

Improving medical SHO weekend handover at a tertiary referral centre

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Abstract

The GMC states that, 'You must be satisfied that, when you are off duty, suitable arrangements have been made for your patients' medical care...including effective hand-over procedures' [1].

The medical weekend handover system at this tertiary referral centre involved multiple pieces of paper with no clear list of tasks, and no way to identify critically unwell patients. Patients could be missed from the ward round or could be difficult to identify under pressure. The authors felt this process could pose a threat to patient safety so decided to improve it.

A questionnaire was distributed to all 11 medical SHOs with 100% response rate. Results showed that 72% thought the process was unstructured, 81% did not think the process was always safe, and 100% thought it could be improved. After discussions with senior medical management and with the approval of the trust audit committee, a new weekend handover proforma was designed, taking into consideration the results and comments from the questionnaire.

The new proforma is accessible through a shared drive, which can be accessed by all medical SHOs in the hospital. Each team is able to copy their patients onto the combined ward-based list. There are columns for specific weekend jobs and registrar/SHO reviews. Any potentially unwell patients are highlighted in bold and discussed with the on-call SHO on Friday.

All medical SHOs were given a post-implementation questionnaire after the new handover process had been in place for two months. Results of this showed that 100% of SHOs felt an improvement had been made, with 100% stating that the new system was more structured (64% always, 36% most of the time). The SHO's perception of patient safety increased from 81% generally unsafe, to 100% generally safe. The new handover has been well received and supported by the current SHO cohort. Improvements in the structure of handover have been made with perceived improvements in patient safety. Due to the success of the system, the handover proforma is being implemented in the trust's sister hospital.

Problem

Effective handover is becoming an increasingly important aspect of hospital medicine with the introduction of shift-based rotas and the European working time directive (E.W.T.D) (2). Despite this, there is as yet no clear evidence regarding the most effective handover system. (3) It is an area that, when done badly, increases the likelihood of errors occurring, which may result in patient harm. (4) Robust systems must be in place to ensure successful handover is possible so that the teams taking over patient care are aware of potential problems and the jobs that are required. (5)

The original weekend handover between medical SHOs at this tertiary referral centre was very informal, with no structured system in place to facilitate the process. Handover involved the eight subspecialty teams putting their patient lists into a folder, which the on-call SHO collected at the beginning of their weekend shift. Ward rounds, therefore, involved having to browse through many different sheets of paper.

Having experienced weekends on-call, the authors felt the handover system was chaotic and prone to error. This was supported with anecdotal evidence from the other medical SHOs, prompting further analysis of the system. Patient lists were ordered by sub-speciality team, rather than ward, and each list was

formatted differently with different information included on it. Despite no known serious untoward incident occurring as a result of the handover system, the SHOs raised concerns that the chances of jobs being missed was high, and that it was difficult to find the correct patient under time pressures. These problems potentially increase the likelihood of errors occurring that could impact on patient safety.

Background

A definition of a clinical handover, developed by the UK-based National Patient Safety Agency (NPSA) (6), has been used across the world: 'The transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or a permanent basis.' In the UK, the GMC says, 'You must be satisfied that, when you are off duty, suitable arrangements have been made for your patients' medical care. These arrangements should include effective hand-over procedures, involving clear communication with healthcare colleagues.' (1)

Baseline Measurement

In order to confirm the authors' beliefs in the dangers of the original

handover system, a questionnaire was given to each of the 11 current medical SHOs to survey their views and their experiences of working a weekend rotation. The qualities of the current systems were assessed and suggestions for improvement were requested. The same group of SHOs were then questioned with a modified questionnaire after implementing the changes to assess whether they subjectively felt there has been an improvement in the handover system. The response rate on each occasion was 100%.

Both pre- and post-implementation questionnaires used yes/no, Likert scales, and free text questions, to assess the opinions of the SHOs and can be seen attached to this report. The results of the baseline questionnaire affirmed the authors opinions that the current handover system was inadequate. 100% of the medical SHOs felt that the system could be improved, with 72% stating that it was disorganised. 55% did not feel they could ever find patients' details in a hurry and only 36% felt that they had a clear idea of the jobs required of them during the weekend on-call. Equally, only 9% felt they were able to easily identify sick or unstable patients.

See supplementary file: ds1884.doc - "Initial Questionnaire"

Design

The planned intervention involved a single handover proforma designed by the authors that is available centrally on a shared drive. Each team is able to copy and paste their patient details onto this single list so that the weekend SHO has one patient list that is organised by ward, rather than team, and contains all the relevant information for handover.

Having this unified handover proforma also allows the information to be provided to the on-call SHO in a standardised way. Columns are provided to specify if an SHO or registrar review is required, whether the patient is a clinical or medical oncology patient and which consultant is in charge of their care. This allows the on-call SHO to have easy access to the information needed to direct and respond to inquiries about inpatients over the weekend.

As the original system required the SHOs to update their own lists and create a job list for the weekend before printing a copy for the weekend handover folder, this new system should not add to their workload on a Friday afternoon. The new proforma should, however, significantly reduce the workload of the on-call SHO, who would no longer need to organise the individual lists before starting the weekend ward round. It would also reduce printing costs as the unified list would require fewer pages.

The medical department in this hospital is relatively small with only 11 medical SHOs. It was possible, therefore, to verbally inform all of the staff members of the intervention when it was implemented, as well as communicating via email. The proposal was discussed with senior medical management and also approved by the local audit committee.

The new intervention should be sustainable as it provides a solution for an ongoing and relevant issue. Weekend medical SHO shifts can be incredibly busy and so any intervention to reduce the paper

work load is unlikely to be opposed by the SHO team. Although SHO turnover in these posts is high, the SHO pattern of rotation is variable with four and six month posts. There are also four regular trust grade SHOs who are permanently employed and are able to facilitate the changeover period, allowing continuity of the handover system to be maintained. The support from the senior management will also encourage a change in the culture of handover in this institution.

Strategy

The proforma was implemented following approval from the trust audit committee. Minor alterations to the formatting of the proforma were suggested to improve its ease of use. These suggested changes were subsequently incorporated into the proforma with good effect.

Results

Following approval of the intervention by the audit committee, the new proforma was rolled out and trialled for four weekends before the SHO group were re-questioned about the new handover process.

The results of the questionnaire demonstrated that the proforma was a successful intervention with 100% of the SHOs stating that the handover system had been improved. 100% felt that the new system was more structured.

The perception of safety during an on-call shift also increased with the new handover proforma. Using a scale of 1 (poor safety) to 6 (excellent safety) the majority of SHOs thought the process was unsafe pre-implementation (81% scoring between 1 to 3). Using the same scale, 100% of SHOs scored either 5 or 6 in the post-implementation questionnaire, demonstrating an increased perception in patient safety.

During a verbal feedback session, the medical SHOs informed the authors that the proforma allowed jobs to be prioritised easily and patients were less likely to be missed. Similar discussions were had with the registrars, who also found the proforma to be useful as it presented the patients in a logical fashion and often also had their jobs listed on it.

See supplementary file: ds1885.doc - "Re-questionnaire"

Lessons and Limitations

The major lesson learnt during the implementation of this handover process was the importance of involving all the relevant stakeholders when making a change, in this case, the medical SHOs. By utilising the experienced audit committee and senior medical management, potential problems were highlighted early on and solutions created before implementation.

For a change in handover to be successful, all of the SHOs would have to accept its use as if one team did not put their patients on

the list then the handover would be as unsafe as the old system. The authors, therefore, involved all of the medical SHOs in the process of developing the proforma and made minor adjustments to it as suggested.

The limitations associated with this project were mainly associated with having a small sample number to question (ie only 11 medical SHOs) and the fact that it is so specific to the trust in which it was designed. Both of these factors meant that the proforma could be easily customised to the requirements of the hospital and those who work in it but it does limit its wider use. A similar model could be used in a different circumstance or hospital but should ideally be adapted for its specific use.

A further limitation revealed by the post-implementation questionnaire is that the SHO workload on a Friday is increased in the new system compared to the original one, with only 27% saying that it never increased their workload. Although this is a drawback to the system, it did not prevent the proformas utilisation as the SHOs were aware of its positive impact on weekend workload.

Having initially implemented this new system, the trust planned to roll it out across other hospitals within the same trust. The IT team are currently investigating the possibility of integrating it with the current electronic patient manager system. This would overcome the main concern from SHOs that only one person is able to access the list at any one time and would also potentially reduce the time spent entering the data.

Conclusion

The problem identified was that the SHO weekend handover system originally in place when the authors commenced their rotation at this tertiary referral centre was unstructured and could potentially pose a threat to patient safety. By implementing a new weekend handover proforma, the structure of the system and the SHOs perceptions of patient safety increased dramatically (from 81% generally unsafe to 100% generally safe).

Whilst the results of our repeated SHO questionnaire are encouraging, the authors are aware of this project's limitations; that of a small sample size and its specificity to the trust for which the handover system was designed. The main issues highlighted and the solutions to the original problem however, could be translated to other trusts to improve handover systems.

Another very relevant issue not specifically measured or considered within this study, is the actual impact on patient safety. All medical SHOs completed a pre- and post-implementation questionnaire with the perceived impact of the handover system on patient safety but no formal measure into this was made.

References

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Declaration of interests

Nothing to declare

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