Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-7, Issue-3 | May-June, 2021
Page no- 187-196 | Section- Research Article (Medicine)

Types of Errors in Discharge Certificate

Toufiq Ahmed[1*], Shirajum Monira[2], Mohammed Kamal Uddin[3], Gulnar Yasmin[4], Md Rasul Amin[5], Farzana Reza[6]

[1]Junior Consultant, Department of Medicine, Sheikh Russel Gastroliver Institute and Hospital, Dhaka, Bangladesh.
*Corresponding author

[2]Junior Consultant, Department of Medicine, Dhaka Medical College Hospital, Dhaka, Bangladesh.

[3]Medical Officer, Department of Gastroenterology, Sir Salimullah Medical College Mitford Hospital, Dhaka, Bangladesh.

[4]EMO, Bangladesh Secretariet Clinic, Dhaka, Bangladesh.

[5]Associate Professor Cardiology, Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh.

[6]Medical officer, National Institute of Traumatology & Orthopaedic Rehabilitaion (NITOR), Dhaka, Bangladesh.

Received: March 2021
Accepted: April 2021

Abstract

Background: Discharge summary is a document containing patient information and is written during inpatient care and issued when or after a subject of care leaves the hospital. Aim of the study: Aim of the study was to find out the type of errors in discharge certificate. **Methods:** This Observational study was conducted in the Department of Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka. Study period was six months after approval of protocol. A total of 100 cases were included as a purposive sampling. Discharge certificate was collected from follow up visit and readmitted patient at medicine and allied department. Questions were asked in Bangla. All documents were preserved confidentially.**Results:**96% name of department written and rest of 04% were not written name of department in discharge certificate. 96% were completely written diagnosis, followed by 04% were incompletely written in discharge certificate. 80% were completely written hospital course of the patients, followed by 18% were incomplete written hospital course and 02% were not written hospital course in discharge certificate. 87% were completely written investigations of the patients, followed by 10% were incomplete written investigations and 03% were not written investigations in discharge certificate. 94% were completely written treatment on discharge of the patients, followed by 06% were incomplete written treatment on discharge in discharge certificate. **Conclusion:** Combinations of minor errors like- name of department, name of units, registration number, Bed number, name of patients, age, sex, incomplete address of patients, date of admission of patients , incomplete diagnosis of patients were found.

Keywords: Discharge, Certificate, Errors, Document, Information.

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-7, Issue-3 | May-June, 2021
Page no- 187-196 | Section- Research Article (Medicine)

INTRODUCTION

Discharge summary is a document containing patient information and is written during inpatient care and issued when or after a subject of care leaves the hospital. Discharge summary is expected to be written by the clinician involved in the care of the patient during admission and completed during or soon after the discharge.[1] It provides concise details such as reasons for admission, diagnosis, investigations etc. and is also helpful as a record of responses to different therapeutic interventions. Discharge summary is an important and useful communication tool. It can be referred to years later to provide a quick summary of an admission. It is useful for healthcare providers to effectively implement the treatment strategies planned during admission. The primary recipients of the discharge summary are health care providers for the subject of care who were providing care prior to the hospital admission and have accepted ongoing responsibility for the ongoing care. They include: the secondary service provider whether the outpatient clinic of the discharging facility, community provider, or municipal/district and the referring clinician where the subject of care usually resides or will newly reside.[1] However, the specific content to be included in a discharge summary will depend upon the nature of the diagnoses, diagnostic tests done, assessments, medications prescribed, and interventions performed and/or planned. Furthermore, a prompt and comprehensive discharge summary from the hospital should ensure effective continuity of care in the community. In a survey of the views of general practitioners on psychiatric discharge summaries top five headings identified in terms of importance were: admission and discharge dates, diagnosis, and medication on discharge, community key worker and date of follow-up.[2] However, discharge summaries often have failed to meet the needs of secondary service provider. Deficits in communication and information transfer between hospital-based and primary care physicians were showed that discharge summaries frequently did not identify the hospital physician (missing from a median of 25%), diagnostic test results (38%), and specific follow-up plans (14%). Legibility was a concern in 10-50% of the discharge summaries. Outpatient physicians estimated that their subsequent management was adversely affected in nearly one fourth of cases due to inadequate communication.[3] In addition in United Kingdom, another study done by Pullen &Yellowlees,[4] on the discharge summaries 10 found that diagnosis, treatment and follow up were given in over 88% of their sample of 60 recent letters. The study demonstrated poor coverage of prognosis, suicide risk and explanation of the condition, all of which were regarded as important items by general practitioners. Since discharge summaries are the tool of communicating information about care given to a patient to secondary service provider the findings of this study have identifying the areas of improvement

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-7, Issue-3 | May-June, 2021
Page no- 187-196 | Section- Research Article (Medicine)

so as the implementation of good clinical care for good clinical outcome.

Objectives

General objective:

- To find out the type of errors in discharge certificate

Specific Objectives:

- To find out the common errors in discharge certificate
- To assess the quality of the discharge certificate written by the doctors.

MATERIALS AND METHODS

This Observational study was conducted in the Department of Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka. Study period was six months after approval of protocol. A total of 100 cases were included for the study according to following inclusion and exclusion criteria. This study sample method was purposive sampling. Discharge certificate of medicine and allied (cardiology, endocrinology, gastroenterology, hepatology, hematology, nephrology, neurology, rheumatology, pulmonology) in Bangabandhu Sheikh Mujib Medical University (BSMMU). Write all the diagnosis elaborately not used established abbreviation. Report written and not done written. Written all the symptoms, physical findings, treatment given during admission elaborately. Write all the name and results of the investigations. Write all drugs name and dose and duration. Discharge certificate were collected from follow up visit and readmitted patients. 10 discharge certificates were collected from each department. After collection, data editing and clearing were done manually and prepared for data entry and analysis by using computer. All the participants were volunteered. Informed written consent was taken from all patients. All documents were preserved confidentially. Questions were asked in Bangla.

Inclusion Criteria

- Discharge certificate from department of medicine faculty in Bangabandhu Sheikh Mujib Medical University (BSMMU).

Exclusion Criteria

- Discharge certificate other than medicine and allied.
- Death certificate

RESULTS

Table 1: Status of the name of unit written in discharge certificate

Name of Unit	Frequency	Percent
Written	95	95.0
Not written	05	05.0
Total	100	100.0

Table 2: Status of the Reg. No written in discharge certificate

Reg. No.	Frequency	Percent
Written	96	96.0
Not written	04	04.0
Total	100	100.0

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-7, Issue-3 | May-June, 2021
Page no- 187-196 | Section- Research Article (Medicine)

Table 3: Status of the discharge certificate by written word/Cabin No.

Word/Cabin No.	Frequency	Percent
Written	100	100
Not written	00	00
Total	100	100.0

Table 4: Status of the discharge certificate by written patient's name

Patients Name	Frequency	Percent
Completely written	93	93.0
Incompletely written	03	03.0
Not written	04	04.0
Total	100	100.0

Table 5: Status of the discharge certificate by written patient's age

Age	Frequency	Percent
Written	88	88.0
Not written	12	12.0
Total	100	100.0

Table 6: Status of the discharge certificate by written patient's sex

Sex	Frequency	Percent
Written	87	87.0
Not written	13	13.0
Total	100	100.0

Table 7: Status of the discharge certificate by written patients address

Address	Frequency	Percent
Completely written	91	91.0
Incompletely written	08	08.0
Not written	01	01.0
Total	100	100.0

Table 8: Status of the discharge certificate by written date of admission

Date of Admission	Frequency	Percent
Written	94	94.0
Not written	06	06.0
Total	100	100.0

Table 9: Status of the discharge certificate by written date of discharge

Date of Discharge	Frequency	Percent
Written	97	97.0
Not written	03	03.0
Total	100	100.0

Table 10: Status of the discharge certificate by written diagnosis

Diagnosis	Frequency	Percent
Completely written	96	96.0
Incompletely written	04	04.0
Not written	00	00
Total	100	100.0

Table 11: Status of the discharge certificate by given signature of unit head or consultant

Signature	Frequency	Percent
Given	72	72.0
Not Given	28	28.0
Total	100	100.0

Table 12: Status of the discharge certificate by given name and signature of residence or medical officer

Signature	Frequency	Percent
Given	98	98.0
Not Given	02	02.0
Resident Seal/name		

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-7, Issue-3 | May-June, 2021
Page no- 187-196 | Section- Research Article (Medicine)

Given	62	62.0
Not Given	38	38.0
Total	100	100.0

Table 13: Status of the discharge certificate by written hospital course

Hospital Course	Frequency	Percent
Completely written	80	80.0
Incompletely written	18	18.0
Not written	02	02.0
Total	100	100.0

Table 14: Status of the discharge certificate by written investigations done in hospital

Investigations	Frequency	Percent
Completely written	87	87.0
Incompletely written	10	10.0
Not written	03	03.0
Total	100	100.0

Table 15: Status of the discharge certificate by written result/reports done in hospital

Result/Report	Frequency	Percent
Completely written	84	84.0
Incompletely written	13	13.0
Not written	03	03.0
Total	100	100.0

Table 16: Status of the discharge certificate by written histopathology reports

Histopathology reposts	Frequency	Percent
Completely written	88	88.0
Incompletely written	09	09.0
Not written	03	03.0
Total	100	100.0

Out of 100 discharge certificate were included for the study at the department of medicine faculty in Bangabandhu Sheikh Mujib Medical University (BSMMU). 96% name of department written and rest of 04% were not written name of department in discharge certificate [Figure 1]. 95% name of unit written and rest of 04% were not written name of unit in discharge certificate [Table 1]. 96% were written Reg. No written and rest of 04% was not written in discharge certificate [Table 2]. [Table 3] shows all had written word/ Cabin No. written in discharge certificate. 95% were written bed No written and rest of 05% were not written in discharge certificate [Figure 2]. 93% were completely written name of patients in discharge certificate, followed by 03% were incomplete written and 04% were not written in discharge certificate [Table 4]. 88% were written age of patients and rest of 12% was not written age of patients in discharge certificate [Table 5]. 87% were written sex of patients and rest of 13% was not written sex of patients in discharge certificate [Table 6]. 91% were completely written address of patients in discharge certificate, followed by 08% were incomplete written and 01% were not written in discharge certificate [Table 7]. 94% were written date of admission of patients and rest of 06% was not written date of admission in discharge certificate [Table 8]. 97% were written

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-7, Issue-3 | May-June, 2021
Page no- 187-196 | Section- Research Article (Medicine)

date of discharge of patients and rest of 03% was not written date of discharge in discharge certificate [Table 9]. 96% were completely written diagnosis of patients, followed by 04% were incompletely written in discharge certificate [Table 10]. 72% were given signature of unit head or consultant and rest of 28% was not given signature of unit head or consultant in discharge certificate [Table 11]. 98% were given signature of residence or medical officer and rest of 02% was not given signature of residence or medical officer, 62% were given resident seal/name residence or medical officer, 38% was not given resident seal/name residence or medical officer in discharge certificate [Table 12]. 80% were completely written hospital course of the patients, followed by 18% were incomplete written hospital course and 02% were not written hospital course in discharge certificate [Table 13]. 87% were completely written investigations of the patients, followed by 10% were incomplete written investigations and 03% were not written investigations in discharge certificate [Table 14]. 84% were completely written result/reports of the patients, followed by 13% were incomplete written result/reports and 03% were not written result/reports in discharge certificate [Table 15]. 88% were completely written histopathology reports of the patients, followed by 09% were incompletely written histopathology reports and 03% were not written histopathology reports in discharge certificate [Table 16]. 66% were written time & date of procedure and rest of 34% was not written time & date of procedure in discharge certificate [Table 17]. 72% were written indication of procedure and rest of 28% was not written indication of procedure in discharge certificate [Table 18]. 66% were completely written findings of procedure of the patients, followed by 30% were incomplete written findings of procedure and 04% were not written findings of procedure in discharge certificate [Table 19]. 94% were completely written treatment on discharge of the patients, followed by 06% were incomplete written treatment on discharge in discharge certificate [Table 20]. 95% were completely written advice on discharge with recommendation of the patients, followed by 05% were incomplete written advice on discharge with recommendation in discharge certificate [Table 21]. 90% were written follow up advice, rest of 10% was not written follow up advice in discharge certificate [Table 22].

Table 17: Status of the discharge certificate by written time & date of procedure

Time & Date	Frequency	Percent
Written	66	66.0
Not written	34	34.0
Total	100	100.0

Table 18: Status of the discharge certificate by written indication of procedure

Indication of procedure	Frequency	Percent
Written	72	72.0
Not written	28	28.0
Total	100	100.0

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-7, Issue-3 | May-June, 2021
Page no- 187-196 | Section- Research Article (Medicine)

Table 19: Status of the discharge certificate by written findings of procedure

Findings of procedure	Frequency	Percent
Completely written	66	66.0
Incompletely written	30	30.0
Not written	04	04.0
Total	100	100.0

Table 20: Status of the discharge certificate by written treatment on discharge

Treatment on discharge	Frequency	Percent
Completely Written	94	94.0
Incompletely Written	6	6.0
Not written	--	--
Total	100	100.0

Table 21: Status of the discharge certificate by written advice on discharge with recommendation

Advice on discharge with Recommendation	Frequency	Percent
Completely Written	95	95.0
Incompletely Written	05	05.0
Not written	--	--
Total	100	100.0

Table 22: Status of the discharge certificate by written follow up advice

Follow up advice	Frequency	Percent
Written	90	90.0
Not Written	10	10.0
Total	100	100.0

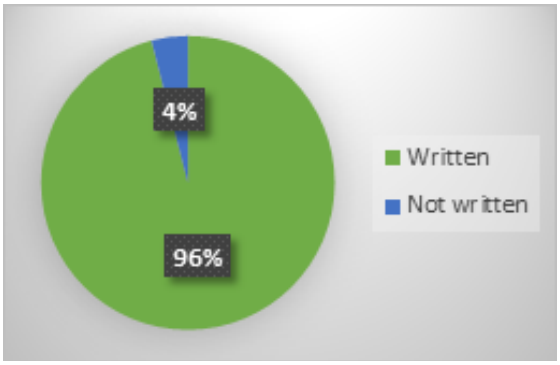

Figure 1: Pie chart shows the name of department written in discharge certificate

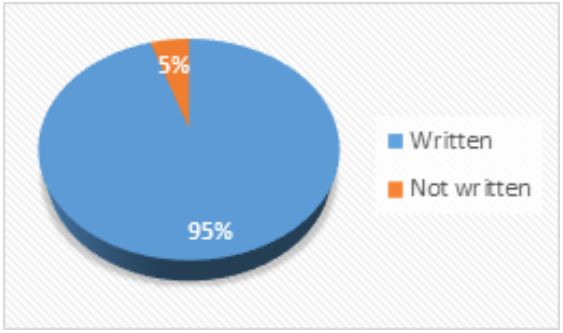

Figure 2: Pie chart shows the discharge certificate by written bed No.

DISCUSSION

In this study it is observed that name of department were written in 96% of discharge certificate and not written in rest of 04%. Name of unit were written in 95% and not written in 05%. Registration Number were written in 96%, and not written in 04% of ddischarge certificate. All had written word/cabin number. Bed numbers were written in 95% and not written in 5% of discharge certificate. A study done in United Kingdom by Kader & Singh5 revealed that despite setting local guidelines for discharge summaries related to local needs, the guidelines were not being fully met. Again the same situation was reported

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-7, Issue-3 | May-June, 2021
Page no- 187-196 | Section- Research Article (Medicine)

by N. Panagiotopoulou et al,[6] The quality of the discharge summary also fell short of expected standards of the addresses was also reported by Wye P et al.[7] In this study it is observed that name of patients were completely written in 93% discharge certificate, 03% were incomplete and in 04% not written at all. Age of patients were written in 88% and not written in 12%. Patient sex were appropriately noted in 87% and not mentioned in 13% of discharge certificate. Halder study observed that in discharge certificate of 80 patients,[8] there were some types of error of which 13.75% certificate had name error. In this study it is observed that address of patients in discharge certificate were completely written 91%, incompletely written in 08% and was not written in 01%. Date of admission of patients were written in 94%, were not written in 06%. Dates of discharge of patients were written in 97% and were not written in 03%. Halder study observed that in discharge certificate 10% had timing error.[8] However both this study and study done by Kader & Singh shows that some of the discharge summaries are written either earlier or later after discharge plans have been made.[5] Unfortunately both studies do not indicate the reasons for the differences in time when writing discharge summaries and this need to be explored by a qualitative study. In this study it is observed that 96% were completely written diagnosis of patients and incomplete written were 04%. 72% were given signature of unit head or consultant and were not given 28%. Signatures of residence or medical officer were given 98 % and were not given 02%. Sixty two percent's had given resident seal/name residence or medical officer in discharge certificate and of 38% was not given. In this study it is observed that completely written hospital course of the patients were found in 80%, and incomplete in 18% and were not written in 02%. Completely written investigations of the patients in discharge certificate were 87%, incompletely written were 10% and were not written 03%. Completely written result/reports were 84%, incompletely written were 13 % and were not written in 03%. Completely written histopathology reports were 88%, incompletely written were 09% and were not written in 03%. Medication errors occurred in a mean of 5.7% of all episodes of drug administration, but with a high variability among the 35 studies retrieved.[9] Median error rate (interquartile range [IQR]) was 7% (2-14%) of medication orders, 52 (8-227) errors per 100 admissions and 24 (6-212) errors per 1000 patient days.[10] A study by Daniel R,[11] on adverse events in hospitals estimates 9.6% or 69 per 1000 person days of hospitalized patients experienced adverse events during their hospital stays. In a study done by Rixt et al,[12] 29% of prescription errors are detected by clinical pharmacist. In this study it is observed that time & date of procedure in discharge certificate were written in 66%, and were not written in 34%. Name of procedure were written in 72% and were not written in 28%. In this study it is observed that completely written findings of procedure were in

Annals of International Medical and Dental Research
E-ISSN: 2395-2822 | P-ISSN: 2395-2814
Vol-7, Issue-3 | May-June, 2021
Page no- 187-196 | Section- Research Article (Medicine)

66%, incomplete written finding of procedure were in 32% and were not written in 04%. Completely written treatment on discharge of the patients were in 94% and incomplete written were in 06%. Completely written advice on discharge with recommendation of the patients were in 95% and incomplete written were in 05%. Halder study8 observed that in regular prescription overall errors in medicine card was14.54 %, drug error in regular prescription were in 7.43% and 11% had error in general advice. In a study by Karen McBride et al,[13] inappropriate time intervals was only 26%. A study done by Moura et al,[14] concludes that medication errors as drug and drug interactions prolong duration of stay at the intensive care unit. In this study follow up advice were written in 90% and were not written in 10% discharge certificate.

Limitations of the study:

This study was conducted in only medicine department, surgery and other department were not included. So, the result of the study may not reflect the exact picture of the whole country.

CONCLUSION

Combinations of minor errors like-name of department, name of units, registration number, bed number, name of patients, age, sex, incomplete address of patients, date of admission of patients , incomplete diagnosis of patients were found. On the other hand common errors found were-abscence of signature of unit head or consultant, abscence of seal/name of unit head or consultant abscence of resident's seal/name of resident or medical officer, incomplete hospital course, investigations, result/reports, histopathology reports, abscence of date & time of procedure, indication of procedure, findings of procedure, recommendations on discharge of the patients, incomplete advice and abscence of follow up advice in discharge certificate. Large scale, multicenter study should be including hospital from multicenter levels.

REFERENCES

1. National E-Health Transition Authority Ltd. Discharge Summary - Acute Care to GP/Specialist. Version 0.7 19/03/2009 Accessed at www.nehta.gov.au on 13th/06/2011
2. Dunn J, Burton S. GPs' views on discharge summaries. Psychiatric Bulletin 1999; 23:355–7.
3. "Information transfer between hospital-"2007; 297:831-841. Accessed at http://www.clinicalcorrelations.org/?p=414 On 14th January 2012
4. Pullen, I. M. & Yellow lees, A. J. Is communication improving between general Practitioners and Psychiatrists? British Medical Journal1985; 290, 31-33.
5. Kader N and Singh G an Audit of Discharge Summaries from Acute German Journal of Psychiatry 2006; 9: 94-96.
6. Panagiotopoulou N., Bitar K., Maiti S. Clinical Audit on Discharge Letters following an acute or elective hospital review. Clinical audit projects. Accessed at http://www.clinicalauditsupport.com/ projects/projects.html
7. Wye P, Bowman J, Wiggers J, Baker A, Carr V, Terry M, Knight J, Clancy R An audit of the prevalence of recorded nicotine dependence treatment in an Australian psychiatric hospital Aust N Z J Public Health. 2010 Jun; 34(3):298-303.

8. Halder S. Prospective observational study on incidence of medication errors in General (medical and surgical wards). Thesis submitted for the fulfillment of the requirement for Degree of master of pharmacy in clinical pharmacy and Pharmacy practice,2010,4-121
9. The Academy of Managed Care Pharmacy's Control in Managed Care website section on medication errors. www.amcp.org/WorkArea/ Download Asset. aspx? id=9300
10. Calabrese AD, Erstad BL, Brandl K, Barletta JF, Kane SL, Sherman DS: Medication administration errors in adult patients in the ICU. Intensive Care Med 2001; 27:1592-1598.
11. Daniel R. Levinson. Adverse events in hospitals: National Incidence among Medicare beneficiaries. DHHS, 2010; OEI-06-09-00090.
12. RixtNynkeEggink, Albert W. Lenderink, Jos W. M. G. Widdershoven, Patricia M. L. A. van den Bemt. The effect of a clinical pharmacist discharge service on medication discrepancies in patients with heart failure. Pharm World Sci 2010; 32:759–766
13. Karen McBride-Henry, MaralynFoureur. Medication administration errors: understanding the issue. AustJAdv Nurses. 2006; 23 (3).
14. Moura C, Prado N, Acurcio F. Potential drug-drug interactions associated with prolonged stays in the intensive care unit: a retrospective cohort study. Clin Drug Investing: 2011; 31(5):309-16.

Source of Support: Nil, Conflict of Interest: None declared