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Unscheduled care

September 2026

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

Ablard S., et al. (2026) 'An Innovative Care Model for Urgent and Emergency Care: A Qualitative Evaluation of Community Unscheduled Care Co-Ordination Hubs.' *PloS One 21*(8), e0356237.

BACKGROUND: High demand for emergency care continues to place strain on ambulance services and emergency departments. Many patients present with acute problems that, while requiring an urgent response, do not require hospital care. Providing safe alternatives to hospital conveyance for these patients is a priority. Community unscheduled care co-ordination hubs (UCCH) support clinicians (e.g., paramedics) to identify and refer patients with acute care needs into community services, allowing patient care close to or in their own home and reducing ambulance callouts or conveyance to hospital. Our study identified the barriers and enablers to the operation and impact of UCCHs in three locations across England.
METHOD(S): Twenty-one semi-structured interviews were conducted with clinical and non-clinical staff working in UCCHs, and clinical staff working in services which refer patients into UCCHs (e.g., paramedics). Transcripts were analysed thematically.
RESULT(S): Four themes were identified: (1) UCCHs promote integrated community working by improving clinicians' access to rapid community-based support for patients; (2) there was a tension between maintaining easy access for referring clinicians and ensuring consistent referral decision-making, with unclear eligibility

criteria creating uncertainty about the remit of UCCHs (3) UCCH staff perceived limited ambulance service engagement as a key barrier to maximising the service's impact on avoiding unnecessary hospital admissions; (4) Recruiting and retaining individuals with the right skills mix was a significant challenge, limiting the pace at which the UCCH could expand.
DISCUSSION(S): UCCHs have the potential to simplify access to community services and support avoidance of unnecessary ED conveyance. However, their impact may be limited by inconsistent referral processes, variable engagement from ambulance services, and workforce challenges. Addressing these factors may enhance the effectiveness, sustainability, and scalability of UCCHs as part of wider efforts to deliver urgent care closer to home.

Allen L., et al. (2026) **'Equity in Virtual Urgent Care: Lessons from Health System-Based Models.'** ***The Lancet Digital Health 8*****(8), Article Number: 101015. Date of Publication: 01 Aug 2026.**
Virtual urgent care (VUC) is a leading sector of the US$12.2 billion US virtual health-care market, often improving access by reducing geographical barriers, lowering costs, and expanding availability. However, treating all VUC models as equivalent in research, practice, and policy is misleading and potentially harmful. VUC models vary substantially across health-care systems, influencing care delivery, cost, and patient access. Overlooking these differences could exacerbate health-care disparities. In this Viewpoint, we describe several VUC models across three health systems and apply Penchansky and Thomas' five key access dimensions-availability, accessibility, accommodation, affordability, and acceptability-to highlight how different models uniquely affect health-care equity. To ensure VUC reaches all patients, health systems should tailor models to diverse population needs and address barriers such as technology access and digital literacy. Future research should examine how various VUC designs affect health equity and test strategies to better meet the needs of underserved communities.

Alrazeeni D.M., et al. (2026) **'The Role of Artificial Intelligence in Predicting Readmission Risk in Emergency Patients: An Umbrella Review.'** ***International Emergency Nursing 88*****, Article Number: 101890. Date of Publication: 01 Jan 2026.**
Background: Hospital readmission following emergency care remains a persistent challenge, reflecting gaps in care continuity, discharge planning, and risk

stratification. Conventional prediction methods often fail to capture complex clinical interactions. The emergence of artificial intelligence offers new opportunities to enhance predictive accuracy by analyzing large, multidimensional healthcare datasets.
Aim(s): This umbrella review aimed to synthesize existing evidence on the role, performance, and clinical applicability of artificial intelligence in predicting readmission risk among emergency patients.
Method(s): An umbrella review design was adopted following established evidence synthesis guidelines. Systematic reviews and meta-analyses examining artificial intelligence-based readmission prediction in emergency settings were identified through comprehensive database searches. Data were extracted on study characteristics, model types, performance metrics, and clinical implications. Methodological quality was assessed using standardized appraisal tools, and findings were integrated through narrative synthesis.
Result(s): The findings revealed consistent evidence that artificial intelligence enhances readmission risk prediction by effectively analyzing complex and multidimensional healthcare data. Machine learning and deep learning approaches were widely applied, with ensemble and neural network models frequently demonstrating strong predictive capability. The integration of electronic health records and diverse patient level variables emerged as a critical factor in improving model performance. Across the evidence, artificial intelligence was shown to support early risk stratification and inform clinical decision making in emergency settings. However, important challenges were identified, including variability in study design, limited external validation, concerns regarding interpretability, and barriers to integration within existing healthcare systems.
Conclusion(s): Artificial intelligence holds substantial potential to improve readmission prediction in emergency care by enabling more personalized and data driven decision making. Addressing issues related to validation, transparency, and system integration is essential to support its translation into routine clinical practice.

Atkin C., et al. (2026) **'Enhancing the Accuracy of a Multivariable Prediction Model to Identify Medical Patients Suitable for Same Day Emergency Care Services.'** ***BMJ Health & Care Informatics 33*****(1), Date of Publication: 10 Aug 2026.**
OBJECTIVES: To assess the performance of the Glasgow admission prediction score (GAPS) and ambulatory score (AmbS) for identifying emergency department (ED) attendances suitable for medical same day emergency care (SDEC) services and to derive and validate a novel tool for this purpose, the SDEC Triage Tool (SDEC-T).
METHOD(S): A retrospective diagnostic study using routine healthcare data from three hospitals in a diverse urban setting (Birmingham, UK). All unplanned ED

attendances by adults requiring internal medicine assessment were included. The primary outcome was suitability for SDEC, defined as discharged alive with a length of stay under 12 hours (LOS<12). The SDEC-T was derived using multivariable analysis, informed by stakeholder workshops.
RESULT(S): 152 877 attendances were included (median age: 58 years; 54.3% female; 68.4% White ethnicity); LOS <12 was achieved in 45.0% (n=68 752). The GAPS and AmbS had moderate predictive accuracy, with areas under the receiver operating characteristic curve (AUROCs) of 0.741 (95% CI 0.738 to 0.744) and 0.733 (95% CI 0.730 to 0.736), respectively. The SDEC-T comprised elements of the GAPS, AmbS, National Early Warning Score 2 (NEWS2) and presenting complaint and achieved an AUROC of 0.850 (95% CI 0.845 to 0.854) on internal validation. Stakeholders considered the tool acceptable and suitable for deployment across settings.
DISCUSSION(S): The SDEC-T demonstrated improved discrimination using routinely available variables, balancing predictive performance with clinical practicality. Its design supports implementation across hospitals with varying digital maturity.
CONCLUSION(S): In a diverse patient cohort, the SDEC-T outperformed existing tools for identifying patients suitable for medical SDEC services.

Born C., et al. (2026) **'Forecasting Emergency Department Overcrowding using the CEDOCS Score - Predictable, but Not Actionable?.'** ***International Journal of Medical Informatics 220*****, Article Number: 106606. Date of Publication: 01 Nov 2026.**
Objective: This study aims to develop an explainable machine learning (ML) model to predict emergency department (ED) overcrowding using the CEDOCS score and evaluate its perceived actionability in clinical practice.
Method(s): We retrospectively analyzed all 300,000 visits to two German EDs between 2019 and 2023. We derived electronic health records (EHR), calendar and ambulance features to predict the CEDOCS score in the next three hours. We used SHAP values to analyze feature attributions. In a six-month intervention study, we introduced the ML model at one of the EDs and assessed perceived tool accuracy, actions taken based on the system's predictions, and stress.
Result(s): The best-performing models achieved RMSEs of 11.76, 15.92, and 18.34 at Hospital 1 and 16.04, 21.38, and 22.91 at Hospital 2 for the one-, two- and three-hour forecasts, respectively. The current CEDOCS score, time of day, and ambulance diversion by the intensive care units had the strongest correlation with overcrowding. In the intervention study, clinician stress showed a small-to-moderate association with CEDOCS ($r = 0.24$, $p = 0.03$). Actions taken were unrelated to CEDOCS ($p = 0.18$) and model error ($p = 0.21$) but positively associated with

perceived tool accuracy (r = 0.38, p < 0.01).
Conclusion(s): Our ML model demonstrates good predictive performance in forecasting ED overcrowding using the CEDOCS score. The SHAP analysis aligns with known causes of overcrowding. However, our intervention study suggests that accurate prediction of CEDOCS alone may be insufficient for actionable clinical decision support, as occupancy-based metrics may not fully capture the frontline resource demands that drive clinicians' operational decisions.

Cliff, A. (2026) **'Unlocking Hidden Hospital Beds: National Medical Ward Flow Measures to make Inpatient Delays Visible.'** ***Australian Health Review : A Publication of the Australian Hospital Association 50*****(3), Date of Publication: 03 Sep 2026.**
Australia's hospital performance framework measures emergency department throughput and elective surgery waiting times, but ignores the inpatient journey where older Australian patients face invisible delays. This Perspective proposes National Medical Measures, simple ward-level flow indicators, to make delay patterns observable throughout the acute episode. The National Health Reform Agreement Addendum 2026-2031 requires Health Ministers to develop performance indicators for long-stay patients and cross-sector interfaces; this policy window should include ward-flow measurement. These measures would deliver national visibility of inpatient delays for the first time, establishing the baseline evidence needed to inform earlier clinical intervention, future target setting, and capacity planning.

Conley J., et al. (2026) **'Opportunities and Challenges in Delivering Tech-Enabled Hospital at Home Care.'** ***Health Policy and Technology 15*****(9), Article Number: 101291. Date of Publication: 01 Nov 2026.**
Objective: As the hospital at home (HaH) care model expands, purpose-built technology is essential. This study examines key barriers in current HaH technology use, as well as opportunities to improve tech-enabled HaH care and scalability.
Method(s): A descriptive quantitative survey with open-ended and ranked multiple-choice items was developed to assess challenges and opportunities in technologies for HaH. The survey addressed five domains: patient identification, remote patient monitoring, remote physician visits, care team coordination, and supply chain management. It was distributed to members of the US Hospital at Home Users Group, comprising clinicians, technologists, and operational leaders. Survey responses were analyzed via weighted averages of ranked choices and free-response questions were summarized using rapid analysis methods.
Result(s): Among 26 HaH experts, there were many similarities and some differences in the operational use of technology across HaH programs. Top-ranked

challenges included connectivity and EHR integration for virtual visits, limited real-time data for patient identification, RPM accuracy and alert burden, inadequate scheduling and coordination tools, and manual supply chain workflows. Top-ranked opportunities centered on enhancing virtual physical exams with peripheral diagnostic devices, predictive analytics for patient identification, consolidated RPM platforms, and enhanced visibility across the logistics fulfillment lifecycle to support scalability.
Conclusion(s): This study identifies key technological gaps and opportunities across HaH, highlighting features needed to enhance safety, outcomes, and scalability. The findings offer actionable guidance to inform strategic technological planning and implementation and may help inform alignment among clinicians, industry partners, and policymakers to enable broader, more consistent adoption of tech-enabled HaH.
Public interest summary: Hospital at home (HaH) allows patients to receive hospital-level acute care in their own homes instead of staying in a hospital. While this model has been shown to be safe and effective, some challenges remain in implementing technology that can effectively support the unique demands of HaH care. In this study, we surveyed experts involved in HaH care across the U.S. to understand what is working well and what needs improvement. We found that common challenges include unreliable internet connections, difficulty integrating with electronic health records, inaccurate or overwhelming alerts from monitoring devices, and inefficient coordination of care and medical supplies. At the same time, experts identified opportunities to improve care through better remote exam tools, smarter use of data and artificial intelligence, and more streamlined systems for tracking supplies. Improving these technologies can help further enhance HaH safety and efficiency, and make it more widely available to patients.

Duhamel S., et al. (2026) **'Caregiver Burden at the Onset of Acute Hospital-at-Home.'** ***Journal of the American Geriatrics Society 74*(8), 2338–2348.**
Background: Caregiver burden at the onset of acute Hospital-at-Home (HaH) episodes, particularly in programs where caregiver availability is required for admission, remains insufficiently characterized in real-world settings. Participants and Setting: Caregivers of patients admitted to an acute HaH program within Clalit Health Services, Northern District, Israel, between 2023 and 2024.
Method(s): We conducted a cross-sectional observational study of 125 caregivers assessed within the first 48 h of the HaH episode. Caregiver burden was measured using the Caregiver Strain Index (CSI; range 0-13), with high burden defined as CSI >= 7. Structured telephone interviews collected caregiver demographics, caregiving context, health-related quality of life (EQ-5D-5L; UK value set), resilience (CD-RISC-2), and perceived social support. Associations with high burden were examined using bivariate analyses and hierarchical logistic regression.
Result(s): High caregiver burden was present in 77 caregivers (61.6%) within the first

48 h of the HaH episode. Prior caregiving experience was more prevalent among caregivers with high burden than among those with low burden (97.4% vs. 50.0%, p < 0.001). High burden was also associated with anxiety/depression on the EQ-5D-5L (63.6% vs. 29.2%, p < 0.001), lower resilience (52.0% vs. 79.2%, p = 0.002), and lower perceived social support (59.7% vs. 83.3%, p = 0.006). In multivariable analysis, perceived social support (OR 0.22, 95% CI 0.06-0.74) and high resilience (OR 0.33, 95% CI 0.11-0.95) were associated with lower odds of high burden, whereas paid caregiver assistance was associated with higher odds of high burden (OR 5.23, 95% CI 1.17-23.37).
Conclusion(s): High caregiver burden is common at the onset of acute HaH care. These exploratory findings suggest that caregiver vulnerability at admission is related to pre-existing caregiving context and psychosocial resources, supporting systematic caregiver assessment early in the HaH episode to identify individuals who may benefit from targeted support.

Edwards S., and Challen, K. (2026) **'Focusing on Health Inequalities in Emergency Care.'** ***Emergency Medicine Journal 43*(8), 462–463.**

Healthcare Improvement Scotland. (2026) **Hospital at Home services annual report: August 2026.**

Mir Montero M., et al. (2026) **'High Patient Satisfaction in a Telemedicine-Based Virtual-First Hospital-at-Home Program: A Large Real-World Cohort Study.'** ***Telemedicine Journal and E-Health : The Official Journal of the American Telemedicine Association 32*(9), 940–947.**
BACKGROUND: Hospital-at-Home (HaH) programs supported by telemedicine have emerged as a promising alternative to conventional hospitalization. However, evidence on patient experience in large-scale, real-world virtual-first models remains limited. The objective of this research was to evaluate patient experience and satisfaction in a telemedicine-based, virtual-first HaH program.
METHOD(S): We conducted a retrospective observational cohort study, including adult patients admitted to a virtual-first HaH program at a tertiary hospital in Madrid, Spain, between October 2020 and May 2025. Patient experience was assessed at discharge using a routinely implemented digital questionnaire. A set of 18 common items across questionnaire versions was analyzed, covering communication, perceived safety, professional competence, and overall satisfaction. Responses were standardized and dichotomized using a top-box approach.
RESULT(S): A total of 887 patients were included (median age 64 years; median length of stay 9 days). Patient experience was highly positive, with satisfaction rates exceeding 95% across most domains. Perceived safety was reported by 98.98% of

patients, and 97.06% indicated that telemedicine was easily integrated into daily life. Overall satisfaction reached 96.50%, and the same proportion would choose the HaH model again.
CONCLUSION(S): A telemedicine-based, virtual-first HaH program achieved very high levels of patient satisfaction and perceived safety in a large real-world cohort. These findings support the feasibility and acceptability of virtual-first models for acute hospital care, demonstrating consistent patient experience across diverse clinical profiles, age groups, and lengths of stay.

Nwolise C., et al. (2026) **'Hospital at Home for Older Residents with Physical Deterioration: Care Home Staff Experiences.'** ***Age and Ageing 55*****(8), Article Number: afag236. Date of Publication: 01 Aug 2026.**
Introduction: Health and social care systems face rising pressures due to population ageing, rising frailty, multimorbidity and complex care needs. Traditional hospital-based care is increasingly recognised as unsustainable, and may be inappropriate for older adults living in care homes. In England, policy promotes shifting care from acute hospitals to community and residential settings. Hospital at Home (HaH) delivers hospital-level care in a person's usual residence; however, little is known about its delivery and experience within care homes.
Method(s): This study reports qualitative findings from semi-structured interviews with care home staff, supported by descriptive survey data and open-ended survey responses. Care home staff were recruited from several localities in the South of England. Quantitative survey data were analysed descriptively and qualitative data, thematically.
Result(s): Fifty participants completed the survey and 20 participated in interviews. Hospital admission remained necessary for some residents, particularly for fractures and acute emergencies. However, hospitalisation was frequently associated with distress, communication breakdowns and hospital-associated decline. In contrast, HaH was perceived to offer benefits including collaborative working, improved continuity, preservation of dignity and comfort and reduced exposure to hospital-related risks. Key barriers included workforce capacity, geographical coverage, limited opening hours and inconsistent referral pathways, restricting timely and equitable access.
Conclusion(s): Hospital at Home was perceived by care home staff as a valuable and often preferable alternative to hospitalisation for many residents. However, structural and organisational barriers must be addressed to realise its full potential within care home settings. Future research should examine how HaH can be more widely implemented in care homes.

Scottish Government. (2026a) **Health and Care Improving Flow Plan 2026 - 2031*.***

Scottish Government. (2026b) **Programme for government 2026-2031.**

Shankar R., et al. (2026) **'Cost-Effectiveness of Virtual Emergency Care Models: Systematic Review.'** ***JMIR mHealth and uHealth 14*, e82143.**
BACKGROUND: Virtual care technologies have rapidly expanded in emergency medicine, particularly following the COVID-19 pandemic. However, comprehensive economic evaluations of their cost-effectiveness remain fragmented across different clinical applications and health care settings, creating uncertainty for policymakers and health care administrators considering implementation.
OBJECTIVE(S): This study aimed to systematically review and synthesize evidence on the cost-effectiveness of virtual emergency care models compared to traditional in-person emergency care across diverse clinical conditions, populations, and health care settings.
METHOD(S): We conducted a systematic review following PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, searching 8 electronic databases (PubMed, Embase, Scopus, Web of Science, CINAHL, Cochrane Library, MEDLINE, and PsycINFO) from inception to February 2025. We included full economic evaluations comparing virtual emergency care interventions with usual care. Two reviewers independently screened studies, extracted data, and assessed quality using the Drummond checklist and Consensus Health Economic Criteria (CHEC) list. Evidence certainty was evaluated using Grading of Recommendations Assessment, Development, and Evaluation (GRADE) methodology. Given heterogeneity in interventions and methods, we conducted a narrative synthesis by virtual care modality and clinical application.
RESULT(S): From 5817 identified references, 13 studies met inclusion criteria, representing diverse virtual care modalities across 6 countries (United States, Australia, Italy, Canada, Haiti, and Belgium). All included studies reported favorable economic outcomes for virtual emergency care. Video consultation was the most common modality (11/13 studies), achieving 31% to 73% reduction in patient transfers and cost savings of US $73 (AUD $105) to US $5118 per encounter. A total of 6 (46%) studies found virtual care to be dominant (both less costly and more effective). Incremental cost-effectiveness ratios ranged from US $1273 (990) to US $108,363 per quality-adjusted life year, with most below accepted willingness-to-pay thresholds. Transfer avoidance was the primary economic driver, particularly in rural settings. Quality assessment revealed high methodological rigor (mean Drummond

score 92.3%, SD 6.0%; mean CHEC score 95%, SD 4.2%). Using GRADE, evidence certainty was rated high for cost-effectiveness, moderate for transfer reduction and quality of life improvements, and low for emergency department length of stay and mortality benefits.
CONCLUSION(S): Virtual emergency care demonstrates strong and consistent cost-effectiveness across diverse clinical conditions, populations, and health care settings. The evidence particularly supports implementation for stroke care, pediatric emergencies, and rural/remote populations where transfer avoidance drives substantial economic benefits. All evaluated modalities achieved favorable economic outcomes, suggesting technology should match context rather than maximize sophistication. These findings provide robust economic justification for expanding virtual emergency care access and removing regulatory barriers. As health care systems face mounting pressures from aging populations, workforce shortages, and budget constraints, virtual emergency care offers a proven strategy for improving access and quality while reducing costs. TRIAL REGISTRATION: PROSPERO CRD42025648218; https://www.crd.york.ac.uk/PROSPERO/view/CRD42025648218.

Shu R., et al. (2026) 'Beyond the Checklist: An Exploration of Informatics Needs in Emergency Mental Health Triage.' *International Journal of Medical Informatics 218*, Article Number: 106530. Date of Publication: 15 Sep 2026.
Background: Emergency mental health triage faces significant challenges due to protocols primarily designed for physical trauma. These protocols tend to focus heavily on physiological metrics, frequently overlooking the complex behavioural cues that are essential for effective psychiatric assessment. While Clinical Decision Support Systems (CDSS), which are digital tools designed to assist clinical decision-making through real-time data integration, offer potential solutions to reduce cognitive load, their adoption is often limited by poor usability and a lack of alignment with the practical realities of clinical practice.
Objective(s): This study explores the informatics needs and workflow barriers of frontline clinicians to inform the design of user-centred digital mental health triage systems.
Method(s): A qualitative exploratory study was conducted using an interpretivist approach. Semi-structured interviews were held with 14 clinicians involved in emergency mental health triage across emergency department (ED) and related crisis care settings, spanning both standardised protocol-driven and resource-constrained distributed triage environments. Data were analysed using reflexive thematic analysis.
Result(s): Three core themes were identified: (1) systemic constraints from fragmented information systems and resource shortages force clinicians to make

high-stakes decisions with incomplete data; (2) clinicians employ experiential heuristics and pattern recognition to navigate psychiatric complexity beyond standardised protocols; (3) future digital tools should prioritise deep interoperability, support non-linear workflows, and incorporate culturally sensitive privacy protections. Conclusion(s): This study reveals that triage challenges are deeply rooted in fragmented information infrastructure and workflow misalignment. Effective digital support systems require interoperability, workflow integration, and user-centred design to transition from administrative burden to real cognitive support for ED clinicians.

Tang S., et al. (2026) **'From Triage to Transformation: Tackling Inequalities in Emergency Care through a Public Health Lens.'** ***Emergency Medicine Journal : EMJ 43*****(8), 511–513.**
Emergency departments (EDs) and NHS ambulance services often serve as the first and only point of contact with healthcare for individuals from deprived communities, marginalised populations and other groups that face inequalities in both access to, and quality of healthcare. These include ethnic minorities, people experiencing homelessness, asylum seekers, sex workers, individuals transitioning from criminal justice settings as well as older adults, children and pregnant women. These populations face disproportionate burdens of disease and systemic barriers to care. Integration of Public Health into Urgent and Emergency Care (UEC) services presents an opportunity to address these challenges.These issues cannot be solved by UEC services alone. EDs and ambulance services, however, are uniquely positioned to identify and address health inequalities by building close relationships with local authorities, primary care, social care and voluntary, community and social enterprises to support preventive efforts, help people before they need to come to ED, reduce repeat attendances and improve patients' experiences and outcomes.Health inequalities cost the NHS billions of pounds each year. Embedding public health in EDs is not just a clinical improvement-it is an economically sound, ethically responsible, equity intervention that addresses the social determinants of health and ensures the most vulnerable receive timely, tailored support.EDs and NHS ambulance services are more than services for time of crisis-they are places of opportunity. By embedding public health principles into emergency care, we can transform emergency care into engines of equity, resilience and prevention. Investing in public health within these settings is not only the right thing to do for patient outcomes and health equity-it is ultimately cost-effective, reducing demand on UEC and improving population health in the long term.

Wijewardane, A. (2026) **'Right Care, Right Place, Right Now: The Role of Acute Medicine in Urgent and Emergency Care.'** ***Future Healthcare Journal 13*****(2) (pagination), Article Number: 100541. Date of Publication: 01 Jun 2026.**

Xu O., et al. (2026) **'Re-Designing Emergency Medicine Physician Staffing to Augment Emergency Department Capacity: A Combined Waterfall Schedule and Modified Physician-in-Triage Model.'** ***American Journal of Emergency Medicine 109*****, 273–283.**

Background: Emergency department (ED) crowding and inpatient boarding delay care and increase the risk of patients leaving without being seen (LWBS). We implemented a combined physician waterfall schedule (PWS) and modified physician-in-triage (PIT) model to expand front-end capacity, accelerate early physician assessment, and reduce LWBS.
Method(s): We conducted a single-center, retrospective pre-post study of adult ED encounters (>=20 years) over consecutive 12-month pre- and post-intervention periods (January 3, 2023-December 31, 2024). The intervention paired a staggered PWS (increasing attending coverage from 54 to 62 h/day) with a modified PIT model requiring full initial evaluation and clinical ownership through disposition. We used statistical process control (P-chart) to assess monthly LWBS trends and logistic regression with inverse probability of treatment weighting (IPTW) plus covariate adjustment to compare the primary outcome between periods; univariable tests were used for secondary outcomes (throughput, ED returns, and patient experience) and balancing measures (left-before-treatment-complete, ED return within 72-h resulting in hospital admission).
Result(s): Among 79,898 adult encounters, LWBS decreased from 6.5% to 4.7%. IPTW analysis showed lower odds of LWBS (OR 0.71; 95% CI 0.66-0.76), corresponding to a 28.1% relative reduction and exceeding the 25% target. ED return within 72 h decreased (5.5% to 5.1%, p = 0.004), as did returns with admission (0.8% to 0.7%, p = 0.027). Other secondary outcomes were largely unchanged. Improvements occurred despite increased boarding.
Conclusion(s): A combined PWS plus modified PIT model was associated with reduced LWBS while maintaining safety and patient experience, offering a pragmatic strategy to mitigate ED crowding.

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