Original article

Audit on the quality of discharge summary in TU Teaching Hospital

R. B. Pradhananga, R. P. S. Guragain

Department of Otorhino-Laryngology and Head and Neck Surgery, T.U. Teaching Hospital, Kathmandu, Nepal

Correspondence to: Rabindra B. Pradhananga, Department of ENT, Head and Neck Surgery, T.U.Teaching Hospital, Kathmandu, Nepal

e-mail: ent@healthnet.org.np Tel: 4414191.

Background: To find out whether all the criteria of discharge summary outlined in modified Van-Walraven et al. 1999, were met in the discharge summary.

To determine the completeness of the discharge summary form printed by the hospital

Methods: Review of the records of 20 discharge summary form from each seven departments of Tribhuvan University Teaching Hospital (TUTH) between April 2005 and September 2005. The notes were looked for completeness and inclusion of all criteria outlined in modified van Walraven et al 1999 .

Results: According to van Walraven et al Modified Criteria Department of Gynaecology showed the best summaries in which most of the necessary informations were included where as Department of Orthopedics had the least inclusion of criteria. Department of ENT & Head and Neck Surgery tops the list for completeness of the hospital printed discharge form. Department of Orthopedics, again, was found to be at the bottom of the least.

Conclusion: Discharge summary should be filled up completely, clearly and without missing necessary informations. Regular audit should be performed to ensure that the quality of discharge summary is maintained.

Key Words: Discharge summary, van Walraven criteria.

Introduction

The discharge summary is an important medical document containing the details of the patient, his/her complaints, the findings on examination, diagnosis and management including the complications. Its also gives information about the disease status, treatment after discharge and follow up dates.

Discharge summary outlines the patient care, provides informations for additional treatment, documents the information that patients need for further care and provides necessary information to the doctor during follow up. A haphazard summary is of no use.

Aims and objectives of this audit were: to find out whether all the criteria of discharge summary outlined in modified van-Walraven et al. 1999, were met in the discharge summary of various department of Tribhuvan University Teaching Hospital (TUTH) and to determine the completeness of the discharge summary form printed by the hospital from various departments of TUTH.

Material and Methods

This study was carried out in TU Teaching Hospital, Maharajgang, Kathmandu, Nepal. Seven departments (Medicine, Surgery, Gynecology, ENT and HNS, Orthopedics, Ophthalmology & Psychiatry) were included. The discharge summaries (from April, 2005 to Sept. 2005) were selected randomly from record section except for those of Department of psychiatry; which were collected from OPD as they were stored there. These randomly selected 20 discharge summaries from each department were studied by the first author.

The notes were looked for Criteria outlined in modified Van Walraven et al 1999 [3] and completeness of discharge summary. According to Van Walraven eight points must be included in the discharge summary : admission and discharge diagnosis, very brief and relevant history, physical examination and findings, laboratory results, procedure and surgery done, complications in the hospital, discharge medications and active medical problem at discharge. Apart from above points admission and discharge

Table 1: Inclusion of Van Walraven et al modified criteria in the discharge summary

	Diagn-osis	His-tory	finding	Lab result	Surgery proc-dure	compli-cation	Discharge medica-tion	Problem at discharge	Date of admission/ dis-charge	F/up instr-ution
Medicine	20	20	17	18	-	20	20	0	20	20
Surgery	20	20	20	19	20	18	20	0	20	20
Gynecology	20	20	20	20	20	20	20	0	19	20
ENT-HNS	20	20	20	14	20	14	20	0	20	20
Orthopedic	20	20	16	12	20	14	20	0	20	20
Ophthalmo	20	20	20	13	20	20	20	0	20	20
Psychiatry	20	20	17	17	-	14	20	0	20	20

date and follow up instructions should be included in an ideal summaries.

Completeness of discharge summary: The discharge summary paper in TUTH is in printed form in which 35-spaces are to be filled in by surgical departments and 31-spaces are to be filled in by non surgical departments (Medicine / psychiatry). Numbers of spaces filled were converted to percentage and were compared among the various departments.

Files with missing notes, files of those who left against medical advice (LAMA), discharge from maternity and pediatric dept were excluded. Maternity dept had separate discharge form and in the Department of Paediatric none of the summary were completely filled up & only neonatal discharge were available. Therefore they were also excluded.

Results

The admission and discharge dates were mentioned in all the studied summaries except one from Gynaecology Department. Physical Examination Findings were not mentioned in 3 summaries of Medicine, 4 of Orthopedics & 3 of Psychiatry. Diagnosis, Relevant History, Procedure/ Surgery done, Discharge medications and Follow Up were written in all summaries from all the departments. Laboratory Results were not documented in 2 of Medicine, 1 of surgery, 6 of ENT, 8 of Orthopedics, 7 of Ophthalmology and 3 of Psychiatry. Gynaecology department had mentioned lab reports in all summaries. Complication in the hospital was not written in 2 of surgery, 6 each of ENT, Orthopedic and Psychiatry departments. None of the summaries had mentioned Active Medical problem at discharge. (Table 1)

On analyzing the Completeness of Discharge Summary printed by the hospital Department of ENT & Head and Neck Surgery showed highest percentage of completeness. In that department out of 20, 11 were >90% and rest were >80% completely filled in. Poor completeness was found in summaries of Department of Orthopedic. Only 2 of the summaries were >90% completed. None of the summaries were 100% completely filled up. Date of Birth was not written in any of the summaries; Telephone number was written only 1 in Gynaecology, 1 in Psychiatry, 2 in Surgery and 1 in ENT&HNS summary. Signature of doctor lack in 1 in surgery, 1 in Gynaecology discharge. Name of the surgeon was written in all summaries of ENT& HNS, 17 in Orthopedics, 15 in Ophthalmology but not in other departments. Though the time of follow up was written in all the summaries; when, why, where to come, whom to meet were clearly mentioned only on ENT discharges. *(Table 2)*

Table 2: Completeness of the discharge summary form printed by TUTH

Completeness	60-70%	70-80%	80-90%	>90%
Medicine	0	6	13	1
Surgery	1	2	7	10
Gynecology	0	3	10	7
ENT-HNS	0	0	9	11
Orthopedic	3	5	10	5
Ophthalmo	0	3	11	5
Psychiatry	0	0	10	10

Discussion

A good summary provides relevant concise and accurate information and ensures the degree of continuity of care for the patient. DC Adam considered diagnosis, information given to the patient, clinic date, list of medications and investigations are more important in discharge summary.[1] In general the discharge summary in TUTH looked good in all departments but necessary informations are still lacking in few summaries.

According to Van Walraven et al Modified Criteria Department of Gynaecology showed the best summaries in which most of the necessary informations were included whereas Orthopedics had the least informations. From Completeness point of view Department of ENT & HNS was the best; Department of Orthopedics again had the least completeness of the summary. In modern technological era the discharge summary from TUTH looks traditional. Only discharges of Department of ENT & HNS were computer printed whereas all others were hand written.

There is no other similar type of study in which intra-departmental discharge summary quality are compared. Raval and the colleagues studied the adequacy of information written in discharge summary of heart failure patients. In their study 80% of discharge summaries had no specific instructions addressing modifiable risk factors; follow-up instructions were not mentioned in 56% of their discharge summaries.[2] Van-Walraven assessed the completeness of hospital discharge summaries and the efficiency of the discharge summary system in two urban teaching hospitals. Of the 106 discharge summaries reviewed, 99.1% were complete which was better than our result. Information was missing on the admission diagnosis in 34.0% of the summaries, the discharge diagnosis in 25.5%, the discharge medications in 22.8% and significant laboratory tests and results in 42.9% [5]; which is comparable with our results.

Recommendations

1) Regular audit should be performed to ensure that the quality of discharge summary is maintained.
2) Discharge summary should be filled up completely.
3) Modern technology should be used.
4) Few heading should be clearly added in the discharge summary note like:
   - Laboratory results
   - Per-Operative findings
   - Status during hospital stay

We are planning to notify results of this audit to all the departments and also ensure that the above recommendations are implemented. This audit is a part of teaching learning activities of the Department of ENT & Head and Neck Surgery. The rolling audit will be carried out after 6 months.

Conclusion

Discharge summary should be filled up completely, clearly and without missing necessary informations. Regular audit should be performed to ensure that the quality of discharge summary is maintained.

References

1. Adam DC, Bristol JB, Poskitt KR . Surgical discharge summaries: improving the record. Ann R Coll Surg Engl.1993 ; **75:**96-9
2. Raval AN, Marchiori GE, Arnold JM. Improving the continuity of care following discharge of patients hospitalized with heart failure: is the discharge summary adequate? Can J Cardiol.2003;**19:**365-70
3. Van-Walraven C, Rokosh E. What is necessary for high-quality dischargesummaries? Am J Med Qual. 1999;**14:**160-9.
4. Vergnon P, Morgon E, Dargent S, Benyamine D, FavreM, Perrot L, Pradat E , Colin C. Quality assessment of the medical information on the standardized discharge summary. Rev Epidemiol Sante Publique. 1998; **46:**24-33
5. Van-Walraven C, Weinberg AL. Quality assessment of a discharge summary system. CMAJ 1995;**152:** 1437-42.