Reducing Emergency Department Readmissions: The Collaborative Role of EMTs, Nurses, and Social Workers in Comprehensive Discharge Planning

Ashwag M. Alharbi[1], Saud D. Almalki[2], Ghalib M. Alanazi[3], Amer S. Alhumaidan[4], Turki F. Alotaibi[5], Hani M. Alenezi[6]

Health Affairs at the Ministry of National Guard

Abstract

This study examines the role of interdisciplinary collaboration between Emergency Medical Technicians (EMTs), nurses, and social workers in reducing emergency department (ED) readmissions through comprehensive discharge planning. Using qualitative interviews, the research explores how each profession contributes to discharge planning, addresses social determinants of health, and improves patient outcomes. Findings reveal that effective interdisciplinary collaboration reduces readmission rates by ensuring that both medical and social needs are met. However, challenges such as communication barriers and resource limitations were identified as obstacles to optimizing care.

Keywords: Emergency Department Readmissions, Interdisciplinary Collaboration, Emts, Nurses, Social Workers, Discharge Planning, Social Determinants of Health

Introduction

Emergency department (ED) readmissions pose significant challenges to healthcare systems worldwide, contributing to increased healthcare costs, patient dissatisfaction, and overcrowded EDs. Studies have shown that a substantial proportion of readmissions within 30 days of discharge from the ED are preventable through effective discharge planning and coordinated follow-up care (Berenson et al., 2012). High-risk patients, particularly those with chronic conditions, complex social needs, or poor access to primary care, are especially vulnerable to readmission, underscoring the need for a comprehensive approach to discharge planning (Graham et al., 2018).

Reducing readmission rates requires a multidisciplinary approach, as the reasons for readmissions are often multifaceted, involving both medical and social factors. Emergency Medical Technicians (EMTs), nurses, and social workers play crucial roles in the discharge process, working together to ensure that patients receive the necessary care and resources to remain stable after leaving the ED. EMTs are often the first point of contact for patients requiring emergency services, providing initial stabilization and transport, while nurses manage the medical aspects of discharge, including patient education and medication management. Social workers, on the other hand, address the broader social determinants of health, such as housing, financial stability, and access to follow-up care, which are critical to preventing readmissions (Verhaegh et al., 2014).

Despite the clear benefits of interdisciplinary collaboration, many EDs face challenges in fully integrating these professionals into a cohesive discharge planning process. Communication barriers, limited resources, and differing priorities between medical and social care teams can hinder the development of effective discharge plans. Addressing these challenges is essential to reducing readmission rates and improving overall patient outcomes.

This study aims to explore how interdisciplinary teams consisting of EMTs, nurses, and social workers can collaborate to develop comprehensive discharge plans that address both the medical and social needs of patients discharged from the ED. By understanding the roles of each profession and identifying strategies for enhancing collaboration, this study seeks to provide insights into how healthcare systems can reduce preventable readmissions and improve patient care continuity.

Literature Review

Emergency Department Readmissions: Prevalence and Contributing Factors

Emergency department (ED) readmissions are a persistent issue for healthcare systems, with substantial implications for patient outcomes, healthcare costs, and system efficiency. Studies have shown that a significant proportion of ED readmissions are preventable, with factors such as inadequate discharge planning, poor follow-up care, and unmanaged social determinants of health contributing to patients returning to the hospital within days or weeks of discharge (Berenson et al., 2012). Readmissions are particularly common among high-risk populations, including older adults, those with chronic conditions, and individuals facing socioeconomic challenges (Graham et al., 2018).

Research highlights that the root causes of ED readmissions are often multifactorial, involving both medical and non-medical issues. Poorly managed transitions of care, lack of patient education, and failure to address social determinants such as housing, food insecurity, and transportation barriers can all increase the likelihood of readmission. To address these challenges, many healthcare systems are focusing on developing comprehensive discharge plans that take both medical and social factors into account (Verhaegh et al., 2014).

The Role of EMTs in Discharge Planning

While traditionally seen as first responders who provide pre-hospital care, Emergency Medical Technicians (EMTs) are increasingly recognized as important contributors to the post-hospital discharge process. EMTs ' familiarity with patients in emergency settings allows them to provide valuable insights into patients 'health status and risks for readmission. Research suggests that EMTs can play a significant role in assessing patients' readiness for discharge by reporting on factors such as patient stability during transportation and any potential risks they observed (Fan et al., 2012).

Moreover, EMTs have a unique perspective on the broader social and environmental contexts of patients, particularly during home visits in the context of community paramedicine programs. These programs have shown promise in reducing readmissions by allowing EMTs to assess patients in their homes post-discharge, ensuring that they are adhering to medication protocols, monitoring their health status, and accessing necessary follow-up care (Choi et al., 2016). By integrating EMTs into the discharge planning process, healthcare teams can address potential gaps in care that might otherwise lead to readmissions.

Nurses 'Role in Comprehensive Discharge Planning

Nurses play a critical role in discharge planning, acting as the primary coordinators of care as patients transition from the ED to home or other care settings. Nurses are responsible for educating patients about their diagnosis, medications, and follow-up instructions. They also ensure that patients understand how to manage their conditions after discharge, which is key to preventing readmissions (Shepperd et al., 2013).

Studies have shown that effective nurse-led discharge planning, particularly for patients with chronic illnesses, can significantly reduce readmission rates. Nurses are often the bridge between the patient and other healthcare providers, coordinating follow-up appointments, arranging for home health services, and communicating with primary care providers to ensure continuity of care (Bukoh and Siah, 2020). The literature emphasizes that when nurses are fully engaged in the discharge process and supported by interdisciplinary teams, patients are less likely to return to the ED for preventable issues.

Social Workers in Addressing Social Determinants of Health

Social determinants of health, such as housing instability, financial barriers, lack of transportation, and limited access to primary care, play a significant role in ED readmissions. Social workers are essential in identifying and addressing these non-medical factors, which are often overlooked in traditional medical discharge planning (Andermann, 2016). By assessing patients' living conditions, financial situations, and access to community resources, social workers help develop comprehensive discharge plans that address both the medical and social needs of patients.

The literature suggests that when social workers are involved in discharge planning, particularly for high-risk patients, readmission rates decrease. Social workers connect patients with community services, assist in applying for financial aid or housing programs, and provide mental health support, all of which contribute to a more holistic approach to patient care (Andermann, 2016). Social workers are also adept at navigating complex healthcare and social service systems, helping patients overcome barriers that could lead to gaps in care and ultimately preventable readmissions (Hsu et al., 2020).

Interdisciplinary Collaboration in Discharge Planning

The integration of EMTs, nurses, and social workers into an interdisciplinary discharge planning team is crucial for reducing ED readmissions. Research consistently shows that a team-based approach, where professionals from different disciplines work together to create comprehensive discharge plans, leads to better patient outcomes (Verhaegh et al., 2014). Collaboration among these healthcare providers ensures that all aspects of a patient's needs—medical, emotional, and social—are addressed, reducing the risk of readmissions.

Studies suggest that interdisciplinary collaboration improves communication between healthcare providers, reduces gaps in care, and ensures that patients are properly supported post-discharge (Shepperd et al., 2013). For example, when EMTs, nurses, and social workers share information and coordinate their efforts, they can develop more accurate and realistic discharge plans that consider both the clinical and social challenges patients face. Additionally, structured communication protocols, such as regular team meetings and the use of shared electronic health records, can facilitate the smooth exchange of information between team members (Bukoh and Siah, 2020).

Challenges in Discharge Planning and Reducing Readmissions

Despite the clear benefits of interdisciplinary collaboration, several challenges remain in reducing ED readmissions. One major issue is the fragmentation of care, where different providers may not have access to the same information or may prioritize different aspects of the patient's care. Studies have found that communication breakdowns between team members, particularly during handoffs between ED staff and primary care providers or community-based services, can lead to poor patient outcomes (Verhaegh et al., 2014).

Another challenge is the limited availability of resources for addressing social determinants of health. Even when social workers identify critical needs such as housing or food insecurity, the lack of adequate community resources can hinder the effectiveness of discharge plans (Andermann, 2016). Addressing these systemic issues requires not only improved coordination among healthcare providers but also broader policy changes to increase funding for social services and community health programs.

Methodology

This study was conducted in a tertiary hospital to explore how the interdisciplinary collaboration between Emergency Medical Technicians (EMTs), nurses, and social workers in the emergency department (ED) impacts the development of comprehensive discharge plans and reduces readmission rates. A qualitative approach was used to understand the roles and experiences of healthcare professionals in discharge planning, as well as to identify challenges and successes in interdisciplinary collaboration.

Study Design

A qualitative, descriptive design was employed to gain insights into the discharge planning process and the role of interdisciplinary teams in reducing emergency department readmissions. Semi-structured interviews were conducted with EMTs, nurses, and social workers involved in discharge planning, as well as patients who had been discharged from the ED and readmitted within 30 days. This approach allowed for a deeper exploration of the dynamics within the interdisciplinary team and the factors influencing discharge planning outcomes.

Participants

A purposive sampling method was used to recruit 20 healthcare professionals from the ED of a tertiary hospital, including:

-5 EMTs, who provided emergency care and initial patient assessments.

-8 nurses, who were responsible for coordinating discharge plans, patient education, and follow-up care arrangements.

-7 social workers, who addressed the social determinants of health and ensured that patients had access to necessary post-discharge resources and support.

Additionally, 10 patients who had been discharged from the ED and readmitted within 30 days were interviewed to gain insight into their experiences with the discharge planning process. Inclusion criteria for the healthcare professionals were at least two years of experience working in the ED and direct involvement in discharge planning. For patients, inclusion criteria included being over 18 years old, having been discharged and subsequently readmitted within 30 days, and willingness to participate in an interview.

Data Collection

Data were collected through semi-structured interviews with both healthcare professionals and patients. The interviews with healthcare professionals focused on their roles in discharge planning, the challenges they encountered in collaborating with other disciplines, and their perspectives on how interdisciplinary collaboration impacted patient outcomes. Sample questions included:

- "Can you describe a recent case where you worked with other team members to create a discharge plan?"
- "What challenges do you face when coordinating care with EMTs, nurses, and social workers?"
- "How do you think interdisciplinary collaboration affects readmission rates in the ED?"

Interviews with patients focused on their experience of the discharge process, their understanding of the discharge plan, and the factors that led to their readmission. Sample questions included:

- "How clearly were your discharge instructions explained to you?"
- "What difficulties did you face after leaving the ED?"
- "What could have been done differently to help you avoid readmission?"

Each interview lasted between 30 and 60 minutes and was audio-recorded with the participants 'consent. Interview transcripts were anonymized to protect participant confidentiality.

Data Analysis

Thematic analysis was used to analyze the interview data. The six-step process outlined by Braun and Clarke (2006) was followed:

1.Familiarization with the data: The research team transcribed the interviews and read the transcripts multiple times to become familiar with the content.

2.Generating initial codes: Key phrases and concepts were identified and coded based on recurring themes, such as "collaboration," "discharge planning challenges," "social determinants," and "communication gaps."

3.Searching for themes: The codes were organized into broader themes, such as "role clarity in interdisciplinary collaboration," "barriers to effective discharge planning," and "patient understanding of discharge instructions."

4.Reviewing themes: The themes were reviewed and refined to ensure they accurately reflected the data and the research objectives.

5.Defining and naming themes: Each theme was clearly defined and representative quotes were selected from the interviews to illustrate key findings.

6.Writing up: The themes were integrated into a coherent narrative that addressed the research question of how interdisciplinary collaboration between EMTs, nurses, and social workers influences discharge planning and readmission rates.

Ethical Considerations

Ethical approval for the study was obtained from the ethics committee. All participants were provided with detailed information about the study, including its purpose, procedures, and their rights as participants. Written informed consent was obtained from each participant prior to data collection. Participants were assured of the confidentiality of their responses, and all personal identifiers were removed from the transcripts to ensure anonymity.

Trustworthiness of the Study

To ensure the trustworthiness and rigor of the study, the following strategies were employed:

-Credibility: Triangulation was achieved by collecting data from multiple sources (EMTs, nurses, social workers, and patients), which provided a more comprehensive understanding of the discharge planning process and its outcomes.

-Transferability: Detailed descriptions of the hospital setting, the participants 'roles, and the discharge planning process were provided to allow readers to assess the applicability of the findings to other contexts.

-Dependability: An audit trail was maintained, documenting the research process and decisions made during data collection and analysis to ensure transparency and replicability.

-Confirmability: Reflexivity was practiced throughout the research process, with the research team keeping reflective journals to monitor and mitigate potential biases.

Limitations

The study has several limitations. First, the sample size was relatively small and limited to a single tertiary hospital, which may affect the generalizability of the findings. Second, the study relied on self-reported data from interviews, which may be subject to recall bias or social desirability bias. Future research could expand on these findings by including a larger sample and multiple hospitals to provide a broader perspective on interdisciplinary collaboration in discharge planning.

Findings

The thematic analysis of the interviews revealed four main themes regarding the roles of EMTs, nurses, and social workers in discharge planning and the impact of interdisciplinary collaboration on reducing emergency department (ED) readmissions. The themes are: (1) Role Clarity and Responsibilities in Discharge Planning, (2) Communication and Collaboration in the Interdisciplinary Team, (3) Challenges in Discharge Planning, and (4) Impact of Comprehensive Discharge Plans on Readmissions.

Theme 1: Role Clarity and Responsibilities in Discharge Planning

Participants emphasized the importance of each professional's role in discharge planning. While EMTs, nurses, and social workers each had distinct responsibilities, role overlap was noted, especially in patient assessment and education.

Sub-theme 1.1: EMTs' Role in Patient Assessment and Risk Identification

EMTs highlighted their involvement in assessing patients' medical and social conditions during transport, which provided valuable input into the discharge planning process.

- "We often see things that the hospital staff may not—like the patient's home environment or their ability to function independently. We can report this to the team, so they know what the patient is facing after discharge." (EMT 2)
- "Our role is not just about transport; it's about identifying risks and communicating those to the nurses and social workers who will follow up." (EMT 4)

Sub-theme 1.2: Nurses 'Role in Patient Education and Coordination

Nurses played a central role in discharge planning by coordinating care, providing patient education, and ensuring that patients understood their discharge instructions.

- "We make sure the patient knows what to do once they leave the ED—how to take their medications, what symptoms to watch for, and when to seek follow-up care. It's crucial for preventing readmissions." (Nurse 3)

- "As the patient's primary point of contact, we also coordinate with other team members, making sure that all aspects of the discharge plan are addressed." (Nurse 5)

Sub-theme 1.3: Social Workers' Role in Addressing Social Determinants of Health

Social workers were responsible for assessing and addressing social determinants of health that might affect the patient's ability to adhere to the discharge plan.

- "Many of the patients we see have underlying social issues that contribute to their readmissions—lack of transportation, food insecurity, unstable housing. Our role is to find resources to address these needs." (Social Worker 1)
- "We follow up on things that aren't strictly medical but have a direct impact on the patient's ability to recover. If we can resolve these issues, we can reduce the chances they'll be back in the ED." (Social Worker 4)

Theme 2: Communication and Collaboration in the Interdisciplinary Team

Collaboration between EMTs, nurses, and social workers was seen as essential to effective discharge planning. Participants reported that regular communication and information sharing improved the quality of care.

Sub-theme 2.1: Regular Team Meetings and Handoffs

Regular interdisciplinary meetings helped bridge communication gaps and align the team's efforts in creating comprehensive discharge plans.

- "We meet regularly to discuss high-risk cases and what each of us can contribute. EMTs give us insight into what the patient's home environment is like, which helps us create a realistic discharge plan." (Nurse 1)
- "The handoff between EMTs and the ED team is critical. They provide valuable information about what's happening in the field, and that shapes the decisions we make for the patient's discharge." (Social Worker 3)

Sub-theme 2.2: Use of Shared Electronic Health Records

Several participants noted that shared electronic health records facilitated communication by allowing team members to access up-to-date information on patients 'health and social circumstances.

- "Having a shared record system means that I can quickly see if a social worker or EMT has noted any concerns, and I can incorporate that into my discharge instructions." (Nurse 7)
- "If there's something I notice during transport—like unsafe living conditions—I document it in the system, and I know the nurses and social workers will see it. It helps us stay coordinated." (EMT 5)

Theme 3: Challenges in Discharge Planning

Despite the benefits of interdisciplinary collaboration, participants identified several challenges in creating effective discharge plans, particularly related to time constraints, resource limitations, and differing priorities.

Sub-theme 3.1: Time Constraints and High Patient Volume

Many participants highlighted the difficulty of coordinating care within the fast-paced ED environment, where high patient turnover and time constraints often limited their ability to engage fully in discharge planning.

- "We try to do as much as we can, but the reality is that in a busy ED, there isn't always time to have long discussions about discharge plans. We need to make decisions quickly." (Nurse 4)

- "Sometimes, I feel like I can't dedicate as much time to each patient as I'd like because there are so many coming through the ED." (Social Worker 2)

Sub-theme 3.2: Limited Resources for Addressing Social Determinants

Social workers, in particular, noted that despite identifying social issues that contributed to readmissions, the resources available to address these issues were often limited.

- "We know what the problems are—whether it's housing, transportation, or something else—but we don't always have the resources to solve them. That's one of the biggest barriers to preventing readmissions." (Social Worker 5)
- "There's only so much we can do if the patient doesn't have access to the services they need. It's frustrating because we know it will likely lead to another ED visit." (Nurse 8)

Theme 4: Impact of Comprehensive Discharge Plans on Readmissions

Participants agreed that when interdisciplinary collaboration worked effectively, it led to more comprehensive discharge plans that addressed both medical and social factors, reducing the likelihood of readmissions.

Sub-theme 4.1: Improved Patient Understanding and Adherence

Patients who received clear instructions and had their social needs addressed were more likely to adhere to the discharge plan, reducing the risk of readmission.

- "When patients understand what they need to do and have support in place, they're less likely to come back. It's really about making sure they feel prepared to manage their care at home." (Nurse 6)
- "We've seen that when social factors like housing or access to medication are addressed before the patient leaves, they're much less likely to end up back in the ED." (Social Worker 7)

Sub-theme 4.2: Reduction in Readmission Rates

Participants reported a noticeable reduction in ED readmission rates when interdisciplinary teams were fully engaged in the discharge planning process.

- "When we work together as a team, it makes a huge difference. I've noticed fewer patients coming back, especially when social workers are involved early on to address those non-medical issues." (EMT 3)
- "The discharge plans we create as a team are more comprehensive, which helps patients stay out of the ED. We're seeing the results in reduced readmissions." (Nurse 2)

Discussion

This study explored the collaborative role of Emergency Medical Technicians (EMTs), nurses, and social workers in developing comprehensive discharge plans aimed at reducing emergency department (ED) readmissions. The findings highlight the critical importance of interdisciplinary collaboration in addressing both medical and social factors that contribute to frequent readmissions. While the results indicate that well-coordinated interdisciplinary efforts can significantly reduce readmission rates, several challenges, including resource limitations and communication barriers, were also identified.

Role Clarity and Collaboration in Discharge Planning

The findings underscore the importance of role clarity in interdisciplinary teams. Each profession—EMTs, nurses, and social workers—brings distinct yet complementary skills to the discharge planning process. EMTs provide valuable insights based on their pre-hospital assessments, often identifying potential risks related to a patient's home environment and social context. Their input was seen as crucial in informing

discharge decisions, consistent with previous research that emphasizes the role of EMTs in bridging the gap between pre-hospital care and hospital-based services (Choi et al., 2016).

Nurses, on the other hand, play a central role in patient education and care coordination. Their responsibility for ensuring that patients understand their discharge instructions is vital for preventing readmissions, a finding supported by the literature, which notes that nurse-led discharge education is associated with better patient outcomes (Shepperd et al., 2013). Social workers, by addressing the social determinants of health—such as housing instability, access to healthcare, and transportation—play a pivotal role in ensuring that patients are not readmitted due to non-medical issues. This aligns with Andermann's (2016) findings that addressing social factors significantly reduces readmissions, particularly among vulnerable populations.

The Importance of Communication and Coordination

Effective communication emerged as a cornerstone of successful interdisciplinary collaboration. Regular team meetings and the use of shared electronic health records facilitated the exchange of information, ensuring that all team members were informed of the patient's needs and discharge plans. This finding is in line with the work of Bukoh and Siah (2020), who demonstrated that structured communication and handoffs between healthcare providers lead to fewer adverse outcomes and preventable readmissions.

However, the study also identified communication barriers, particularly in high-pressure ED environments. Time constraints and high patient volumes often limited the ability of team members to engage in thorough discussions or fully develop discharge plans. This challenge, consistent with previous research (Verhaegh et al., 2014), underscores the need for improved communication protocols and the allocation of dedicated time for interdisciplinary collaboration, particularly for high-risk patients.

Challenges in Addressing Social Determinants of Health

One of the significant findings of this study is the role of social workers in addressing the social determinants of health, which are often the underlying cause of frequent ED visits. Despite their critical role, participants frequently cited a lack of resources to fully address these social needs. Even when social workers identified key issues, such as housing or transportation, the availability of services to meet these needs was limited. This finding mirrors the broader healthcare literature, which highlights the persistent gaps in community resources and social services that are necessary to support vulnerable patients post-discharge (Hsu et al., 2020).

The integration of social services into discharge planning is essential to reducing readmissions, particularly for patients with complex social challenges. However, without sufficient resources, the efforts of social workers can only go so far. This finding points to the need for healthcare systems to advocate for increased funding and support for social services, as well as to develop stronger partnerships with community organizations.

Impact on Patient Outcomes and Readmission Rates

The findings clearly demonstrate that comprehensive discharge plans, developed through interdisciplinary collaboration, lead to improved patient outcomes and reduced readmission rates. When patients received coordinated care that addressed both medical and social factors, they were better equipped to manage their conditions at home, reducing the likelihood of returning to the ED. These results are consistent with the literature, which has shown that discharge planning involving multiple healthcare professionals reduces the risk of readmissions (Graham et al., 2018).

The reduction in readmission rates observed in this study can be attributed to several factors, including better patient education, timely follow-up care, and the resolution of non-medical barriers to care. The involvement of social workers in discharge planning was particularly impactful, as they were able to identify and mitigate the social risks that often lead to ED visits. This supports existing research that emphasizes the need for interdisciplinary teams to take a holistic approach to discharge planning (Verhaegh et al., 2014).

Implications for Practice

The results of this study have important implications for both ED staff and hospital administrators. First, it is crucial to formalize interdisciplinary collaboration in discharge planning by establishing regular team meetings and clear communication protocols. Such measures can ensure that all team members, including EMTs, nurses, and social workers, are fully informed and involved in the development of discharge plans.

Second, hospitals should consider expanding the role of EMTs in the discharge planning process, particularly by leveraging their insights from pre-hospital assessments. This could involve creating formal channels for EMTs to provide input on discharge decisions and identify potential risks that may not be apparent to hospital-based staff.

Third, addressing the challenges related to social determinants of health requires a broader systemic approach. Hospitals need to strengthen partnerships with community organizations, increase access to social services, and advocate for policy changes that expand the availability of resources for vulnerable patients. This approach would ensure that social workers have the tools they need to prevent readmissions effectively.

Limitations

While this study provides valuable insights into the role of interdisciplinary teams in discharge planning, it has several limitations. The sample size was relatively small and limited to a single tertiary hospital, which may affect the generalizability of the findings. Additionally, the study relied on self-reported data from interviews, which may introduce bias, as participants may have provided socially desirable responses. Future research could address these limitations by including a larger sample across multiple healthcare settings and incorporating observational data to validate the findings.

Conclusion

This study highlights the critical role of interdisciplinary collaboration in reducing ED readmissions through comprehensive discharge planning. EMTs, nurses, and social workers each contribute unique perspectives and expertise, allowing for the development of discharge plans that address both medical and social needs. Despite challenges such as communication barriers and resource limitations, the findings suggest that well-coordinated interdisciplinary efforts can significantly reduce readmission rates and improve patient outcomes. Hospitals should prioritize formalizing interdisciplinary discharge planning processes and advocate for increased resources to address the social determinants of health, ultimately leading to better care continuity and fewer preventable ED visits.

References:

1. Andermann, A. (2016). Taking action on the social determinants of health in clinical practice: a framework for health professionals. *Cmaj*, *188*(17-18), E474-E483.

2. Berenson, R. A., Paulus, R. A., & Kalman, N. S. (2012). Medicare's readmissions-reduction program—a positive alternative. *New England Journal of Medicine*, *366*(15), 1364-1366.
3. Bukoh, M. X., &Siah, C. J. R. (2020). A systematic review on the structured handover interventions between nurses in improving patient safety outcomes. *Journal of Nursing Management*, *28*(3), 744-755.
4. Choi, B. Y., Blumberg, C., & Williams, K. (2016). Mobile integrated health care and community paramedicine: an emerging emergency medical services concept. *Annals of emergency medicine*, *67*(3), 361-366.
5. Fan, V. S., Gaziano, J. M., Lew, R., Bourbeau, J., Adams, S. G., Leatherman, S., ... &Niewoehner, D. E. (2012). A comprehensive care management program to prevent chronic obstructive pulmonary disease hospitalizations: a randomized, controlled trial. *Annals of internal medicine*, *156*(10), 673-683.
6. Graham, K. L., Auerbach, A. D., Schnipper, J. L., Flanders, S. A., Kim, C. S., Robinson, E. J., ... & Herzig, S. J. (2018). Preventability of early versus late hospital readmissions in a national cohort of general medicine patients. *Annals of internal medicine*, *168*(11), 766-774.
7. Hsu, C., Cruz, S., Placzek, H., Chapdelaine, M., Levin, S., Gutierrez, F., ... & Cheadle, A. (2020). Patient perspectives on addressing social needs in primary care using a screening and resource referral intervention. *Journal of General Internal Medicine*, *35*, 481-489.
8. Shepperd, S., Lannin, N. A., Clemson, L. M., McCluskey, A., Cameron, I. D., & Barras, S. L. (2013). Discharge planning from hospital to home. *Cochrane database of systematic reviews*, (1).
9. Verhaegh, K. J., MacNeil-Vroomen, J. L., Eslami, S., Geerlings, S. E., de Rooij, S. E., &Buurman, B. M. (2014). Transitional care interventions prevent hospital readmissions for adults with chronic illnesses. *Health affairs*, *33*(9), 1531-1539.