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Background

Although the goal is to offer palliative services universally, many rural regions continue to fall short. Data from the American Hospital Association indicate that more than 85% of hospitals with 300-plus beds have palliative care, compared with just 41% of small hospitals (50-149 beds). Telemedicine offers an outreach opportunity that remains to be formally structured in the palliative field. At VCU Health, two rural community hospitals in the system are more than an hour away from the main campus: VCU Health Community Memorial Hospital (VCU CMH) in South Hill, Va., and VCU Health in Tappahannock, Va. (VCU Tappahannock). A pilot to provide palliative telemedicine to the CMH oncology clinic generated almost 100 encounters over a year and improvements in symptom management, transitions of care and advance care planning. Leaders at all sites requested expansion of the pilot to VCU CMH (inpatient) as well as to the oncology clinic at VCU Tappahannock (outpatient), prompting the development of this project. For the VCU CMH portion (**Aim 1**), the focus was on seriously ill patients at high risk of mortality who were candidates to transfer to VCU Hospital in Richmond, Va. (academic center, VCUH). In the VCU Tappahannock oncology clinic portion (**Aim 2**), the primary outcome was access to pain and symptom management for cancer patients.

Approach

AIM 1

Given the lack of palliative care access at VCU CMH, a palliative care nurse navigator (PCNN) model was developed to support this patient population. The PCNN provides on-site support for patients, families and the health care team for symptom assessment, advance care planning and hospice transitions. Based on complex decision-making or symptom-management needs, telemedicine consultative visits were available from the VCUH palliative care medical director. Well-received by patients, families and hospital staff, this program led to a 22% decrease in inpatient deaths at VCU CMH and an increase in hospice discharges by more than 40%. Leaders determined that two additional pathways would improve program benefits. The first was supporting transitions to comfort care for patients and families who declined to transfer to VCUH for terminal illnesses and who could be linked to the critical care telemedicine program that also was developed during this time. The second was recognizing that although some terminally ill patients and their families chose to transfer to VCUH for life-prolonging therapies, they still would benefit from early palliative support, and a new dashboard and trigger process were developed to initiate this service.

AIM 2

Oncology providers at VCU Tappahannock realized that up to 15% of its cancer patients had difficulty managing pain despite the use of opioids. In collaboration with the providers, referral criteria were developed to improve pain management and increase safety and functional status to tolerate treatment courses. After developing referral criteria, an interdisciplinary group from VCUH and VCU Tappahannock developed a workflow, palliative training and templates for a dedicated oncology supportive care telemedicine clinic. The VCUH telehealth office provided support for technology requisition

and training as well as credentialing at VCU Tappahannock. The VCUH regulatory and legal departments provided support for clinical structure and contracting. Electronic health record (EHR) note templates and billing capture were reviewed and will be monitored throughout the process.

Outcomes

AIM 1

This project is several weeks post-go-live and outcome data are not yet known. Preliminary data suggest that process measures such as palliative telemedicine visits to VCU CMH and palliative consults for VCU CMH patients who have transferred to VCUH have increased. Based on the ongoing interdisciplinary meetings, an additional outcome will be tracked for patients with life-limiting illnesses who declined transfer in favor of receiving comfort care in their community. Early feedback from team members has been positive, with patients and families feeling that symptom management, support and streamlining to hospice were beneficial.

AIM 2

This project was expected to go live in mid-August, but we don't yet have outcomes.

Lessons Learned

These models of palliative telemedicine at two different facilities have required lots of coordination and communication. Developing relationships with team members in rural communities is crucial — they are partners in ensuring high-quality care for patients. Projects in rural hospitals can be developed and implemented more expeditiously and, therefore, may contrast those of an academic center with flexibility of timelines on both sides being crucial.

Although these projects are valuable to patients, families and team members, volumes are typically low, so the return on investment may be measured in quality metrics rather than financially. Gaining support from both facilities' leaders is critical to these projects' success. Outcomes that may be commonly compared for academic hospitals, such as inpatient mortality, do not have clear baseline standards for rural hospitals, so both facilities may not be able to have the same outcome metrics. Secondary outcomes that cannot be measured easily, such as the development of primary palliative care at rural campuses, can occur concurrently in these models and should be welcomed as an additional community benefit.

Next Steps

AIM 1

After several challenging cases, we determined that the PCNN likely needed more ongoing educational support from the academic palliative team, and a monthly meeting was developed for case review. Inpatient mortality at both facilities will be monitored not to reach a certain goal, but to evaluate our understanding of what a good baseline may be between a rural community hospital and an academic center. Pathways to identify which patients with life-limiting illnesses may not benefit from transfer to VCUH and how we make those transitions at VCU CMH without the patients leaving their home communities are being explored. We're monitoring the change in VCUH palliative consult volumes after adding the proactive trigger for transfers as well as the outcomes for those patients (inpatient mortality, length of stay and hospice discharges). We've encouraged VCU CMH staff to suggest patients who may benefit from palliative consultations. The potential for developing inpatient hospice capabilities for VCU CMH has been discussed and would allow comfort- care patients with complex symptom management or other end-of-life needs to transfer back to their home communities.

AIM 2

This project's go-live date was Aug. 16. After a mock patient visit on Aug. 4 and the clinic nurse was trained, patients were scheduled from a waiting list compiled by the oncology providers. Volumes of referrals and encounters will be tracked along with improvements in symptom management via the Edmonton Symptom Assessment Scale. Baseline advance care planning data will be obtained to inform future intervention opportunities. Initially, oncology provider and nursing feedback will be obtained informally to guide improvements, with the eventual plan of obtaining periodic patient satisfaction surveys.