Providing hospital level care at home with Narayana Murali, MD [Podcast]

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In today’s AMA Update, Narayana Murali, MD, system chief medical officer of medicine services at Geisinger Health, discusses providing hospital level care in patients’ homes. Dr. Murali is also chair of the AMA’s Integrated Physician Practice Section (IPPS). AMA Chief Experience Officer Todd Unger hosts.

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Speaker

- Narayana Murali, MD, system chief medical officer of medicine services, Geisinger Health

Transcript

**Unger:** Hello and welcome to the AMA Update video and podcast. Today we’re talking about providing hospital level care at home. I’m joined by Dr. Narayana Murali, chief medical officer of medicine services at Geisinger in Danville, Pennsylvania. Dr. Murali is also chair of the AMA’s Integrated Physician Practice Section. I’m Todd Unger, AMA’s chief experience officer in Chicago. Dr. Murali, it’s a pleasure to have you today.

**Dr. Murali:** Thank you, Todd. Likewise and thank you for having me. It's a pleasure and an honor to be part of AMA, particularly on the membership side of things. Thank you.

**Unger:** Well, let’s get right in here. But before we jump in, I'd love it if you could clarify for our viewers and listeners the difference between hospital at home and home health care.
Dr. Murali: OK. Perfect. That's a great question to start with because it ties to some of the complexities of how care is provided. When we think about home health services, we are basically talking about skilled nursing services at home, physical therapy, occupational therapy, social work, along with some home aid services at home on an intermittent basis for chronic diseases. When you talk about hospital at home, you are really talking about acute care for patients, providing hospital level care at home.

So basically, you're having a physician available 24/7. You have advanced care providers—either nurse practitioners, skilled nurses, physical therapists, EMT folks, infusionists, phlebotomists, lab testing, imaging—all of that available at home in addition to ambulance services to take a patient who meets the hospital criteria of admission out to the home, all of the durable medical equipment, including oxygen services, antibiotics, so on and so forth, at the level of home. And more importantly, in the event there is a decline in the clinical status of a patient, very similar to in the hospital, you have the ability to transport the patient or have rapid emergency services available at home at short notice to provide that care.

So it's far more than what you do in home health. And on top of that, you have the hybrid of technology to make sure that you have 24/7 monitoring. So those are the essential differences between the two, Todd.

Unger: So big difference and obviously no small feat to be able to do what you're talking about. And you've been at the forefront of this for a long time now. First you had Marshfield Clinic in Wisconsin and now at Geisinger Health. Tell us a little bit about your journey to move this very, very important innovation forward.

Dr. Murali: Thank you, Todd. You touched upon a particularly turbulent period of my life. But in June 2016, I served as the chief political strategy officer as well as the executive vice president of care delivery for the Marshfield Clinic Health System. And at that point in time, we were in the process of transitioning from a multi-specialty clinic group to a large integrated health system.

And we were constrained for beds in rural Wisconsin. And as you know, the state of Central Wisconsin is almost as big as the state of Maine. And you have populations of 1,000 and 2,000 people, spread across this large area.

So the task that I was asked to focus on was to create hospital level care at home, lower the total cost of care for our patients from a health plan perspective, while still maintaining the quality of services that we needed. And fortunately, at that time, I ran into another very good human, Travis Messina, who happened to be the CEO of Contessa Health, now absorbed by Amedisys, who was trying to look at a platform where they could deliver some value-based care.
And so when I met him in June and then subsequently in September, we had the first patient admitted to our hospital home program in a three-month period, where we used some of their platform technology as well as our care protocols at Marshfield Clinic to deliver those services. By about one year’s time into the story, we realized that this was a model of care where you could provide hospital level care for value-based services and made an alternative payment proposal to the PTAC committee—the physicians task committee related to alternative payment mechanisms.

And they recommended our program to Alex Azar, who was then the Secretary of Health. And it got approved at that level as one of three potential programs that could be put in place at a national level from the CMMI standpoint. And then it sat there for about three years or so till the COVID pandemic happened.

And when the hospital systems were overburdened for hospital beds, CMS moved with acute care—or acute hospital care at home program in late 2020. And by, I think—by 2020 or 2021, other systems joined. So about five systems quickly ballooned to about 226 hospitals and over 144 health systems who started to provide hospital at home in the national environment at this point.

That said, it still has challenges. The numbers are not huge. And it has its own teething problems that we need to focus on.

Unger: Well, it's a pretty amazing accomplishment. And talk about timing, I mean, it really couldn't have come at a better time in history. Let's fast forward a little bit.

You talked about the complexity of delivering this level of service here to patients. Tell us more about Geisinger's program now. What is the kind of range of services that it offers? And what patients does it serve?

Dr. Murali: Yeah, Geisinger is an extremely innovative organization. It has been on the forefront of technology innovation and how care is provided in the state of Pennsylvania on a value-based platform. And like the CEO of Geisinger, Joe Andrew, says, it's not one click to the left. It is really focusing on the center. And how do we actually make health care better and easier for patients?

Geisinger's focus has been with two models of care. One is the pioneering mobile health. It is basically using mobile integrated health with paramedics who can go and deliver infusion services, everything at home. And another model called the Geisinger at home, which they scaled around the time of COVID.

To date, there are about 11,000 patients who have received that kind of care. Much of the focus is on Medicare Advantage patients to reduce their visits to ER, manage their care proactively, especially the top 3% to 5% of most complex care, so that people can choose to stay at home and get the care, where basically Mohammad goes to the mountain to provide the care as opposed to the mountain...
coming to Muhammad, from the standpoint of care. So that's what Geisinger does at this point in time.

Now, in terms of hospital at home, Geisinger has the individual waiver on the hospital at home but is carefully watching the logistic requirements, the outcome requirements, the safety and quality metrics before kicking off something in a big hurry. So that's really how the Geisinger's plan is. But it still caters to the same kind of population and provides the care that is required on a value-based footprint.

**Unger:** What are you learning in terms of the initial data? What is it saying about the benefits of hospital at home?

**Dr. Murali:** Well, there is data for over 20 years. The original models of hospital at home started back in the 1990s. Initial work happened in Australia, subsequently in 1995 with Johns Hopkins and the first study with about 17 patients, I think, in 1998. What we were able to show at Marshfield is that—we published that in 2019 in the New England Journal Catalyst. And what we were able to show is that in matched cohorts, we were able to reduce readmissions by about 44%—

**Unger:** Wow.

**Dr. Murali:** --over a 30-day period. We were able to reduce ED care. We were able to reduce ... In terms of patient satisfaction and experience, our satisfaction scores were about 93%, upwards of 90%, based on similar models of service.

Patient acceptance rate was over 90%. Hospital-acquired infections were down, obviously. And then from the standpoint of quality of care, it was perceived that we provided great quality of care. We, in fact, did not even have any significant readmissions or mortality on the front end.

And then subsequently, we lost one patient who chose to go palliative care during the course of his therapy. So I'm giving you a data of about 300 patients going back to 2019. Now, there is adequate information in literature about the safety and efficacy of these programs, not just with respect to hospital admissions and readmissions but also in terms of outcomes and mortality.

If I look at the CMS data, the latest data is available up to October 2021, I believe, or November 2021. And what it shows is that the readmission rate is roughly about 7%—little more than 7%. And the unexpected mortality rate is 0.43%.

Now, compare that to what is traditional hospital readmission rates in a 30-day period, which is more than double that, and then mortality rates are much higher. So overall, I think there is data to suggest that this is a valuable program. And other countries, like Australia and U.K., have actually leveraged these programs to reduce the total cost of care.
What we were able to demonstrate was that it reduced the total cost of care by about 15%—10% to 15%. I believe there's potential to do much more if you're able to scale the program appropriately. Now, I say that so because in the 2021 data, the total number of Medicare patients or Medicare patients, are roughly about 1,800. Now, you really need 30 to 40 patients to scale that by hospital to actually get the best returns. I hope I've answered your question.

**Unger:** Yeah. And with statistics like that, which are pretty amazing, there's no question as to why other health systems might be interested in establishing their own hospital at home programs. When you think about what you've learned and you're going to give advice, is it something that other health systems can do with their own internal expertise? Or does it require kind of enlisting outside help?

**Dr. Murali:** Yeah, so necessity is the mother of invention. Now, you could rely on a vendor to provide you the platform from the administrative standpoint. So for instance, care coordination, logistics of transportation, to make sure that your RN or your pharmacist is available at Patient X’s home, and then subsequently at Patient Y’s home, which is probably about two hours away—to make sure that part of it is coordinated.

Contracting with large health plans across the nation because patients are not restricted to a specific health plan in terms of care; in terms of the central command as well as making sure that data is collected, the system metrics are easily available—so on the administrative side, there is a potential to use an external vendor. In addition to that, your focus on biometrics, Wi-Fi-enabled technology and this technology investment—so all of those could be done with a vendor.

That said, large systems don't necessarily need a vendor to deliver the service because they already provide the service. And the care protocols that organizations provide are really the drivers of your better outcomes. So at Marshfield, we were able to basically provide care for 151 BRGs after a one-year period where we started with about eight conditions and very quickly transitioned to providing care for very complex care. So organizations can do that if they have the right leadership, as well as critical thinking and a very strong physician, nurse practitioner, nurse group that is able to focus on focusing on the patients' needs as opposed to an institution's needs.

**Unger:** Now, as a person who has been kind of through this scaling process now twice, I'm curious, what do you think are the biggest challenges? And are there some that are specific to locations or patient populations? How would you advise other folks out there?

**Dr. Murali:** I think although not necessarily by choice or a reason, there are some inherent conflicts between the state and the federal laws. While CMS can request for acute care at home, it is the state—the Department of Health—that basically regulates how acute care is provided, based on statutes and regulations of the respective state. So there is a need for the federal and the state legislators, as well as the federal and state regulators, to sit down and make sure how this program is rolled out.
So that is one of the reasons why you see a variable acceptance of this program in different states. In Wisconsin, for instance, we had to go to the Senate Finance Committee. And I had to provide a testimony as to the benefits of the program for us to allow that program to continue till the PHE ended. And right now we are at a junction where after the PHE ends on January 11, we probably have another 151 days before which the Congress has to act. If the Congress does not approve this, this program is dead in water at this point in time.

One of the other reasons why hospital systems do not want to take the risk of investing hundreds of millions of dollars into a program focused on lowering the total cost of care, when you don't have models of reimbursement that are necessarily going to come through or issues related to regulation and statutes that need to be addressed by collaborative work between the two groups—the federal as well as the state. I hope that clarifies some of the barriers. So for instance, under the hospital regulations, you have two-hour fire safety rules to keep a patient safe, to be basically able to evacuate a patient in the event of a fire.

A home is not quite designed for a two-hour fire safety rules. So how does a state hospital lead regulator address some of these issues? It's a good example to understand the complexity of what is done.

And then how do you assess that care is provided 24/7? What system metrics are required that needs to be supported so that the state is able to actually provide and oversee the services at that state level? So there are some issues that need to be addressed because, like anything, when you're moving from a legacy model to an innovative model, there are going to be issues related to anchors from the old legacy model that do not apply in the new model. And given the fact that you are now able to provide hospital level care with the ability of telehealth and the technology which was not available 30 years ago, which is why programs did not scale appropriately—I'm sorry—I think it is important for us to rethink and figure out how we need to address it as we go forwards.

**Unger:** Well, it's interesting, too, because in addition to leading these efforts at Geisinger, you also have a different way that you are driving this vision. And that is through your leadership as chair of the AMA Integrated Physician Practice Session, which what we call IPPS. This is one of the section's key priorities. Will you tell us a little bit about how IPPS is working on this level of innovation here and addressing hospital at home?

**Dr. Murali:** Yes, absolutely. It's, first, an honor and privilege to serve the IPPS. It's over 50 large groups of physicians and hospital systems that are part of the membership of the IPPS in the AMA. And we spent the last year and a half, bringing in the key experts—content experts—in this space to actually have panel discussions and educate physicians about what hospital at home is.

So we have, for instance, Kaiser, Henry Ford, Marshfield, Geisinger—different organizations that have been involved in the programs in different ways—to show what can be done alternatively to lower the
total cost of care for health care because you cannot try to continue on this inexorable course of 20% of your GDP being devoted to medical care. So that’s the first step. From a strategic priority standpoint, this is among the three top priorities of the IPPS Section to work with AMA on two primary objectives.

One, advocate for high acute care delivery in the home setting and in the community. This is in part related to the semantics of how it is understood from a state perspective because home care could come under home health or it could come under a hospital piece. And there are reimbursements at hospital level that are required to keep this program going.

The second piece is a meaningful support in terms of advocacy for technology needs. No other organization or group can do this as well as the AMA can do it. And so, these are the two areas we are focused. Obviously, there are several specific tactical goals as well as metrics that we are following. But those are the key objectives of the IPPS.

**Unger:** Well Dr. Murali, thank you so much for being here today and sharing your perspectives on hospital at home. It’s so impressive to see just the amount of progress. And I know all things have been in process for many years.

It really has accelerated. And it’s really neat to see kind of that innovation right in front of our eyes. Dr. Murali, you’ve also been a contributor for our latest AMA Future of Health Report. And you can find a link to that report in the description of this episode. Please take a look at that.

Again, Dr. Murali, thanks for being with us. We’ll be back soon with another AMA Update. You can find all our videos and podcasts at ama-assn.org/podcasts. Thanks for joining us. Please take care.

**Dr. Murali:** Thank you, Todd. It’s a pleasure and a honor to be part of AMA. Thank you.

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