Reducing Extrinsic Distractions to Radiologists Under Mounting Pressure – REDRUMP

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Purpose:

Distraction has been shown to lead to reporting error and compromise patient safety.

Aim: To reduce the number and duration of phone call interruptions by 50% to radiologists in the general and cardiothoracic reporting room over a 6 month period.
PDSA: Cycle 1

Plan: We constructed driver diagrams to identify problems leading to interruptions and hypothesized solutions.

Do: We collected baseline data over two 4-hour morning/afternoon periods.

Act: We edited the directory on the Induction app for iPhone/android which was promoted at a Grand round to the medical trainees.

Study: We analysed the data obtained from switchboard.

We edited the directory on the freely available Induction app for iPhone/android
Cycle 1

There is a significant reduction in the number and duration of inappropriate calls to the general radiology reporting room (left).

Although there was a reduction in the number of calls to the cardiothoracic department, this was not statistically significant.

Cycle 2

Plan: Targeted promotion of the app to cardiothoracic team, Consultant involvement

Do: Targeted teaching to Acute Medical Unit

Act: Increased promotion of the app

Study: We analysed the data using MATLAB
Chi-squared analysis

Cycle 2 also saw a reduction in inappropriate calls (53%) and was close to significance ($X^2 = 3.6$, $p=0.057$. There was no significant difference between cycle 1 and cycle 2, $p=0.37$.

We carried out a multi-way ANOVA on call duration with appropriateness, cycle and room as input factors. Call duration was significantly shorter for appropriate vs inappropriate calls (ANOVA, $p=0.0006$. This did not change between cycles.

Cycle 3

THIS IS SOO EASY TO USE! I DOWNLOADED THE APP IN BETWEEN MY BUSY SURGICAL LIST!
Conclusion

Aim:
To reduce the number and duration of phone call interruptions by 50% to radiologists in the general and cardiothoracic reporting room over a 6 month period.

- Introducing and updating the directory of an online Smartphone application is a simple and sustainable way to reduce interruptions to reporting radiologists.
- We full-filled our aim of reducing the number of inappropriate calls by >50%. This was maintained in cycle 2.
- Total duration of inappropriate calls fell by >50%
- Average duration of inappropriate calls was already short. We did not see a significant reduction in average call duration between cycles.