

ADVANCES IN HEMATOLOGY

Current Developments in the Management of Hematologic Disorders

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The Use of Telemedicine in Hematology and Oncology



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H&O What exactly does telemedicine encompass?

WW Telemedicine can include a variety of components of health care delivered virtually. Since the beginning of the pandemic last year, many of us in hematology and oncology have used telemedicine to replicate certain office visits. Telemedicine allows us to conduct patient encounters by phone, or better yet by video. In some cases, the technology used is integrated with our electronic health record platform. More broadly speaking, telemedicine can also encompass activities such as remote monitoring, which may involve having patients fill out surveys or wear sensors.

H&O How often would you say telemedicine is being used right now in hematology and oncology?

WW Before the COVID-19 pandemic, telemedicine accounted for a relatively small proportion of most physicians' practices, particularly in hematology and oncology. In a recent study by Cantor and colleagues, which looked at data on more than 13 million beneficiaries of employer-based health plans in 2019 and 2020, the use of telemedicine increased more than 20-fold after the COVID-19 pandemic was declared a national emergency on March 13, 2020.

We saw the largest difference at our institution between April and June of 2020, when we experienced a rapid conversion from traditional office visits to telemedicine in

response to concerns about exposure of patients and clinic staff to infection. At the peak of the pandemic, which was in the late spring and summer of last year, I would say that up to 70% of our hematology and oncology visits were being conducted via telemedicine. Since the fall, we have seen a drop in that number.

We are now left with a situation in which we have more telemedicine activities than we did before COVID-19, but fewer than we did at the height of the pandemic. Some heterogeneity exists, however, depending on each physician's particular patient population. For example, I do a lot of bone marrow transplant and cellular therapy in my day-to-day practice, so my patients are more likely than some others to require an in-person visit.

H&O What other factors beyond the need to decrease exposure to infection contributed to an increased use of telemedicine?

WW Multiple structural changes occurred that made telemedicine more practical. First, the declaration of a public health emergency led to changes in state and federal policy that made it easier to deliver telemedicine across state lines. The health emergency also led to changes in Medicare and private insurance that allowed reimbursement of telemedicine visits at higher rates than before. Finally, many health care providers upgraded the equipment and technology they needed for telemedicine. Some providers found solutions that were enhancements of their existing platforms, whereas others invested in new platforms.

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H&O What have been some of the challenges of telemedicine?

WW In some respects, the COVID-19 pandemic revealed impediments to the long-term uptake of telemedicine. For example, not all of our patients have broadband access at home, and easy access is necessary if patients are to be able to participate fully in a virtual session. Many of us—including me—feel that the quality of the interaction during the delivery of health care is better with a video component than with audio only. Video allows us to pick up on certain aspects of a patient's health condition, or even some specific clinical examination findings, that we simply cannot get by phone.

Another concern, which has been raised anecdotally as well as noted in some surveys, is that some patients feel uncomfortable about having their home surroundings viewed on video. Other patients may feel uncomfortable about the way they appear on camera, especially because they are able to see themselves during the entire visit. We also have real concerns regarding differences in the uptake of telemedicine, which may exacerbate ongoing health care inequities based on racial and sociodemographic factors.

Also concerning is that certain aspects of clinical care cannot be fully replicated during video visits. For example, the position or resolution of the camera may not be adequate for a thorough skin examination. Another example of something that does not work well in a remote visit is an oropharyngeal examination, which is important when I am looking for evidence of graft-versus-host disease after a bone marrow transplant. Laboratory testing can sometimes be made possible by using a laboratory that is close to the patient's home, but this introduces a level of logistical complexity to the interaction that we did not have before the rapid scale-up of telemedicine.

H&O How do telemedicine patients differ from those who decline telemedicine?

WW We do not fully know the answer to that question, but it is one that we are hoping to learn more about here

at the University of North Carolina and at many other institutions. We want to identify the characteristics of persons who are less likely to use telemedicine services so that we can address those that create barriers. For example, we are seeing some evidence that technologic literacy plays a role, along with differences in age, educational level, and race/ethnicity. In the study by Cantor and colleagues, the increase in the use of telemedicine was greatest among patients in counties with low levels of poverty and among patients in metropolitan areas; it was also greater among adults than children. We are working to improve access to health care and minimize disparities, so we want to make sure we are not increasing barriers to access through the deployment of telemedicine.

H&O How can telemedicine be used in hematology and oncology for the remote monitoring of patients?

WW We have evidence that the implementation of patient-reported outcomes into the routine delivery of cancer care is associated with improvements in patient health-related quality of life, reductions in emergency department visits and hospitalizations, and even improvements in overall survival. Because patient-reported outcomes by definition come directly from the patient, without interpretation by anybody else, telemedicine provides an opportunity to place increased emphasis on this information, especially if the technology is built into the overall approach to telemedicine.

We are also seeing improvements in the health sensors available for home use. Over time, many of these sensors for consumer use—such as Fitbit devices and Apple Watches—have become comparable to medical-grade sensors. The ability to integrate sensor data with patient-reported outcomes has the potential to improve the monitoring of patients with cancer. We have been doing home monitoring for some time in other disciplines—with devices that monitor heart rate and rhythm in cardiology, for example. We are further behind in oncology, but we are beginning to catch up.

H&O What are some of the legal issues related to telemedicine?

WW Security and privacy concerns come along with the technology. Another issue is the delivery of health care services across state lines. The guidance and policy around that change fairly frequently, so these are important considerations.

H&O What is the best way to maintain the confidentiality and privacy of patient records?

WW Before the pandemic, we had a number of best practices in place to ensure confidentiality and privacy, and these have evolved further during the pandemic. First, we want to make sure we are using an appropriate platform with protocols that are compliant with the Health Insurance Portability and Accountability Act (HIPAA), such as Zoom for Healthcare, Doximity, Doxy.me, Webex, Thera-LINK, TheraNest, and many others. I find that telemedicine works best when a visit is embedded within the patient's electronic health record because it is then easier to examine the chart in a password-protected way during and after each visit.

Best practices also exist in terms of how to conduct a visit. For example, we need to introduce the purposes of and limitations to the use of telemedicine at the beginning of the visit and make sure that the patient is in an environment that is as free as possible from privacy concerns.

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H&O What is the best way to share data across different platforms?

WW As individual providers, we usually have a relatively narrow range of options for sharing data. But moving

forward, we are seeing national movements toward interoperability, so that we can share information with other providers as long as appropriate permissions are granted. The ability to transfer information from one data environment to another in a secure and responsible way will democratize the information within, which can improve patient care and aid in research. We are also going to see patients having more control over their health information, as in the 21st Century Cures Act.

H&O Has reimbursement for telemedicine been a problem?

WW I do hear about concerns related to reimbursement, and how to code and bill for services properly. Even though reimbursements for telemedicine visits are supposed to be the same as those for in-person visits during the pandemic, differences in facility fees, for example, may lead to differences in ultimate reimbursement. Some work remains to be done in terms of having true parity between in-person and remote delivery of health care. Regardless of differences in reimbursement, our institution has encouraged the use of telemedicine whenever it is clinically appropriate, and I think that is the right guidance.

Disclosures

Dr Wood has served as a consultant to Teladoc, has received research funding from Pfizer, and has served on the advisory board of and has equity in Koneksa Health.

Suggested Reading

Cantor JH, McBain RK, Pera MF, Bravata DM, Whaley CM. Who is (and is not) receiving telemedicine care during the COVID-19 pandemic [published online March 6, 2021]. *Am J Prev Med*. S0749-3797(21)00131-8. doi:10.1016/j.amepre.2021.01.030.