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QUALITY OF DISCHARGE SUMMARY IN VARIOUS DEPARTMENTS OF A TERTIARY CARE HOSPITAL: A ROLL-ON AUDIT

ABSTRACT

Aims and Objectives: Discharge summaries are essential communication tools between hospital-based and community-based healthcare providers. A previous audit at Tribhuvan University Teaching Hospital (TUTH) in 2016 assessed the quality of discharge summaries across departments using the modified Van Walraven criteria. This roll-on audit aims to re-evaluate the quality and completeness of discharge summaries and assess improvements since the last audit. To determine whether discharge summaries across various departments at TUTH in 2023-24 meet the standards outlined by the modified Van Walraven et al. (1999) criteria, and to assess the completeness of documentation.

Methods: This audit was conducted at TU Teaching Hospital, Kathmandu, Nepal, between April 2023 and March 2024. Seven departments were included: Medicine, Surgery, Gynecology, Pediatrics, ENT-HNS, Orthopedics and Psychiatry. A total of 168 discharge summaries (24 from each department) were selected through random sampling. Each summary was evaluated based on the ten-point modified Van Walraven criteria and compared with results from the 2016 audit.

Results: The Department of ENT-HNS demonstrated the highest level of completeness, with 99.5% of discharge summaries fully filled, while the Medicine department had the lowest completion rate at 94.0%. Frequently omitted components across all departments included physical examination findings and laboratory investigation results.

Conclusion: The roll-on audit demonstrates positive trends in discharge summary quality at TUTH. However, variability persists across departments. Regular audits, staff training, and standardized templates are recommended to further improve documentation practices and ensure high-quality patient care transitions.

Keywords: Audit, Discharge Summary, Modified Van Walraven Criteria

INTRODUCTION

A hospital discharge summary is a critical document that serves as a bridge between inpatient and outpatient care. It communicates essential clinical information to primary care providers, specialists, and patients, ensuring continuity of care after hospitalization. Inadequate or incomplete discharge summaries can lead to medical errors, delayed follow-up, unnecessary readmissions, and overall poor patient outcomes.[1]

To standardize the assessment of discharge summaries, the modified Van Walraven criteria comprising ten essential elements such as diagnosis, investigations, hospital course, and follow-up instruction has been widely used in clinical audits.[2] The last audit conducted at Tribhuvan University Teaching Hospital (TUTH) in 2016 revealed variability in the completeness and quality of discharge documentation across different departments.[3]

In the years since, changes such as increasing digitalization, evolving clinical workflows, and heightened awareness of documentation standards may have impacted discharge practices. However, no follow-up evaluation had been conducted to assess whether documentation quality has improved or if previous gaps persist.

This roll-on audit was undertaken in the academic year 2023-24 with the aim of reassessing the quality of discharge summaries at TUTH using the same modified Van Walraven criteria. The audit also aimed to evaluate departmental variations in documentation, identify commonly missed components, and assess the usage of printed versus handwritten formats. The findings are intended to guide quality improvement initiatives and promote standardization in discharge summary practices across all departments.

METHODS

This audit was carried out at Tribhuvan University Teaching Hospital (TUTH), Maharajgunj, Kathmandu, Nepal, during the period of 2023 to 2024. Seven clinical departments

were included in the study: Medicine, Surgery, Gynecology, Pediatrics, ENT-Head and Neck Surgery (ENT-HNS), Orthopedics, and Psychiatry.

Following a methodology consistent with the previous audits conducted in 2006[4], 2009[5] and 2016[3], discharge summaries were systematically selected for evaluation. Specifically, 24 discharge summaries from each department, representing cases from the 1st and 3rd weeks of selected months, were chosen using systematic random sampling.

Discharge summaries of patients who left against medical advice (LAMA) or maternity discharges were excluded from the analysis. The completeness and quality of each discharge summary were assessed using the modified Van Walraven criteria[2], which encompass key components such as admission and discharge diagnoses, relevant history, physical examination findings, laboratory results, procedures or surgeries performed, in-hospital complications, discharge medications, active medical problems at discharge, admission and discharge dates, and follow-up instructions.

The hospital's standard discharge summary form was used, which includes 35 fields for surgical departments and 31 fields for non-surgical departments to be completed. The proportion of completed fields was calculated as a percentage to compare documentation quality across departments. The findings of this audit were then compared with the study by Singhal in 2016[3] to assess improvements or changes in discharge summary quality over time.

RESULTS

Diagnosis was documented 100% of the time across all departments in both audit periods, indicating strong adherence. History was generally well-documented, with most departments maintaining or improving completeness. Notable improvements were observed in the department of Gynecology (from 95.8% to 100%) and Pediatrics (from 87.5% to 91.6%). However, department of Medicine experienced a slight decline (from 95.8% to 91.6%). Physical findings documentation saw mixed changes. Department of ENT-HNS and Psychiatry maintained high completeness (100% and 95.8%, respectively). Department of Medicine showed a significant decline (from 100% to 83.3%). Laboratory **results** documentations were improved in several departments with substantial improvement (from 58.3% to 100%) in the department of Orthopedics whereas department of Psychiatry failed to maintain the previous record (from 100% to 83.3%). Surgical Procedures were only applicable to the departments of Surgery, Gynecology, ENT-HNS, and Orthopedics. All four departments maintained 100% completeness in this domain across both years. Complications continued to be uniformly marked as "NIL" across all departments in both audits. This may reflect under-reporting or inconsistent interpretation of the importance of documenting the presence or absence of complications. Discharge medications were generally well-documented, with a few small declines. Department of Medicine dropped from 100% to 91.6%, and ENT-HNS from 100% to 95.8%, while Pediatrics and Psychiatry maintained 100% recording the discharge medications. Date of Admission/ Discharge (DOA/DOD) was consistently documented across all departments in both years, with 100% completeness. Follow-up instructions showed overall improvement. Department of Surgery improved from 95.5% to 100%, and Gynecology from 91.6% to 100%. All other departments maintained high completeness, with ENT-HNS, Pediatrics, and Orthopedics achieving 100%.

The ENT-HNS department demonstrated the highest average completeness, achieving 99.5%, followed closely by Orthopedics at 98.6%. Pediatrics and Psychiatry departments also showed excellent performance, with average completeness of 96.4% and 96.3%, respectively. Department of Gynecology and Surgery maintained strong documentation standards, averaging 95.8% and 95.3% respectively. Meanwhile, the Medicine department recorded the lowest average completeness at 94.0%, with declines noted in physical findings and discharge medication documentation. Around 47.62% of all discharge summaries were printed and rest were hand written.

Table 1: Comparison of completeness of discharge summary as per modified Van Walvaren criteria with study by Singhal in 2016[3]

Departments	Completeness of discharge summary in Percentage in year 2016/ 2023-2024								
	Diagnosis	History	Physical Findings	Lab Results	Surgery Procedure	Complications	Discharge Medication	DOA/ DOD	Follow up Instruction
Medicine	100/100	95.8/91.6	100/83.3	100/91.6	NA/NA	NIL/NIL	100/91.6	100/100	100/100
Surgery	100/100	100/91.6	87.5/87.5	87.5/91.6	100/100	NIL/NIL	100/91.6	100/100	95.5/100
Pediatrics	100/100	87.5/91.6	95.8/91.6	95.8/91.6	NA/NA	NIL/NIL	100/100	100/100	100/100
Gynecology	100/100	95.8/100	95.8/95.8	91.6/83.3	100/100	NIL/NIL	100/95.8	100/100	91.6/100
ENT-HNS	100/100	100/100	100/100	95.8/100	100/100	NIL/NIL	100/95.8	100/100	100/100
Orthopedics	100/100	91.6/91.6	91.6/95.8	58.3/100	100/100	NIL/NIL	100/100	100/100	87.5/100
Psychiatry	100/100	100/100	100/95.8	100/83.3	NA/NA	NIL/NIL	100/100	100/100	91.6/100

DISCUSSION

A discharge summary is a critical clinical document that outlines a patient's hospital course, diagnoses, treatments, investigations, complications, discharge medications, and follow-up plans. The Van Walraven et al.[2] framework is one of the most widely recognized tools for assessing discharge summary quality and includes key parameters. A discharge summary that omits any of these elements risks compromising patient safety, continuity of care, and clinical communication.

In an audit on the quality of discharge summary in TU Teaching Hospital by Pradhananga et al.[4] in 2005, department of ENT HNS showed the best summaries in which most of the necessary information were included whereas Orthopedics had the least information. In the current audit, overall completeness showed improvement or maintenance of high standards in most departments compared to the audit by Singhal[3] in 2016. However, some areas showed a decline in documentation quality. One of the most consistent gaps across both audits was the lack of documentation of complications, with all departments marking this field as "NIL" in both 2016 and 2023-2024 audit.[3] This mirrors findings in the original Van Walraven et al.[2] study, which found complications to be one of the most frequently omitted items. The absence of complications in documentation may not accurately represent patient outcomes and could indicate either under-recognition, under-reporting, or poor understanding of what qualifies as a reportable complication. Other studies have similarly identified this as a weak point, including a multi-center audit by Hwang et al.[6] in Canada, where complications were omitted in 45% of summaries.

A study conducted in the UK by Kripalani et al.[1] reported high inclusion rates for diagnosis and medications similar to our data, but significantly lower rates for pending results and follow-up plans. In contrast, this audit shows much higher completeness for follow-up instructions (≥91.6% in all departments), suggesting institutional

prioritization of post-discharge care planning.

The use of structured discharge templates and growing awareness of the medicolegal and clinical importance of comprehensive discharge summaries may account for the improvements observed in the current audit cycle.

Future audits should be carried out at regular intervals to monitor trends in documentation practices. This will help identify sustained improvements, emerging gaps, and the effectiveness of implemented interventions. Use of a standardized electronic discharge summary template, incorporating mandatory fields based on Van Walraven should be promoted. This will reduce omissions and ensure uniform documentation across departments. Tailored recommendations should be provided to departments showing decline or inconsistencies. Future audits could incorporate feedback from patients regarding the clarity and usefulness of discharge summaries.

CONCLUSION

The use of modified Van Walraven criteria enabled a structured assessment of key discharge elements, revealing excellent performance in parameters such as diagnosis, discharge medications, and follow-up instructions. However, variability was observed among departments, and particularly documentation of complication remained consistently under-reported. These findings underscore the importance of regular audits, standardized documentation protocols, and targeted quality improvement strategies. Continued efforts to optimize discharge summary completeness are essential to support patient safety, enhance continuity of care, and uphold institutional accountability.

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