ASSessment of Quality of Handwritten Discharge Tickets of Breast Cancer Patients: The Gaps Are Wide and Need Remedy

SUNIL KUMAR

ABSTRACT

BACKGROUND: Discharge tickets (DTs) convey important details related to hospitalization period and follow-up instructions. Therefore, quality of DTs may have significant bearing on subsequent patient care. Aims, Setting and Design: Aim of this retrospective study was to assess quality of handwritten DTs of breast cancer patients admitted at this institution. Methods and Material: DTs of 736 breast cancer patients were evaluated on six predetermined quality parameters by verifying entries from their respective case sheets drawn from the medical record department of this institution. These parameters included sections of discharge tickets dealing with central registration (CR) number, tumor stage, in-hospital treatment details, instructions for subsequent treatment and instructions regarding surgical wound care were evaluated for accuracy and clarity. General legibility was also assessed. The audit was done by the author. Results: Almost all DTs were found to be legible and accurate for CR number. In-hospital treatment details were entered accurately in 98%. Tumor stage was correctly indicated in 57.5%. Follow-up and wound-care instructions were written clearly in 76.5% and 53.9% DTs, respectively. Conclusions: Handwritten DTs of breast cancer patients at this institution were satisfactory for three, but deficient for three other important quality parameters. These findings suggest that there is an acute need to review practice of preparing handwritten DTs in order to provide good quality of subsequent care.

KEY WORDS: Discharge ticket, quality, breast carcinoma

INTRODUCTION

All patients are discharged from hospital with a discharge ticket (DT). These DTs are usually structured and contain demographic details, various identification (such as in-patient or central registration, MLC) numbers, clinical details including treatment undertaken, investigations and the results thereof, important in-hospital events with dates, and advise at discharge. DTs serve a number of purposes, of which the most important is to provide the background information for continuity of treatment and investigation following discharge from the hospital. Therefore, quality of DT is likely to affect continuity of care. This is particularly so when it concerns disease as important as carcinoma of the breast because accuracy of baseline information can make enormous difference to the subsequent investigation, treatment and outcome. Furthermore, since DTs are handwritten and unsupervised by the consultants in most of the government-run hospitals its quality is of real concern.

Therefore, it was decided to study the quality of the DT given to patients of breast carcinoma admitted in this hospital. The results of this study are likely to reflect a general prevailing situation with regard to quality of DTs. The net search suggests that this is the first study of its kind in India.

METHODS

At this hospital DTs are written manually. One copy is handed over to the patient and one copy is retained in the case sheet and dispatched to the medical record department (MRD). The MRD of Guru Teg Bahadur Hospital and University College of Medical Science, Delhi provided the case sheets of all patients admitted in the department of surgery of this hospital with diagnosis of carcinoma of breast over the last 10 years (from 1992 to 2002). These case sheets, with a copy of DT attached, served as the source of data for this study. Since it is the exact copy of the DT handed over to the patient at discharge its study for quality is expected to reflect the quality of the DT handed over to the patient. Therefore, in this retrospective study quality of DTs was assessed using the DTs obtained from the MRD.

For the purpose of evaluating the quality of DTs first step taken was to list the sections of DTs that must be filled properly, giving all relevant information, by the doctor who prepares DTs. A large number of parameters have been listed to reflect the quality of the DTs. (1, 2) It was neither possible nor desirable to use all these as such as these are clearly dictated by a number of factors including disease process for which DT is prepared, country and hospital involved (e.g. western countries have different needs and standards), method of preparing DTS (e.g. computer generated DTs are expected to be better in quality, so the parameters used in there can not be used for evaluating the handwritten DTs) and whether the DT is meant to be used by the doctors through patient (as in our country) or through the general practitioner (GP-as in UK). Therefore, it was logical to draw our own quality parameters. For this purpose a consultation was held with faculty members
of the Department of Surgery at this institution and important segments of the DTs to be studied were listed. These included segments of DTs dealing with entries for central registration (CR) number, TNM stage, in-hospital treatment details (surgery: yes or no; type of surgery: simple, modified radical, classical radical mastectomy etc; chemotherapy details: yes or no, regimen, preoperative or postoperative; operative findings; post-treatment in-hospital complications: hematoma or seroma formation, flap necrosis, wound infection, BT reactions, complications of chemotherapy etc), instructions for subsequent treatment (such as referral to other hospital for radiotherapy or chemotherapy, subsequent appointment for visit to this hospital for repeat check-up or investigation) and instructions regarding surgical wound care (dressing change, suture removal, antibiotic, analgesics and anti-inflammatory agents).

Entry of CR number was considered important because it can be used to trace the details of the case if required. Entry of tumor stage and in-hospital treatment details were considered important as these would assist in subsequent treatment plan. Follow-up instructions were considered important as patient compliance can be expected only if these entries are appropriate. Similarly, information regarding care of surgical wound, if patient was operated in the hospital, was considered vital as appropriate wound care was not possible in its absence. Assessment of quality of each DT was done by verifying accuracy of entries of CR No., tumor stage and in-hospital treatment in each DT against the notes in the respective case sheets. Follow up instructions for treatment and wound care in each DT were assessed for clarity of instructions. Finally, general legibility of all DTs was assessed as acceptable or unacceptable. The entire audit was performed by the author over a couple of months. Results were expressed in terms of percentages.

RESULTS

A total of 1079 case sheets of breast cancer patients admitted during the period 1992-2002 were made available by MRD of this institution. Out of these, 343 had to be excluded from the study for non-availability of DTs (37), partially destroyed DTs (61), unconfirmed diagnosis (74), incomplete documentation in case sheets (153) and repeat admissions (75). DTs attached to remaining 736 case sheets were evaluated for their quality by the procedure detailed in the method section.

Legibility of the DTs was acceptable in all DTs except one (i.e. 99.9%). CR No. was written accurately in all DTs (n=736; 100%). Correct tumor stage was written in 423 (57.5%) DTs Table 1. Meaningful details of the in-hospital treatment were entered accurately in 721

<table>
<thead>
<tr>
<th>Tumor stage groupings, based on TNM classification, in patients with correct entries in the DTs (n=423)</th>
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<td>Stage 0</td>
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<td>Stage IV</td>
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DISCUSSION

For quite some time the topic of quality of DTs has been attracting the attention of the researchers, resulting into accumulation of wealth of literature for various measures of quality of DTs. Of these various reflectors of quality three most important ones are timely availability, completeness and accuracy of the DTs.

Timely availability of the DTs has been shown to decrease the risk of rehospitalization.3 But timely availability of the DTs is of main concern in western countries where DTs are sent to the community based general practitioners (GPs) who are part of National Health Services (NHS) and provide continuity of care of the patient after discharge from the hospital.

However, in countries like India the system of entrusting the job of maintaining continuity of care at community level by pre-identified and pre-registered network of community GPs as part of NHS does not exist. Our patients must come back to the mother hospital for follow-up or subsequent treatment, after the discharge. At times, they may be referred to other hospital for advanced treatment. In these situations, and as such in general, the accuracy and completeness of the DTs enable the attending clinician to make sense out of the information provided in the DTs carried by the patient. Therefore, these reflectors of quality of DTs are of genuine concern in countries like ours. Thus, we assessed the quality of our DTs using these parameters. Additionally, since in most part of our country patients are discharged with handwritten DTs, it was thought worthwhile to assess the legibility of these handwritten DTs.

In this study the general legibility of the DTs was of acceptable quality in nearly 100% DTs. This is in agreement with the findings of other authorities on this subject.4 Since a large pool of DTs prepared by successive generations of resident doctors has been analyzed in this study it can be stated that the handwritten DTs do not fail us in preparing DTs of acceptable quality, and we may continue with this practice as preparing DTs by other means (typing or computers) may not be economically viable options for third world countries. There may be situations when a handwritten DT is not legible. In such situations, if the CR No. has been written correctly the case sheet can be taken out for reference. Therefore, the accuracy with which CR No. is inserted becomes quite important. In the current study the accuracy of inserting CR No. was 100%.

DTs being inaccurate and deficient for vital information are a global phenomenon.1,5-8 The present study lends support to this as correct tumor stage was indicated only in 57.5%, follow-up instructions were written only in 76.5% and instructions regarding wound care were written only in 53.9% DTs. However, in countries like India the system of entrusting the job of maintaining continuity of care at community level by pre-identified and pre-registered network of community GPs as part of NHS does not exist. Our patients must come back to the mother hospital for follow-up or subsequent treatment, after the discharge. At times, they may be referred to other hospital for advanced treatment. In these situations, and as such in general, the accuracy and completeness of the DTs enable the attending clinician to make sense out of the information provided in the DTs carried by the patient. Therefore, these reflectors of quality of DTs are of genuine concern in countries like ours. Thus, we assessed the quality of our DTs using these parameters. Additionally, since in most part of our country patients are discharged with handwritten DTs, it was thought worthwhile to assess the legibility of these handwritten DTs.

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important. In a similar study of surgical DTs of rectal cancer patients, follow-up advice was written in only 68% while status of metastasis and residual tumor were not mentioned in 10% and 27% of the DTs, respectively. In yet another study serious concern has been raised owing to lack of follow-up instructions in alarmingly high number (72%) of DTs. In the same study a diagnosis was missing in 13% DTs. Therefore, quality of DTs needs to be monitored closely.

It has been feared that deficiencies in the DTs may have implications for continuity of care and final clinical outcome. However, this aspect is very difficult to prove as final outcome is generally multifactorial. In the current study also, the ill effects of poor quality of DTs could not be established. A carefully planned follow-up study may be needed for the same.

Although not included in the aims of this study, the article shall remain incomplete without discussing the possible reasons behind poor quality DTs. It is felt that one of the prime reasons may be that no uniform master DT format has ever been designed or advocated, unlike the treatment protocols, to adhere to. A particular pattern of DTs keeps on circulating in a given institution. No money or time is ever spent towards designing good quality uniformly accepted DT format. Naturally, what parameters are to be included and what are to be left unrecorded is left to the individuals, whether person or institution. This may be the reason behind DTs being poor and deficient in quality world wide.

There may be some other reasons behind deficient DTs such as excess clinical load, leaving the job to junior most person in the hierarchy because of lack of interest and no challenges involved, poor documentation in the case sheet from where the DT is made and finally, (generally) near-total apathy of the consultants of the cases show in ensuring that the DTs are prepared in such as that the purpose is served with precision and speed. These are some definite reasons behind poor quality of DTs, at least in our institution. It is felt that the results of this study may be applicable to other hospitals where DTs are handwritten by the rotating overburdened resident doctors and unsupervised by the consultants.

To conclude, this study clearly outlines the glaring deficiencies in terms of quality of some of the very important segments of manually prepared DTs that may have definite bearing on continuity of care of breast cancer patients following discharge from the treating hospital. The overworked resident doctors of a teaching hospital with rapid turnover of patients are not in a position to prepare good quality DTs. It is recommended, therefore, that the clinician and manager within each one of our self shall become quality conscious about DTs and invest time and money towards development and adoption of better models for preparing good quality DTs, the importance of which can not be overemphasized.

REFERENCES


ANNOUNCEMENT

CONFERENCE ON
IDIOPATHIC THROMBOCYTOPENIC PURPURA (ITP)

Dr JC Patel Medical Research Foundation and Smt S C Mehta Hematology Clinic, BSES MG Hospital, are organizing a CONFERENCE ON ITP on 9,10, October, 2004 in Mumbai. Topics to be covered in the conference are- Pathogenesis of thrombocytopenia, ITP in children, ITP in adults, Problems in ITP, Clinical diagnosis of ITP, Laboratory diagnosis of ITP, Special investigations in ITP, Differential diagnosis of ITP, Problem solving in ITP, Objectives of treatment in ITP, Treatment of acute ITP, Treatment of chronic ITP, Treatment of refractory ITP, Role of IV Ig in treatment of ITP, Family physician and ITP, Problems of ITP in Obstetric-Gynec practice, ITP and menstruation, ITP in pregnancy, ITP and surgeon, Splenectomy in ITP, Laparoscopic splenectomy in ITP, Surgery in patients with ITP, ITP and lay people. It is proposed to form ITP Study Group and ITP Support Group during the conference. All clinicians who deal with ITP patients would benefit from the conference.

For further details contact:
Dr. B. C. Mehta
BSES M. G. Hospital, S. V. Road, Andheri (W), Mumbai - 400058, India.
E-mail: labmed@ghrc-bk.org