

Improving Patient Access to the My HealtheVet Electronic Patient Portal for Veterans

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Background: The US Department of Veterans Affairs My HealtheVet (MHV) patient portal is a secure online tool that provides patients access to personal health information. Although facilitators exist to encourage veteran registration, barriers to both adoption and use among veterans persist. This quality improvement project sought to improve veteran access to MHV.

Observations: Using Plan-Do-Study-Act (PDSA) methodology, we identified barriers to registration, evaluated processes for enrollment, and integrated a process improvement champion into a rural primary care clinic workflow. After 3 PDSA cycles,

the integration of new processes resulted in increased enrollment and engagement with MHV. Fourteen veterans registered for MHV at the point-of-care in a 3-month time frame.

Conclusions: Use of a connected electronic health record platform and implementation of an MHV champion in the outpatient primary care setting improved rural veteran access to personal health information. Audit and feedback on processes that provide access to health information is an important strategy to narrow the gap between veterans who access patient portals and those who do not.

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Patient portals are secure online website tools that provide patient access to personal health information (PHI). Access to online PHI improves health equity and satisfies the meaningful use objectives of the Medicare electronic health record (EHR) incentive program.^{1,2} Through patient portals, individuals can access PHI records and current diagnoses, request and reschedule appointments, locate test results, track trends for vital signs and laboratory values, refill medications, and communicate directly with the health care team through secure messaging. This alternative method of communication with the team is associated with increased patient satisfaction.³ Patients reported improved patient engagement in health care self-management and decision making, as well as strengthened relationships with their health care team.⁴

BACKGROUND

One well-documented strategy to improve portal use includes the development of a nurse champion to facilitate enrollment during the clinic visit.⁵ Patient perceptions of portal value increased after education by a health care professional (HCP) and assistance in enrollment to familiarize patients with the platform for ongoing use.⁵ Use of patient portals has been associated

with favorable outcomes in chronic disease management. Patients with diabetes mellitus who regularly use patient portals for prescription refills and secure messaging have demonstrated improved glycemic control, medication adherence, and associated health parameters compared with nonusers.⁵⁻⁷ In patients with congestive heart failure, meaningful patient portal use results in fewer emergency department visits, fewer hospital admissions, lower readmission rates, and reduced unscheduled and no-show visits.⁸⁻¹¹

Patient portal access is a quality improvement (QI) measure that meets Medicare and Medicaid meaningful use requirements that is designed to improve collaboration between HCPs and patients through EHRs. Despite legislation, uptake of patient portal access has been slow, especially among older adults.^{10,12,13} Barriers to patient portal registration and use include patient lack of awareness, perceived or actual digital illiteracy, mistrust in privacy precautions, lack of user-friendly interfaces, lack of internet or technology, HCP bias and workload, and misperceptions of usefulness.^{9,10,12,14} The HCPs most likely to facilitate the use of patient portals, typically include nurse practitioners (NPs), nurses, and medical residents.^{10,15} Patient portal platforms promote the partnership of these disciplines with the

veteran to help the patient better manage their health.

Despite the benefits and widespread integration of patient portals in health care systems, socioeconomic inequalities and HCP attitudes contribute to persistent disparities in its adoption by underserved populations. The veteran population is often faced with additional barriers to health care access with regard to geographic location, advanced age, trauma, disabilities, mental health challenges, and homelessness.^{10,16} These barriers require unique approaches to maximize the use of technologic advances.¹⁷ Advanced age contributes to low rates of patient portal enrollment and lack of digital platform use, thus creating a digital divide.^{11,12}

The digital divide is described as the gap between those persons who use technology including computers and internet, and those persons who do not because of social and geographic barriers.¹⁶ It contributes to a growing health disparity in both access to care and quality of care especially for rural veterans. About 25% of the US population lacks fixed broadband at home; these individuals are more likely to be racial minorities, older, widowed, or to have lower levels of education.^{18,19} Veterans are disproportionately represented in these demographic categories.²⁰ According to the US Department of Veterans Affairs (VA) Office of Rural Health, the percentage of rural veterans enrolled in the VA health care system (58%) is significantly higher than enrollment of urban veterans (38%); additionally, 27% of rural veterans do not access the internet at home.²¹

MY HEALTHEVET

The VA plays an integral part in increasing virtual access to care, from the introduction of My Healthvet (MHV) in 2003 to the distribution of iPad tablets to vulnerable veterans during the COVID-19 pandemic.^{22,23} Due to COVID-19, the need for VA patient access to the internet and VA Video-Connect (VVC) telehealth services increased significantly.²² Access to internet and hardware supporting use of VVC and MHV has been facilitated by

the Digital Divide Consult, a VA program launched in 2020 to increase access to telehealth services.²⁴ The VA has distributed > 26,000 cellular-enabled tablets and provided > 50,000 veterans with connectivity in collaboration with various private sector companies.²² Patients report that MHV facilitates engagement in health care through improved access to EHRs and expedited communication with the health care team.⁴

MHV is a secure online tool that provides patients access to PHI. MHV aims to empower veterans to take charge of their health by improving communication with HCPs, setting patient goals, and offering health and well-being resources.^{25,26} In a study of outpatients at a large urban multisite health care system, < 35% of patients on 16 medical resident panels were enrolled in a patient portal.¹⁵ MHV internal national metrics show increasing registration and active users of the patient portal, yet locally, disparities in the use of the portal by rural and older veterans exist.

The Local Problem

A review of the registration process at a rural VA clinic revealed barriers to facilitating the veteran registration process at the point of care. Clinical reminders exist within the EHR to prompt clinicians at the point of care to improve quality of care. At the New England Healthcare System (Veterans Integrated Service Network [VISN] 1), a patient portal clinical reminder prompts staff to encourage veterans to register. Anecdotal data obtained from primary care staff interviews at a rural VA primary care clinic in Vermont revealed low clinician confidence in completing the clinical reminder, a lack of knowledge of MHV, and lack of time to educate veterans about the benefits of MHV.

Despite availability of a registration process at the point of care and clinical staff assigned to provide registration information to the veteran, access to the patient portal among veterans at this clinic remained low. This QI project aimed to increase patient portal enrollment of veterans in MHV in a single NP patient panel of 100 patients from a baseline of 33% by 10% in a 3-month time frame.

Implementation

Before implementing the first Plan-Do-Study-Act (PDSA) cycle, we established the baseline data for 1 patient panel to be 33%. A retrospective review of the NP resident's panel of 100 revealed 33 veterans were enrolled in MHV, providing a setting for process improvement. Evaluation of potential enrollment data for the panel population revealed unenrolled veterans were primarily aged ≥ 65 years. A rapid cycle QI (RCQI) strategy using the PDSA method was used to identify, implement, and measure changes over a 3-month time frame in 1 NP patient panel.¹⁴

The RCQI process included establishing baseline data and 3 PDSA cycles that evaluated the current state of patient access to the electronic patient portal, elucidated patient barriers to registration, assessed the processes for point-of-care enrollment, and developed strategies to improve the process and increase veteran enrollment. The QI project team included an NP resident as the project manager and MHV champion, a clinical faculty mentor at the site, a telehealth coordinator, an MHV coordinator, clinic registered nurse (RN), and clinic licensed nursing assistant (LNA). The RN and LNA additionally served as MHV champions as the project progressed.

PDSA Cycles

The objective for PDSA cycle 1 was to evaluate the process of patient registration and assess the impact on NP workload and clinic workflow over a 4-week period to improve veteran enrollment. Data were collected in a spreadsheet to track the number of veterans enrolled, time frame to enroll, and field notes that the NP resident recorded about the experience. The NP resident was trained in registration methods by the MHV coordinator. Several barriers to the registration process were identified: The process resulted in a change of the clinic visit closure focus, the clinic room was blocked for use by another patient, veterans had difficulty generating a unique username and password, veterans were unfamiliar with basic tablet accessibility and use, and additional time was required if incorrect information

was entered. The veterans displayed low confidence in using tablet technology and were unaware of the patient portal or its usefulness. After discussion of the process with the project team, recommendations were made to address challenges, including an RN-led registration process. The first PDSA cycle increased the total patient panel enrollment by 4 veterans to 37%.

In PDSA cycle 2 after the NP visit, patients who agreed to register for the MHV portal were introduced to the tablet. The registration process was completed by the patient with the RN prior to the patient checkout. Once patient registration was completed, the veteran met the MHV coordinator and upgraded to a premium account, which provided full access to portal features. Electronic messaging was tested by the MHV coordinator and veteran to validate patient understanding. Although preloading demographic information improved accessibility issues, time was still required for the RN to orient the veteran to the tablet, provide additional directions, and answer questions.

The registration process reduced NP time commitment but added to the RN time burden and disrupted workflow; and clinic room access continued to be an issue. The wait time for the veteran to register in the clinic remained dependent on the availability of the RN. The decision was to move the registration process to the initial patient rooming assignment in the clinic and was transitioned from RN to LNA, prior to the NP-veteran encounter. Four additional veterans registered in the second PDSA cycle, and total enrollment increased to 41%, an overall 8% increase from baseline.

In the third PDSA cycle the patient enrollment process was managed by the clinic LNA using scripted information about MHV prior to the veteran encounter. A partially preloaded tablet was offered to the veteran to register with MHV during the rooming process, and written and oral instruction were provided to the veteran. The time required for each veteran to register for MHV averaged 10 minutes, and the veteran was able to register while waiting for the NP to enter the room. Typical LNA tasks included greeting patients,

updating health records, completing clinical reminders with the veteran, obtaining vital signs, and addressing questions. The LNA introduced the veteran to MHV using scripted information and supported them in registering for MHV prior to the NP-veteran encounter. Registration at point of care during the rooming process was well received by both the LNA and veterans. The LNA reported the process was efficient and did not add excessive time to the LNA workflow. The LNA reported verbal patient satisfaction and registration was facilitated for 6 veterans during the 4-week period.

Registration during point of care was reported as feasible and sustainable by the LNA. Upgrading the patient to a premium MHV account was transitioned to the MHV coordinator. All veterans seen during the 4-week period were approached about registration; if the veteran declined, written at-home step-by-step instructions were provided. A replacement electronic clinical reminder was proposed to the VISN clinical reminders team for review and was pilot tested by the primary care clinical team. The third PDSA cycle increased the total patient panel enrollment to 47%, an overall 14% increase from baseline. Six new veteran users were added during PDSA cycle 3.

DISCUSSION

The project team successfully used a RCQI method with a PDSA strategy to improve patient access to the MHV portal and increased veteran enrollment by 14% on 1 NP resident patient panel. The project evaluated clinic workflow regarding veteran patient portal registration, uncovered inefficiencies, and developed improved processes to increase veteran access to the patient portal. Results were positively impacted through the recognition of inefficiencies and initiation of new processes to engage veterans in the portal registration process. Familiarizing the entire clinical team with the clinical reminder and registration process raised the awareness of a digital divide consult and the utility of the portal in patient care. The project provided an opportunity to evaluate veterans' digital literacy, digi-

tal access to send and receive messages, and to provide coaching as needed. Sequential PDSA cycles employed audit and feedback, information preloading, multi-modal teaching strategies (verbal, print, hands-on tablet learning), scripting, staff interviews, time studies, and workflow evaluation to improve processes. An MHV champion led the team, monitored the progress, set deadlines, and effectively communicated project performance.

Limitations

Project limitations included the single-site location, its small sample size, and the short 3-month implementation time frame. The patient panel was representative of other NP resident patient panels at the facility but may not be representative of other VA facilities.

Ethical Considerations

Patient confidentiality was maintained throughout the registration and data collection process. The project team (NP, RN, LNA) received training and written instructions on protection of patient confidentiality by the MHV coordinator prior to assisting veterans with the registration process. Privacy was maintained, no patient identifiers were collected or viewed, and no assistance was provided for username, password, or security questions. The tablet was password protected and secured, used only by the project team when veteran was interested in point-of-care portal registration.

Sustainability

QI projects require ongoing systemic efforts to enhance sustainability.^{26,27} The project team used the PDSA methodology to stimulate the design of new workflow processes to engage staff and veterans in portal registration. Several actions were taken to promote sustainability for veteran portal registration and improve access to health care for rural and underserved veterans. First, printed instructions and website link are available in the clinic intake and examination rooms. Staff are equipped with patient education discussion points about the portal. A tablet is available in the clinic to encourage veterans to sign up.

A clinical reminder is in place to encourage portal registration. A designated super-user is available to help new patient portal users register and navigate the system. Outcomes of the QI project were presented at 2 separate VISN 1 nursing grand rounds and reported to the MHV coordinator and telehealth coordinator to promote dialogue among staff and raise awareness of challenges to veteran MHV access.

CONCLUSIONS

Reviewing patient portal registration processes at the local level is essential to improve veteran access. This QI project proposed a realistic and scalable solution to implementing and improving patient enrollment to MHV in primary care clinics. Integrating measurement of patient registration into the daily routine of the clinic empowers the entire clinical team to improve the quality of access to patient portal.

The project team worked together to accomplish a shared goal, using errors as opportunities to improve the process, while using available staff without compromising significant time or resources. Engaging the entire team to audit processes and designating one member of the team as an MHV champion to provide feedback is critical to the sustainability of point-of-care registration in the MHV patient portal. Multifaceted approaches to maximizing the use of technology lessens the digital divide for veterans who are faced with geographical and social barriers to health care access.

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Disclaimer

The opinions expressed herein are those of the authors and do not necessarily reflect those of *Federal Practitioner*, Frontline Medical Communications Inc., the US Government, or any of its agencies.

Ethics and consent

This project is a quality improvement and program evaluation; formal ethics approval was not required.

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