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Improving Patient Access to Providers by Optimizing Message Center Workflow

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Executive Summary: Quality Improvement Initiative
Improving Patient Access to Providers by Optimizing Message Center Workflow

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Executive Summary Submitted in Partial Fulfillment
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Summary

This project was an evaluation of a quality improvement initiative that addressed the practice problem of having large volumes of unanswered messages within the patient portal. To increase patient access to the healthcare provider, a literature search was conducted using the practice-focused question: Can standardization of patient portals improve the message turnaround time? In January 2024, a scoping review of nursing message center pools determined 79 pools lacked standardized names and established workflows for 37 ambulatory clinics. Pool names were identified for each clinic and listed using an Excel spreadsheet. Clinic pool members were isolated, and it was determined by the message center team if pools would be renamed, deleted, or deactivated. Standardization of message pool names began in November 2024. As of February 22, 2025, 30 clinics and 68 message pools have been positively affected by this project. This demonstrates a 93% completion rate, and there are 11 message pools for two clinics that need to be renamed. A weekly discern report from February 20, 2024 found 1,499 messages in the pool compared to the weekly discern report one year later (February 20, 2025) which showed only 598 messages in the pool, which was 40% a reduction in messages. Standardization of message pool names contributed to reducing message center burdens for nurses and has successfully reduced nursing workload. Implications of this quality improvement project include positive impacts on nursing practice which reinforces trusting relationships between providers and patients. Changes to the message center will reduce social disparities involving health and promote positive social change within the community. By providing healthcare resources to all patients, this supports diversity, equity, and inclusion.

Background

Social determinants of health (SDOH) such as poor access to healthcare providers, poverty, lack of transportation, and lack of health insurance adversely impact patients' health

outcomes. In alignment with the Joint Commission's 2024 National Patient Safety Goal (NPDG.16.01.0), the organization became dedicated to improving patient access to healthcare providers by standardizing and streamlining communications between patients and providers through the patient message center. In January 2024, a scoping review of nursing message center pools found 79 pools lacked standardized names and established workflows for 37 ambulatory clinics. As there were multiple message pools for several clinics, on duty nurses needed to log into multiple message pools to respond to physician and patient correspondences. Additionally, lack of standardized message pool names and inability to clearly decipher where messages should be sent led to mass forwards of messages which contributed to backlogging and inability to respond to messages in a timely manner.

The trend of using message centers and patient portals has continued after the pandemic and shown to be a convenient and cost-effective way to improve health literacy that helps to overcome barriers involving access of healthcare and thereby reduce health inequities (Carini et al., 2021). Redesigning message centers and systematically addressing inbox burden leads to healthcare providers promptly responding to patient inquiries (Nath et al., 2021). Organizational policies and guidelines that drive physician behaviors, outline workflows, and governmental policies that support reimbursement of care through portal use and telehealth can positively impact patient outcomes (Heisey-Grove & Carretta, 2020).

This project was an evaluation of a quality improvement initiative that addressed the practice problem of having large volumes of unanswered messages within a message center. Backlog of messages led to decreased inability of patients to reach providers in a timely manner, which has been known to contribute to poor health outcomes. The project's purpose was to standardize the message center to ensure messages are responded to promptly and reduce message center burdens on nurses. Thus, to increase patient access to the healthcare provider, a

literature search was conducted using the practice-focused question: Can standardization of patient portals improve message turnaround time?

A CINAHL and Google Scholar search led to nine journal articles which helped to answer this question. The search yielded one level I, three Level II, four Level III, zero level IV, and one Level V articles which were examined for support and scientific rigor.

Project Development

Outcome measurements included decreases in messages within the message center, reduced nursing workflow, and standardized message center pool names to ensure easy identification of recipient targets. These goals were accomplished through workflow redesign and standardization via guideline creation. Each week, the team communicated via email to notify the clinic manager and complete the appropriate action in the message center. To obtain data on how the project was faring, the project team worked with health information specialists to succinctly delete, rename, and deactivate identified message center pools which were outlined using a process map. Pool names were identified for each clinic and listed using an Excel spreadsheet. Clinic pool members were isolated, and it was determined by the team if the pool would be renamed, deleted, or deactivated. To standardize names of all message pools that would remain active, each pool was identified according to site, location, and pool type (admin or clinical). The Excel spreadsheet was then updated based on verification of the pool's updated status via confirmation emails from the health information specialist. Initial data that were collected starting in January 2024 led to identifying 79 message center pools that were within this project's scope. A weekly discern report from the electronic medical record for February 20, 2024 stated there were 1,499 total messages in the existing report.

Results

Message pool changes began on October 30, 2024, with a 3-week pilot involving message centers for three clinics, which totaled six message centers. On November 16, message center

renaming, deactivation, and deletion began after other clinics based on a rolling schedule. As of February 22, 2025, 30 clinics and 68 message pools were positively affected by this project. This led to a 93% completion rate, as there are 11 message pools for two clinics that need to be renamed. A weekly discern report from February 20, 2024 found 1,499 messages in the pool compared to the weekly discern report 1 year later which showed only 598 messages in the pool, or a 40% reduction in messages (see Table 1). There was no clinic or program closure which affected the weekly message total. A review of monthly message center activity during February 2024 showed 41,414 messages in the message pool. Compared to monthly message pool activity during February 2025, there was a 3% increase in messages. This increase was due to forwarding messages to condense or close message pools. The weekly discern report differs from the monthly discern report in that it provides a concise view of patient and provider message activities. The monthly discern report shows total activity in message center pools between providers and patients. This demonstrates how much activity nurses must filter through to get to 1% of patient messages. 99% of February 2025 monthly messages were attributed to providers copying multiple physicians or forwarding messages to other providers.

The bulk of the project's elimination of message center pools is set to occur March 24, 2025, when four more message pools will be deleted, which will leave two (blue island and general medicine) clinics working out of six message pools instead of 11. A 63% reduction in pools these two nursing teams need to access to respond to patient messages will have the largest positive impact on clinic workflows and thus require additional time to restructure nursing and physician assignments. As there has already been a 40% reduction in messages with a 93% project completion rate, this project will only continue to be successful in terms of reducing inbox burden through standardization of message center pool names. Furthermore, as the project received stakeholder feedback via surveys, it is now ready for the formal organizational approval

process. The guideline includes information about timeframes during which messages need to be responded to, workflows, and approval expectations for message pool build requests. The guideline will help to communicate response standards and set clear workflow expectations which will continue to improve quality of work within the message center.

Table 1

Message Center Data

	February 20, 2024	February 20, 2025	Variance
Total number of message pools	79	76	4% reduction in message center pools with standardization
Total number of weekly messages in nursing pools	1,499	598	40% decrease in nursing workflow burden
Total number of messages in monthly discern report	41,414	42,334	3% increase in overall message center activity
Standardized workflow	No guideline or policy to workflow	Guideline moving through organizational approval process	active address

Through standardization of message pools, stakeholders will have an easier time identifying where messages should be sent. This will lead to a decrease in the number of forwarded messages, reducing nurse workflow. Thus, this will effectively lead to more patients getting timely care through message centers, which will result in better health outcomes and minimization of adverse effects of SDOH. The organization's understanding of sociodemographic characteristics of patient populations has led them to successfully optimize and tailor their technology to meet needs of patients. This increases patient access to providers and improves patient outcomes.

A limitation of this project was data burden. Each month, a nonmodifiable Cerner report can be generated from electronic medical records which can provide some oversight regarding message center activity. Large monthly data sets from February 2024 (41,414) and February 2025 (42,334) made data difficult to decipher and make usable. As monthly reports include measures of all activity in the message center, it does not accurately measure patient-to-provider activity without leaders needing to copy data into an Excel spreadsheet to be manually filtered. An additional barrier is that it does not succinctly provide month-to-month data to track progression of quality improvement processes. Using the patient message center to communicate between providers as opposed to using other available technologies such as Tiger Connect has led to message center burden and thus can increase wait times for patient responses from providers. Thus, not fully optimizing technologies that are available can contribute to worsening health outcomes and SDOH. As the organization now has data to support other communication methods outside of patient portals, this can lead to improving care for patients.

Data could be used to identify individual versus clinic performance which can contribute to identifying process, personnel, or workflow barriers. Ideally, data scientists can format dashboards so they can filter out high-performing individuals for recognition in terms of best practice and knowledge sharing. This project will impact hospital use of resources and the organization's footprint within the community and beyond.

Conclusions

Optimization of the message center through standardization has reduced nursing workloads and will increase patient access to providers by decreasing response time. Optimization of electronic communication technologies that are already available for providers can help with reducing message center burdens. Standardization of message pool names and

outlining message center response times via guideline implementation will continue to reduce provider and patient response times.

To continue to monitor this project, I recommend developing a dashboard which will help clinic managers more readily evaluate individual message pool response time data and assist in evaluating overall clinic performance. The second recommendation is to implement a reward system to recognize high-performing clinics through a traveling trophy program. Recognition of team work to reduce unanswered messages can assist in new workflows and positively incentivize manager oversight of clinic employees. The final recommendation is to post dashboard data regarding individual performance when responding to messages next to the time clock. Publication and awareness of colleague response times can lead to competitiveness and help employees reduce messages, thereby improving patient access to providers. The ability to monitor message pool performance more concisely will lead to positive implications for provider performance and assist leadership with holding staff accountable for their practice. Implications of this quality improvement project include reinforcing trusting relationships between providers and patients. Changes to the message center will reduce SODH and promote positive social change within the community by providing healthcare resources to all patients, which supports diversity, equity, and inclusion.

References

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