

Reducing Hospital Readmissions through High-Risk Patient Management and Engagement



Matt Johnson
CEO
CareCycle Management

CEOCFO: *Mr. Johnson, would you tell us the idea behind CareCycle?*

Mr. Johnson: CareCycle is dedicated to identifying, engaging and managing high-risk and high-need patients in a population. We do that with a combination of software that we wrote and developed, a clinical call center of critical care nurses here in Dallas, as well as in-home nursing visits from our own home healthcare companies and a network of affiliated companies. The notion here is to improve the health of our patients by creating a technology-enabled, connected patient model while also making care more accessible by delivering it to the patients in their own homes and reducing cost by engaging patients in a low-cost care setting and engaging patients and managing their care more efficiently. This way we are able to reduce significant amounts of unnecessary and avoidable healthcare interactions like emergency room visits and hospital stays.

CEOCFO: *You mentioned identifying high-risk patients. Exactly what do you look at to identify the high-risk patient that would not be obvious?*

Mr. Johnson: Most clinical models for identifying the “right” patients are based on sickness. Sickness is not necessarily an accurate predictor of risk so for instance you may be chronically ill but also quite stable. On the other hand, you may have a person who is moderately unwell but because of a confluence of factors is at a significantly higher level of risk. What we do is use a bundle of algorithms that we have patented that use accessible data test to predict risk in a population. The way we look at it is if you manage a population meaning you are a hospital system or a health plan or a physician practice or a home healthcare company, you have a population of patients. Within that population there are patients who are acute and in the hospital. You have patients who are getting treatment at home or in a post acute treatment facility. You also have patients who are at home but not receiving any care and it is those patients that we are obsessed, identifying the patients who are at home who are not accurately receiving care in the form of a skilled nursing facility, rehab or acute care hospital but who may be on the verge of a clinical exacerbation. Where we typically find these patients is in a chronically ill population. For instance if you are elderly and have one or more chronic conditions let us say diabetes and congestive heart failure, it is likely that you are managing your condition appropriately with medications and other therapies. What we know is that 84% of healthcare costs in the US go for the care of the chronically ill patients. What that means is that chronic illness by itself is not terribly expensive and insulin is not terribly expensive in the form of a diabetes treatment but chronic illness that is allowed to become acute is very expensive and unwanted for the patient. A diabetic coma is very expensive; a leg or foot amputation is very expensive and obviously unwanted by the patient. You could say in large part that we are in the business of managing chronically ill patients so that their chronic illnesses never become acute.

CEOCFO: *Who is using your software?*

Mr. Johnson: Typically, our clients' beliefs come in a few different forms. If you are a health system and you have responsibility for a population patients. You may say to us we have identified a subset of patients that we believe are high-risk and we would like to use CareCycle to analyze them and then engage and manage the ones that you think are also at risk. If you are a health plan and effectively you own the risk for the cost associated with a panel of patients, we may be

effectively an outsource business process for you insofar as you have an army of care managers who already work for you in the health plan but there is a longitudinal aspect of what we do. This means that you may want us to manage your patients over a long period and the care manager they have may just be doing more transactional things. Typically, our clients are what we would call risk owners so people that take risks on patients those being insurance companies, accountable care organizations, managed care organizations or health systems.

CEOCFO: *When you are speaking with a prospective client do they appreciate the fact that you are also frontline and that by that alone, you are much likely to have a better solution?*

Mr. Johnson: We also own a bundle (about thirty) of home healthcare companies in Texas and Louisiana. Those companies have their own populations so those home healthcare companies are clients our population health business; the one that remotely manages patients. I think we have a lot of credibility because we can say not that we are a technology company or even a technology enabled service but we are a care provider and this software was originally developed to help us care for our own patient population. We have been on the frontlines for a long time and we have found this technology really works. In our own population of 30,000 or so patients, we have seen they are half as likely to go to the hospital when they are under our care with our technology enabled services verses if they were at home by themselves. Our hospital readmission rates are typically 50% to 75% lower than the national averages. That is good news for two reasons; patients do not want to go back to the hospital and when they get home, they want to stay there. Secondly, it is great for the risk owner or the insurance company because the hospital is where healthcare becomes expensive.

“CareCycle is an inexpensive way to target and manage a very expensive population. The savings that we create by doing so can be applied to the next round of innovation. We think of ourselves as step-one in a multi step process for health.” - Matt Johnson

CEOCFO: *Home healthcare does not always have the highest reputation. Why is it different for CareCycle?*

Mr. Johnson: Home healthcare as an industry has no structural limitation. The way that most Medicare beneficiaries' home health benefit is constructed allows for a periodic, infrequent visit from a clinician. On average, they might get two or three clinical visits per week. Let us say there are three one-hour visits, that means there are 165 hours that week that a person is left home alone. I would say the charge assigned to home health care which is provide outstanding care outcome and maybe outcomes that are equivalent to what you could get in an acute care hospital, is a very difficult charge to meet because most home health as it is typically constructed is almost never there. When they are there, they perform an amazingly valuable skilled service that requires a hands-on clinician to be in the home. The real structural challenge that home health has is that they are expected to achieve this remarkably high health outcome in a remarkably fragile population meaning to have Medicare home healthcare you have to be homebound which means you are fairly infirm and more often than not you recently had an acute care hospital stay. They have an incredibly difficult task and they are able to meet that task only with an infrequent clinical visit. What is different about us is that we use this technology safety net to fill in the gaps. From our standpoint, we want to be connected to patients all the time. We hate the idea that people are at-home by themselves with no care at their fingertips. We put biometric devices such as a scale, blood pressure cuff and a Pulse Oximeter and sometimes a glucometer if the patient is diabetic, in every patient's home. Those biometric devices, which everyone knows how to use and are very simple and accessible, collect data from the patient and it is automatically transmitted to the cloud and into our software platform which is called CareCycle Navigator. We are able to manage every patient every day, with in-home clinical visits for home healthcare patients, or with a remote nurse visit. That means every day and sometimes multiple times a day we are interacting with the person in the form of a visit, phone call or a data transfer. That is incredibly valuable because what it means is the person at home knows that they have an everyday safety net to keep them well at home. Secondly, the clinicians know they are constantly thinking about and working on the patients and their populations that are at the highest risk for exacerbation. This typically allows us to intervene several days before an exacerbation becomes acute and that is why our readmission rates to the hospital are so low because we are typically intervening several days before something bad happens. Patients have the safety net and it really works.

CEOCFO: *Are the clinicians paying attention when you send out an alert?*

Mr. Johnson: The way it works is the nurses in our call center are dialed into our software CareCycle navigator all day every day. That is a platform for the remote management of patients. As new data comes in, for instance every nurse works on a team of two and every team manages at least five hundred patients. That panel of patients is constantly stratified on the basis of risk. Every single time someone comes up in a nurse's queue, the nurses know that this person who is now on my list is at a high risk for an exacerbation and then the system tells them why. Then the nurse calls that patient and talks through the condition and makes an appropriate clinical intervention. Sometimes they have standing

orders from a physician to modify meds and sometimes they do something as simple as encourage activity. These are micro interventions because they happen early enough to prevent an exacerbation from sending them to the hospital. They absolutely pay attention.

CEOCFO: *Where does the reimbursement factor come in?*

Mr. Johnson: Medicare does not pay for remote patient management but the owner of the population does. If the owner of the population is an insurance company or an ACO or MCO, when we settle on a panel of patients to manage we forecast the cost of that population. We manage them over a period of time and reduce that cost and then the difference between our forecasted cost and the actual cost becomes the basis for our fees. Typically, our clients enjoyed several parts savings to one part fee.

CEOCFO: *What is the focus today?*

Mr. Johnson: We can scale the remote management business much more rapidly than we can scale the home healthcare business. Our focus is on maintaining clinical excellence in our home healthcare company and we expect a modest growth in the next year. We expect a rapid growth out of our population health business, the remote management business over the next year for a couple of reasons. First, the appetite for solutions that reduce cost in an otherwise expensive population while improving access and improving health is an appetite that has grown rapidly in the past couple years. Secondly, there are some favorable winds blowing towards tele-health and remote management of patients simply because I think the industry has acknowledged that the direct in-person care has some limitations as the demographics change the population. We need to find a way to scale a single nurse and make him or her more accessible across populations. Thirdly, I think that our technology has had some favorable recognition lately and the CareCycle navigator has gotten some notoriety over the past year and the interest in engaging this technology is both an outsource managed service and the SaaS has grown rapidly in the past six months.

CEOCFO: *How has the technology changed since you began?*

Mr. Johnson: There is a significant difference in the technology that is a key growth indicator for this sort of solution; call it the Moore's Law application as it applies to the in-home devices. That means that five or six years ago "telehealth kit" which would be sort of a copper wire connected group of scale blood pressure cuffs and Pulse Oximeter, all connected through a telephone hub. This was like a \$4 thousand proposition a few years ago. At \$4 thousand per patient it was very cost prohibitive for a risk owner or an insurance company to look at this and say sure we will have a large-scale deployment of that. Now you can go onto Amazon.com and at full retail price find a Bluetooth connected scale Pulse Oximeter and blood pressure cuff for \$50 a piece. There has been a rapid disintermediation of these devices from telehealth companies. In the old days of telehealth, the equipment was so expensive that it was something that was logistically deployed, used and then harvested, cleaned, repaired and redeployed. Not that it is a terrible business model but it has a limitation in that if a person is high-risk because they are chronically ill, then their risk level may be stabilized but their chronic illness by definition is not going to go away. What these less expensive devices do for us is not only do we get to scale these programs to more patients but we also leave these devices with the patient even after they are stabilized so that we can continue to collect data and keep them in our system forever. That has massive implications in that after we stabilize the person, two years from now they may show back up on the list. At that time, we can engage and we made a meaningful impact because we have not let that person fall through the cracks. That safety net never needs to go away now.

CEOCFO: *How do you break through the noise when you are approaching someone about your system?*

Mr. Johnson: The noise is a major problem in the industry. First, telehealth means something different to everyone. It might mean remote physician video visit. It might mean what we do; it might mean text messages every Tuesday with a health tip. First what we try to do is find a population owner, someone taking risk on a population who has a pain point. The pain point comes in the form of the identification that their care management function is maxed out. For instance, we have an ACO client here in Texas who has a couple dozen care managers who are each working as fast as they can around the clock and cannot meet the demand all the time. In situations like that, we can step in and say we understand the need and the function that we can play and then we can show up with a very narrow but deep solution to a problem. That is sort of where we play best. We spend a lot of time helping our clients understand that we are not a full soup to nuts population health solution. There are many components that need to be in place that are outside the scope of what we do. What we do is very narrow but we do it exceptionally well. The way to break through the noise for us has always been to refine and refine and refine.

CEOCFO: *What should people remember most about CareCycle?*

Mr. Johnson: I have been in healthcare for fifteen years. This has been by far the most interesting time that I have seen. The year 2015 presents healthcare that is right for disruption so the ACA gets a lot of press for the exchanges but what it

really did was transfer risk in a massive way from traditional risk owners, which are health plans to providers. It created mechanisms that encourage providers to take risks on patients. What that did is on a dime transferred from people thinking about how I can generate as much revenue as I can on tests and procedures and the latest technology, to people asking questions like how I can take the most efficient care of this person in the lowest cost setting. With that as the stage, CareCycle is an inexpensive way to target and manage a very expensive population. The savings that we create by doing so can be applied to the next round of innovation. We think of ourselves as step-one in a multi step process for health. We immediately create savings. The next several rounds of innovation can all be around this transition from fee-for-service care to value based care. We are right in the middle.

Interview conducted by: Lynn Fosse, Senior Editor, CEOCFO Magazine



CareCycle Management
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