

Using electronic communication tools and new working patterns to improve night-time inpatient care in a district general hospital

Authors: George Goodchild, Daniel Coates, Linda Wright, Angela Tillett and Ian Gooding

Aims

To redefine out-of-hours medical cover in order to improve patient care while supporting medical training. The project was to be cost neutral and to reduce locum use.

Methods

A project team was appointed. An initial workload study was conducted in order to ascertain the workload of individual teams. Rotas for medicine, general surgery, urology, orthopaedics, ENT and anaesthetics were redesigned. A pool of four foundation doctors (FY1 and FY2) working across all specialties was created. The ENT and orthopaedic core trainee rotas were amalgamated. FY1 doctors were given night shifts for the first time. We removed rotas shared between FY2 and CMT trainees and those where an FY2 doctor might be the most senior doctor present.

An in-house online platform was developed in order for ward nurses to submit non-urgent requests electronically. These requests go to the night matron's tablet. The night matron electronically allocates tasks to the junior doctor pool via smartphones. Only the medical StR and cardiac arrest team hold bleeps. Following executive team approval, a 1-week trial was carried out before the project went live with the new intake of junior doctors in August 2015. The hours of operation were 21:00–09:00. Formal feedback was obtained after 1 year of operation through (i) an audit of waiting times for clerking and (ii) nursing staff questionnaires.

Results

Case notes of patients admitted between 21:00 and 09:00 for all specialties were examined for April 2015 and April 2016 (49 for each period). The wait from time of referral from the emergency department or time of arrival for GP referrals to clerking was compared. The wait reduced from 158 to 102 minutes ($p=0.012$).

There were 100 responses to the nurse questionnaire. Overall, nurse opinion of the new OOH system was assessed using a

visual analogue scale (0 = very negative; 100 = very positive). The opinion of the system for contacting doctors increased from 35.0 to 64.2 ($p<0.001$) and the opinion of the provision of doctors at night from 37.2 to 65.9 ($p<0.001$). Respondents agreed that patient care had improved.

Conclusions

We introduced a new system of working that was tailored to the needs of our hospital and to the available medical staff. An innovative IT system was used. We saw significant improvements in patient care and staff satisfaction. The scheme was cost neutral. ■

Conflict of interest statement

No conflicts of interest.

Authors: Colchester General Hospital, Colchester, Essex, UK