'** ***Global Transitions 7*****, 342–349.**
This systematic review and meta-analysis aimed to assess the effectiveness of home-based programmes to prevent hospital admissions compared with traditional hospital-based care for older adults. Health outcomes analysed included readmission rates, mortality, and length of treatment. Data from 15 studies were synthesised using Review Manager (version 5.4), and heterogeneity was assessed using forest plots and I^2statistics. Subgroup analyses were performed for randomised controlled trials and for specific patient groups, such as those with cardiovascular and respiratory disease. The results suggest that hospital at home programmes may reduce the risk of readmission (risk ratio = 0.76, 95 % CI 0.58 to 1.01, P = 0.05), especially for patients with respiratory diseases (risk ratio = 0.53, 95 % CI 0.39 to 0.73, P = 0.00007), with no significant differences in mortality or treatment duration between groups.
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DeviaJaramillo G., et al. (2025) **'Evaluation of the Costs and Consequences of Implementing an Optimization Process for Low-Complexity Emergency Care: The LINEA Program.'** ***Journal of Health Economics and Outcomes Research 12*****(1), 207–212.**

Introduction: Overcrowding is persistent in emergency departments (EDs) worldwide and can result in adverse patient outcomes and prolonged lengths of stay. Delays in care and unmet demand contribute to negative outcomes for patients awaiting treatment, including increased morbidity and mortality, prolonged hospital stays, and overall lower quality of medical care. Overcrowding in EDs not only diminishes patient satisfaction with the entire hospitalization experience, beyond the ED, but also significantly increases healthcare costs and contributes to a rise in medical errors. Therefore, developing strategies that optimize the limited resources available for emergency patient care, especially for those with low-complexity emergencies, is crucial.
Objective(s): To evaluate whether implementing a specific care strategy for patients with low-complexity emergencies can effectively reduce costs and improve clinical outcomes and patient-reported experiences compared with standard care practices.
Method(s): A cost-consequence model was employed to separately evaluate the costs and outcomes of each alternative. The cost and outcome analyses were applied to healthcare services using the database of a tertiary-level ED, analyzed from the perspective of the healthcare service provider over a 2-year time horizon. To assess the perspective of the healthcare provider institution, the cost-consequence analysis was conducted using a decision tree model.
Result(s): The study included 43 268 patients. No significant differences were found in demographic variables between groups. A significant difference was found in total length of stay in minutes between groups: minimum (median interquartile range [IQR]), 534 (456-644) vs 494 (364-719) (P< .001). In addition, there was an improvement in the NPS value from 44 to 53 throughout the ED, with 0.005% mortality in the study group and 0.07 in the control group (P< .001). Finally, a significant difference was documented in the mean billing per patient, with a median (IQR) of Col$255 903 (Col$151 108-Col$658 585) vs the comparison group and Col$283 922 (Col$125 998-Col$776 097) (P< .018).
Conclusion(s): The implementation of a specialized unit for the care of patients with low-complexity emergencies within the ED has proven effective in improving total patient length of stay. This significantly contributes to reducing overcrowding, decreasing mortality, and reducing unmet demand. As a result, there is an overall improvement in user satisfaction within the ED.

Firman F., et al. (2025) **'Factors Affecting Patient Length of Stay in the Emergency Unit: A Scoping Review.'** ***International Emergency Nursing 80*, 101607.**

BACKGROUND: Despite the recommendation that patients should spend no more than six hours in the emergency department, crowding remains a persistent global health challenge. Extended patient wait times in emergency departments pose a barrier to timely medical care delivery. This scoping review aims to identify the

variables increasing patients' length of stay (LOS) in emergency department.
METHOD(S): This scoping review was conducted by searching PubMed, ScienceDirect, Wiley, Cochrane Library, Global Index Medicus, GARUDA, and Google Scholar, as well as additional secondary searches from 2013 to 2022 and in accordance with the Arksey and O'Malley methodological framework for scoping reviews. Studies were retained if they included primary, qualitative, or quantitative data and reported on patients admitted to the emergency department with their respective LOS.
RESULT(S): Of the 914 articles reviewed, 23 met the inclusion criteria. The results of the scoping review identified three main categories of contributory factors for LOS in emergency department: patient, diagnostic tests, and organizational factors.
CONCLUSION(S): The scoping review identified mitigatable factors to decrease LOS in the emergency department. These insights can help hospitals improve emergency department services by reducing the LOS.

Goh C., et al. (2025) **'Hospital-at-Home Care in Singapore: A Review of Overseas Protocols and Guidelines to Support Implementation and Policy Redesign (Systematic Review).'** ***Plos One 20*****(6 JUNE) (pagination), Article Number: e0325662. Date of Publication: 01 Jun 2025.**
Objective Hospital-at-Home (HaH) is a care model providing acute, hospital-level care to patients in their own homes. It is gaining traction worldwide and could become an integral part of standard healthcare in the future. However, for countries like Singapore, implementation inefficiencies prevent the optimal uptake and establishment of HaH. Currently, there are no standardised guidelines guiding healthcare providers on effective implementation. Thus, our objective is to distil information from existing guidelines worldwide to collate the best practices for HaH implementation. Methods The systematic review is according to the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) 2020 checklist. A literature review across three databases and an Advanced Internet Search was performed to collect guidelines that included recommendations on HaH implementation requirements. Two authors independently extracted recommendations. Two reviewers independently assessed guideline quality using the Appraisal of Guidelines for Research and Evaluation II Instrument (AGREE II), which consisted of twenty-three items across six domains. Overall guideline quality was calculated as the total points from all six domains as a percentage over maximum points, and guidelines with overall scores of 50% or more were deemed high quality. Results Fourteen guidelines and seven sections were identified, which covered the following topics: inclusion & exclusion criteria, admission process, clinical handover, discharge, team structure, partnerships with external stakeholders, and medication administration. Key observations underline deficiencies in addressing staff safety, appropriate medical supply storage, and admission after

hours. The main discrepant recommendations included self-discharge, team structure, partnerships with primary care providers, and medication self-administration. Methodological quality of guidelines varied, with overall AGREE II scores ranging from 38.5% to 58.4%. Individual domain scores were consistently low for Rigour of Development and Editorial Independence. Despite low scores in these domains, all fourteen guidelines were deemed appropriate for information extraction. Conclusion Despite inconsistencies among guidelines, a set of streamlined recommendations were consolidated. In Singapore, addressing home environment constraints, fostering stronger partnerships with community providers, and leveraging on multidisciplinary care can enhance the feasibility and sustainability of these HaH recommendations. Policy redesign should focus on further stratifying patients based on home suitability, leveraging on technology to support clinical handovers or collaborations, and investing in multidisciplinary training to strengthen workforce capabilities. In all, healthcare providers around the world should consider contextualising these recommendations within local socioeconomic and healthcare contexts for optimal HaH implementation.

Khoshnood A.M., and Wilhelms, D. B. (2025) **'Confronting Workplace Violence in Emergency Care: Insights from Global Research.'** ***BMC Emergency Medicine 25*(1) (pagination), Article Number: 84. Date of Publication: 01 Dec 2025.**

Koh J., et al. (2025) **'Risk Factors for Hospital Admissions among Emergency Department Patients: From Triage to Admission.'** ***Western Journal of Emergency Medicine 26*(3), 513–522.**
Introduction: Healthcare systems typically provide multiple channels to access acute inpatient care, with the emergency department (ED) as the main route of access. The ED faces multifaceted demand and supply challenges, which implicate resource allocation and patient flow. In this study we aimed to identify factors associated with hospital admissions among ED patients in a Singapore tertiary-care hospital. Method(s): Using a retrospective cohort study of all eligible visits to a Singapore ED between January 1-December 31, 2019, we conducted a multivariable, mixed-effect logistic regression model to study the factors associated with hospital admissions. The model accounted for patients' demographics; triage category; arrival mode; referral source; time of ED visit; discharge diagnosis; and ED occupancy levels. Result(s): In 2019, there were 141,719 visits to the ED, with 42,238 (29.8%) of these visits resulting in hospital admissions. Factors associated with increased odds of hospital admissions included increasing age, being male, ethnicity (Malay vs Chinese), higher patient acuity, non-self-referred patients (vs self-referred), patient

being conveyed by ambulances (vs walk-in), and category of disease. Our model demonstrated that the highest odds of inpatient admissions were attributed to the patient's acuity (highest vs lowest acuity: odds ratio [OR] 326, 95% confidence interval [CI] 292-363), followed by patients' age (70 and above vs 30 and below: OR 13.8, 95% CI 12.8-14.8). The ORs for all other factors with significantly increased odds of admissions were modest, ranging from 1.12-4.18. Although the ED occupancy levels at the hour of the patient's disposition decision, the hour of the ED visit, and the month of the ED visit were significantly associated with hospital admissions, changes in the probabilities of hospital admissions across the possible range of values of these factors were marginal.
Conclusion(s): Our study revealed several factors significantly associated with hospital admissions, with patient acuity and age as the most important factors. Moreover, emergency physicians' decisions to admit patients were clinically consistent and only marginally influenced by the degree of ED crowding. These findings offer invaluable insights into follow-up studies that will be crucial in shaping new policies or designing new interventions to enhance current preventive health or healthcare delivery systems to curtail the growth in inpatient-bed demand among ED patients over time.

Lee S.Y., et al. (2025) **'The Value and Challenges of an Ambulatory Intermediate Care Clinic: A Mixed-Methods Analysis.'** ***The Journal of Ambulatory Care Management 48*(3), 184–196.**
BACKGROUND: Emergency department (ED) crowding is a persistent issue in health care, resulting in increased mortality and medical errors. This challenge is particularly pronounced in underserved populations, where a higher prevalence of chronic conditions and ED utilization exacerbates gaps in care. To address this, system-level strategies, including the establishment of intermediate care clinics, are essential. This study evaluates the first three years of a nurse-led ambulatory intermediate care clinic (AICC) in the Southern US, focusing on its role in enhancing care continuity and operational challenges for expansion.
METHOD(S): This study, conducted at the University of Alabama at Birmingham Medical Center in Birmingham, Alabama, the United States, used a convergent parallel mixed-methods design, analyzing quantitative data from 3137 AICC appointment records (May 2020-June 2023) and conducting qualitative interviews with AICC staff members. Quantitative data included patient demographics and appointment characteristics. Qualitative data were thematically analyzed to identify common themes around AICC benefits and challenges.
RESULT(S): Our quantitative analysis showed that the AICC managed an increasing number of patient visits with a stable appointment adherence rate. However, rising clinic-initiated cancellations indicated resource limitations. Qualitative findings provided further context for these quantitative trends. Patients from racial minority

groups and those with Medicaid insurance had significantly higher odds of missing appointments. The results highlighted the AICC's value in preventing ED visits but also revealed challenges related to patient acuity level, resource allocation, scheduling complexities, and appointment adherence barriers.
CONCLUSION(S): Establishing a nurse-led AICC is feasible and beneficial in alleviating the care gap between primary and acute care and reducing ED crowding. Key considerations for sustainable success include determining patient acuity thresholds, streamlining same-day referral processes, and addressing capacity issues. These findings can guide health systems in implementing intermediate care clinics in ambulatory settings, particularly for those serving underserved communities.

Litchfield I., et al. (2025) **'Factors Influencing the Implementation of a Multispecialty Virtual Ward Program in the United Kingdom: Qualitative Exploration of Staff Experiences and Perspectives.'** ***Journal of Medical Internet Research 27*****(pagination), Article Number: e75406. Date of Publication: 2025.**
Background: The National Health Service (NHS) in England is facing unprecedented demand for hospital services, with virtual wards (VW) being a central tenet of the strategy to manage these ongoing pressures on capacity. VWs combine digital and analog tools, monitoring systems, and teams of multidisciplinary care providers to support patients in their place of residence who might otherwise be cared for in a hospital. Despite virtual ward programs continuing to proliferate in the United Kingdom and across the globe, the models of care that support them are still evolving, and best practices in their design and implementation are yet to be fully established. It is therefore necessary to continue to gather evidence about the influences that shape their design and support their successful and sustained introduction.
Objective(s): This study aims to explore the experience of staff involved in designing, developing, and delivering VWs as part of the national program, in order to understand the factors that influence their implementation and sustainability.
Method(s): Qualitative data were collected through semistructured interviews with staff and senior stakeholders involved in developing, leading, and delivering the virtual ward program within one of the largest integrated care systems in England. Data were analyzed using directed content analysis, informed by the Non-adoption, Abandonment, Scale-up, Spread, and Sustainability (NASSS) framework.
Result(s): We interviewed 20 participants from clinical and nonclinical roles, including service transformation leads, program leads, physiotherapists, nurses, and consultants. Using the NASSS framework, we identified several key findings: patient context was as important as clinical criteria in determining referral suitability (Condition). Stand-alone digital monitoring solutions with offline capability improved accessibility (Technology). While benefits to patient rehabilitation and hospital

capacity were widely understood, concerns over the lack of evidence remained (Value proposition). Clearer messaging about the nature and benefits of VWs was needed for patients and carers, and staff described challenges with remote care and shared responsibility across settings (Adopters). Pre-existing collaborative arrangements helped but varied by specialty (Organizations). NHS targets and metrics of success were considered unrealistic (Wider system). Finally, participants recommended more coherent regional planning that involved consultation with patients (Embedding over time).
Conclusion(s): If the United Kingdom's VWs program is expected to move forward, it requires patients, their families, carers, and staff to receive coherent messaging of their responsibilities and benefits. Targeted training and ring-fenced time for staff would help, as would the provision of purposely designed patient-facing technologies. Finally, extended planning and funding cycles are needed to gather robust evidence and refine VWs, ensuring better integration with existing services that incorporate the needs and preferences of patients from various sociocultural backgrounds.

Mazzarone T., et al. (2025) **'Comprehensive Geriatric Hospital-at-Home Increases the Days at Home in Older Adults Compared to Bed-Based Intermediate Care: A Propensity Score Matching Analysis.'** ***Age and Ageing 54*****(6) (pagination), Article Number: afaf162. Date of Publication: 01 Jun 2025.**

Objectives To compare the effectiveness and safety of Hospital-at-Home based on Comprehensive Geriatric Assessment (CGA-HaH) for older adults with bed-based Intermediate Care Unit (BBU). Design Cohort study comparing all consecutive CGA-HaH cases managed between January 2018 and December 2023 with contemporary BBU-matched controls at the largest geriatric care provider in Barcelona. Methods We linked all intermediate care admissions at Parc Sanitari Pere Virgili to the Catalan health information system data to track patients' trajectories from 6 months before the index episode to June 2024. Patients admitted to CGA-HaH were matched to BBU controls using propensity score matching (PSM) based on their baseline characteristics. We used multivariable linear regression to assess the association of CGA-HaH with the percentage of days spent at home (%DSH) and Cox regression to assess the risk of death and first re-hospitalisation. Results We included 1180 consecutive CGA-HaH and 10,528 BBU episodes. CGA-HaH patients were significantly older and more functionally impaired and had better socioeconomic status. After PSM, we compared 961 CGA-HaH and 961 BBU patients, with a mean follow-up of 705 days (SD 593). CGA-HaH patients had a 7.4 higher %DSH (95% CI: 4.5-10.2, P < 0.001) with similar first re-hospitalisation [HR 1.02 (95% CI: 0.91-1.1)] and mortality risk [HR: 0.93 (95% CI: 0.81-1.06)].

Conclusions Our results suggest that CGA-Hospital-at-Home is a viable alternative to traditional inpatient intermediate care for older adults, offering relevant advantages such as increased time spent at home without a rise in mortality.

MedinaAvelino J., et al. (2025) **'Are Wearable ECG Devices Ready for Hospital at Home Application?.'** ***Sensors (Basel, Switzerland) 25*****(10) (pagination), Date of Publication: 09 May 2025.**
The increasing focus on improving care for high-cost patients has highlighted the potential of Hospital at Home (HaH) and remote patient monitoring (RPM) programs to optimize patient outcomes while reducing healthcare costs. This paper examines the role of wearable devices with electrocardiogram (ECG) capabilities for continuous cardiac monitoring, a crucial aspect for the timely detection and management of various cardiac conditions. The functionality of current wearable technology is scrutinized to determine its effectiveness in meeting clinical needs, employing a proposed ABCD guide (accuracy, benefit, compatibility, and data governance) for evaluation. While smartwatches show promise in detecting arrhythmias like atrial fibrillation, their broader diagnostic capabilities, including the potential for monitoring corrected QT (QTc) intervals during pharmacological interventions and approximating multi-lead ECG information for improved myocardial infarction detection, are also explored. Recent advancements in machine learning and deep learning for cardiac health monitoring are highlighted, alongside persistent challenges, particularly concerning signal quality and the need for further validation for widespread adoption in older adults and Hospital at Home settings. Ongoing improvements are necessary to overcome current limitations and fully realize the potential of wearable ECG technology in providing optimal care for high-risk patients.

Rocha M.C., et al. (2025) **'Impact of Implementing a Prioritization Process on Waiting Time for Non-Scheduled Surgeries in a Tertiary Emergency Unit.'** ***Clinics 80*****(pagination), Article Number: 100712. Date of Publication: 01 Jan 2025.**
Objectives: To evaluate the impact of implementing a structured prioritization process on surgical waiting times and compliance with time-to-intervention targets for non-elective surgeries in a tertiary academic emergency hospital.
Method(s): This observational retrospective single-center cohort study compared two periods before and after implementing a prioritization system. All non-elective surgeries performed from June to August 2022 (pre-intervention) and from November 2022 to January 2023 (post-intervention) were analyzed. The intervention included urgency classification, a real-time Kanban dashboard, and daily multidisciplinary scheduling meetings. The primary outcome was the median time from surgical indication until surgical procedure. The secondary outcome included adherence to predefined acceptable waiting time windows. Statistical comparisons were performed using Chi-Square, Fisher's exact, or Mann-Whitney U tests. A

significance level of $p < 0.05$ was adopted.
Result(s): 1851 surgeries were analyzed (967 pre-implementation and 884 post-implementation). The median waiting time was significantly reduced from 17h20min to 8h52min ($p < 0.001$). Compliance with acceptable waiting time windows increased from 60.5 % to 77.1 % (OR = 2.205; 95 % CI 1.799-2.701).
Conclusion(s): Introducing a structured prioritization strategy significantly reduced waiting times and improved adherence to surgical timelines in a high-complexity emergency environment. The model proved feasible, effective, and well-accepted by multidisciplinary teams. The long-term impact of the implementation of the model could be further addressed in future studies.

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