

Evaluation of the Implementation of Discharge Planning in Patients with Diabetes Mellitus in Hospitals and Its Improvement Strategies

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INFO ARTICLE	ABSTRACT
Keywords: repatriation planning, diabetes mellitus, SOPs, self-care, preparedness	Discharge planning is an important part of hospital services that aim to ensure the sustainability of patient care after discharge, especially for patients with chronic diseases such as Diabetes Mellitus (DM). However, the implementation of discharge planning at dr. Soekardjo Tasikmalaya Hospital has not been running optimally, characterized by the absence of a standard Standard Operating Procedure (SOP) or SOP that is not applied consistently. This study aims to evaluate the implementation of discharge planning in DM patients, identify the obstacles faced, and formulate evidence-based improvement strategies. This study uses an evaluative descriptive approach with a qualitative method. Data was collected through observation, in-depth interviews with seven informants (health workers and patients), and review of medical record documents. SDSCA and RHDS instruments are used in a limited way to support field findings. The results showed that discharge planning was only carried out at the oral education stage before the patient discharged, without written planning, multidisciplinary team involvement, or evaluation of patient readiness. Patient self-care and readiness scores are relatively low, and most health workers state that they do not have a standard reference in its implementation. The absence of SOPs is the main obstacle that causes the implementation of discharge planning to be unstructured and undocumented. As an improvement strategy, it is recommended to prepare evidence-based SOPs, establish a multidisciplinary discharge planner team, and implement continuous education with post-graduation monitoring. This strategy is expected to improve the quality of discharge planning services and outcomes for DM patients.

1. INTRODUCTION

Diabetes Mellitus (DM) is one of the chronic diseases whose prevalence continues to increase every year, both globally and nationally. Based on data from the International Diabetes Federation (IDF), in 2021 there were around 537 million people in the world suffering from diabetes, and this figure is expected to increase to 643 million by 2030. In Indonesia itself, the prevalence of DM based on Riskesdas data shows a significant increase from 6.9% in 2013 to 8.5% in 2018 (Ministry of Health of the Republic of Indonesia, 2018). This shows that DM is an urgent health problem that needs attention, especially in terms of service and long-term care.

One of the major challenges in the treatment of DM patients is the high rate of readmission after the patient is discharged from the hospital. DM patients have a high risk of experiencing recurring complications or treatment irregularities after discharge. A study by Susanti and Wibowo (2022) showed that the remission rate in 30 days in DM patients reached 22.5%, mostly due to irregularities in taking medications, diet, and patients' lack of understanding of the disease. Another study by Pratama

et al. (2021) also mentioned that most readmitted DM patients had a poorly structured educational history when discharged from the hospital.

Discharge planning (DP) is an important component in the process of discharge patients from hospitals, especially for patients with chronic diseases such as DM. Good DP should start as soon as the patient enters the hospital and involves a multidisciplinary team that develops a post-relapse treatment plan, including medication education, diet, activities, recognition of signs of complications, and a follow-up plan at home. Research by Pertiwi et al. (2020) shows that the implementation of comprehensive discharge planning can significantly improve the self-care ability of DM patients and reduce the number of readmissions.

But in reality, the implementation of discharge planning in several hospitals in Indonesia is still far from expectations. One of the findings at dr. Soekardjo Tasikmalaya Hospital shows that there is no standard operating procedure (SOP) that regulates the implementation of discharge planning specifically for DM patients, or if there is, it is not carried out consistently by health workers. As a result, discharge planning is only done in general, limited to basic information such as re-control schedules and medication recommendations, without any risk assessment, in-depth education about the disease, or family involvement and post-relapse follow-up.

This condition has the potential to cause patients to be unprepared for independent treatment at home, as well as increase the risk of complications and remission. This fact is reinforced by the research of Novita et al. (2023) which found that 65% of DM patients who did not receive structured discharge planning experienced problems in self-management at home within 14 days of discharge.

Based on these problems, it is necessary to conduct an in-depth evaluation of the implementation of discharge planning at dr. Soekardjo, especially in patients with DM, to find out the extent to which the current implementation has met service standards and how improvement strategies can be developed to be more effective and according to the needs of patients.

2. METHOD

This study uses an evaluative descriptive design with a qualitative approach to evaluate the implementation of discharge planning in Diabetes Mellitus (DM) patients at dr. Soekardjo Tasikmalaya Hospital. Data were collected through non-participatory observation, semi-structured in-depth interviews with seven key informants (nurses, doctors, administrative officers, and patients), and review of medical record documents and educational forms.

Informants are selected purposively based on direct involvement in the discharge planning process and relevant work experience. The number of informants is determined until it reaches data saturation. As supporting data, the Summary of Diabetes Self-Care Activities (SDSCA) and Readiness for Hospital Discharge Scale (RHDS) instruments were used in a limited manner on two patients to describe self-care ability and readiness to go home. Data was analyzed using thematic analysis techniques, through the stages of data reduction, categorization, interpretation, and conclusion drawn. The validity of the data is strengthened through source triangulation, which is a combination of observation, interviews, and document reviews. The research was carried out in July-August 2025 at a medium-level referral hospital in Tasikmalaya.

3. RESULTS AND DISCUSSION

Discharge Planning Implementation Level

Stages Done and Not Done

The results of observations, in-depth interviews, and document reviews show that the implementation of discharge planning for Diabetes Mellitus (DM) patients at dr. Soekardjo Tasikmalaya Hospital has not been carried out systematically and is not in accordance with discharge planning standards based on the guidelines of the Ministry of Health and SNARS.

Initial Assessment Stage

The discharge planning assessment stage since the patient entered the hospital was not carried out formally. From interviews with the implementing nurses, it is known that there is no specific form or standard mechanism for early identification of patients who require special discharge planning, such as chronic DM patients, patients with complications, or elderly patients.

One of the nurses said:

"Usually we focus first on daily actions and treatment. Discharge planning is only starting to be thought about when you want to go home. So not from the beginning in." (P1 informant, implementing nurse)

These results show that discharge planning has not started from the beginning of treatment, even though this stage is critical to identifying patient needs, social readiness, and family support.

Discharge Planning Stage

Discharge planning is done in general, not using Form A or Form B which should be part of structured discharge planning. No written documentation evidence was found explaining the education plan, follow-up, or coordination between professions. Based on the review of the medical records of five DM patients, there was no specific column on discharge planning or self-education that was specifically documented. The interviewed doctors stated that education is more verbal and unstructured:

"Usually I only briefly explain the time of the last visit. For example, control for two more weeks, continue to take medication as usual. If the patient asks a lot of questions, yes, I answer. But not all patients ask." (Informant D1, general practitioner)

Stages of Education Implementation and Preparation for Return

Education to patients is carried out before the patient is discharged, usually one day before discharge from the hospital. However, the educational content is still very general, limited to how to take medication, a re-control schedule, and a little explanation about food. Patients say they don't get an explanation of how to monitor blood sugar at home, manage hypoglycemia, or treat the feet:

"When I came home, I was only told that this medicine was three times a day. There is no education about food or sugar checks. I found out for myself at home." (P2 respondent, DM patient)

Nurses also admit that time and workload are obstacles in the implementation of deeper and more personalized education. There are no educational media such as leaflets, videos, or written forms that can be taken home by patients.

Evaluation and Follow-up Stage

The evaluation of the patient's readiness to go home is not carried out systematically. There is no use of instruments such as RHDS (Readiness for Hospital Discharge Scale), and post-discharge follow-up is not clearly scheduled, other than to mention only the next control date. No evidence of coordination with health centers, clinics, or hospital follow-up systems for DM patients who have been discharged was found.

The informant from the medical records section said:

"The discharge planning form is in the system, but it is not mandatory. So most of the treatment rooms are not filled. Only certain rooms are used regularly." (Informant A1, administrative officer).

Findings

Table 1. Findings of Discharge Planning Stages

Planning for Release Stages	Done	Not done	Information
Initial assessment	X	✓	No screening form or discharge needs assessment form
Written planning	X	✓	Do not use Form A/B; Undocumented
Education before returning home	✓	X	Done in general, oral, non-specific DMs
Evaluation of readiness to return home	X	✓	No readiness gauge used, no follow-up

These results are consistent with research by Novita et al. (2023), which stated that the implementation of discharge planning in most hospitals has not met the elements of structured education and follow-up. The same thing was also reported by Lestari and Kurniawan (2021), who emphasized the importance of multidisciplinary team involvement and documentation as an indicator of the success of discharge planning. By not doing most of the discharge planning stages thoroughly, DM patients become less prepared to carry out self-care at home, which risks increasing the number of complications and remission.

Obstacles to Discharge Planning Implementation: SOP Not Exists or Not Implemented

One of the main obstacles in the implementation of *discharge planning* at dr. Soekardjo Hospital is the unavailability of special Standard Operating Procedures (SOP) that regulates the discharge process in a structured manner, especially for patients with chronic diseases such as Diabetes Mellitus. Even if SOPs are available, most healthcare workers are unaware of them or do not implement them in clinical practice. Interviews with nurses and room heads showed that education was only conducted orally before the patient went home, without any standard guidance on the material, time, or method of education. Discharge planning forms (Form A/B) are not used, and documentation in medical records is generally not found. This creates practices that are not uniform between units or between nurses.

The absence of SOPs also has an impact on the lack of involvement of multidisciplinary teams in the discharge process. Education tends to be carried out individually by nurses or doctors, without collaboration with other professions such as pharmacists or nutritionists. In addition, there is no monitoring or evaluation mechanism for the quality of discharge planning that has been implemented. These findings are in line with the study of Novita et al. (2023), which stated that the consistent non-implementation of discharge planning SOPs causes services to be non-standardized, limits the effectiveness of patient education, and increases the risk of readmission.

Results of Patient Self-Care and Readiness Score

As part of the evaluation of the implementation of discharge planning, the researcher conducted a limited measurement of two Diabetes Mellitus (DM) patients who were informants in this study, using the Summary of Diabetes Self-Care Activities (SDSCA) and Readiness for Hospital Discharge Scale (RHDS) instruments. These results are used as supporting data to understand the indirect impact of unstructured discharge planning on patients' readiness and ability to perform independent care at home.

Self-Care Score (SDSCA)

SDSCA is an instrument that measures DM patients' self-care behavior in several domains: dietary regulation, physical activity, monitoring of blood sugar levels, drug use,

Table 2. DM Patient Self-Care Score Based on SDSCA

Aspects of Self-Care	Patient 1 (L)	Patient 2 (P)	Interpretation
Diet	2/7 day	3/7 days	Low
Sport	0/7 days	1/7 day	Very low
Blood sugar monitoring	0/7 days	0/7 days	Not done
Medication adherence	7/7 days	6/7 days	Good
Foot care	1/7 day	0/7 days	Inadequate
Overall average	2,0	2,0	Low self-care

From the results of filling out the SDSCA by two patients:

1. Patient 1 (male, age 58)Diet score: 2/7 daysExercise score: 0/7 daysBlood sugar monitoring: 0/7 daysMedication adherence: 7/7 daysFoot care: 1/7 dayTotal average self-care: low (2.0 out of 7)
2. Patient 2 (female, age 63)
Diet score: 3/7 daysExercise score: 1/7 dayBlood sugar monitoring: 0/7 dayMedication adherence: 6/7 daysFoot care: 0/7 daysTotal average self-care: low (2.0 out of 7)

The results showed that although patients were adherent to taking medication, their abilities in other aspects of self-care were very low, especially in terms of monitoring blood sugar levels and foot care. This reflects the lack of education and information provided upon discharge from the hospital.

Readiness Score for Hospital Discharge (RHDS)

RHDS is used to assess the patient's readiness to face discharge from the hospital. The aspects assessed included physical condition, knowledge of medical instructions, home support, and confidence in self-care.

RHDS scores range from 0–10 per statement. The results of RHDS from the two patients were as follows:

Table 3. Readiness to Discharge Score of DM Patients Based on RHDS

Aspects of RHDS	Patient 1	Patient 2	Information
Physical condition when returning home	6	7	Still weak; not fully recovered
Understanding medical instructions	5	6	Only know the drug and control; Confused Diet
Family support at home	8	8	There is support, but not everyone knows education
Post-return confidence	5	6	Not sure if I can be independent
Access written information	2	3	No leaflets or written guides
Total RHDS Score (max. 120)	61	66	Low readiness – not optimal

1. **Patient 1**Total score: 61 out of 120Category: lowPatients feel unaware of the danger signs and are unsure whether to manage their own diet and physical activity at home.
2. **Patient 2**Total score: 66 out of 120Category: low–moderatePatients expressed confusion about dietary restrictions and were not given written information that could be read at home.

These findings are in line with the results of interviews that stated that patients only received verbal information when they returned home and were not given written instructions, leaflets, or other educational materials. There is no use of educational aids or post-discharge follow-up.

The low results on SDSCA and RHDS scores are consistent with the study of Pertiwi et al. (2020), which stated that DM patients who did not receive structured discharge planning tended to

have low self-care and poor readiness to discharge. Likewise with the results of Novita et al. (2023), which stated that without targeted education, patients often experience confusion in post-relapse care.

Therefore, the low scores of self-care and patient readiness in this study are indicators that the implementation of discharge planning has not been effective, and reinforces the need for system-based improvement strategies and education.

Comparison with Ideal Standards

The results of the study show that the implementation of discharge planning (DP) in Diabetes Mellitus (DM) patients at dr. Soekardjo Tasikmalaya Hospital is still far from the ideal standards set by the **Minister of Health and the National Hospital Accreditation Standards (SNARS)**. The ideal standard emphasizes that discharge planning must begin from the beginning of the patient's treatment, involve a multidisciplinary team, be carried out in a structured and documented manner, and be adjusted to the specific needs of the patient (Ministry of Health of the Republic of Indonesia, 2022; Hospital Accreditation Commission, 2018).

Based on the standards of the Ministry of Health and SNARS, discharge planning consists of four main stages: **initial assessment, planning, implementation of education, and evaluation of the patient's readiness to go home**. This study shows that of the four stages, **only the education stage before going home** is carried out, and even that is oral, limited, unstructured, and not supported by documentation or written educational media.

A comparison between discharge planning practices in the field and ideal standards can be seen in the following table:

**Table 4. Comparison of Discharge Planning of DR. SOEKARDJO HOSPITAL with Ideal Standards
(Ministry of Health & SNARS)**

Planning for Release Stages	Ideal Standards (Ministry of Health & SNARS)	Practice at RSUD DR. SOEKARDJO Tasikmalaya	Information
Initial assessment	Screening is done from the beginning of hospitalization using Form A	Not done	No screening or needs assessment form
Discharge planning	The repatriation plan is prepared by the team and documented on Form B	Not done	No written planning or team involvement
Implementation of education	Structured education, involving patients & families, with media	Done in general and verbally	No leaflets, guides, or demos
Evaluation & readiness discharge	RHDS scale is used, there is post-graduation follow-up	Not done	No readiness or follow-up instruments
Documentation	The DP form must be attached to the medical record	No discharge planning documentation	The DP is not recorded in the medical record system
Multidisciplinary team	Involve nurses, doctors, pharmacists, nutritionists, social workers (when necessary)	Only done by nurses or doctors independently	No interdisciplinary collaboration

These findings show that there is a significant gap between the implementation of discharge planning carried out at dr. Soekardjo with the expected ideal service standards. This gap can reduce

the quality of care transitions and increase the risk of patient unpreparedness to self-care at home, as reflected in the low RHDS and SDSCA scores obtained in this study.

This comparison also corroborates the previous findings from Novita et al. (2023), that discharge planning that does not meet standards leads to low patient readiness at discharge and increases the risk of post-hospitalization complications. Therefore, it is necessary to improve the system, especially in terms of the preparation and implementation of SOP discharge planning based on national standards.

Discussion

The results of the study show that the implementation of *discharge planning* for Diabetes Mellitus (DM) patients at dr. Soekardjo Hospital is not in accordance with national standards. Of the four main stages (*assessment*, planning, education, and evaluation of readiness to go home), only oral education before going home was carried out, even without documentation and not specific to DM patients. The absence of Standard Operating Procedures (SOP) is the main obstacle. The implementation of discharge planning relies on the initiative of individual health workers, without written guidance or the involvement of a multidisciplinary team. This condition has implications for the low level of patient understanding of self-care which is essential for the management of post-discharge diabetes mellitus (Imallah & Rahmawati, 2021). As a result, continuity of care becomes disrupted, potentially increasing the risk of complications and remissions due to the lack of preparation of patients and families in advanced palliative care at home (Yulia et al., 2020). In fact, structured discharge planning plays a crucial role in ensuring ongoing care at home and preventing readmission, especially for patients with chronic conditions such as diabetes mellitus (Gangopadhyay et al., 2023; Rahayu et al., 2024).

Research shows that good discharge planning can significantly improve patient adherence to controls and reduce the number of revisits to the hospital after treatment (Anam, 2025). Therefore, the implementation of a comprehensive discharge plan, including detailed needs assessment and specific education, is essential to improve the quality of life of post-inpatient diabetes mellitus patients (Fitri et al., 2020; Rahayu et al., 2024). However, the integration of patient family empowerment in diabetes management is also an important factor that is often overlooked in the discharge planning process, even though it can reduce patient stress and increase the effectiveness of treatment (Hartanto et al., 2024).

Studies show that comprehensive educational interventions, including regarding the five pillars of DM, can significantly improve patient and family knowledge, which is crucial for self-management at home (Hartanto et al., 2024). Nonetheless, aligning optimal inpatient glycemic management with effective discharge planning strategies is essential to reduce the duration of hospitalization and remission rates (Demidowich et al., 2022). The importance of providing written guidance and the integration of multidisciplinary teams in the implementation of discharge planning is crucial to overcome existing barriers, given the complexity of diabetes management that requires appropriate medication adjustments and follow-up referrals (Demidowich et al., 2022). The provision of ineffective discharge planning in the form of only brief information about drug use and diet does not guarantee changes in the behavior of patients and families, so it can worsen the patient's condition and increase the risk of remission (Yulia et al., 2020). These findings are in line with Novita et al. (2023), who stated that non-implementation of SOPs leads to service variations and low readiness of patients to face independent care.

The *Readiness for Hospital Discharge Scale* (RHDS) and *Summary of Diabetes Self-Care Activities* (SDSCA) scores showed that patients' readiness and self-care capabilities were relatively low. Patients do not understand how to control blood sugar, care for wounds, or recognize signs of complications. This indicates that the education provided is not effective, as also revealed in studies by Pertiwi et al. (2020) and Rahmawati & Siregar (2022), which stated that structured education significantly improves *self-care skills*. The lack of involvement of multidisciplinary teams in discharge planning weakens the

effectiveness of the program. In fact, cross-professional involvement such as doctors, nurses, nutritionists, and pharmacists has been proven to reduce the number of remissions and increase patient adherence to treatment (Lestari & Kurniawan, 2021).

Overall, the results of this study confirm the gap between practice in the field and standards from the Ministry of Health and SNARS. The implementation of discharge planning that is not systematic has an impact on the poor outcomes of DM patients, both in terms of readiness, glucose control, and the risk of complications. Therefore, system-based interventions are urgently needed, starting from the preparation of SOPs, the formation of a discharge planner team, to continuous education and post-recovery monitoring.

4. CONCLUSION

The implementation of discharge planning for Diabetes Mellitus (DM) patients at dr. Soekardjo Hospital has not run optimally and is not in accordance with national standards. The discharge process is still limited to oral education before the patient goes home, without documentation, multidisciplinary team involvement, or evaluation of patient readiness. The absence of SOPs is the main inhibiting factor, which has an impact on the low readiness of patients in self-care, as well as an increased risk of complications and remission. For this reason, system improvements are needed through: (1) the preparation and implementation of evidence-based SOPs, (2) the formation of a cross-professional discharge planner team, and (3) the implementation of continuous education accompanied by post-graduation follow-up. This strategy is expected to be able to improve the quality of discharge planning services and clinical outcomes for DM patients as a whole.

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