Plan for the Future: Use of On-Site Home Hemodialysis in Skilled Nursing Facilities

Webinar Transcript

Mitzi Vince: Good afternoon, and welcome to today's webinar: On-Site Home Hemodialysis and Skilled Nursing Facility. My name is Misty Vince, and I am a communications specialist at Quality Insight and your host for today's presentation. We will get started in just a few moments, but first, a few housekeeping items. All participants enter today's webinar in listen-only mode. Should you have a question or a comment during today's call, we ask that you please type it into either the chat or Q&A box to the right of your screen. If you are unable to locate your chat box, hover over the bottom of your screen and click on the word chat with the speech bubble in the bottom right corner of your screen.

At the end of today's presentation, you'll be directed to an evaluation and post-test. Once completed, you will be presented with a certificate for you to fill it out and print proof of your course completion. Even if you do not need the CEs, we hope that you will still complete the evaluation as it helps tell us how we did and how we can shape future programming. To complete the course, the learner must watch the 60-minute webinar either live or recorded and complete the post-test questions and evaluation. 1.25 nursing contact hours have been approved for this webinar. Quality insights is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation.

Quality Insights has no conflict of interest. The speaker does have a conflict of interest, but measures have been taken to avoid the conflict. After this course, the learner will be able to explain benefits of on-site dialysis for your residence and your facility, describe the roles and responsibilities for your facility and the dialysis provider, and discuss key considerations for your facility as to if and how on-site dialysis is pursued. We have a lot of excellent information to deliver today. So, without further ado, I'd like to introduce our guest speaker.

Rich Fatzinger is the senior director of skilled nursing dialysis for NxStage Medical. NxStage is a home dialysis equipment manufacturer who partners with most dialysis providers across the United States. Rich has a bachelor of science degree in marketing and logistics from the University of Maryland. He has over nine years of business development and operations experience, working closely with dialysis providers in the home, hospital, and skilled nursing facility setting. It is now my pleasure to turn the program over to Rich Fatzinger. Rich.

Rich Fatzinger: Thank you very much for the introduction, and thank you for the opportunity to present with you all today. So, today, when we go through everything, as was mentioned, we will be discussing some of the existing challenges that nursing

homes and skilled nursing facilities experience associated with patients who require dialysis. We will talk about the impact of on-site dialysis and go through a case study. We will talk about the obstacles that have previously prevented implementation of on-site dialysis, which is a very important piece to understand. We will talk about another case study during COVID-19. We'll talk about the economic factors associated with implementing it on-site dialysis program, and last but not least, we will talk about the considerations and responsibilities associated with implementing a program. Oh, sorry. I'm just getting used to the controls here.

One of our patients that we have the opportunity to work with is a patient who has been on dialysis since 1993. She had experienced both an in-center dialysis receiving dialysis via peritoneal dialysis. She received a transplant, and she also had an opportunity to participate in receiving on-site dialysis within a nursing home, and currently, this resident and patient of ours is receiving dialysis at home and is doing nocturnal home dialysis as we speak. So, this resident that we will describe as a case study is a person who her experience with a nursing home came to be because she received a kidney transplant, and after receiving her kidney transplant, the transplant had failed, and ultimately, while getting the transplant removed, she ultimately also ended up breaking her hip.

After her surgery and experience in the hospital, she was needed to be in a nursing home for some time. When that patient went into the nursing home, she was, as says here, was in the nursing home for four months, and during the first several months of her experience there, she was forced to be transported to and from the dialysis clinic on a daily basis. I'm sorry. Three days a week, two dialysis, and one of the things that she describes in her experience is the fact that the transportation itself was very uncomfortable. There was a lot of bumps and banging around that would take place in the ambulance when she was being transported to and from the nursing home to the dialysis clinic and back, which was extremely painful for her when she was experiencing this.

Considering the fact that she was recovering from a broken hip, this transportation and the challenges associated with it were very, very problematic. In addition, when she would be transported to and from the nursing home facility, she would be picked up with a van very early in the morning. She described it. It's around 6:00 to 6:30 in the morning. Many times, she would end up missing her breakfast and her pain medication when that was taking place, and then when she was in dialysis, she also at the time required the use of an ostomy bag, and occasionally would have accidents, and one of the things that she described is that it was a very humiliating experience in a number of situations when she would be in the dialysis clinic in the morning after being transported and dealing with that pain, with or without her pain medication, in the instance that she would have some sort of an accident.

When she was at the dialysis facility, that facility did not have the means or any of her clothes or things of that nature that she would be able to change in the

instance that that was taking place. So, needless to say, her experience in going back and forth from the dialysis clinic in that scenario was less than ideal, putting it mildly. She was then fortunate enough to have the opportunity to dialyze on-site within her facility, and it was a substantial shift from what she saw previously, and in that scenario rather than having to wake up early and miss her meals, she was able to wake up, have her meals, receive her pain medications, and then instead of getting in a van to transport across town to get into the dialysis clinic, she simply would get in a wheelchair, be transported downstairs to the basement where the dialysis den was located, received her dialysis for her treatment time. After dialysis, was transported back up to the floor and was able to receive her lunch and then proceeded with rehab in the afternoon.

So, this is her experience that happened actually several years ago. Unfortunately, for this patient, she also was re-hospitalized this past year and was in a facility during COVID, and one of the things that she noticed as a challenge was that when she first went into the facility, she was certainly very nervous with all the concerns that many patients have today about entering, or I should say, for sure did have about entering nursing homes during the COVID experience, but one of the things that she was very adamant about was that she wanted a facility that would offer, enable her to do on-site dialysis and not need to be transported to the facility, and in doing, she was very fortunate because one of the biggest challenges associated with COVID right now is that, and we'll talk about this in a little bit. There's a very high incidence of transmittal of COVID-19 associated with patients not only in nursing homes, and also separately in dialysis clinics, but even higher for those patients who fall into both categories.

So, that is one of the big challenges that she experienced during her time, and what we saw that was different in this scenario was that because the dialysis was being performed on site and she did not need to be transported out, she was not forced to determine if she was going to a COVID-free or a COVID-positive facility, and when she returned back to the nursing home and since she never actually left, she was not forced to be isolated or contained during that period of time after returning from the dialysis clinic.

So, that was a very positive experience for her. When we think about it a little bit more broadly and shifting away from the conversation about one individual patient's experience and understanding what the nursing home patient population looks like across the globe... I'm sorry. Across the United States as it relates to dialysis, the overall dialysis patient population is estimated to be about 700,000 patients by 2025, with current population somewhere between five and 600,000 patients. With that being the case, there's about 65,000 patients currently residing in the SNF annually. This is anywhere between 12 to 15% of dialysis residents will live in a nursing home at some point in time during the year, and this is a particularly large focus right now within the dialysis industry because this is the fastest-growing patient population of residents or

patients requiring dialysis, so sizable patient population today and growing as we move on into 2021 and 2022 and onward.

When we talked about the challenges, we mentioned previously in Dawn's experience, the challenges associated with transportation, certainly leading the SNF can be grueling for residents. One administrator mentioned, "These are really sick residents and exposing them to winter weather, rain, or heat three times a week can really take a toll on their health." Another administrator mentioned that, "Every time a resident goes out, we pay for the van service. It's $125 round trip each session. So, $375 in additional transportation costs each week per resident requiring dialysis." So, this is certainly a challenge that you are all experiencing with your dialysis residents.

Similarly, we see challenges with the clinical outcomes. Post-dialysis exhaustion or post-dialysis recovery time is something you'll hear us talk about throughout the presentation, and it's really a challenge for our residents, particularly those who are requiring rehab. One of the things that we see here, we try to get therapy in before dialysis appointments because it's impossible to participate after. We'll talk more about why that's the case. Scheduling around all this is a challenge and sometimes it doesn't work out.

Similarly, more frequent treatment, which could improve clinical outcomes. We'll talk about why using more frequent dialysis within the patient population may be beneficial. These residents used to be very difficult to rehab but providing home dialysis five days a week is much less harsh. We start the machines at 6:00 AM. By the time they are done with their breakfast, they are ready for their therapy. So, again, a different experience than what we see transporting off-site. So, hitting on really the majority of the challenges associated with off-site dialysis, we touched on many of these. We talked about the discomfort and potential injury associated with inclement weather. We talked about the expense and the cost of the transportation that either falls on the nursing home themselves or some sort of a payer source, the disruption to the care, specifically rehab, medication, meals as we discussed previously.

Next, we'll talk about the patients are largely limited three times a week of therapy. When folks outside of the dialysis industry think about dialysis, generally speaking, everyone assumes that it is a three-day week treatment, and it's usually about four hours per treatment, and that's an accurate assessment, and the reason that that's the case is, number one, it may meet and does meet the majority of the needs for many of the patients, but the other piece is that it works operationally for dialysis clinics. As many people are aware, dialysis clinics work on three-day schedules. Many times, the schedule is a Monday, Wednesday, Friday schedule or a Tuesday, Thursday, Saturday schedule, and again, this is really designed to work with operational efficiencies within the dialysis clinic.

It is not necessarily to say that every patient has three days a week being their ideal therapy option, and if they needed to do more frequent therapy, oftentimes, that is challenging due to the operational and logistical constraints associated with delivering dialysis in a conventional clinic. When you see patients shift to home dialysis or dialysis in nursing homes, oftentimes, you will see that their schedule may shift. They will be treated as their therapy needs and as their physician deems is appropriate, which may maybe more often than three days a week, which may also drive clinical benefits which we'll describe later.

Next, we'll talk about the potential breakdown in coordination of care. One of the big things that we see with this patient population is a lot of unnecessary hospitalizations. We see hospitalizations taking place in the nursing homes, for things that are oftentimes very easily addressed via dialysis treatment such as fluid overload. This is a very common and actually one of the most common reasons for hospitalization for residents within nursing homes, and conversely on the dialysis side of things, we see unnecessary hospitalizations there as well. As we described in that patient's experience, dialysis clinics are not designed to be the patient's homes. They do not have the resources to support these patients for a lot of the day-to-day activities or day-to-day challenges many residents from nursing homes experience.

So, when there is a challenge or there is a concern that goes above and beyond the scope of what is capable of being managed in the dialysis clinic, these patients may be hospitalized unnecessarily again. Most frequently, we hear a lot about scenarios where there's a wound that is potentially being... It's unfamiliar to the dialysis facility or the nurses. The nurses or techs or physicians may see it as a concern and suggest that patient be hospitalized. This is also a big issue today during COVID where a cough or a sneeze or things of that nature with patients showing signs and symptoms potentially of COVID may also lead to an immediate removal from the facility and potentially a hospitalization as well. Last component, of course, is with regards to challenges of off-site dialysis is that you're exposing the patient or you're increasing the opportunity for exposure for patients to come in contact with COVID-19 and other viruses and illnesses as well.

When we talk about the potential impact of shifting to doing on-site dialysis, a lot of this is obvious, right? So, by doing on-site dialysis, you may eliminate the need for transportation to dialysis center for treatments. You may reduce or eliminate the potential for exposure to viruses and other illnesses in a dialysis clinic or more likely during the transportation to and from the dialysis clinic and the nursing home. You're also more able to maintain rehab schedules, medical appointments, meals and activity schedules because the schedule tends to be more upon the nursing home or the resident's demands versus what we see exclusively coming from the dialysis provider.

We also have the opportunity to increase access to more flexible dialysis options, specifically more frequent dialysis, which we'll describe here in more detail in a little bit. For the nursing home, all these benefits are the same as what we just described for the patients, but the third one here where we talk about the differentiation of services is a big one. This is one of the biggest obstacles we've been hearing from our nursing homes today is that particularly in light of everything that's going on with COVID, we are seeing occupancy levels very low, and at a point where the facilities are looking to find any way they can to increase their occupancy, and by offering on-site dialysis, we have determined that it is a... or it has been demonstrated that it is a way to differentiate your service and may enable you to increase your occupancy.

Shifting to another case study, we have a facility that we recently work with out of Indianapolis where this program actually was initiated while COVID was happening. So, the plans for this program had been started to launch in January of 2019 due to just some operational delays and things of that nature. It was postponed and then COVID happened. So, instead of launching in January as was the initial plan, we ended up launching in April. So, right in the heart of everything going on with COVID. So, we're able to talk about the experience that this nursing home had before the initiation of their on-site dialysis program and after.

Prior to their initiation of the on-site dialysis program, their residents... They had three residents in their facility. These three residents were transported to and from dialysis clinics, and what was interesting is that in the dialysis space, similarly to what we see with nursing homes, they had COVID positive and COVID negative clinics. What they were experiencing was some of their patients who were COVID negative were able to be transported to one facility. Other patients who were either COVID positive or their status was unknown were forced to be transported to a different facility. So, there was a lot of logistical obstacles associated with transporting these patients to these different facilities and then returning them to the facility.

In addition, whenever this was happening, as I mentioned previously, either resident whether it was a resident going to the COVID-negative facility or the COVID-positive facility, all of the residents when they returned back to the facility needed to remain in their isolation wing or the COVID-positive wing, which is what they were calling at that point in time because they could not confirm that the patient was not exposed when they left the facility. They also demonstrated, or observed I should say, that when some of their patients did transport to the hospital, they did have a number of residents who were COVID-19 negative in their facility before being transported to the hospital and returned actually being COVID positive. So, they saw some of these same challenges.

When they started to offer the program on-site in April, they demonstrated they were able to contain the spread of COVID-19 among their dialysis residents.

They have not seen any additional exposures or COVID-positive cases for their residents who may have been exposed when they were being transported to and from dialysis. They've also been able to, as I mentioned, keep the residents on-site and by reducing this transportation time, the residents have been able to attend their activities. They've been able to attend meals, receive medications, and actually also perform their rehab schedules as well. This is actually a picture of how this facility set up their program. One of the things that you'll see here, this is utilizing the NxStage device, which is the device that is manufactured by the organization that I work for, and this device is designed to be used in patients' homes.

This works really well in this instance, and ultimately, the facility chose to use this type of device. Because of the fact that they were able to utilize basic plumbing and electrical wiring, they did not require substantial modifications to increase water flows or increase voltage capacity. They also were able to reduce water utility costs, again, similarly to what we see with our home dialysis patients who are being treated in their homes. They reduced and eliminated the need of water treatment for a reverse osmosis device, which is utilized with conventional dialysis machines, and as you can see, the size and portability of the machine enabled them to utilize a relatively small space to manage six patients in this den.

What this facility also was able to identify is they saw an increase in referrals. I mentioned previously when they first started their program, they had three residents on dialysis. After about two months, they increased their occupancy of dialysis residents from three to 10 or 11, I'm sorry, in about a two-month timeframe. They also were able to observe that the referrals they were receiving were higher acuity in general, which due to the PDPM model, they were able to receive additional reimbursement to cover the higher acuity associated with these patients, particularly as it related to the nursing and the NTA bucket for the reimbursement for those patients. They also were able to reduce the cost of transportation and most importantly they saw an improvement in the overall resident experience.

I mentioned previously one of the things we would talk about are the barriers to implementing an on-site dialysis program, and this is really important to understand, and I think the reason it's so important to understand this is we just talked about all the challenges associated with dialysis with this patient population. We talked about the benefits of offering this dialysis resident. So, I think the natural question that comes from that is, why is this not happening all over the place? Why is every nursing home not doing it in this fashion? The reason for that is, well, there's multi-factorial, but specifically, there's three main ones that we're going to focus on.

The first is that up until recently, there have been a very uncertain regulatory environment. In 2004, CMS came out and stated that doing dialysis within a nursing home was considered home dialysis, but that was basically the extent of

the guidance or regulations that were put out nationally or federally. So, what ended up happening was every state ultimately determined their own rules. So, what was happening in Pennsylvania was different from what was happening in Ohio, which was different from Illinois, which was different from California, which was different from Texas, et cetera, and we also saw a number of states that simply just said, "You know what? Until CMS comes out with federal guidelines, we're not touching this."

We saw a number of states across the country that that was the case. So, in certain states, you don't see nursing home dialysis being performed really at all at this point in time because the state had been so hesitant to move forward until those guidelines came out from the CMS, and we'll talk about this in a second, but CMS came out with federal guidelines in 2018, which really has leveled the playing field and opened the opportunity to all those areas that were uncertain and also leveled the playing field in terms of quality and outcomes so that everyone was playing by the same rules, delivering the same quality of care for these residents.

The second component that was a challenge is that home dialysis reimbursement does not cover staff-assisted treatments. When dialysis residents or dialysis patients are trained to become home dialysis patients, they are trained to do the dialysis themselves. They're trained on how to use the machine. They're trained on how to do their blood pressure, all those types of things, and it's either oftentimes the patient themselves or a family member or a friend or something along those lines who is there to serve as the caregiver for the patient.

However, it is not covering the cost of a certified dialysis technician or a nurse or something along those lines who actually delivers the care. If the patient opts to do a home dialysis but does not want to do that to train themselves or have one of their family members or some other type of a person serve as their caregiver and they want to have a nurse or a tech to do it is that patient's responsibility to pay for that tech or that nurse to deliver the care. It is not something that is covered by the insurance company who will ultimately reimburse the dialysis provider for the treatment, and because of that, so because there's this scenario where there's this added cost associated with delivering the dialysis, there were a lot of unsustainable contracting models put in place between the dialysis providers and the skilled nursing facilities.

What we saw was dialysis providers were initially in some cases offering or providing contract options that were similar to what they do for acute agreements with hospitals where the entire cost associated with the delivery of care was passed on to the nursing home, and unfortunately, the nursing home reimbursement does not cover that. So, that was not sustainable. It was really too costly of a model to be advanced, and conversely, on the other end of the spectrum, we saw some smaller dialysis providers come into the marketplace trying to offer a more cost-effective option, but in many instances, the costs for

the dialysis provider were exceeding the reimbursement, and ultimately, many of those providers ended up going out of business. So, now, we're in a scenario where there's new contracting models that have been put in place, and there's a better understanding of how this works in a contractual perspective.

You can see there are a number of other issues that have prevented this in the past, but what you'll see here is that we are actually in a opportune time because a lot of these challenges have been addressed. So, in the past two years, there have been a number of changes that have enabled nursing home analysis more effectively than we have seen in the past. The first piece is with regards to the reimbursement structure both for the nursing homes as well as for the dialysis providers. For the nursing homes, PDPM came in place in 2019 of October 2019, and with that, you see better alignment as far as the reimbursement goes to the nursing home as it relates to the patient's acuity.

So, no longer do you see a scenario where very high acuity patients are unattractive to nursing homes because with the modification to the payment structure, acuity is incorporated in the reimbursement models and ultimately drives more appropriately aligned reimbursement structures. On the dialysis provider side, the government has really expressed a desire to increase the use of home therapies. They are significantly incentivizing dialysis providers to grow both the number of patients they have on transplant wait lists, as well as of course patients receiving transplants, and then of course on home therapies as well.

So, with regards to offering this in a nursing home, we are advancing home dialysis in the nursing home space. The equipment and the supplies that are utilized oftentimes are home dialysis equipment, which allows for greater resource utilization from the dialysis providers now there is this incentive to grow this patient population home side and increase the awareness of the various treatment options among their nurses and techs and things of that nature. On the bottom side here, you see there's guidance coming out from CMS and regulatory guidance. I mentioned in 2018, CMS put out federal guidance around how this is to be managed in a nursing home setting. There's also better clarification for the dialysis providers describing how and when more frequent dialysis may be appropriate for reimbursement from that perspective.

One of the things I mentioned previously is that there's been evidence that you have two very high risk patient populations with COVID-19. You've got nursing home residents, which everyone's well aware of are the highest risk for potential COVID-19 transmission, and also dialysis residents are also very high on that list. What's been demonstrated is actually a study out of Hopkins that demonstrates that actually patients who are receiving dialysis and going to and from a dialysis clinic are actually far higher or far more likely to present with COVID positive results than those who did not receive dialysis in their offsite in-center facilities. You can see here 47% of the patients that were being

transported for dialysis were ultimately became COVID-positive versus what they only saw a 16% COVID positive rate in their non-dialysis patients.

So, shifting gears a little bit from some of the clinical conversations, I mentioned previously that when you're doing dialysis conventionally in an in-center program, it's oftentimes three times a week, and a lot of the reason for this is due to operational efficiencies that may occur in a dialysis facility, and the opportunity for offering more frequent dialysis may benefit some patients. Some of the benefits that have been demonstrated with offering more frequent dialysis to dialysis patients are, number one, you see less risk of cardio vascular hospitalization. You see improved post-dialysis recovery time. We'll go in more detail about this in a second. You see increased energy and vitality. You see a reduction in their antihypertensive medications and greater survival.

Specifically, going into a little bit more detail on the cardiovascular side with the benefits from a clinical perspective, you see a 17% reduction in cardiovascular hospitalizations. You see a 36% reduction in prescribed blood pressure medications, 20% reduction in hypotensive episodes and phosphate binder dose. You also see it improves survival. It's been demonstrated the patients receiving more frequent dialysis have a average survival of 58% over five years versus 50% for conventional in-center dialysis clinics, and you also see an 87% reduction in post-dialysis recovery time. Going a little bit deeper into this post-dialysis recovery time, this is particularly important when we talk about the patient population we see in nursing homes, particularly those who may be in the nursing home for rehab.

The average patient, if you focus over here on the left, the average recovery time for a patient receiving three times a week of dialysis in-center has eight hours of recovery time. So, if we think about the day of a patient on dialysis coming from your facility, that patient may wake up at 5:00 AM, likely get into the bus to get over the van to get into the dialysis clinic. They'll probably leave your facility around 6:00 AM, ideally, getting into the facility and on the machine by 7:00 AM. They'll run for four hours typically. So, from 7:00 until 11:00. That patient will then get [inaudible 00:33:53] and come back to the facility. Hopefully, be back to the facility by 12:30 or 1:00, best-case scenario.

As you saw, time-wise, it just works out. The patient may have missed breakfast. They may be late for lunch. Pain medication administration can be a challenge. Now, they finish their dialysis treatment at 11:00 AM, but they have eight hours on average of post-dialysis recovery time. The recovery time means how long does it take for that patient to feel as they did before they received their dialysis. So, eight hours until they're basically back to normal. Now, you're looking at that being around 7:00 PM before that patient is feeling back to normal. So, any opportunity that you may see for doing rehab or anything else that you want to be doing with that patient during that time may be challenged due to this scenario.

The next day, the patient has their whole day available to you, but then come Wednesday, if we will, the patient's back to the same schedule. You're losing the whole day with the patient being in dialysis. Conversely, when we are doing five or six days a week of dialysis, that post-dialysis recovery time is reduced to one hour. So, what we see here is that when patients are being treated five or six days a week, the treatment time is typically reduced as well from four hours per treatment down to about two and a half to three hours per treatment. So, if we were to describe what this situation may look like, you have a patient who wakes up probably, let's say, around 7:00 AM. They eat their breakfast. They head downstairs to the dialysis den, let's say, around 8:30. They are on the machine from 8:30 until 11:30.

That patient comes back up to their room, let's say, by noon. Let's say they eat lunch from 12:00 to 1:00. After that hour, the patient has basically gotten back to feeling the same as they did prior to their dialysis, and they were able to receive their rehab or perform other activities, and then they do the same thing the next morning, but again, you're seeing that these residents with that shorter recovery time are able to have more of their day back.

So, now, we want to talk about what does the collaborative service model look like? How do we actually proceed and offer on-site dialysis if this is something you want to move forward with? The first thing is to understand what is the dialysis provider responsible for. It's important to understand the SNF has their own responsibilities to deliver the care as they would for any resident in their care as they would. They're responsible for all the protocols and infection control procedures and everything that you would expect for any resident that lives within a nursing home facility. This is still taking place within the nursing home.

So, from a regulatory perspective, from a survey perspective, this is an area that will be included in the nursing homes service. The dialysis provider. It is required that a licensed home dialysis provider is the one who delivers the care for these patients or oversees the dialysis itself, and with that comes everything that that dialysis provider would do for any home dialysis patient. So, they would provide the oversight of the home dialysis program, which would include a medical director, a nurse manager, social worker, dietitian, things of that nature, everything associated with managing a home dialysis program for these patients in general they would still be responsible for.

The dialysis provider is also responsible for providing the dialysis equipment and the supplies. The medications and labs associated with dialysis are, again, the responsibilities of the dialysis provider, and the dialysis provider then would bill Medicare or whichever insurance the patient carries for the dialysis treatment itself. If it's under Medicare, it'll be under Part B. So, then we look at the SNF. On the SNF side of things, the SNF is responsible for everything the patient would be responsible for in a home setting. So, the SNF is responsible for their own dedicated areas for dialysis: the plumbing and electrical wiring, which we

mentioned previously, the costs associated with the basic utilities, with water and the electric, the dedicated securities for the equipment, supplies and medications, ability to receive and hail supplies that are delivered by a courier, and then this last one is the important one to again focus on, the costs associated with the staff-assisted dialysis.

Again, this is something that is not covered under reimbursement for dialysis treatment for a home dialysis patient. So, the staff who delivers the care is responsible. The cost associated with that is the responsibility of the nursing home. The dialysis provider actually is... It's mandated that the dialysis provider charge a fair market value for any services that they provide that are above and beyond what is provided for any home dialysis patient. So, if you are in a scenario where you're using... There's really two different models for how this can be offered. The dialysis provider can provide you with a nurse and/or a tech to deliver the care, and the nursing home would then reimburse the dialysis provider for the costs associated with that caregiver whether that be... We see a lot of different models about how that contract may work. It may be cost per treatment. It may be cost per day. It may be cost per shift. It may be cost per month.

There's a lot of different ways that the dialysis providers may contract for that, but if it is a scenario where the dialysis provider is providing their own staff to deliver the treatment, the nursing home does need to reimburse the dialysis provider for that. The other option is that the dialysis provider can train the nursing home staff to actually deliver the care and serve as the caregivers for the patient. It is a requirement from CMS with those guidelines from 2018 that there is a nurse who is qualified to deliver dialysis to be involved and associated with the program or with treatments themselves and be able to support them as needed in that scenario. If there's any more questions, we can talk about this during the Q&A section, but this is often an area where there's a lot of questions.

Areas of collaboration. CMS does require a formal coordination of care agreement between the skilled nursing facility and the dialysis provider, and generally speaking, the contract that is put in place between the dialysis provider and the nursing home addresses that coordination of care agreement. This contract oftentimes will also incorporate policies and procedures, joint patient care plans, and address how the caregiver and staffing situation will be [inaudible 00:41:09]. From a nursing home perspective, it's also important to understand that there are a number of different options in terms of how this program may proceed and how you may set it up.

Specifically, one of the big things to consider in addition to how you handle the staffing is what type of equipment you want to utilize in your facility. There are really two primary options available to you. One is utilizing NxStage, which as I mentioned in full disclosure, I work for NxStage. So, that is the organization that I represent, and the other option is to utilize conventional dialysis systems with

an RO. There are a number of different advantages and disadvantages to both scenarios, and we'll describe what those are here quickly and help you understand when each different type of machine may be most appropriate.

Number one, it's important to consider the capital costs associated with the infrastructural modifications. If you are planning on having a lot of residents in your program, or this is something where you're looking to see, let's say, greater than 18 or 20 patients in your facility, a capital one-time investment may be worthwhile if you're spending 100,000 or more to do so. However, if you're looking at a smaller program, if you're looking to have a program probably let's say less than 18 or 20 patients, those type of capital expenditures may not be attractive in your scenario, and you may want to do something that's a little bit less expensive. A less expensive option would be utilizing the NxStage scenario because we are able to, as I mentioned before, utilize conventional, or I should say standard electric and water and plumbing.

So, we do not need higher flow water capabilities. We do not require a higher voltage. We do not require that the system be put onto a generator-supported electrical outlet, all those types of things. The second thing to keep in mind is the need for disinfection of the equipment. The NxStage system is designed again to be used in a home setting. So, the blood and the dialysate are fully contained within a cartridge that is disposed of at the end of the treatment and simply require a basic wipe down of the equipment afterwards. With regards to the conventional dialysis equipment, there are scenarios where the blood and the dialysate may come in contact with the machine. So, between patients, there are additional purification or just decontamination procedures that are required in between.

Next is the maintenance associated with water purification. Frankly, this is really the biggest difference between the options as you want to move forward with this program. The water purification whether utilizing what's on the right with an RO or a reverse osmosis machine or a deionization system which you use for NxStage, these are really the fundamental differences and really what are the biggest considerations when you're looking at how you want to move forward. With a reverse osmosis machine, in order to disinfect the equipment in between treatments and maintain appropriate cleanliness for that system and proper maintenance, you require either a chemical or a heat disinfect to do so, and either again, you're either utilizing chemicals to do so, which increases some burden and potential risk with that, or if you're using a heat disinfect RO, it requires potentially modified electrical capabilities.

In comparison, with the NxStage system, we utilize what we call PAK, which is again part of the deionization system. It's all fully self-contained. So, the PAK lasts for a month, and at the end of the month, it is just disposed of in place, so the maintenance is substantially reduced. In terms of the utility costs, again, we talked about this with the water and the electric. With NxStage, because we use a deionization system versus using an RO, we use about 87% less water per

treatment, and again, the utility costs associated with that are passed on to the nursing home facility. The treatment and dialysis space are also important. You can see here the size difference, and then lastly, of course, the supply cost.

The supply costs are the responsibility of the dialysis provider. The supply costs for the NxStage system are higher than what you see for a conventional system, but again, it is important to understand that the supply costs are the responsibility of the dialysis provider, not the nursing home. Last piece I'll say here is just with regards to where you may want to think about using one or the other, it really does come down to, in my opinion, the size of the patient population you plan to treat. If you're planning on having a larger patient population where you're looking at more than, say, 18 patients, that is where a conventional option may make more sense. Again, you're able to drive a lot of those efficiencies and more often, you're seeing three days a week of therapy performed.

So, you run into some of the same operational logistical challenges you see in an incentive clinic, which is more appropriately managed, I would say, by a conventional system. If your program is looking to be a little bit smaller, more than six to 18 patient range, that's where the NxStage system may be more appropriate from a cost perspective, but these are all things again that need to be considered as you evaluate if you're going to move forward with the program.

Getting into what types of facilities, you may find this most appealing. The first type of facility or first type of organization is that we talk about a multi-SNF chain. The reason we talk about a chain of nursing homes is because this is not something that we recommend that every nursing home and every market should have. We think that this is something that you really want to be somewhat specialized. This is something that should differentiate your service as a way to help you increase referrals and things of that nature. It is something that there is some semblance of specialty care, if you will, and additional quality measures that you want to be putting in place.

So, we don't recommend that you do this at every location, but that's why we talk about organizations with multiple skilled nursing facilities. Oftentimes, we can be strategic and say, "Hey, you know what? In this specific market, we have six facilities. We're going to send all of our dialysis residents to this one facility, and that's going to be our area that is a center of excellence, if you will," and that becomes very attractive as well to the referral sources, the hospitals, the payers, the physicians, et cetera.

Ultimately, what you want to look for is in time, you want to see that you have the ability to drive a dialysis census typically greater than six. A lot of the efficiencies from a labor perspective will come at that six patient mark. If you're less than six, you can still certainly run a program, but it may not be as cost-effective or efficient as what you would be looking for as if you were in those

multiples of six. We also tend to look at facilities that have larger bed counts generally over 150 beds because number one, they oftentimes have larger census. They oftentimes have larger potentially dialysis census, and they also oftentimes have more total space where we could theoretically create a den setting, which is the most economical and efficient manner to deliver the care for these patients.

We also look at facilities that tend to have a higher short-term stay occupancy more so because a lot of these residents who are there for the short term, some of them may already be on dialysis, may be on home dialysis, and in addition for the nursing home, this is a patient population that the hospitals tend to particularly have a challenge discharging. So, finding facilities that will take dialysis residents or specifically residents that as I mentioned in that previous scenario with our patient who are specifically requesting a facility that has on-site dialysis. That is really where that can be beneficial.

If you have very high transportation costs, transportation costs vary widely across the country. We see some scenarios where the facility has a dialysis clinic that's a mile down the road, and they can get their patients in easily, and there's no problems. Those transportation costs may be very, very low. Comparatively, you may have no dialysis facilities in your immediate market, or you may have a higher acuity patient population who requires the use of an ambulance, or you need to send a respiratory therapist or something along those lines with those patients, and those costs may be increased.

So, if you have higher transportation costs, certainly, this would be potentially a benefit for you as well, and then lastly is the interest in increasing occupancy for higher-acuity patient populations in general. We see a lot of conversations or hear a lot of conversations from nursing homes who may be interested in starting to offer event programs or LVAD programs or just other types of programs that focus on higher-acuity patients, which many times, those higher-acuity patients may also require dialysis. So, those are the types of facilities who typically we say may be the best types of targets.

As is the case with any medical device or any healthcare treatment or treatment modality, there are risks, and it's important that we follow the recommendations and prescriptions of the physicians and follow appropriate guidelines by our regulators as well. These are the references for everything we described today, and with that, I will open it up for questions.

Mitzi Vince: Thank you so much. We do have a few questions in the Q&A. The first one is asking, what type of staff would the nursing home be required to provide related to staff assisting?

Rich Fatzinger: Great question. The requirements are that there must be a nurse who is qualified to deliver dialysis, and that nurse must be familiar with whichever equipment type you are utilizing. So, that's the first piece. The second piece is

that if there are techs or LPNs or whoever it may be, they are the ones who are serving as the caregivers in addition to that nurse. Those folks would also require appropriate training from a certified dialysis program. So, this is where I was mentioning before that in the scenario where you do partner with the dialysis provider to do this, the contracts between the nursing home and the dialysis provider many times is whether or not they are delivering the diaspora is providing their own staff, or if they are training your staff, there's oftentimes an agreement in place and a contract about how they would handle that training.

I will tell you when it comes to offering or utilizing your own staff in a nursing home, to do this, it is something that I think you need to be very careful in determining if that's something that's appropriate. We see in the nursing home space, there tends to be somewhat higher turnover than what we see in other areas specifically on the dialysis side of things, and if we are seeing a scenario where you may need to retrain the nurses over and over again, that can be problematic. Similarly, if you have a relatively small program, and I make the reference you're dipping your toe in the water. This is something that can be problematic as well because if we come in and train a nurse and a bunch of LPNs or techs or whoever to do this, and you have a patient let's say for a month or two, but then you don't have another patient for a while, and you're retraining. That can be problematic as well.

So, I think if the plan is for you to offer this and utilize the staff within the nursing home, it needs to be the right type of a situation. The staff needs to be probably a little bit more able to manage patients who are higher acuity. I think you want to see less turnover than what you would see in some other scenarios. So, where we do see this work from time to time or in scenarios where we got, let's say, five or four-star facilities that have a really great reputation, the nurses and the techs are enjoying working there, things of that nature. That's the scenario where this could work specifically. We see this work probably even better in scenarios where it is event unit where you've got nurses and techs who are accustomed to higher-acuity patients, patients who may be having challenges or more cardiovascular issues, more fluctuations with blood pressure, things of that nature, managing fluid balance, et cetera.

If your nurses and techs are accustomed to higher acuity, that may be beneficial. If your facility is not necessarily one of those that I just described, I would suggest that utilizing a dialysis provider and using a dialysis provider staff is probably better. Did that answer the question?

Mitzi Vince: Yes. Thank you. Next question asks, "Can I use the same machine for multiple patients back-to-back and how many would be possible if so?"

Rich Fatzinger: Yeah, so great question. With conventional equipment, the answer is yes. So, conventional equipment, you can use on multiple patients and it is designed to do that, because again, it's designed to be used in a dialysis clinic on multiple

patients. That said, let me put a caveat to that. This is considered a home dialysis, and home dialysis, generally speaking, you have one machine per patient. During at this point in time with COVID, there has been a waiver that's been put in place that is stating that is not the case during this period with this waiver. After the waiver expires, we are not sure exactly what the stance will be as to whether or not you can utilize one machine on multiple patients or not.

With regards to NxStage, the cycler is approved for use on multiple patients, but our PureFlow batches are not. We have two different ways you deliver the treatment, and the PureFlow batch will be used for one individual patient, and then we would have a subsequent batch for a different patient. You could technically still use the same cycler.

Mitzi Vince: Okay. Thank you. Next question, what is the average length of stay for these residents? After Med A time, is it still cost-effective?

Rich Fatzinger: Yeah, it's a great question. So, with regards to the length of stay for the patients, it largely depends on the type of patient, right? So, if you're looking at patients who are primarily there for rehab and they're under the Part A, we don't necessarily see a... There's no data I should say at this point on a substantive difference in length of stay versus what you see with your general patient population. So, we hear oftentimes the length of stay is typically around 21 days for a short-term rehab patient. It would likely be similar for this patient population. For your long-term care, again, same thing. We would not suggest that the length of stay is going to change with this scenario.

With regards to the question around whether or not this is economically viable for patients who are after their Part A stay, and the answer is it depends. I think, generally speaking, when we look at how this benefits your facility, the economic benefit is either based upon the reduction in your transportation costs, which I mentioned before very widely from location to location. So, the question will be what are your transportation costs? How much is that costing you? Is the offering of this program in your facility less than what your costs are? The other side of the coin is that this is an opportunity to increase your occupancy.

One of the things that we hear a lot when we talk about this is that if you are able to increase your bed count... Let's say if you're a facility sitting at 99% occupancy, adding residents to your facility is not going to necessarily be something that's overly attractive or a big opportunity for you. If you're on the other side of the coin as well, and you're sitting here close to 60% or less or even 80% or less, and you have a number of open beds. If you're able to increase your occupancy by one or two or three residents depending upon your scenario and have those beds full where they previously were not, the costs many times will exceed. I'm sorry. The additional margin you're generating from those residents being in those chairs where they were previously empty

oftentimes will exceed the cost of delivering the on-site program, and then again, it also comes down to what type of program are you going to offer.

Are you offering one that is where your staff is delivering the care, which where your costs may be somewhat reduced? Are you utilizing a dialysis provider? Which dialysis provider are you using? The different dialysis providers have different costs, but they also have different advantages as well. All these things are things that need to be considered. My suggestion to you if you're thinking about this, you can see on here there's a website, www.nxstage.com/snf. You can get more information on there, or my contact information will be made available after this.

We at NxStage, as I mentioned, work with all the analysis provider or most of the dialysis providers across the country. We would not contract with a nursing home directly unless that nursing home was also a dialysis provider, so we in many ways work as consultants in this process and can help you understand what your options may look in a specific scenario. We also have a economic tool that we'd look at your specific scenario, what are your costs, what is your occupancy, what are your costs associated with transportation and then help you understand how much wiggle room you have when it comes to offering this type of program. So, how much benefit would you receive and does that benefit exceed the costs of offering this type of program?

Mitzi Vince: Thank you. We're at the top of the hour, but we do have a few remaining questions in Q&A. If you would like me to continue with those, please let me know, or I can also get with you after the fact, and we can send an answer to all of those folks who have submitted a question.

Rich Fatzinger: Sure, no. I'm fine. We can continue going through the questions.

Mitzi Vince: Okay. Another question asks, "Any reimbursement for the facility?"

Rich Fatzinger: So, with regards to the reimbursement for the facility, the agreements between a facility and any of the local payers in a given market, whether they're MA plans or whatever it may be, all depends on what's negotiated in a specific market. We have seen some scenarios where the facility may be able to negotiate something with some of those either private payers or Medicare Advantage plans to provide some additional support with that, but as it relates to Medicare specifically, there is not additional reimbursement for offering on-site dialysis. The patient requiring dialysis is something that is listed under PDPM as it impacts the nursing bucket and the requirements for that.

So, with the acuity of the patient in general, you may see some modifications, but there is not additional reimbursement from Medicare for offering this type of program specifically to the nursing home facility.

Mitzi Vince: Thank you. Next question asks, "I understand the den will be surveyed as part of skilled nursing facility annual survey. Is there any additional survey from an agency as it relates to the actual dialysis services? And if so, what is the frequency?"

Rich Fatzinger: Sure. So, with regards to the dialysis facility itself, so the home dialysis programs are surveyed annually at whatever schedule is appropriate in that state. Certain states have different rules, but the schedule of surveys would be in line with that. The home dialysis facilities are surveyed, and this would be considered a place of service for some of their patients. That being the case, the dialysis surveyor may say, "Hey, we want to check out this facility where you've got XYZ patients," so that is a potential. This is a scenario that is a jointly managed offering. So, there are dialysis regulations that may be tied to the home dialysis program and within your facility, certainly from the skill nursing facility side of things as well. As far as frequency, again, it depends on your surveyor and the specific market.

Mitzi Vince: Thank you. Just a couple more questions. With this system, can we do this for outpatients or just inpatients?

Rich Fatzinger: I may need some more clarification on that. So, all of these patients within a nursing home are considered home dialysis patients. So, these are not considered inpatient or outpatient, so I may need more clarification about what specifically is meant on that.

Mitzi Vince: Okay. I'll move on to the next question, and if you would like to provide more clarification with that question, please do so. The next question asks, "Based on your experience in the field, what might be the primary pieces of information about dialysis or kidney disease skilled nursing facilities staff need to know in order to properly care for this population?"

Rich Fatzinger: Yeah, that's a great question. So, I think with regards to the delivery of the dialysis itself, there's a lot of information on the NKF website, which is the National Kidney Foundation website. They can provide basic information as it relates to the delivery of dialysis. There's also a website called advancingdialysis.org, which can be very beneficial in providing additional information. That's probably a little more technical and clinical than just general information. So, I'd probably suggest the NKF website would be the best.

If you're planning to offer on-site dialysis in your facility, the dialysis provider, or if it's going to be a scenario we're utilizing NxStage or folks on my team can provide that information to you as you need.

Mitzi Vince: Thank you. I did get some clarification on the outpatient question. Can people come in from the community for the service for the day or is it just for people who are residing in the nursing home, both sub-acute and long-term?

Rich Fatzinger: Great question. If you're doing the dialysis within your facility... So, this is actually good to point out two differences. There are really two main ways you can deliver dialysis in congruency with a nursing home. The model that had been advanced for some time was what in the industry we call a build on where they take a nursing home, and they take a section either rented out to a dialysis facility, or they actually build a outpatient dialysis clinic or an in-center clinic as they call it on the facility. That facility is then considered a licensed dialysis clinic, and it falls under all the regulations that a standard and center dialysis clinic provides.

With that being the case, if that is that build-on option, is what is utilized, there is a requirement that it has its own entrance, and it must take patients from the outside community. If you are doing dialysis within the walls of the nursing home, and it is not a licensed dialysis in-center clinic, then that is where it is considered home dialysis, and in that scenario, it is a scenario where the residents of that facility are the patients who will be receiving dialysis in that center.

Mitzi Vince: Okay. Well, Rich, thank you so much. That is the end of our questions that we have, and we really have appreciated this presentation. I want to remind everyone that slides and related materials will be available on the Quality Insight's QIN website after today's webinar, and Rich, if you have any closing remarks, please feel free to give those, and again, thank you.

Rich Fatzinger: Yeah, thank you very much. I appreciate everyone's time today as I mentioned, and I see that there's a few requests to contact me, or for me to contact you. If any of you would like to contact me directly, my email address is Richard, R-I-C-H-A-R-D, .Fatzinger, F as in Frank, A-T-Z-I-N-G-E-R, @fmc like Fresenius Medical Care, dash N as in Nancy, A is in apple.com. So, happy to respond to anything, and again, if you need more information, you can also just check out the website that you see here or certainly follow up with the folks on this call, and they can get you in contact with me as well.

Mitzi Vince: Thanks so much everyone, and that concludes today's webinar. Have a wonderful day.

Rich Fatzinger: Thank you.

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