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A quality improvement project using a problem based post take ward round proforma based on the SOAP acronym to improve documentation in acute surgical receiving

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HIGHLIGHTS

- Proformas improved documentation.
- Clarify management plans.
- Improve patient safety.

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ABSTRACT

Objectives: Ward round documentation provides one of the most important means of communication between healthcare professionals. We aimed to establish if the use of a problem based standardised proforma can improve documentation in acute surgical receiving.

Methods: Gold standards were established using the RCSE record keeping guidelines. We audited documentation for seven days using the following headings: patient name/identification number, subjective findings, objective findings, clinical impression/diagnosis, plan, diet status, discharge decision, discharge planning, signature, and grade.

After the initial audit cycle, a ward round proforma was introduced using the above headings and re-audited over a seven day period.

Results: The pre-intervention arm contained 50 patients and the post intervention arm contained 47. The following headings showed an improvement in documentation compliance to 100%: patient name/identification number vs 96%, subjective findings vs 84%, objective findings vs 48%, plan vs 98%, signature vs 96%, and grade vs 62%. Documentation of the clinical impression/diagnosis improved to 98% vs 30%, diet status rose to 83% vs 16%, discharge decision to 66% vs 16%, and discharge planning to 40% vs 20%.

Conclusions: Standardised proformas improve the documentation of post-take ward round notes. This helps to clarify the onward management plan for all aspects of a patient's care and will help avoid adverse events and litigation. This should improve the quality and safety of Patient Care.

1. Introduction

Ward round documentation provides one of the most important means of communication between healthcare professionals. In many cases contemporaneous documentation of what has occurred during a ward round is left up to the most junior member of staff. When this is coupled to the fast pace of surgical ward rounds there is potential for vital information to be missed [1]. The General Medical Council and the Royal College of Surgeons of England identify that accuracy of ward round documentation has been essential for preventing patients coming to harm [2,3].

There has been a significant amount of strong research assessing the effectiveness of using post take proformas to ensure the accuracy and completeness of documentation in the setting of acute medical receiving, orthopaedics and most recently surgical receiving in New Zealand and London [1,4–6]. However to our knowledge nothing has been conducted in the literature to ascertain the effectiveness of using a problem based proforma in an

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acute general surgical receiving setting. A study carried out in Plymouth in 2004 in a medical setting produced very strong results with significant improvements in documentation being recorded [6]. It has generally been accepted that certain aspects of ward round documentation are essential including the name of the person conducting the ward round, the time and date of the round and finally the impression/diagnosis and plan. These are universally accepted requirements but they can sometimes be missed out due to time constraints and inexperience on the part of the people making the notes [5]. The SOAP acronym has long been used to help ensure contemporaneous notes in an unofficial way but this study combines this with the known effectiveness of proformas to ensure adequate documentation. The SOAP acronym stands for the following: *S* - subjective data obtained from the patient and others close to him; *O* - objective data obtained by observation, physical examination, diagnostic studies, etc.; *A* - assessment of the patient's status through analysis of the problem, possible interaction of the problems, and changes in the status of the problems; *P* - the plan for patient care [7,8].

The SOAP acronym is commonly used in order to ensure adequate documentation within a problem based ward round system where a business ward round is conducted; usually after the initial process of patient admission. This focuses on the diagnostic, clinical, and in many cases social problems surrounding the patient care and plans are made to deal with each of these in turn. The use of the SOAP acronym is commonly taught within medical schools in Scotland to ensure accurate and contemporaneous documentation. As a result, it made sense to use these headings in a standardised proforma system. We aimed to assess if this can be effective in improving documentation.

2. Methods

Gold standards for documentation were identified using the levels agreed by the Royal College of Surgeons and the Royal College of Physicians of England [9,10] and the General Medical Council [11]. We then agreed on the headings for assessment of the quality of the assessment of the ward round notes. We then carried out a prospective review of ward round documentation over the course of a week long period in order to identified any areas where the ward round documentation was lacking.

We then disseminated information about the introduction of the ward round proforma to all the junior and middle grade staff via email which was followed up by an oral presentation about the study at both registrar and foundation doctor teaching. A roll call of names was taken at each session and any members of staff who were not present were contacted directly by the main researcher to ensure full dissemination of information. The consultants and audit authorities within our hospital were already aware and supportive of our intervention.

We then introduced the ward round proforma a month after our initial prospective review which can be seen below and recorded its effectiveness over a week long period. Each patient taken in had a form placed in their admission documentation and the proforma

<table>
<tr><td colspan="2">WARD ROUND SUMMARY</td><td colspan="2">Date Time:</td></tr>
<tr><td colspan="2">(attach patient label or complete fully)
Patients full name

Chi……</td><td colspan="2">Consultant / Fellow / Registrar(circle)
Plan:

Diet
NBM /CF /FF / Full (circle)

IVF: Yes/No (circle)

Imaging: Yes/No
Type:

Other Aspects:</td></tr>
<tr><td colspan="2">Subjective:</td><td colspan="2"></td></tr>
<tr><td>Objective/Examination Findings</td><td>Obs:

Bloods:</td><td colspan="2">Discharge

Yes

No

Follow up instructions:
GP care
OP clinic:……wks
Other (specify)</td></tr>
<tr><td colspan="2">Impression/Diagnosis:</td><td colspan="2">Signed:

Designation:

Bleep:</td></tr>
</table>

Fig. 1. Proforma used in assessing ward round.

was used for each post take ward round. The effectiveness of the proforma was recorded within a Microsoft Excel (2003) file and statistical analysis using Chi Squared tests were carried out using SPSS (2003) software Fig. 1.

3. Results

There were 50 patients in the pre-intervention arm and 47 in the post intervention cohort (Table 1). In the post intervention readings, the recording of the patients name/identification number rose from a figure of 96%–100% (Table 1). Similar results were seen for the recording of subjective findings, which rose from 84% to 100% (Table 1). Recording of objective findings showed the second largest improvement rising from 48% to 100% after the introduction of the proforma (Table 1). Finally both the recording of the management plan, and signature of the ward round note, and recording of the scribes grade rose from 98%, 96% and 62% respectively to 100% (Table 1).

Documentation of the clinical impression/diagnosis improved to 98% from an initial reading of 30% (Table 1). Recording of a patients diet status rose to 83% from 16% (Table 1). Recording of the decision to discharge rose from an initial level of 16%–66% (Table 1). Associated discharge planning recording rose from 20% to 40% (Table 1).

4. Discussion

This study was the first to our knowledge to use a standardised proforma to assess the completeness of the documentation in a surgical department in a district general hospital in the United Kingdom. Due to the fact that the study had approximately 50 patients in each arm in both study periods, involving multiple different surgical teams, we believe this study reasonably reflects the normal practice for documentation of surgical patients in our hospital and Greater Glasgow and Clyde. The effectiveness of ward round proformas has been reported in the past but and has been shown to improve patient care by increasing the accuracy and completeness of written communication between healthcare professionals [5]. The importance of full and contemporaneous documentation is particularly apt in general surgical receiving due to the fast pace and the pressures of time of surgical ward rounds [1]. Often documentation is left up to the most junior member of the team who may be less likely to ask clarifying questions on consultant led ward rounds [1]. In the busy highly charged atmosphere of surgical ward rounds proformas can be invaluable. They can act as an aide-mémoire for the member of staff carrying out the documentation thus reducing the potential for important information to be missed [5].

Our study found that virtually all the agreed headings of our post take ward round proforma had been filled in to 100%. These strong results have a number of implications for future patient care.

Table 1
Comparative table comparing results at pre and post intervention stages with Chi Squared p values assessing statistical significance.

	Pre %	Post %	P value
Patient name/Chi sticker	96	100	0.20
Subjective	84	100	<0.01
Objective/examination	48	100	<0.01
Impression/diagnosis	30	98	<0.01
Plan	98	100	0.80
Diet	16	83	<0.01
Discharge	14	66	<0.01
Discharge planning	20	40	<0.01
Signature	96	100	0.20
Grade	62	100	<0.01

The first and in many ways the most important implication is the quality and safety of patient care. Although this study did not look at the outcomes of patient care specifically these were observed throughout the project and incomplete documentation is an important potential factor for unfavourable outcomes and potential harm [6].

One of the main driving forces behind instigating this quality review project was that there was a significant delay in patient discharge and transfer due to unidentified social issues. There were also five documented occasions where important clinical information was missed due to inadequate documentation in the months prior to this study. No patient came to any harm but these near misses suggested the need for a proforma to improve documentation. During the project there was a noticeable increase in the speed of referral to social services within our hospital. This did not lead to a shortening of in patient stays but it did lead to an earlier identification of the need for rehabilitation beds however, no specific figures were collected about this. Importantly the proforma removed any further near misses throughout its course and for a six month period after its introduction.

While the results of this study were strong a note of caution should be raised as there were some problems with the study. It was unblinded and as a result could be subject to the Hawthorne Effect and observational bias. The Hawthorn effect is a well documented research phenomenon when individuals alter their behaviour usually improving compliance simply by being aware that they are being observed. The improvement cycle was not repeated a third time due to the hospital closing its doors and being absorbed into a larger institution. But there is evidence of maintained standards from a recent study carried out in an orthopaedic setting where average compliance with proforma headings remained at 96% after the last audit cycle [5]. This was a very similar study to this one and as such it would suggest that the gains achieved with this study could be maintained [5].

The proforma was also large and required a full sheet within the patient's notes. Staff satisfaction with the proforma was high with 94% of junior staff, 85% of middle grade staff and 86% of consultants being in favour of keeping it however there were suggestions that a sticker which could be placed in the notes might be a better method of introducing the proforma. In the future, with the advances in information technology, electronic record keeping would likely take over paper-based record keeping. This may solve some of the shortcomings of the quality of record keeping however the use of a standardised electronic proforma could be a way of incorporating the results of our current research into day-to-day practice in the future.

Ethical approval

Ethical approval not needed.

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This is unfunded.

Author contribution

The original idea for the study was conceived by Mr Dolan. Dr Broadbent assisted in data analysis and interpretation. Mr Dolan wrote up the final study report.

Conflicts of interest

None.

Guarantor

Mr Dolan Does.

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