

## Post-acute surgical ward round proforma improves documentation

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### Abstract

In health care, record keeping of doctor-patient encounters is vital for quality patient care and medico-legal reasons. We audited the documentation of post-acute consultant ward round (PACWR) in our department before and six months after an introduction of a proforma (standard form).

The clinical notes of all patients admitted acutely under General Surgery over a period of one week before and one week after the introduction of a proforma were reviewed to note whether time and date, signature, impression and dietary plan were documented after PACWR. The nurses were also surveyed on the day of the PACWR for their certainty regarding the dietary plan of their patients and whether they had to contact the surgical team for clarification.

There were 108 and 103 patients eligible for the first and second study periods respectively. After the introduction of the proforma, there was a statistically significant improvement in the documentation of time and date (37% vs. 72%, p-value <0.01) and impression (40% vs. 61%, p-value <0.01). Improvement in the documentation of the dietary plan reached statistical significance only when the analysis was restricted to the cases where a proforma was filled out (78 out of 103 patients). Introduction of the proforma had no statistically significant impact on the nurses' certainty regarding their patients' dietary plan and the number of times they had to contact the surgical teams.

In conclusion, PACWR proforma improves overall documentation. This will help in avoiding adverse effects on patient care and medico-legal ramifications.

### Problem

In the Department of General Surgery in Christchurch Hospital, a 650-bed tertiary referral centre in New Zealand, there have been some concerns regarding the quality and completeness of the documentation of the post-acute consultant ward round (PACWR).

Such a problem exists for a number of reasons including the fast pace of the surgical ward round and documentation by the junior members of the team who may not previously have been directly involved in the patient's care. Omission of clinical impression can have an obvious detrimental impact on patient care and even simple details like the dietary plan can adversely affect (or at least annoy) patients whom are kept 'nil by mouth' unnecessarily.

### Background

Documentation of doctor-patient encounters serves two main functions. Firstly, it directly affects patient care and secondly, it is a medico-legal record (1). Therefore, the quality and completeness of doctor-patient encounter documentation is of utmost importance.

In large hospitals, where nurses are unable to follow the surgical teams for all their patients, documentation of the encounter becomes very important as it is the only method of communication after the ward rounds. When documentation is incomplete, nurses will often ask or page the house officer. This adds to the demands

of the house officer's job. Good quality documentation may not only decrease the demand from the nurses but also makes referrals and discharges much easier for the staff involved especially out of hours and during weekends.

In surgical ward rounds, complete documentation can be challenging. A large study in the UK involving over 432 surgeon-patient encounters where junior staff document the encounters showed that there are major deficiencies in the documentation especially of the information given to the patients and their management plans (2).

In order to solve this problem, standardisation of medical record keeping has been advocated for several decades. Some hospitals have introduced proformas (standardised forms) to ensure documentation of details like time, patient demographics, diagnosis, management plan, DVT prophylaxis and estimated time to discharge (3-4). This was demonstrated to improve documentation of the latter by the surgical teams and help with data retrieval.

### Baseline measurement

The clinical notes of consecutive admissions to the acute surgical unit at Christchurch Hospital during a whole week (1st-8th May 2012) were retrospectively reviewed on a daily basis to note whether date and time, signature, impression (i.e. working diagnosis) and dietary plan were documented after PACWR. These data points were thought to be key information and ought to be

documented for every patient.

The nurses in charge of caring for those particular patients were also surveyed on the day of the PACWR for 1) whether they were unsure of the patients' dietary plan and 2) whether they had to contact the surgical team with regard to the specific dietary plan. In patients whom were destined for discharge, dietary plan was assumed to be documented because it is unlikely that patients would be sent home with a change in diet.

Patients who were initially admitted under General Surgery but were not reviewed by a consultant surgeon because they were transferred to another specialty or were taken straight to theatre were excluded.

There were 108 out of 113 patients eligible for the audit. Complete record of time and date, signature, impression and dietary plan was successfully noted in only 13% of cases (Table 1).

The response rate for the nurses' survey was 68% (73 out of 108). The nurses were unsure of the dietary plan for 15 out 73 patients and had to contact the team for 9 of them (Table 2).

## Design

A proforma was introduced with the goal of improving documentation (Figure 1). All members of the surgical teams were encouraged to fill out the proforma for the post-acute consultant ward round (PACWR). The surgical wards use paper-based records and so the proforma was printed out on stickers and then attached to the notes once filled out.

## Strategy

A six month period was allowed for the surgical teams and the wards to become accustomed to the new proforma before the post proforma introduction audit was carried out for a whole week in November 2012.

Both study weeks (before and after introduction of the proforma) included 5-6 different consultant surgeons in charge and different rotating registrars and house officers. This ensured that a variety of surgical teams were audited. The study was blinded from the surgical teams to avoid any change in their normal practice.

Chi square test was used to compare the percentages. P-value less than 0.05 was considered statistically significant. The analysis was carried out using SPSS 17.

## Results

There were 116 newly admitted patients in the week six months after the introduction of the proforma. However, only 103 were eligible for the audit (see baseline measurements).

Of the 103 patients included in the post proforma introduction study, the proforma was completed by the surgical teams for 78 patients

(75%). Complete record of time and date, signature, impression and dietary plan was successfully noted in only 13% of cases before introduction of the proforma and this improved to 31% after the proforma (p-value <0.01) [Table 1A]. There was a statistically significant difference in the documentation of date and time and impression, but not signature or dietary plan. However, when the analysis was restricted to the patients who had had a proforma completed, there was a statistically significant difference in documentation of the dietary plan (Table 1B).

The response rate for the nurses' survey was 89% (92 out of 103) after the introduction of the proforma. We found that the proforma made no difference to the nurses' certainty regarding the patients' dietary plan after the PACWR or whether they had to contact the surgical teams (Table 2). This observation persisted even after the analysis was restricted to the cases where a proforma was filled out despite the improved dietary plan documentation (data not shown).

See supplementary file: ds1591.docx

## Lessons and limitations

This study was the first to our knowledge to assess the completeness of the documentation in a surgical department in a tertiary hospital in New Zealand. With more than 100 cases 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.

Although this study was blinded from the surgical teams, there may have been some contamination as a result of nurses discussing the study. However, this would have been minimal because the nurses were not aware that time, signature and impression were also audited. Also, no clear trend of improved documentation of the dietary plans was noted as the audit was conducted.

Complete documentation in the PACWR round is challenging for a number of reasons. Firstly, PACWR are very fast paced and the teams are normally pressured for time. Secondly, the junior members of the team (i.e. students and house officers) who often document on the PACWR may not have clerked in or even seen the patient beforehand. Thirdly, the hierarchy in surgery can be intimidating to the junior members of the teams and thus make them less likely to ask the senior members for any missed information.

Our study found that even six months after the introduction of the proforma, a proforma was filled out in only 75% of the PACWR. Possible explanations for not completing a proforma could be logistical reasons (e.g. the consultant starting the ward round before all the members of the teams present) and personal preference.

The response rate of the nurses' survey was poor in the week before introduction of the proforma but improved in the study week after introduction. It was a challenge ensuring that questionnaires are filled out given that nurses change shifts and patients are transferred from one ward to another depending on the acuity of their condition. It is unlikely that the non-completed surveys have

biased the results because no clear trend or tendency for not responding to the survey was found. However, it may have affected the study results in terms of not reaching statistical significance. In Christchurch Hospital, the charge nurse usually attends the PACWR with the teams. The charge nurse then conveys any important plans to the rest of the nurses. Dietary instructions are also separately communicated via a sign above each patient's bed. This could well be the reason the nurses were often aware of the dietary plan for their patients despite the missing information in the PACRW records.

## Conclusion

This study found that the introduction of a proforma improved record keeping of the PACWR.

This study has a number of implications. The first and foremost implication is the quality and safety of patient care. Although this study did not look at the outcomes of patient care, incomplete documentation is an important potential factor for unfavourable outcomes. The other implication of this study is the medico-legal aspect. The medical protection society lists record keeping as one of the top five medico-legal hazards facing doctors (5). Although junior members usually document decisions in the notes, it is the consultants who will be held responsible in case of any adverse outcome for the patient. This audit provides an objective measure of the how well documented the PACWR is.

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 shortcoming of the quality of record keeping even though electronic records are not without their own problems.

## References

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## Declaration of interests

Nothing to declare.