

## Improving weekend patient handover

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### Abstract

The Royal College of Physicians state that 'handover, particularly of temporary 'on-call' responsibility, has been identified as a point at which errors are likely to occur' [1].

Working a weekend on-call covering medical wards is often busy and stressful for all junior doctors, with added pressure in trying to identify patients and tasks amongst several different pieces of paper and making important care escalation.

All handover sheets from a random weekend were collected and studied. Only 57% of patients listed had the minimum expected 3 patient identifiers [2] included and just 11% had any indication of escalation planning. They were also often written on scrap pieces of paper and included varying levels of relevant patient background and information.

After liaison with junior doctors and the handover committee, involving senior medical clinicians, a new handover sheet was created and uploaded onto the trust intranet, to rectify some of the problems identified. Junior doctors were also educated about the changes to weekend handover.

At 2 months post-introduction, another set of weekend handover sheets were collected. All medical wards used the handover sheets for documentation of patients and tasks at a weekend and inclusion of 3 patient identifiers rose to 80%. There was also a big increase noted in clinical information and background included at weekend handover and anecdotally made weekend handover easier and less stressful. There was also increased consideration of escalation planning.

The handover sheet is now being rolled out trust-wide in medicine and introduced to surgical colleagues.

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### Problem

The handover of patient care has already been identified as a point at which error is likely and patient safety is put at risk [3]. With the full implementation of the European Working Time Directive (EWTD), there is increased number of shift changes and handover of patient care, and concerns have been raised regarding the consequences on patient safety [4].

Patient handover is one of the few areas of medicine which has limited evidence – base and consequently limited guidance [5], however there is evidence that the use of a preferably typed, standard proforma does reduce the potential for error [6]. Despite the National Patient Safety Agency (NPSA) recently publishing 'safe handover: safe patients' to improve the quality of handover amongst healthcare teams, this is largely based on clinical expertise rather than clear evidence and there is still concern amongst junior doctors [3].

At a district general hospital, the previous handover system comprised of a representative from each medical ward covering approximately 270 beds, handing in a random sheet of paper with names and tasks jotted down with limited information regarding the patients' histories, current medical problems, or any clear escalation plans, which were then distributed amongst four junior doctors on a Saturday morning.

After distributing an initial questionnaire amongst teaching sessions at the hospital, the vast majority (95%) of doctors felt the current system was very unsafe and made weekends on-call more frustrating and demanding. Identifying the most unwell patients and escalation plans proved challenging to all, amongst scraps of paper and the chances of patient misidentification were high. Less than 20% were aware that a minimum of 3 patient identifiers were expected to be included on handover sheets.

### Background

The problem identified is not unique to this district general hospital, but has been recognised by medical and surgical juniors at both secondary and tertiary centres [7-10]. Others have created electronically accessible handover forms and separate escalation of care forms for notes, but there was inadequate computer accessibility and software for all junior doctors to access and update prior to the weekend. Having experienced the frustration of trying to locate patients' notes, the author also wanted a quick reference point for escalation planning and to increase recording of at least three patient identifiers, to meet standards set by the Royal College of Physicians (RCP) [11].

### Baseline Measurement

All the handover sheets were collected from the doctors working a medical on-call weekend at North Tyneside General Hospital. There was no indication that the handover information was going to be collected until all of the handover sheets were handed over by the ward based teams on a Friday evening.

Having looked at the handover sheets collected to identify baseline standards, two important quantifiable measurements were identified. One was the number of patient identifiable information included such as name, date of birth and hospital number and the second was the number of patients for whom there was any indication of escalation or resuscitation plan. The tasks handed over often have a common theme such as checking bloods, reviewing patients and discussing with specialities if necessary and prescribing medications, but seemed meaningless without contextualisation with relevant patient history and background.

Of the 108 patients handed over to the day teams covering the medical wards, only 62 patients (57%) had 3 pieces of patient identifiable information recorded. Most commonly this was full name, date of birth and hospital number. Of the 46 patients remaining, 27 patients had only their name handed over in order to identify them.

Of the 108 patients, 12 patients (11%) had escalation plans included in the handover, which consisted of either 'not for resuscitation' orders or not for escalation to a higher level of care such as the high dependency unit.

## Design

Having quickly identified the formatting and unclear expectations of what information should be included on handover documents, the new handover document created was designed to address some of these issues and make this readily available trust wide on the intranet. Columns were created for patient stickers available in trust notes, which included name, NHS number, date of birth and hospital number, sections for task identification and some patient history and finally a column for patient escalation plans if they were to deteriorate and in indication of resuscitation status. It was also decided by the author and trust handover committee, comprised of senior clinicians, managers and nursing staff, that a meeting should place at 5 p.m. each Friday in the hospital's handover room for collection and discussion of each ward's weekend handover and the more unwell patients to be aware of.

After some initial education, the initial document was trialled amongst two medical wards over three weekends and feedback received in order to improve the document, prior to presentation to the handover committee.

This intervention would be sustainable because it would be inexpensive to create and print, be easily accessible to all staff via the trust intranet, require only short teaching sessions to make junior doctors aware of the changes and new expectations and finally be collected at a central point and archived once the information had been actioned. Although turnover of junior doctors is frequent, the more senior doctors and those not rotating would be

able to educate new doctors of the trust's standards in handover.

## Strategy

Having initially trialled the handover sheet amongst two medical wards, recommendations were incorporated to a new document which was presented to the trust's handover committee. The committee welcomed the handover sheet but suggested updates to incorporate use of the SBAR (situation, background, assessment and recommendation) handover tool, founded by the US Navy and now widely used by nursing staff and in medical education and also recommended by the National Institute for Clinical Excellence (NICE), particularly for acutely ill patients.

The final handover sheet was then uploaded on the intranet and rolled out across all medical wards in the hospital and collected at a Friday evening meeting in ward-specific files.

## Post-Measurement

Having introduced the new weekend handover sheets, I collected the handover sheets from a bank holiday weekend; a time when a good handover is particularly important. This also allowed time for the incoming F1s in August to learn about the hospital's handover process.

Inclusion of 3 patient identifiers rose from 57 to 80% with the introduction of the new handover sheets and 100% had at least 2 patient identifiers. Inclusion of an escalation plan doubled in percentage from 11 to 23%. Although this is still a less than ideal number, many did include indications that the patient was due to be discharged, inferring they were quite well.

See supplementary file: ds2221.JPG - "Audit graph"

## Lessons and Limitations

Overall the new handover sheets were a successful intervention, however a number of lessons were learnt. Primarily, completing the new handover sheets is more time consuming and so support from senior clinicians and education of its impact upon patient safety was crucial to making this project a success. This support will also be invaluable when the junior doctors rotate in the future.

Another key lesson learnt was the importance of trialling out any intervention on a small scale and gathering feedback from the user, in order to develop the prototype and create a product that is effective and sustainable.

In consideration of the future role of technology and computer software within patient handover, it was important to the author to create a solution to handover that could be smoothly rolled out into a computer based system. Therefore it was imperative that the handover sheet was simple and user-friendly, so that if and when it goes onto a remote system, it is not too time consuming or complex to use.

Limitations are, as mentioned earlier, that completing the new handover sheets is more time consuming, but most junior doctors agree anecdotally that weekend working is made easier through the use of the handover sheets and the extra time required is a small price to pay for improved patient safety.

An added problem identified with the results of this audit is that there is still a downfall on handover of escalation of care planning. This may be because junior doctors do not make these decisions and there is some current controversy nationwide regarding resuscitation orders and end of life care. However, this has highlighted that there needs to be more education to both junior and senior clinicians alike, regarding care planning to prevent on-call doctors having to make important decisions under pressure.

## Conclusion

The implementation of the handover sheets, into a previously unstructured and unsafe system, not only improved patient safety by preventing misidentification and giving on-call doctors more relevant patient background to help plan their weekend's work, but also highlighted gaps in care escalation planning. The number of patients handed over that had the minimum 3 identifiers expected, rose from 57 to 80%, making it much easier to identify the correct patient. Although no direct outcome measurements of patient safety were made at this time, it is reasonable to predict that more detailed information handed over, would result in better patient care at the weekends.

I would recommend that plans are made to roll this out across the surgical wards in the hospital, where there is even greater changeover of staff and more handovers take place.

Further audits could target escalation planning specifically, the benefits of further re-education to junior doctors and specific indicators of patient safety such as IR1 forms, deaths or serious untoward incidents.

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## Declaration of interests

Nothing to declare.

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