

younger patients. Patients with multimorbidity in ED settings may benefit from improved recognition and tailored care pathways.

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MIXED METHODS STUDY EXPLORING FACTORS INFLUENCING AMBULANCE CLINICIAN DECISIONS TO PRE-ALERT EMERGENCY DEPARTMENTS (EDS) OF A PATIENT'S ARRIVAL

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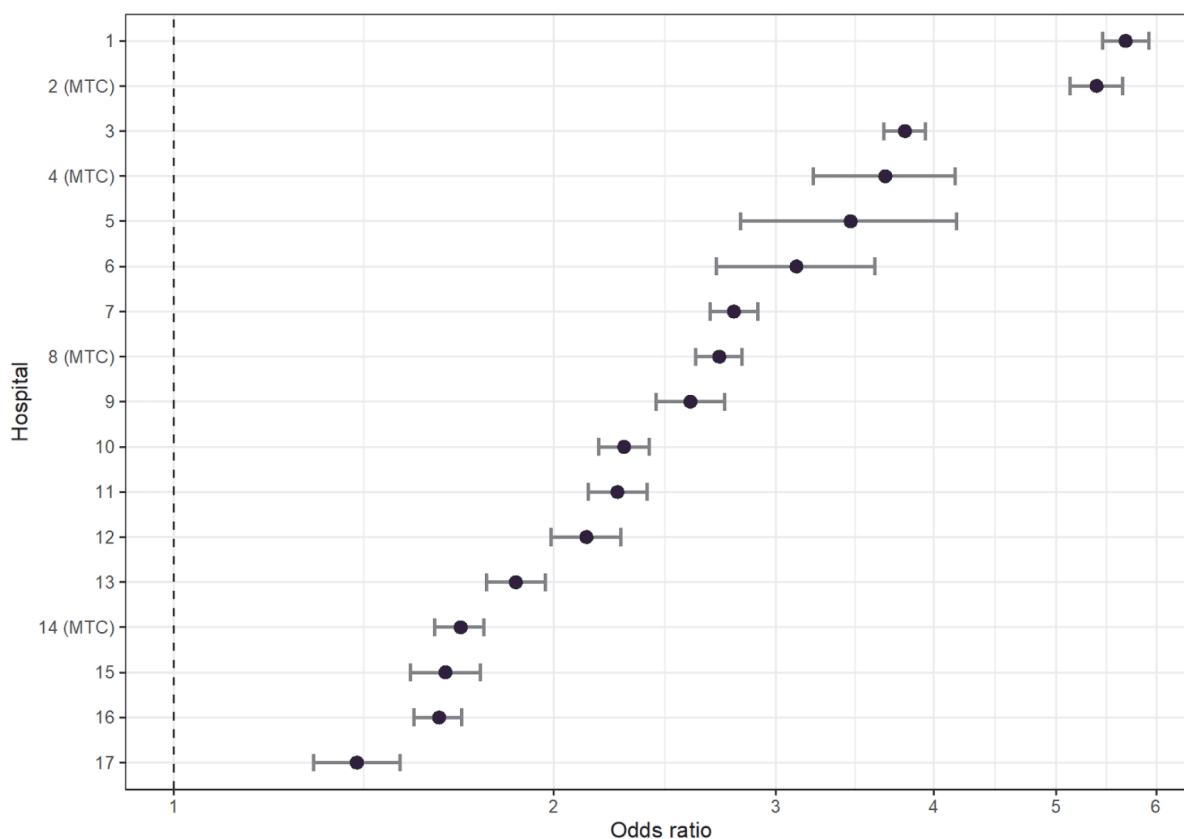
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Aims and Objectives Ambulance pre-alert calls can lead to improved treatment of time-critical patients by enabling Emergency Departments (EDs) to prepare for their arrival but need to be used judiciously to optimise patient care. Despite their importance, there is a lack of research understanding how pre-alert decisions are made. We aimed to understand factors influencing ambulance clinician pre-alert decision-making.

Method and Design Using a convergent parallel mixed-methods design we integrated quantitative and qualitative data from three Ambulance Services and six Emergency Departments using: 1) linked routine dataset of 12 months' (2020/21)

electronic patient records (3 Ambulance Services), clinician information and routine hospital statistics 2) semi-structured interviews with 35 ambulance clinicians and 40 ED staff and 156 hours non-participation observation of pre-alerts across six EDs. Lasso regression to identify candidate variables for multivariate logistic regression was undertaken in R^(TM) to explain variation in pre-alert rates in terms of patient (NEWS2 score, working diagnosis, age, sex), ambulance clinician (experience, role, sex, time to end of shift) and hospital factors (journey time, % ambulances waiting >30 mins). Qualitative data was analysed using thematic analysis in NVivo^(TM). Findings were integrated using a triangulation protocol.

Results and Conclusion Variation in pre-alert practice was not fully explained by casemix. Overall 142,795/1,363,274 conveyances were pre-alerted. Highest overall odds ratios (ORs) for pre-alert were associated with patient factors (working diagnosis OR:4.16, CI:4.05-4.26, NEWS2 OR:1.4, CI:1.39-1.4) but thresholds for pre-alerting varied between ambulance clinicians. Pre-alerts were more likely when there were longer turnaround times at EDs (OR:1.83, CI:1.69-1.98), potentially due to ambulance clinicians' concerns about their ability to effectively manage deteriorating patients where long handovers were anticipated. There was a significant difference in pre-alert rates between EDs (figure 1) that was not explained by type of hospital (e.g. Major Trauma Centres). Anticipated ED response to pre-alerts had a significant impact on pre-alert decisions due to variation in ED protocols and expectations.



Abstract 2245 Figure 1 Odds ratio of pre-alert being made stratified by receiving hospital