Telemedicine for Postoperative Visits at the Minneapolis VA Medical Center

Results of a Needs Assessment Study

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The Minneapolis VA Medical Center initiated a telemedicine program in the early 1990s as a way to streamline care and increase convenience for patients and clinicians. In this study, we explored employing telemedicine for postoperative visits for patients in the general surgery clinic. We surveyed 346 veterans about their preferred method of follow-up. In addition, we asked about their need to complete insurance paperwork, use of VA satellite clinics, distance from the VA Medical Center and from the nearest satellite clinic, and need for travel assistance. We found half of the respondents preferred face-to-face follow-up while the other half preferred follow up using some form of telemedicine. These findings suggest there is a demand for remote postop visits using telemedicine and that such visits may have advantages over face-to-face clinic appointments, especially for patients who have to travel long distances. Further studies are ongoing to determine the actual acceptance of remote visits by the patients and surgeons and to determine if there have been delays in recognition of postoperative complications.

Problems with the Veterans Affairs (VA) health care system made headlines around the country last year. Complaints about long wait times for care—significantly longer than the two weeks mandated by the VA central office—have been attributed to a lack of clinic space and staff and as well as limited clinic hours. Lengthy waits were a factor in the problems that led to fraud allegations at the Phoenix VA.1

For the most part, wait times at the Minneapolis VA have not been as big of a problem. All consults to the general surgery service are immediately triaged on the day they are requested. Nonetheless, the wait for general surgery appointments averages six weeks for nonemergent cases, and some delays may be attributable to high demand for surgical services. In 2013, the Minneapolis VA Medical Center served more than 97,000 veterans, averaging almost 2,000 outpatient visits per day and an in-house census of 138 patients. More than 700,000 outpatient visits were made in 2013, exceeding the total from the previous year by more than 27,000.2

In 2014, the VA released its strategic plan for efficiently and effectively providing medical services to veterans. This was published well before the frenzy that led to the resignation of Secretary for Veterans Affairs, Gen. Eric Shinseki. One of its stated goals was to “increase the percent of patients who access VHA health care using a virtual format (eg, video, smartphone or online services)” between 2014 and 2020.3

Use of electronic communication technologies to provide health care is generally referred to as “telemedicine.” As the hardware has improved and become more accessible, telemedicine has been increasingly used to deliver timely, convenient and effective medical care. It is often used for “remote visits”—appointments that allow for personal care via an audio/video link.

The Minneapolis VA started a program called Clinic Video Telehealth in the early 1990s, in which clinicians based in Minneapolis use telemedicine technology to communicate with patients in remote locations. It is now used in more than 30 departments ranging from hematology to home oxygen. In fiscal year 2014, 13,139 remote visits were conducted through the program. Most patients were located at community-based outpatient clinics (CBOCs), which are satellite clinics within the VA system; however, a few were as far away as San Francisco, Salt Lake City, Pittsburgh and Nashville.

Staff in the Minneapolis VAs department of surgery began considering remote visits for the simplest, least complex encounter—the routine postop visit—when we recognized just how far many of our patients traveled to see us. Postop visits usually take place about three weeks following surgery and tend to be very brief: We interview the patients and examine their wounds. They usually tell us they feel great and then thank us. Sometimes, they have to fill out insurance paperwork. The entire visit, including documenting it in the medical record and having the patient
fill out the occasional insurance form, usually takes about 10 minutes.

We looked at the experience of other programs to determine the feasibility. ENT surgeons at the Marshfield Clinic in Wisconsin, for example, reported success when using telemedicine to evaluate postop parathyroidectomy patients. They found the telemedicine visits provided significant convenience and financial benefits to both the patient and provider. Others found using telemedicine to deliver health care in remote and rural areas saved travel costs and time.

Prompted by these successes and the needs of our diverse patient population, we initiated a study to determine the desire for and potential benefits of remote postop visits following general surgical procedures at the Minneapolis VA Medical Center.

The Survey
We received institutional approval to survey all patients who presented to the general surgery clinic between April and November 2014. No information that could be used to identify a patient was included in the survey. Data were aggregated and descriptive statistics calculated.

All patients who were seen in the general surgery clinic were given a 10-question survey by a member of the nursing staff. Specific data collected included preferred method of follow-up, remaining insurance paperwork, use of CBOCs, and the distance and travel time to both the VA hospital and the nearest CBOC, if applicable. The survey also asked whether the patient had a caregiver or aide accompany them, used a VA van or provided their own transportation. The cost of travel was calculated using distance and the 2014 government reimbursement rate of $0.56 per mile.

Findings
A total of 346 surveys were returned. As shown in Figure 1, 50.1% of patients said they preferred face-to-face follow-up appointments as compared with any other follow-up method. The mean ± standard deviation distance to the VA hospital from the patients’ homes was 25.5 ± 23.6 miles. Forty-five percent of the patients surveyed received some care at a CBOC, and patients reported having received care at 18 different CBOC sites, the majority of which were located in Minnesota (Figure 2). The mean cost of a round trip to the Minneapolis VA was $64.62 ± 66.11,
with an average of 118 ± 119.1 miles and 2.8 ± 1.9 hours of travel time. The average cost of a round trip to the patient’s nearest CBOC was $27.88 ± 26.07 with a mean of 51 ± 47.23 miles and 1.4 ± 0.76 hours of travel time. About 20% of patients needed a friend or family member to assist them in reaching the VA, while 28% used a VA-supplied van to get to their appointments. Only 10% of patients received mileage reimbursement from the VA. Less than 9% had insurance paperwork that needed to be completed. Of those patients, 17 reported that they would be willing to mail it in; four said they would not.

Discussion
This is believed to be the first study that investigates patients’ preferences with regard to postoperative follow-up care. Although half of the patients surveyed said they would prefer a face-to-face follow-up visit, the other half indicated they would prefer using some form of telemedicine or had no preference. Patients also reported use of 18 CBOCs across Minnesota and neighboring states, showing that the possibility of implementing a remote visit program at these sites would reach a wide-spread group of veterans receiving care. Considering that 28% of patients needed more than four hours to travel to and from their clinic appointments at the Minneapolis VA and 5% needed more than eight hours, employing remote visits at the CBOCs would undoubtedly benefit many of our patients.

Remote visits at a CBOC also appear to generate substantial savings in terms of cost. Veterans may be particularly appreciative of these savings because only 10% received reimbursement for their mileage. Our study did not factor in the cost of lost work time for patients.

These visits also may ease the burden on caregivers, as 20% of patients required the assistance of a friend or family member to travel to their follow-up appointment. Anecdotal reports from patients living as close as Anoka acknowledged the importance of convenient parking at their local CBOC as opposed to having to make the long trek from the parking lot to the surgical clinic at the Minneapolis VA. The finding that so few patients needed to fill out insurance paperwork at the postop visit suggests that this will not impede the implementation of remote visits. Furthermore, those who had insurance paperwork to complete were amenable to filling out the forms and mailing them in.

Although telemedicine may be an ideal method for delivering health care to patients who live a significant distance from their health care providers, there are obstacles that must be overcome to successfully implement a telemedicine program. First, surgeons must decide which hardware to use. We asked our surgeons if they would prefer to provide these services from their offices with relatively inexpensive, poorer-quality video equipment or in a more centralized location using high-definition technology. They chose the centralized location using equipment that offered better resolution. However, finding a room for these visits in a space-crammed academic institution is a challenge. Surgeons also said they were somewhat reluctant to invest the time needed to learn this new way of seeing patients. However, getting buy-in from the providers has become easier because of the push by hospital administration to limit the wait times for surgical care.

Privacy is an extremely high priority for the VA. Although smartphones may be more convenient than expensive video equipment, using them to deliver such care is currently against VA policy because of their lack of security. This is remarkable, considering that the strategic initiative from the Secretary of Veterans Affairs reads, “Veterans and eligible beneficiaries increasingly expect to receive VA communications via the Internet and on mobile devices.” We know of no current plans to change this policy.

Implementation and Conclusion
The Minneapolis VA’s department of surgery started a pilot study of telemedicine for postop visits in December of 2014. Participating patients travel to their nearest CBOC, where they are checked by a medical assistant, then sit in front of a camera and connect with clinicians at the Minneapolis VA. As of January, we had done eight remote postop visits and are collecting data on patient and clinician satisfaction, the distance between the veteran and the Minneapolis VA, the distance to their nearest CBOC, whether the veteran needed a friend or family member to drive them to the postop visit, whether they had insurance paperwork to fill out, and whether they had any complications after surgery (and whether those complications were diagnosed late because of the telemedicine visit). Future investigations will determine whether the remote postop follow-up program will yield the anticipated cost and time savings benefits.

Clinicians and administrators at the VA want to expand the use of telemedicine services in order to make care more timely and convenient for patients. This program and others that grow out of it may help alleviate the problem of long wait times for surgical care at the Minneapolis VA Medical Center. MM

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References