Population Health NEWS

What's Old Is New

by Talbot "Mac" McCormick, M.D.

The word "telemedicine" once conjured up images of revolutionary change in inpatient care. Less than a decade ago, many hospital executives and physicians held firmly to the idea that "tele-anything" had no place in certain aspects of care, especially face-to-face interactions between patient and provider. More than a few hospital professionals pictured a future as cold and impersonal as an ATM transaction.

That attitude has changed today. Rather than making healthcare detached and indifferent, telemedicine is doing just the opposite.

In hundreds of hospitals—whether it's a traditional inpatient facility, a micro-hospital or a long-term, acute care hospital (LTACH)—some form of telemedicine is helping maintain and stabilize tried-and-true clinical practices, often improving them in the process. It supports the way clinical teams collaborate, solves staffing challenges and helps hospitals do a better job of fulfilling their mission in their communities.

To illustrate, here are some of the most common ways in which hospitals and their patients are benefiting from telemedicine today:

- **Quick access to range of specialties.** In the traditional model, hospitals contract with local specialists in cardiology, neurology, intensive care or other disciplines to augment their clinical staff and consult with patients when necessary. Specialists' responsibilities include visiting patients during the day and being available at night to come to the hospital or to answer staff questions by phone.

  As the supply of primary care physicians continues to shrink in the United States, the supply of medical specialists also is shrinking, with shortfall projections in the tens of thousands during the next decade.[1] Especially in rural communities, specialists are hard to come by, and those specialists who have their own practices might not be agreeable to including hospital calls in their routines.

  Telemedicine can fill the gaps by making specialists available anywhere, any time of the day or night. A cadre of specialists who contract with a telemedicine provider handles calls, responding either by phone or text message. Or if the situation warrants, the physicians can diagnose and prescribe treatment for a patient via two-way videoconferencing technology and a cart equipped with diagnostic equipment and a monitor that provides for face-to-face communication with patients and staff.

  Telespecialists might be in the same state and time zone; they might be across the country or, in some instances, halfway around the world, but they must be licensed in the state and credentialed by the facility at which they are practicing. Wherever they are, response time is fast. For example, teleneurology specialists typically achieve an average response time of 3.5 minutes (a fraction of the time it typically takes for a local neurologist to get in a car and drive to a hospital) and an average diagnosis and treatment time of 21.8 minutes. It's a big improvement over traditional responses to patients who present with symptoms of stroke or other acute neurological emergencies.

  Bottom line benefits also are strong. With its teleneurology program, for example, INTEGRIS Bass Baptist Health Center, a hospital in Enid, Okla., anticipates a $200,000 reduction in locum tenens staffing costs annually and additional revenues in excess of $55,000 a year by avoiding unnecessary hospital transfers.

- **NP/PA backup is better structured.** While the physician supply is shrinking, the supply of nurse practitioners (NPs) and physician assistants (PAs) is growing.[2] As a result, NPs and PAs are taking on greater responsibility in inpatient settings, especially in rural hospitals, where the physician shortage is most acute. Telemedicine is providing them with invaluable support.

  Anthony Medical Center (AMC), a 25-bed, critical-access hospital in Anthony, Kan., about 60 miles west of Wichita, has used telemedicine for three years to provide backup support for three PAs and one NP who staff its inpatient facility, the emergency department (ED) and the hospital's attached rural health clinic. All of them view the telemedicine program as an essential part of the healthcare team.

  Before the telemedicine program was implemented, the hospital had contacts with several inpatient specialists in Wichita who would provide NPs and PAs with expert opinions when needed. But when the telemedicine program began and its inpatient specialists became immediately available to the team, the backup process became more structured, comprehensive, consistent and effective.

"When telemedicine came on board, we could discuss each of our patients with the telehospitalists and look at our patients from a broader perspective," says Rebecca Carter, ARPN and NP at the facility. "We can transfer fewer patients because we make more confident decisions that patients can stay here with our own resources and get the level of care that they need."

- **Support for nighttime ED and cross coverage.** Quality night coverage could be a headache for any hospital. In small facilities, staff physicians might have to rotate working at night or be on call to answer questions from night nurses when patients have problems. It can quickly lead to burnout, especially now when young physicians place a greater premium on work/life balance than their predecessors. Telemedicine can provide a sustainable solution to the problem.

  For example, the 45-bed Bon Secours–Richmond Community Hospital in Richmond, Va., uses a lean, effective model of two hospitalists to lead its clinical team. Hospitalists rotate one-week-on/one-week-off shifts, and are responsible for admitting, rounding and discharging patients. A telenocturnist program helps them get a good night's sleep.

  Nurses and other members of hospital clinical teams give high marks to telenocturnist coverage, saying they no longer face the difficult choice of deciding if they should wake up a night call doctor or if a patient's situation could wait until morning. In larger hospitals, telemedicine also delivers value in night coverage. These hospitals typically employ full-time nocturnists—physicians who work at night to admit patients in the ED and to manage floor call.

  When things get busy, telemedicine can take the pressure off these nocturnists by providing telenocturnists to handle cross-coverage calls, keeping the local nocturnists from having to run back and forth during the night between an ED and the floor. And if there's a surge in the ED, the telenocturnists are available to handle admissions.

More Than Just 'Buying Coverage'

Since the invention of the telephone and the beeper, local physicians have been practicing telemedicine so that the new model described here simply leverages an old concept and does it better.

What hospitals typically find is that telemedicine provides far more value than they ever expected. They might have invested in a telemedicine program simply to provide coverage when local physicians were scarce. What they get is an expansion of their medical staff to include new providers whom they like and respect—professionals who provide valuable guidance to their clinical teams. They get a hospital that is no longer just a place for patients to be triaged and transferred; they get a hospital known for not exhausting its doctors. The result is a more vibrant facility able to offer a wider range of services to its community.

[1] Dall T, Chakrabarti R, Iacobucci W, et al. "HIS Markit, The Complexities of Physician Supply and Demand: Projections from 2015 to 2030." Prepared for the Association of American Medical Colleges. Feb. 28, 2017.
[2] Stempniak, M. "Closing the Primary Care Gap." *Hospitals & Health Networks*. March 1, 2013.

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