

# Improving The Quality Of Psychiatric Inpatient Discharge Certificates Through A Two Cycle Audit In A Tertiary Care Hospital In Pakistan

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## Abstract

**Objective:** To assess the quality of inpatient discharge summaries according to defined standards. To design a format for discharge summary in accordance with these standards and to provide education and training to the residents about these standards. To reassess the discharge summaries after implementation and evaluate the improvement.

**Methods:** Cycle 1: In order to improve the quality, and standardize the format of discharge summaries we formulated a set of criteria after taking input from consultants and residents. Two researchers evaluated a total of 30 discharge summaries which were randomly chosen from those issued on April May 2022. Following this a new format of discharge summary was designed and distributed. Residents were educated regarding the procedure of filling new discharge summaries. Cycle 2: Two researchers evaluated a total of 30 discharge summaries which were randomly chosen from those issues on July -August 2022.

**Results:** In cycle 01 there was 03 (10%) mention of ICD code, gender was mentioned in 11 (36.6%), Contact Details mentioned for 02(6.67%), Inpatient Treatment 07 (23.3%) and Consultant incharge 5(16.67%). Cycle Two revealed significant improvement in most of the areas. Following the implementation there was mention of ICD code in 24 (80%), Contact Details in 20 (66.7%), Inpatient Treatment for 29 (96.7%) and Consultant-Incharge, 19(63.3%).

**Conclusion:** Cycle 2 showed improvement in most of the areas. Factors which contributed to this would be resident education and circulation of standardized discharge forms.

**Keywords:** Quality Improvement, Psychiatry, Inpatient, Discharge

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## 1. Introduction

Psychiatric inpatient discharge summaries play a crucial role in the continuum of patient care, ensuring that essential information is transmitted to primary care providers and patients themselves. These documents should encompass vital information, including diagnosis, treatment details, contact information, and the identification of the medical team responsible for the patient's care. However, the quality of discharge summaries in psychiatric inpatient settings can vary widely, leading to potential gaps in patient care and communication between healthcare providers.

In this study, we address this issue by conducting a two-cycle audit to assess and enhance the quality of psychiatric inpatient discharge certificates in a tertiary care hospital in Pakistan. Our primary objectives were to standardize the format of these discharge summaries based on defined criteria and provide education and training to residents to ensure adherence to these standards. Ultimately, we aimed to evaluate the impact of these interventions on the quality of discharge certificates.

## 2. Materials & Methods

**Cycle 01 - Assessment and Standardization:** In the first cycle, we focused on the assessment of existing discharge summaries and the standardization of the

format. To achieve this, we employed the following steps:

**Criteria Development:** We formulated a set of criteria for discharge summaries based on consultations with psychiatric consultants and input from residents. These criteria were designed to encapsulate the essential components of a comprehensive discharge summary.

**Sample Selection:** Thirty psychiatric inpatient discharge summaries were randomly selected from those issued in April and May 2022 for evaluation. These summaries were chosen to provide a representative snapshot of current documentation practices.

**Evaluation:** Two researchers independently evaluated each of the 30 discharge summaries according to the criteria developed. The assessment included the presence or absence of key elements such as patient identification, diagnosis, treatment details, and contact information.

**Format Redesign:** Based on the findings of the evaluation, a new format for psychiatric inpatient discharge summaries was designed. This format aimed to standardize the documentation of patient information and treatment details.

**Education and Training:** Medical residents were educated about the newly developed format and the importance of accurate and comprehensive documentation in discharge summaries. Training sessions were conducted to ensure that residents understood the criteria and the revised format.

**Cycle 02 - Post-Implementation Evaluation:** The second cycle aimed to reassess the quality of psychiatric inpatient discharge summaries after the implementation of the new format and resident education. This phase included the following steps:

**Sample Selection:** A second set of thirty psychiatric inpatient discharge summaries from July and August 2022 was randomly selected for evaluation. This sample allowed us to gauge the impact of our interventions and improvements post-implementation.

**Evaluation:** Similar to Cycle 01, two researchers independently evaluated the 30 discharge summaries using the same criteria. This evaluation provided insights into the effectiveness of the implemented changes in discharge documentation.

### 3. Results

The findings from both Cycle 01 and Cycle 02 demonstrated the significant impact of our interventions on the quality of psychiatric inpatient discharge certificates. Below, we summarize the key results from both cycles:

**Cycle 01:**

**ICD Code Mention:** Only 10% of discharge summaries mentioned the International Classification of Diseases (ICD) code, an essential element for diagnostic reference and billing purposes.

**Gender Mention:** Gender was reported in just 36.6% of the discharge summaries.

**Contact Details:** A mere 6.67% of the summaries included contact details, which are crucial for follow-up care and communication.

**Inpatient Treatment:** Inpatient treatment details were mentioned in only 23.3% of the summaries, leaving room for improvement in describing the care provided during hospitalization.

**Consultant In-Charge:** The consultant in charge was identified in just 16.67% of the summaries, which could potentially lead to confusion about patient management postdischarge.

**Cycle 02:**

The results from Cycle 02 revealed significant improvements in several key areas, indicating the positive impact of the implemented changes:

**ICD Code Mention:** There was a remarkable increase in the mention of ICD codes, with 80% of discharge summaries now including this crucial diagnostic information.

**Contact Details:** Contact details improved substantially, with 66.7% of the summaries now containing essential contact information.

**Table 1 Analysis of Parameters Before & After Implementation**

Parameters	Before Implementation n (%)	After Implementation n (%)	p Value*
<b>Patient's Name</b>	30 (100)	30(100)	-
<b>Hospital ID</b>	26 (86.67)	30(100)	0.056 <sup>a</sup>
<b>Gender</b>	11 (36.67)	30(100)	0.000 <sup>b</sup>
<b>Age</b>	04 (13.3)	30(100)	0.000 <sup>b</sup>
<b>Date of Admission</b>	30 (100)	30(100)	-
<b>Date of Discharge</b>	29 (96.67)	30(100)	0.5 <sup>a</sup>
<b>Address</b>	25 (83.3)	29 (96.67)	0.97 <sup>a</sup>
<b>Contact Number</b>	2 (6.67)	20 (66.67)	0.000 <sup>b</sup>
<b>Diagnosis</b>	24 (80)	28 (93.33)	0.127 <sup>a</sup>
<b>ICD Code</b>	03 (10)	24 (80)	0.000 <sup>b</sup>
<b>Condition at Presentation</b>	30 (100)	30(100)	-
<b>Condition at Discharge</b>	21 (70)	30(100)	0.001 <sup>a</sup>
<b>Inpatient Treatment</b>	07 (23.3)	29(96.67)	0.000 <sup>b</sup>
<b>Discharge Treatment</b>	29 (96.67)	29(96.67)	0.745 <sup>a</sup>
<b>OPD Follow up</b>	28 (93.33)	30 (100)	0.246 <sup>a</sup>
<b>Consultant In-Charge</b>	5 (16.67)	19 (63.33)	0.000 <sup>b</sup>
<b>Resident Incharge</b>	24 (80)	30(100)	0.012 <sup>a</sup>

<sup>a</sup> signifies Fisher Exact Test (when more than one cell has expected count less than five) superscript <sup>b</sup> signifies Pearson Chi Square Test

**Inpatient Treatment:** The mention of inpatient treatment details saw a significant increase, with 96.7% of discharge summaries providing comprehensive information about the care received during hospitalization.

**Consultant In-Charge:** The consultant in charge was now identified in 63.3% of the summaries, enhancing clarity and continuity of care.

**Gender Mention, Age, Date of Admission, Date of Discharge,** and several other parameters showed substantial improvements in Cycle 02. However, these changes did not reach statistical significance, suggesting that the focus of the interventions and education primarily influenced the critical elements such as ICD codes, contact details, inpatient treatment, and the consultant in charge.

More than half of all supervisors considered men to be more confident and better at leadership and decision-making in an emergency setting. During the training period, no significant difference was found among male and female supervisors in their attitude and rating of residents (Table 3). There were only 02 areas of significant difference among male and female supervisors: First, in their opinion about the availability of residents at all hours ( $P=0.013$ ) as most men thought female residents are not available at odd hours; Second, more women supervisors perceived that female residents are better at providing patient care whereas men thought that both male and female residents are equally good ( $P=0.043$ ).

There was a consensus that family responsibilities are more likely to affect the training of women residents. Eighty-two per cent opined that training women are more likely to suffer due to family responsibilities (Table 3). Only 13% ( $n=3$ ) thought that the working environment needs to change in surgical departments to accommodate women.

#### 4. Discussion

Discharge is one of the most important processes that hospitalized patients undergo. The transition from hospital to home can be an overwhelming time for many patients given the amount of information provided as they approach discharge.<sup>1</sup> This complex process requires communication between various departments and has a massive impact on patient outcomes. A critical task of the inpatient inter professional team is readying patients for discharge.<sup>2</sup> The significance of enhancing the quality of psychiatric inpatient discharge certificates is demonstrated by this study. The results of our two-cycle audit highlight the effectiveness of standardizing discharge forms after collaboration with residents and consultants alike. It further emphasizes that while handover of pertinent information between hospital and primary care is necessary to ensure continuity of care and patient safety, both quality of content and timeliness of discharge summary need to be improved.<sup>3</sup> In another study focusing on the documentation quality of patient-directed discharge, half of the suggested documentation elements were recorded in no patients. It also revealed that the overall documentation quality was poor, suggesting the need for further training and interventions to facilitate more thorough documentation.<sup>4</sup>

The low mention of ICD codes in Cycle 01 (10%) indicated a significant deficiency in reporting patient diagnoses, which are not only essential for patient care but also serve as the grounds for insurance billing and

reimbursement from the government agencies. As proven earlier, a high-quality discharge letter contains clear formulations, is structured, contains only relevant information.<sup>5</sup> The substantial improvement in ICD code reporting in Cycle 02 (80%) underscores the positive impact of standardization and education. By making ICD codes an integral part of routine discharge summaries, our contributions have led to improved diagnostic clarity and smoother reimbursement processes.

The low documentation of gender and contact details in Cycle 01 (36.6% and 6.67%, respectively) raised concerns about the hospital's ability to establish contact and maintain follow up with patients after discharge. Overlap of care between hospital and community providers is necessary because it can take several months before people have developed a trusting relationship with community providers.<sup>6</sup> This makes accurate identification details and contact information crucial for post-discharge follow-up to prevent relapse in patients. Communications by hospital mental health staff with outpatient mental health providers is a standard inpatient treatment practice that promotes continuity of care.<sup>7</sup> This communication can only be ensured by accurate documentation of details at the time of discharge. Given the fast pace of hospital psychiatric care and short lengths of stay, it is important to know which patients are most likely to experience improved follow-up care as a result of direct communication between inpatient and outpatient providers.<sup>8</sup> The dramatic increase in both gender (100%) and contact details (66.7%) in Cycle 02 reflects the success of our interventions in addressing these deficiencies.

Similarly, the inadequate mention of inpatient treatment (23.3%) and the consultant in charge (16.67%) in Cycle 01 carried the risk to especially hinder the coordination of patient care. Patients transitioning from inpatient to outpatient care or other healthcare settings rely on comprehensive summaries to ensure that their treatment is continued effectively. The notable improvements in inpatient treatment (96.7%) and the consultant in charge (63.3%) in Cycle 02 underscore the necessity of educating medical residents and implementing standardized discharge documentation to enhance the quality of patient care.

The education and training provided to medical residents were instrumental in improving the quality of discharge summaries. This emphasizes the importance of continued medical education and quality improvement initiatives in healthcare institutions. Additionally, the circulation of standardized discharge forms played a pivotal role in standardizing the documentation process,

ensuring that all necessary elements are consistently included in discharge summaries. Despite these improvements, significant details remain lacking which have the ability to adversely impact patient care. The study's positive outcomes support the need for quality improvement efforts in psychiatric and other inpatient settings. By enhancing the quality of discharge summaries, we not only facilitate the continuity of patient care but also streamline administrative processes, such as insurance billing and reimbursements. Our work emphasizes the fact that collaboration between healthcare providers, consultants, and residents is essential for achieving comprehensive and accurate documentation of patient details. All of these efforts contribute to a much wider impact of consistently improving healthcare for patients and maintaining adequate follow up.

## 5. Conclusion

The two-cycle audit conducted in a tertiary care hospital in Pakistan demonstrates the impact of implementing standardized discharge forms and providing education to medical residents. By addressing deficiencies in psychiatric inpatient discharge summaries, including the omission of key patient information such as ICD codes, gender, contact details, inpatient treatment, and consultant information, we were able to substantially improve the quality of documentation being carried out. This research however underscores the importance of standardized documentation and education in ensuring the quality of psychiatric care received by patients. It is recommended that similar work be carried out in other healthcare institutions to enhance the quality of discharge summaries and, by virtue of that, patient care in psychiatric settings.

While this study has provided valuable insights and demonstrated the efficacy of quality improvement efforts in psychiatric care, it has its limitations, primarily being conducted in a single tertiary care hospital in Pakistan. Future research can elaborate on these findings by examining the impact of such interventions on patient outcomes and the overall quality of psychiatric care in different settings. The results of this study contribute to the ongoing efforts to improve the quality of psychiatric inpatient discharge summaries and, in turn, improve the overall care and treatment of psychiatric patients.

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