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Session title: Delivery of Home-based Cardiac Rehab to Veterans

Presenter: Mary Whooley

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Moderator: And at this time we have reached the top of the hour. So at this time I would like to introduce our speaker today. We have Dr. Mary Whooley joining us. She’s a Principal Investigator for Measurement Science QUERI as well as the Director of Cardiac Rehabilitation at San Francisco VA and also a Professor of Medicine, Epidemiology and Biostatistics at the University of California, San Francisco. So, at this time I will turn it over to you, Mary.

Mary, I believe you might be on mute.

Mary Whooley: You’re right. Hi, everyone. Thanks so much for joining us today and thanks to Molly for organizing this and so many other great webinars. I think we’re going to start with a couple of polling questions just so that I can get a sense of who is in the audience. Molly, should I give it back to you for the polling questions?

Moderator: Sure. So, we want to get an idea of which statement best describes your facility. 1) Offers traditional (but not home-based) cardiac rehab. 2) Offers home-based (but not traditional) cardiac rehab. 3) Offers both traditional and home-based cardiac rehab. 4) Refers all eligible Veterans to non-VA (fee basis) cardiac rehab. 5) None of the above (or I don’t know). So, go ahead and just click the response. Click the circle next to your response. It looks like we’ve got a nice responsive audience today. We’ve already had two-thirds of people vote. We’ll give you a few more seconds to get your answers in. Okay, I’ll go ahead and close it out and share those results.

It looks like one-third of our respondents, they’re facility offers traditional but not home based cardiac rehab. Eight percent offers home-based but not traditional cardiac rehab. Another third refers all eligible Veterans to non-VA (fee basis) cardiac rehab. Twenty-five percent are none of the above or I don’t know. Thank you to those respondents and we’ll go ahead and launch the next poll question.

What is your primary role as it relates to cardiac rehab? 1) I am a VA provider already delivering home-based cardiac rehab. 2) I am a VA provider interested in delivering home-based cardiac rehab. 3) I am an investigator. 4) I am a patient. 5) None of the above. If you’re selecting none of the above, please note at the end of the presentation I will put up a feedback survey with a more extensive list of job titles and you may find your exact role there to select. So, it looks like we’ve had 87% response rate, so I will go ahead and close this out and share those results.

We have 10% responding that they are a VA provider already delivering home-based cardiac rehab, 30% VA provider interested in delivering home-based cardiac rehab, 10% are VA investigators and 50% responded none of the above. So, thank you to our respondents and, Mary, I am going to turn it over to you to share your screen now.

Mary Whooley: Great. Thank you, Molly. I am going to speak today about the rationale for cardiac rehabilitation, some evidence for home-based delivery strategies, review some example programs that have been implemented in other countries and even in the U.S. and discuss implementation for the Veterans Health Administration.

After a heart attack, stent placement or bypass surgery, patients feel highly motivated to make lifestyle changes. This is a huge opportunity for us to improve health and longevity. Unlike the primary care setting where patients can put off behavior changes indefinitely, the occurrence of one of these events really motivates people to get started, whether or not they’ve been ready to make the changes.

The core components of cardiac rehabilitation include exercise, testing and training, blood pressure management, lipid management, diabetes, tobacco cessation, nutrition and weight management, medication adherence, psychosocial support, counseling and outcome assessments. Typically, sessions are delivered three times a week for 12 weeks for a total of 36 one-hour sessions.

The American Association of Cardiovascular and Pulmonology Research as well as the American College of Cardiology Foundation, the American Heart Association have joined together to issue performance measures regarding patients who should be referred to cardiac rehab. These performance measures state that all patients hospitalized for acute myocardial infarction, chronic stable angina, coronary artery bypass grafting, percutaneous coronary artery intervention, valve surgery or transplantation should be referred to cardiac rehab prior to discharge. This is a Class I recommendation with Level of Evidence A, which is the strongest possible recommendation.

In addition, the Center for Medicaid and Medicare Services has developed a physician quality reporting system measure #243. The National Quality Form has the same measure and it’s called Cardiac Rehab Patient Referral from an Outpatient Setting. So, unlike the previous slide where we were talking about inpatients, this is referring to outpatients and they are interested in the percentage of patients evaluated in an outpatient setting who had one of those diagnoses and were referred to a cardiac rehab program. This particular performance measure is currently optional, but in 2017, CMS is going to start penalizing healthcare organizations that have not met this quality reporting system measures.

Between 2000 and 2007, so before all of these guidelines and performance measures were released, about half of all eligible patients with MI or CABG were referred to cardiac rehab. Unfortunately, very few participated in cardiac rehab. Nineteen percent of those eligible actually went to a program. After the 2007 guidelines were published, there was an increase in the referral rate to cardiac rehab from 73 to 82%, and this paper was published in JACC. You can see 73% of eligible patients after MI were referred, up to 83% here. Unfortunately, despite this excellent referral, less than 20% of patients are participating. So, even though we have improved referral a lot, we aren’t getting the delivery of care to the patients that need it.

The VA is doing even worse than Medicare. Overall in the VA, about 10% of eligible Veterans with ischemic heart disease participated in cardiac rehab between 2007 and 2011, and I have the pleasure of working Division 21, which had the absolute lowest proportion of patients participating in cardiac rehab. We got kind of alarmed by this and interested in what we might be able to do to improve delivery of this treatment.

We did a study evaluating factors associated with utilization of cardiac rehab among patients with ischemic heart disease. This was funded by the VAHSRND QUERI Program. The first issue was that there are only 35 VA cardiac rehab programs in the country. So you can imagine that a person living here in Denver without any cardiac rehab program in their state might have difficulty getting to one. Now, of course, these patients can be referred to non-VA care, and many of them are. But, as you know, the non-VA care referral process is far from streamlined and can be very complicated and take a long time. Many patients never end up going if they are referred that way.

Other patient-level factors associated with poor participation were lack of transportation, financial constraints, taking time off from work and limited motivation. So, it’s basically inconvenient for patients to come to 36 sessions over three months, and I can completely understand that.

Provider-level factors included a lack of awareness regarding the guidelines and unsure how to refer patients. There aren’t clear referral procedures in place at each of the VA facilities.

System-level factors included organizational dynamics. So, it’s really useful to have a champion at your organization who can pull all the pieces together and motivate people to refer patients for cardiac rehab. But the programs are complex. So it requires a multidisciplinary effort with Cardiology and Nutrition and Psychology and Physical Therapy and Informatics. Putting all those people together can be complex and there isn’t really a specific menu for how to do that. Poor reimbursement is another huge issue because Medicare does not reimburse—All they reimburse is patients who go for center-based rehab. They currently do not reimburse home-based cardiac rehab. So, there has been no real motivation for people to develop home-based cardiac rehab programs.

So, that raised the question should we build new cardiac rehab facilities? This is a traditional cardiac rehab program where the patients come and they do their treadmill or their bike and they are monitored, watched by nurses over here and have various classes here with Psychology and Nutrition and other lifestyle interventions.

In this study, we evaluated participation in cardiac rehab at 124 VA hospitals between 2007 and 2011. We looked at the 35 VA facilities that had an onsite cardiac rehab program and we also looked at the 89 VA facilities that did not have an onsite cardiac rehab program. There were about 30,000 eligible patients with ischemic heart disease at the 35 facilities with programs and 58,000 at the others. We looked at the participation in cardiac rehab at those sites. As you can see, it’s definitely better to be at a site that has an onsite rehab program, but it really is not good enough. Still, only 15% of eligible patients were participating. So that is not going to answer the question. Clearly, new delivery strategies are needed.

I will now discuss some of the evidence that has built for home-based delivery strategies of cardiac rehabilitation. The Cochrane Database of Systematic Reviews in 2015 issues a new review of home-based versus center-based cardiac rehab. In this review, they concluded that home- and center-based forms of cardiac rehab are equally effective for improving clinical and health-related quality of life outcomes. This finding supports the continued expansion of home-based cardiac rehab programs. So this is good news for home-based cardiac rehab. What I would like to make clear is that I still think that facility-based or traditional cardiac rehab is the best option for patients who are able to do that. So, for those 20% of patients who actually go to the center-based cardiac rehab programs, they’re probably getting a little bit better outcome than those in the home-based rehab, but the relevant comparison is really home-based versus nothing, because 80% of patients currently do nothing. So what we’re really trying to do is get to those patients and figure out how to help them.

In this systematic review, they combined all the randomized control trials, the center-based versus home-based cardiac rehab. There were six studies that looked at smoking, seven mortality and 18 studies that looked at completion rate. Those are the total number of subjects pooled in all of the studies together. As you can see, the risk ratio for smoking and mortality was nonsignificant. In other words, it was overlapping with one, which means that there’s no difference in risk between center-based and home-based cardiac rehab. Interestingly, completion looked like it was slightly better in the center-based cardiac rehab, with a 4% increase as compared with the home-based cardiac rehab completion rate. The mortality in my mind suggests that there is a mortality benefit. Really, the point estimate is that there is a 21% reduction in mortality and even though that’s not statistically significant, I think it’s important if the patients have that option to offer it.

These were the other outcomes that they evaluated in center-based versus home-based cardiac rehab. They found that systolic blood pressure had no mean difference between the groups. Diastolic blood pressure had a -1.9 mmHG difference between the intervention and control groups, nothing in total cholesterol and HDL of -2.7 mm/dL difference. So, the center-based again did slightly better than the home-based patients.

As mentioned, the key is really participation. So, even though HBCR may be a little bit less efficacious, the greater participation can really offset that lower efficacy. This is just a schematic showing that bigger efficacy x less than 20% participation gives you so much effectiveness but if you can have a slightly lower efficacy and multiply it by greater participation, you could have a greater population-based impact.

There are many potential advantages of home-based cardiac rehab. The first is that there are no wait lists or capacity issues. This is particularly important in the VA where a lot of patients are referred to non-VA care and sometimes it can take six months for them to even have their first visit. The other nice thing about home-based cardiac rehab is that it can be customized and individually tailored to each patient. So all patients don’t have to sit through the same nutrition class and the same smoking class and the same diabetes class. If a patient is focused on smoking cessation, that can be focused on the first several sessions. If diabetes management is key, then likewise that can be the focus for patient number two. Flexible scheduling is critical. Many of these patients have busy lives and other commitments. So being able to schedule the sessions at convenient times for them is very helpful. Of course there are no travel/ or transportation issues and the privacy is greater because patients are alone in their home. The cost is lower. Perhaps most importantly, the exercise can be integrated with the patient’s regular home routine. So instead of going to a 36-week session where you think, ’This is my cardiac rehab therapy and now I’m done. I’ll go back to my regular life.” This integrates the exercise routine into the patient’s regular life and the idea is that they will continue that same integration after the program is over. That can lead to possibly greater adherence and long-term sustainability.

Potential disadvantages of home-based cardiac rehab include the lack of reimbursement that I mentioned. We don’t have to worry about this as much in the VA because investing in preventive care saves money, unlike the fee-for-service reimbursement, in which case hospitals get paid when patients are sicker. It also has less intensive exercise training. It’s only a once-a-week telephone call and so it’s not three hours of supervised treadmill. Lower social support. One of the key benefits of traditional cardiac rehab programs is that they have a great social atmosphere where patients can get to know each other and support each other through their recovery. There is less patient accountability. So, the patient reports what they do, but we don’t necessarily know whether they’re exercising or losing weight as they say. There is a lack of standardization among programs. It’s pretty hard to standardize a telephone call between a patient and a provider because, of course, there are an infinite number of ways that those phone calls can go. There is minimal patient monitoring, and then some people have safety concerns for sicker patients. I’ll just say a couple of words about safety before we move on. This study, the Safety of Cardiopulmonary Exercise Testing in a Population of Patients with High-Risk Cardiovascular Diseases looked at 5,000 exercise studies and 4,200 high-risk patients. These were people that were sick with CFH, hypertrophic cardiomyopathy and so on. Notably, they experienced adverse events in only one of 625 studies. These adverse events were nonsustained ventricular tachycardia and myocardial infarction. None of them resulted in death. So that was pretty reassuring. I must say that even if—People are going to die exercising at home. These are sick patients and exercise can induce arrhythmias, but we can’t not walk across the street because there’s a danger of getting hit by a car. So, if there is a huge benefit for a massive number of patients and there is a small risk for one of those patients, then it may be worth going ahead with home-based programs.

This is a study that looked at exercise training and implantable cardiodefibrillator shocks in patients with heart failure from the Heart Failure Action Trial. It was a randomized trial of over 1,000 patients with heart failure and reduced LVF who also happened to have a defibrillator in so that their shocks could be monitored. They randomly assigned patients to exercise training versus usual care and found that there was no difference in the number of defibrillator shocks between the two groups.

At this point, are there any questions that have been entered, Molly? I’d be happy to stop.

Moderator: Yeah, we do have one that came in. If patients are being monitored remotely, where do those results typically go back to for follow up and intervention?

Mary Whooley: In the VA, there is no remote monitoring. We don’t have a system yet where we can store patient-generated data and give that to providers. There is a lot being done in that area and the

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Mary Whooley: In the VA, there is no remote monitoring. We don’t have a system yet where we can store patient-generated data and give that to providers. There is a lot being done in that area and the \_\_\_\_\_ [00:22:35] Office is putting a lot of resources into it, but right now essentially there’s no way that we can monitor it directly. What we do in San Francisco is we give patients a log book and a log book has their blood pressure and their weight, heart rate and their glucose as well as the things that they’ve eaten on a day-to-day basis and then we talk to them once a week and they tell us what they’ve written down in the log books. So, it’s kind of a time-consuming and unfortunately not very efficient method of tracking, but it’s the best that we can do for now.

Moderator: Thank you. We do have one more that came in. Why can’t it be added to TeleHealth?

Mary Whooley: Yes, it is being added to TeleHealth. That is the whole idea. So, a perfect segue to move into our next phase of example programs.

Moderator: Great. Thank you.

Mary Whooley: The other countries have been way ahead of us in this arena. The UK, Australia, Canada have all been working on these home-based cardiac rehab programs for years. The UK famously has a heart manual where they give this manual to patients after they have been hospitalized for myocardial infarction or revascularization. Then they go through a training with a coach to work on lifestyle intervention. This was a systematic review of the heart manual literature that concluded evidence from randomized trials suggest that the heart manual is as effective as hospital-based cardiovascular rehab on psychological, behavioral and biological outcomes.

In the U.S., this information has been around for over 20 years and, honestly, I don’t really know why no one has developed programs that work this way. I think it’s because of our fee-for-service system where healthcare organizations don’t really make money by investing in prevention. But this is a randomized trial of 585 patients at five Kaiser medical centers who were randomly assigned into home-based cardiac rehab versus usual care. In the study, they found that the home-based cardiac rehab patients were more likely to have smoking cessation. They had lower LDL levels and they had better exercise capacity at the end of the study. Kaiser Permanente, which does benefit from investing in prevention, is still using this program, and you can go on the internet to see what they’re doing, where they do have a nurse who calls the patient on a weekly basis following the event and helps them with lifestyle changes and interventions.

Someone mentioned TeleHealth, and there is excellent evidence for telephone support interventions on coronary disease patient outcomes during cardiac rehab. This was a systematic review and meta-analysis of a small number of studies. Only four studies with a total of 365 intervention patients and 341 control patients. Nonetheless, it showed that telephone-based cardiac rehab interventions were associated with a 38% reduction in rehospitalization.

Of course, Smartphone-based home-care models are going to be essential in my opinion moving forward. I think that our home-based programs must integrate with these kinds of remote monitoring apps and there has to be some digital way that we can be connecting with our patients throughout the 12-week cardiac rehab process. So, there are several Smartphone-based apps that are being developed for use in cardiac rehab. None of them are available in the VA at the moment but this particular study did a randomized trial of 120 post-MI patients and found that Smartphone-based CR was associated with greater uptake, adherence, and completion. They had similar improvements in exercise capacity. There is a VA mobile application in development by Alexis Beatty in the Seattle VA. She’s working with the \_\_\_\_\_ [00:28:02] Office to put together this remote monitoring app that would hopefully help patients if we can ever figure out how to get their information actually into a format that doctors can see on the other side. Right now it’s just on their phone.

Have any other questions come in before I move on to the last topic?

Moderator: We do have one more that came in. What measure or what measures are in place to encourage compliance for the diary entries, etc.?

Mary Whooley: That is a great question. The question was what measures are in place. Behavioral activation and behavioral theory is really critical in these apps because patients need to be encouraged and they need to be rewarded for entering their physician activity. So those kinds of things are in incorporated into the app with things like “good job” and messages saying “way to go” and “keep up the great work.”

All right. So, regarding how to implement home-based cardiac rehab in the VA, at the San Francisco VA, which is at this beautiful location. In fact, right now I’m speaking with you from exactly here. We have started what’s called the Healthy Heart Program. The Healthy Heart Program is a cardiac rehab program that combines hospital visits while the patient is in the hospital for their index event with home-based cardiac rehab following hospitalization. In the Healthy Heart Program, we have tried to incorporate several key facilitators that have been found in previous studies to improve participation in cardiac rehab.

The first is stakeholder engagement, which sounds kind of obvious but you’d be surprised at how many people go in and try to start a program without actually talking to the people who are going to do the sending of patients. So, we started out by meeting with the CT surgeons and the Cardiologists and the Physical Therapy Department, Nutrition, the Clinical Applications Coordinator for our automated referral to make sure that everybody was on the same page and to make sure that we really understood how we could best help them. So this is not about us going in and saying we’re going to give you this program. It’s how can we help you take better care of your patients? Another key facilitator is systematic and automated referral, which I will talk a little bit more about in a moment. A bedside visit during hospitalization for index event has been associated with greater long-term participation. That inpatient connection with a cardiac rehab provider can make a big difference. A multidisciplinary team is critical, including Nursing and Exercise Physiologist, Dietician, Psychologist and a Physician supervisor. Then some way to track the patients. So, how many patients are eligible for cardiac rehab? How many are enrolling in the program? How many are completing the program? And so on.

This Canadian Journal of Cardiology—As I mentioned, the Canadians have been way ahead of us—wrote this position statement on Systematizing Inpatient Referral to Cardiac Rehab. They reviewed the literature and concluded that automating the referrals was really critical to maximizing participation. So, at San Francisco VA we have incorporated cardiac rehab into our post-PCI and post-CABG order sets. So, when the Cardiology Fellow comes out and needs to click off all of the different orders for the patient to be transferred to the floor, cardiac rehab referral is one of them. This, by the way, refers the patient for a cardiac rehab evaluation and not necessarily cardiac rehab therapy. So, we wanted to take the decision about who was eligible and who wasn’t away from the provider and not have them take on the burden of asking the patient whether they wanted to go to cardiac rehab or figuring out whether they were eligible. They just send them to use and then we assess the eligibility and interest.

This American Heart Association Science Advisory that was published in circulation in 2012 emphasized the valuable role of healthcare professionals in the inpatient home health setting. So the valuable role of having patients connect with a person to whom they feel accountable and to whom they feel motivated to respond.

So, three different phases of cardiac rehab. The first phase is assessment and education which happens in the hospital. The second phase is individualized exercise training and lifestyle modification which happens during the 12 weeks post discharge. The third is the long-term maintenance phase. When the patients are in the hospital, we visit them at the bedside and give them education regarding the benefits of cardiac rehab and offer them referral if they are so interested. Then after they get discharged, we begin the home-based program, which goes on for 12 weeks.

This is a schematic that shows the Healthy Heart Program delivery. As I said, in the hospitalization, the patient receives a bedside visit by the cardiac rehab nurse and then immediately following discharge, literally a week later, they get a prearranged phone call and that occurs weekly for the first six weeks. During each of those sessions, the patient has symptoms assessed, medications reconciled, logs are reviewed, education is provided. There is a curriculum that I will tell you about in a second. They undergo motivational interviewing to improve their behaviors. That’s then followed by three bi-weekly sessions, so that brings us up to the 12 weeks of phase 2. Then we begin the phase 3 which is months four through 12, trying to keep patients engaged but decrease the amount of interaction they are having with the cardiac rehab team.

This is the curriculum that we use. The American Heart Association actually developed this based on the Multifit model that Bob DeBusk Study used 20 years ago. It has 12 chapters, so one for each week of the phase 2 program, that go over all of the topics you would expect, including exercise training, cholesterol management, weight control, diabetes, smoking cessation and so on. We offer patients a variety of equipment. Some patients we give hand weights to, and our exercise physiologist determines who would most benefit from those. A pedometer is very motivating for many patients. Theraband is very cheap and easy to give them prior to discharge. We also provide an exercise peddler. This is particularly helpful for some of the CABG patients who really have quite limited movement after their surgery, but they can start with just a few peddling exercises within a week after their discharge. We also give a heart rate watch if the patients are interested, which is very popular. It’s a super cool watch which is developed by Mio Alpha. It allows the patient to look at their heart rate while they’re exercising. So we’re able to record maximum heart rate as a measure of exercise intensity. Then if the patient doesn’t have access to sidewalks or a gym or some kind of home exercise equipment, we can provide them a home stationary bike or treadmill or other elliptical type of machinery to do their exercise at home.

This is a picture of Mike Bettencourt, our exercise physiologist who is talking this patient through exercises. The patient is leaned over a table and Mike is teaching him how to do the exercises for cardiac rehab. Most of our patients do not have home computers, so we do these things over the telephone. However, the VA does have webcams that they will give the patients who are willing to set them up in their homes. So, we can actually give patients webcams and have them connect with us for free if the patient is so inclined. Most of our patients just do telephone calls.

A lot of people as what does this take in terms of resources, and we’ve calculated that for about 300 eligible patients, and maybe half of those will enroll in home-based cardiac rehab. So we’re talking 300 patients get a bedside visit, 150 follow up in the 12-week program. We have 1.5 cardiac rehab nurses, a 20% dietician, 80% exercise physiologist, 20% physician director and a 10% psychologist. Then someone to help us with the administrative things like referring to non-VA care. So it’s a total of 3 FTEE and we haven’t yet had the opportunity to calculate the cost effectiveness of our program, but the goal is for us to be either cost neutral or cost saving by reducing hospitalizations for patients who have gone through the program.

Remember I showed you that vision map with us down at 1% participation? So were low-hanging fruit with a lot of room for improvement. The Office of Rural Health generously gave us funding during fiscal year ’14 to start this program. During that year, 350 patients were referred; 196 were not interested. Those are those in the light blue. One hundred twenty-two enrolled in home-based cardiac rehab. Those are these in the medium blue. Then there were about 30 who were referred to center-based cardiac rehab either because they preferred the structure of those program or because we thought they were too high risk to be in a home-based program without monitoring. So, this is a lot better than it was, but it still leaves clearly a ton of room for improvement because many patients are not participating at all.

The Office of Rural Health is still funding home-based cardiac rehab programs. These are the people to contact at the Iowa City VA if you are interested in starting one. They are running a Promising Practices Program where they help facilities like ours get home-based cardiac rehab programs started.

So, in summary, the components of the Healthy Heart Program are automatic referrals in the post-CABG and post-PCI order sets, and taking those decisions away from the providers so it makes it easy for them. Bedside visit by cardiac rehab nurse. Exercise prescription and physical activity monitoring. Motivational interviewing and goal setting. The provision of home exercise equipment (if needed). The medication reconciliation and tracking is critical. Nutrition and weight management, stress reduction and risk factor management. One thing I didn’t mention is that we actually do VANTS calls (VA Nationwide Telephone System calls) for patients to provide each other with peer support, and there’s a staff facilitator on those monthly calls.

So that concludes my remarks for today and leaves some time for questions. I will turn it back over to you, Molly.

Moderator: Excellent. Thank you. We do have a lot of good questions that have come in. For anybody looking for a way to submit a question or comment, please refer to the GoToWebinar control panel on the right-hand side of your page. Down at the bottom of the control panel, click the plus sign next to the world “Questions” and that will expand the dialog box and you can submit your question or comment there.

Mary Whooley: Molly, if there is any way to show me the questions, that would be helpful.

Moderator: Yeah. So you’ve got permission now. So go ahead and expand it there, and then if you want to drag it away, just click on the word “Questions” and drag your mouse away from the box. That way you can expand it.

Mary Whooley: Wonderful. Thank you.

Moderator: Yeah, no problem. So, the next question is how is electrophysiology playing a part in cardiac rehab?

Mary Whooley: Electrophysiology playing a part in cardiac rehab? I’m not sure what that person is getting after. If you’re talking about post-electrophysiology patients, we don’t typically offer cardiac rehab to those patients. If you are talking about whether we provide cardiac rehab to patients who have no ICD, we have a rule that if the patient has an ejection fraction of less than 35% without an ICD, we do not enroll them in our home-based cardiac rehab program because we’re not sure of the safety. If you are referring to patient monitoring, we don’t do any EKG monitoring at home. All of the monitoring is done just by patient recorded blood pressures and patient recorded heart rate. So we have no way to know what the patient’s rhythms are when they are undergoing the program. If I didn’t get your question, please just rewrite it so that I can try to address it.

Moderator: Thank you. The next question is the home exercise equipment purchased for the Veterans or rented?

Mary Whooley: We purchase it for the Veterans. The VA does not allow rental of equipment, and we have a great contract with US Materials Management. They actually not only deliver the equipment to the patient’s homes but set it up and make sure that the patient knows how to use it.

Moderator: Thank you for that reply. The next person has written in a statement. As an occupational therapist working in HBPC I could see how this could easily be added to our treatment. We have an education nurse, psychologist, registered dietician and myself who cover many of the topics discussed during this presentation. There might have to be changes in the thinking from traditional HBPC.

Mary Whooley: Thank you for making that comment. Yes, that is the idea of this webinar. Many of you are already doing large parts of this in your organizations. So it may just be a little bit of renaming, rebranding, perhaps filling out a team that’s already functioning really effectively to provide these kinds of interventions for the patients. The confusing part about the VA is that there is the famous saying, “If you’ve seen one VA, you’ve seen one VA.” Well, each VA has a very different way of approaching cardiac rehab, if at all. So, in some VA’s it’s in the Cardiology division. In some VA’s it’s in the Physical Medicine and Rehab division. In others it’s Health and Nutrition. So there isn’t a single really section where you can go and say I want to start a cardiac rehab program. You need to figure out who is doing the work currently and then try to expand from there.

Moderator: Thank you for that reply. What were some of the reasons for patients dropping off besides inconvenience?

Mary Whooley: That is a great question that we are trying to understand more ourselves through qualitative work and interviewing these patients to try to understand what the barriers are. Because clearly we’ve addressed some of them with home-based cardiac rehab but we have a long way to go.

Moderator: Thank you for that reply. That is the final pending question at this time. If our attendees have any more questions or comments, please do write them in now. Dr. Whooley, would you like to give any concluding comments?

Mary Whooley: Well, thank you all very much for your attention. I had taken these slides out because I wanted to—Molly, are people able to see my screen?

Moderator: Yeah, we can see your screen.

Mary Whooley: Okay. So, there are two other slides that I had wanted to share that I didn’t have time to because I didn’t want to overstay my welcome. But since we have a couple minutes, I just wanted to mention that the Hearth Failure Action Trial has now shown that exercise training is beneficial for patients with heart failure as well as those with ischemic heart disease. Those 36 sessions of supervised exercise training is associated with 11% lower risk of death or hospitalization. Based on these findings, the Center for Medicare and Medicaid Services added coverage for heart failure cardiac rehab in 2014. Previously, cardiac rehab had been restricted to patients with ischemic heart disease or cardiac surgery, but now the coverage has been extended to patients with systolic heart failure. It’s a little bit tricky because of the inclusion criteria in the Heart Failure Action Trial, the patients are limited to those with an LVEF of less than 35%. It doesn’t mean that cardiac rehab doesn’t benefit patients with diastolic dysfunction but, nonetheless, this is the current coverage. They also have to be on stable heart failure therapy for at least six weeks. So this does not lend itself to the same automated referral from an inpatient setting kind of mechanism. We have to set up a different kind of way to attract these patients from the outpatient setting.

So, thank you all for your attention and your excellent questions. Feel free to email me with any others. Best of luck to you with your cardiac rehab.

Moderator: Thank you. I hate to jump back but we do have one more question that came in.

Mary Whooley: Of course. No problem.

Moderator: Assuming the data was available for chronic atrial fib or new-onset or any lethal arrhythmias, if that data could be readily accessible via remote monitoring, is that something ORH would be interested in piloting or beta testing? Sorry, it was a little choppy there. You can reread it if you need to.

Mary Whooley: Oh, no problem. Let me just see if I can understand the question. Could you read it again? Sorry, Molly.

Moderator: No problem. Assuming the data was available for chronic atrial fib or new-onset or any lethal arrhythmias, if that data could be readily accessible via remote monitoring, is that something ORH would be interested in piloting or beta testing? The Office of Rural Health, that is.

Mary Whooley: Oh, I see. Well, I cannot speak for the Office of Rural Health, but I would definitely be interested in evaluating some kind of remote monitoring. There used to be home EKG that was easily transmittable, but the company lost funding or interest and so no longer provides that. I think it would be great to have a home EKG and figure out what was happening in the home. One important issue, though, is that we don’t want to make patients feel like it’s not safe to exercise. Sometimes monitoring can make them feel like there might be a danger in exercising. We really want to have them incorporate exercising into their daily routine. So it would need to be something that wasn’t invasive.

Moderator: Thank you. And we did have somebody write in wondering if they could review this cyber seminar via video later on. Yes, I have recorded it and I will post it in our online archive catalog, and you will receive a follow up email a few days from now with a link leading to that recording, and you can share that with colleagues.

Well thank you very much for a wonderful presentation and for coming on and lending your expertise to the field. Of course, thank you to our attendees for joining us. We do invite you back with more updates later on, Mary.

Mary Whooley: Great. Thank you, all.

Moderator: Thank you. So, I’m going to close out the session now. For our attendees, please wait just a second while a feedback survey populates on your screen and take just a moment to fill out those few questions. We do look very closely at your responses and it helps us gather new ideas for other sessions to facilitate.

[End of audio]