“SIGNED AND STAMPED”: ECG SIGN-OFF IN THE EMERGENCY DEPARTMENT

Warner BE1,2, Chung D1, McKenzie E1
1University Hospital Crosshouse, NHS Ayrshire and Arran 2Charing Cross Hospital, Imperial College Healthcare NHS Trust

BACKGROUND

- Electrocardiograms (ECGs) are frequently performed in the acute setting and are important for recognising potentially life-threatening conditions such as myocardial ischaemia and arrhythmias.
- ‘ECG sign-off’ refers to a process in which a clinician reviews and endorses the trace to ensure early detection of concerning features. In our department sign-off is performed by any grade of doctor.
- There is currently no published consensus on clinically-oriented criteria for ECG sign-off in the ED 1,2.
- Local consultant concerns regarding inadequate sign-off process and missed STEMI.

Baseline results demonstrated low staff confidence in documentation of sign-off and the sign-off process, reflected in quantitative data.

AIM: To improve ECG sign-off in one Scottish Emergency Department.

1. Rubber stamp containing sign-off criteria, announced at departmental meeting. To be stamped by doctors at the point of sign-off
2. Streamlining of the stamping process: nurses responsible for stamping and a designated ‘stamp box’ created

METHODS

Setting: emergency department seeing 74000 presentations per year at a 750-bed district general hospital on the west coast of Scotland.
Population: adult patients receiving an ECG in the ED, at any time of day, night or weekend.
Criteria: derived from local consultant consensus in the absence of a UK or local gold standard. They comprised: patient symptoms, summary statement of ECG interpretation, action required, clinician name and signature.
Study of baseline and post-intervention practice: manual review of randomly selected ECGs (n=35, 25, 30 respectively for data collections 1, 2&3); anonymous staff questionnaires (n=27&18). Timescale: reaudit at 12 and 15 weeks.

RESULTS

1. ECG sign-off was improved and maintained post-stamp intervention
2. Sign-off was better on stamped than non-stamped ECGs
3. Sign-off improved in non-stamped as well as stamped ECGs
4. The stamp intervention was received well by medical and nursing staff

INTERVENTIONS

1. ECG sign-off is currently performed at any grade of doctor. To be improved to local consultant criteria.
2. Streamlining of the stamping process: nurses responsible for stamping and a designated ‘stamp box’ created

CONCLUSIONS

- Sustained global improvement following introduction of a streamlined stamping process.
- Criteria derived from local consultant consensus in the absence of a published clinically-oriented ED-focused gold standard.
- Implications on communication, traceability and timely intervention.