Abstracts

syncope whose underlying ECG rhythm during these episodes remained undiagnosed after ED assessment were enrolled.

Conclusions 243 participants were recruited over an 18-month period. A symptomatic rhythm was detected at 90 days in 69 (n=124; 55.6%; 95% CI 46.9–64.4%) participants in the intervention (AliveCor) group.

92.8% of patients who recorded a symptomatic rhythm during the 90 day period recorded this rhythm during the first 28 days (figure 1/table 1).

Conclusion: ED palpitation patients discharged with a smartphone-based event recorder such as the AliveCor should be reviewed after 4 weeks to enable efficient device usage and timely treatment if required. Patients in whom a diagnosis has not been made can be re-reviewed at 90 days. (1541 characters/285 words)

024 HANDHELD ELECTRONIC DEVICE USE IN PATIENT CARE; THE EMERGENCY DEPARTMENT PATIENT PERSPECTIVE

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What is already known? Smartphones have an increasingly important role to play in the delivery of healthcare, especially in the acute setting. Little is known regarding patient perceptions of this development.

Why is this study important? Staff are concerned that patients have a negative perception of their use; this concern may present a barrier to optimal use despite the existing evidence of their benefits.

What does this study add? Our study describes patient, carer and relative attitudes towards staff use of smartphones within an emergency department. The majority of respondents trust staff to use their devices appropriately and are supportive of the use of this evolving technology in a healthcare setting.

A cross-sectional survey of emergency department service users in a single department at all times of day and on all days of the week.

Surveys were administered by medical students; all eligible individuals in the department during a data collection period were approached.

Results A total of 438 participants successfully completed the survey with a response rate of 98%. Only 2% of those who observed staff using HEDs during their emergency department visit thought that they were being used for non-clinical purposes. 340 (72%) agreed that staff should be allowed to use HEDs in the workplace. Concerns expressed by participants included devices being used for non-clinical purposes and data security. The main suggestion by participants was that the purpose of the HEDs should be explained to patients to avoid misinterpretation.

Conclusion Our study suggests that the majority of individuals attending the emergency department have no concerns regarding the use of HEDs by clinical staff, and that many of the concerns raised could be addressed with adequate patient information and clear governance.

025 HOSPITAL INTERVENTIONS TO IMPROVE PATIENT FLOW: EMERGENCY DEPARTMENT OUTCOMES OF AN ACTION RESEARCH STUDY

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Background The Royal College of Emergency Medicine has highlighted reduced patient flow through the hospital system as a major challenge to improving emergency department
Abstract 025 Figure 1  ED attendance YDH vs national

Abstract 025 Figure 2  Four hour performance YDH vs national
flow. We describe the impact of a hospital-wide flow intervention on Yeovil District Hospital emergency department’s clinical quality indicators, in order to demonstrate the value of a whole-system approach to curb access block.

**Method and results** We followed up on an action research study that identified and intervened on several areas within the hospital that were disproportionally contributing to access block during 2016. Using a retrospective, cross-sectional design, we described the effect of the interventions on the Royal College of Emergency Medicine’s clinical quality indicators (four-hour standard, time to decision maker, seven-day unplanned re-attendance, left without being seen, ambulatory patient care and patient experience) between January 2014 and October 2018. Pearson correlation coefficient (r) was used to compare variables and linear regression was used to describe the contribution of interventions to the change in four-hour standard.

**Conclusions** Yeovil District Hospital emergency department was attended by 233,378 patients over the study period. Mean monthly attendance was 4,029 (±341) patients), mean age was 43 (±28) years and there was an equal male/female split (49/51%). The four-hour standard makes a gradual and consistent recovery from under 95% to over 95% that is not reflected in national data (r=0.09). This is despite a rising trend in emergency department attendances both for Yeovil and nationally (r=0.75). Other clinical quality indicators (except seven-day unplanned re-attendance) improved significantly. The overall regression model fit was R²=0.81; three interventions contributed significantly and a further two contributed non-significantly.

The impact on clinical quality indicators reveals the significant effect of a hospital-wide flow intervention that targeted multiple causes of access block. Further research should include qualitative research to understand the facilitators and barriers to flow improvement work in emergency departments.