Enhancing primary care efficiency through streamlined Epic EMR in-basket and indirect patient management: A model implementation and evaluation

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Background

In primary care, the burden of in-basket management has emerged as a significant challenge for care teams. Traditionally, the in-basket system is used to manage various types of communication, including patient inquiries, test results, and referral requests. However, the increasing volume of messages and the complexity of managing them can lead to inefficiencies, delays in patient care, and increased stress for healthcare providers.

The concept of top-of-license work has gained traction in recent years as a means to address this issue. This approach involves optimizing the roles and responsibilities of each team member to ensure that they are working at the highest level of their license and training. By doing so, it aims to improve the efficiency and effectiveness of the care team, ultimately enhancing patient care

The integration of Advanced Practice Providers (APPs) into the care team has been identified as a promising strategy to alleviate the in-basket burden. APPs, such as Physician Assistants and Nurse Practitioners, possess a high level of clinical training and expertise, making them well-suited to manage a variety of tasks traditionally handled by physicians. By incorporating a remote APP into the team, the model seeks to leverage their skills to streamline communication, reduce duplication and unnecessary routing of messages, and improve overall workflow.

This approach to in-basket management aligns with the broader goals of primary care to provide accessible, efficient, and high-quality care to patients. By addressing the challenges associated with in-basket management, the model aims to create a more sustainable and effective primary care system that can adapt to the changing needs of healthcare.

Learning Objectives

- 1. Understand the principles of a primary care indirect work initiative to promote efficiency, reducing rework, duplication, and unnecessary routing in healthcare communication.
- Evaluate outcomes of implementing a comprehensive in-basket management model, including the reduction in patient medical advice requests and calls, and assess the potential for scalability across primary care practices.

Work Team

 PSC Triages PG messages/calls and addresses to level of scope Escalate as needed to MA/RN pool using appropriate smartphrases 	MA - Receives PG message or call from PSC and addresses to level of scope - Escalate to RN as needed
RN - Receives PG message or call and addresses from PSC/MA to level of scope - Escalate to NP as needed	APP - Handles all escalated messages and calls for APP - Conducts virtual visits as necessary

Work-Flow & Structure



Qualitative Findings

Strengths	Areas of Improvement
Consistent recognition of improved triaging and communication,	Some confusion remains due to different guidelines across practices. A closed-loop system is suggested to avoid missed or duplicated efforts and to ensure all providers are kept informed of patient interactions.
The integration of new practices and completion of in-basket messages by the end of shifts have increased efficiency.	Workflow adaptation is still in progress, with reminders needed for RNs to follow guidelines consistently. Standardizing workflows to account for the varying efficiencies of individual RNs could be beneficial.
There's a strong sense of teamwork and good communication within the team.	Variability in workflow between APPs suggests a need for clear protocols. Training to understand roles better and the creation of direct protocols for handling situations are needed to standardize care.
patient care have been noted,	Some patients remain unhappy with the inability to hear back from their PCP. This points to a need to communicate changes in patient care delivery more effectively to patients.
The APP pool is positively impacting staff experience, with quicker turnaround times for patient messages and the ability to add virtual visits on short notice.	There are reports of providers feeling disconnected from patients, suggesting a need for a more balanced approach that includes providers in the communication loop.
Improvements in triage information and the addition of new protocols indicate a move towards standardization.	Consistent protocols are still lacking in some areas, leading to inefficiencies. A comprehensive approach to training and protocol development could address this.
Effective triaging has helped manage resources better.	Communication challenges and an increased number of practices being onboarded point to the need for streamlined resource management to prevent overwhelming the system.
The use of communication tools like Teams is facilitating interactions and supporting workflow.	Delays in message processing and unclear virtual visit scheduling processes highlight the need for system optimization.
Patients appreciate the quick response times, suggesting that the program is positively affecting patient satisfaction.	There is confusion among patients about who is responding to their queries, indicating the need for better patient
Providers have noted a decrease in workload and improved in-basket management.	The need to streamline fax and referral processes further to optimize providers' time, and some providers are reporting an increase in workload, possibly due to gaps in the new workflow implementation.
	triaging and communication, especially with nursing, suggesting an effective teamwork dynamic. The integration of new practices and completion of in-basket messages by the end of shifts have increased efficiency. There's a strong sense of teamwork and good communication within the team. Positive patient experiences due to quicker response times and improved patient care have been noted, indicating the program's success. The APP pool is positively impacting staff experience, with quicker turnaround times for patient messages and the ability to add virtual visits on short notice. Improvements in triage information and the addition of new protocols indicate a move towards standardization. Effective triaging has helped manage resources better. The use of communication tools like Teams is facilitating interactions and supporting workflow. Patients appreciate the quick response times, suggesting that the program is positively affecting patient satisfaction.

Quantitative Findings



Patient Medical Advice Requests: 72.5% decrease in overall volume since May Patient Calls: 60.3% decrease in overall volume since May

Conclusion

The implementation of a comprehensive in-basket management model in primary care has demonstrated significant potential in addressing the challenges associated with in-basket burden. By optimizing top-of-license work and integrating remote Advanced Practice Providers (APPs), the model has successfully streamlined communication within the care team, reduced rework and duplication, and improved overall efficiency. The preliminary results from the pilot sites show a notable decrease in provider patient advice and call messages, indicating enhanced responsiveness and workflow.

The ongoing study and expansion of the model to additional primary care sites underscore its adaptability and potential for broader application. The planned full rollout across multiple primary care practices in 2024 will provide further insights into the model's effectiveness in diverse healthcare settings.

In conclusion, the in-basket management model presents a promising approach to revolutionizing communication workflows and improving healthcare delivery in primary care. Its success lies in its ability to leverage the skills of the entire care team, particularly remote APPs, to manage inbasket tasks more effectively. As the model continues to evolve and expand, it holds the potential to significantly impact the efficiency and quality of primary care services.

References

1. Akbar F, Mark G, Warton EM, et al. Physicians' electronic inbox work patterns and factors associated with high inbox work duration. J Am Med Inform Assoc. 2021;28(5):923-930. doi:10.1093/jamia/ocaa229

2. Lieu TA, Altschuler A, Weiner JZ, et al. Primary Care Physicians' Experiences With and Strategies for Managing Electronic Messages. JAMA Netw Open. 2019;2(12):e1918287. Published 2019 Dec 2. doi:10.1001/jamanetworkopen.2019.18287

3. Porter J, Boyd C, Skandari MR, Laiteerapong N. Revisiting the Time Needed to Provide Adult Primary Care. J Gen Intern Med. 2023;38(1):147-155. doi:10.1007/s11606-022-07707-x

