

# BMJ Open Quality Improving availability and accuracy of the junior doctors' on-call handover through digitalisation

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## ABSTRACT

Clinical handovers from out-of-hours activity are essential for relaying information about events such as new admissions, outstanding or complete investigations, physical health reviews, ward jobs and risk. This information enables the day team to effectively prioritise and follow-up any necessary tasks.

Junior doctors at a hospital site in the London Borough of Newham were aware that the existing handover system, constituted of a word document circulated via email, was lacking robustness and that the handover was not sent out reliably on a daily basis.

Quality improvement (QI) methods including process mapping, PDSA ('Plan, Do, Study, Act') cycles, driver diagrams and run charts were used to understand the issue, create a more robust process and measure the improvements made, all supported by regular QI project meetings. The change ideas included moving from an informal Microsoft (MS) Word document, which was emailed out, to an Excel spreadsheet stored centrally on MS Teams. Column headers were added for admissions, ward jobs, seclusion reviews, matters relating to mental health law and Accident and Emergency (A&E) assessments, as well as defined columns for outstanding jobs and standard tasks that need to be completed for all admissions. Responsibility for circulating the handover list was given to the incoming day duty doctor if the night doctor was too busy, with admin support to chase the circulation of the handover. Results were studied for the following 18 months.

The percentage of handovers being appropriately sent out increased from a median of 80% to 100% during the project period, and the availability of handover data where the data were visible to doctors on MS Teams but had not been sent out also increased from a median of 80% to 100%. The system was deemed safe, effective and easy to use, and has already been replicated at neighbouring hospitals.

## PROBLEM

This quality improvement (QI) project emerged from an awareness that the handover process at Newham Centre for Mental Health (NCfMH) was flawed in three critical domains: content; data governance; and sharing. During their out-of-hours work, on-call doctors on the Newham Core Trainee Psychiatry rotation provide psychiatric cover

## WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Clinical handover is a well-recognised point of vulnerability for patient safety and care. Electronic handovers are recommended but can have training and technical obstacles to implementation.

## WHAT THIS STUDY ADDS

⇒ This project has demonstrated that digitalisation and centralisation of the handover document using cost-free, familiar software improves performance and is easy to use.

## HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ The model outlined in this project is simple, affordable and effective and therefore provides a ready system for implementation elsewhere in the National Health Service.

at three distinct sites: NCfMH, the Coborn Centre for Adolescent Mental Health (the Coborn) and Newham University Hospital (NUH). All out-of-hours activity, comprising work undertaken overnight and at weekends, needs to be captured and safely handed over to the respective day teams at the start of the day.

The handover process begins at 17:00 on a weeknight, at which point doctors from the day shift would hand over tasks to two doctors working from 17:00 to 21:00, one covering Accident and Emergency (A&E) and one working on the wards. This would occur face to face, via email or via telephone call, and the information would be captured in a manner of the doctor's choosing and no record would be stored. A further handover would occur at 21:00, at which point the two evening doctors would hand over to the night doctor, who covered the shift from 21:00 to 09:00 the following day. This was usually conducted in person, but sometimes one of the doctors would pass on a message informally. The night doctor would then have to write up the handover from the preceding



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