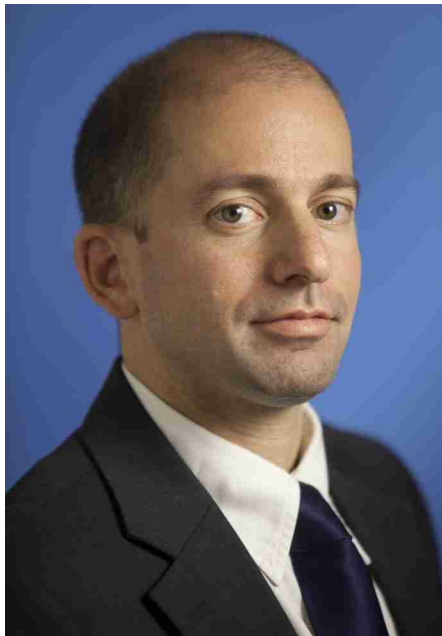


Bringing to market their System for Contact-Free, Patient Safety Monitoring of Vital Signs and Movement, EarlySense is enabling Hospitals, Rehabilitation Centers and Long-Term Care Facilities to Improve Care and Cost Efficiencies

**Healthcare
Patient Monitoring Technology**

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**Avner Halperin
CEO**

BIO: Mr. Halperin is a veteran high-tech executive. He has served in several senior management positions including CEO of Emmunet, VP Marketing at Radcom (NASDAQ: RDCM), and VP of Business Development at Lenslet. He also worked as the R&D Manager at Eldat and was the department head of an R&D unit in the IDF Intelligence corps, where he participated in the Talpiot Project. Mr. Halperin earned an M.Sc. in Applied

Physics from Tel Aviv University and an MBA from the MIT Sloan Fellows Executive MBA Program.

About EarlySense:

Founded in 2004, EarlySense has brought to market an innovative technology designed to advance proactive patient care and enable clinicians to achieve better patient outcomes, by assisting in preventing adverse events from occurring through the early identification of potential adverse events, in the form of falls, pressure ulcers and/or patient deterioration. The company's flagship product, the EarlySense System, is a continuous, contact-free, patient safety monitoring solution that monitors and documents a patient's vital signs and movement using a sensor that is placed underneath a bed mattress. There are no leads or cuffs to connect to the patient who has complete freedom of movement and is not burdened by any cumbersome attachments. The system was initially designed to monitor non-ICU 'lower risk' patients on medical surgical floors who are usually monitored by nursing staff approximately once every four hours. The system is currently installed at hospitals and rehabilitation centers in the USA and Europe. It is also commercially available in Canada. Hospital administrators report that patients, their families and staff feel more comfortable knowing the system is in place. EarlySense Inc. is headquartered in Waltham, MA. Investors include: JK&B, Pitango Venture Capital, Etgar Challenge Fund, ProSeed VC Fund (TASE: PRSD), Docor International Management, Noaber, and Bridge Investment Fund, and Peter

Soderberg, managing partner of Worthy Ventures Resources, LLC and former president and CEO of Hill-Rom Holdings, Inc. (NYSE: HRC). The company was founded by Yossi Gross, Dr. Danny Lange, Guy Shinar and Avner Halperin.

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

CEOCFO: Mr. Halperin, would you tell us the concept at Early Sense?

Mr. Halperin: Early Sense is a medical systems company. We bring to market solutions for hospitals and long term care institutions. The product is intended to answer a real need for improving patient safety and efficiency of care in the non-intensive care unit part of the hospital. If you look at the non-ICU or lower acuity environment, this is where the majority of about seventy to eighty percent of patients are admitted to. Those patients, today, are lying in their beds in the hospital, rehabilitation center or nursing home and are not continuously checked or monitored by any technology. A nurse comes in every four or five hours and checks on how they are doing, but there is no way for nurses and physicians to continuously know how the patient is doing. Due to the aging population and the increasing level of acuity in non-ICU beds, the current lack of continuous monitoring poses significant patient safety risks and creates an opportunity for improving care and cost efficiencies.

CEOCFO: How does your system work?

Mr. Halperin: Our system answers that need by having a sensor that is placed in the bed under the mattress. It never actually touches the patient in any way. No set up is required. Once the sensor is placed under the mattress and the patient enters the bed, the patient is continuously monitored for heart and respiratory rates as well as motion level. When specific thresholds are crossed an alert is activated at the bedside as well as at the central nursing station and on an LCD in the hallway. It is also communicated to the pagers or mobile phones that the nurses are carrying. Immediately, when there is an indication of changing patient conditions the nurse is alerted and he or she can respond, well before they would have seen the patient on a spot check four, five or six hours later.

CEOCFO: How are you able to monitor, for example, the heart rate remotely?

Mr. Halperin: This is a patented sensing and signal processing technology that has been developed over nine years by a dedicated and experienced group of scientists and clinicians working very closely together. We have seen it work now in more than five million hours of patient monitoring. The way the technology works is that the sensor that is placed under the mattress actually detects vibrations that are coming from the body and are collected by the sensor. The sensor detects three types of vibration signals. First is the motion of the hands and legs or torso. Second, the patient's chest movement, moving as he or she is breathing - this creates a detectable motion signal. Third, there is a very small effect, but a very clear one called the cardio ballistic effect. Every time our heart beats it creates a recoil effect similar to a microscopic gun being shot in our bodies generating a tiny vibration in the body and into the mattress. Our specially designed sensors are sensitive enough to detect these signals, the motion of the body, the motion of the chest as we breathe, and the cardio ballistic effect, and accurately detect the heart respiration and the motion signals, do the analy-

sis and alert the clinician when a change is detected.

CEOCFO: Where are you in the commercialization process?

Mr. Halperin: We are in sales. We are selling to hospitals, rehabilitation centers and to nursing homes in North America as well as in Europe. We have completed significant clinical trials that have shown excellent clinical outcomes. It has been shown that clinical teams using the EarlySense system have significantly improved the outcomes of their patients as well as economic outcomes. The system is now available for sale, both from our direct sales force in North America as well as through Welch Allyn, our strategic partner in North America, which is a leading provider of medical technologies to hospitals. Our system is also distributed in Europe through local distribution partners in various countries.

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- Avner Halperin

CEOCFO: When you speak with a potential customer do they understand right away or believe that it can be done? What is the “light bulb” moment when they get really what the major affect could be?

Mr. Halperin: Sometimes we do face some initial disbelief that the system can work. Obviously, we do very often demonstrate to our potential customers our system working in their beds. We also often invite them to visit hospitals using our system. We have been doing clinical trials for a few years now and received reports of over 100 cases where clinicians report that they significantly improved the care or saved the life of a patient utilizing our system alerts. Customers often get very excited when they hear of such “documented saves”.

We have been talking to clinicians for

a few years about this technology. Initially, we had to convince people why there is a need to monitor patients. Today, with the aging population in the hospitals and the increasing levels of sickness of patients on average in the hospital, almost every clinician that we speak to immediately understands the benefits and critical need for continuous monitoring. One of the most important institutions in accrediting and evaluating how hospitals work today is called the Joint Commission out of Washington DC. They have some very important guidelines on how hospitals should keep patients safe; for example, when they administer pain medication, which could cause some patients to stop their breathing, and another one showing how hospitals need to work with different alarm systems. These types of guidelines coming from the Joint Commission, as well as the body of evidence on clinical and economic value of our system, lead most hospitals to quickly understand why such a system has such significant value for them.

What hospitals have been reporting on using our system is that they see a smaller number of patients that they need to transfer from the general floor to the Intensive Care Unit. As a reminder, the Intensive Care Unit is where patients are usually transferred when they deteriorate. It is also a very expensive place to keep a patient. With the EarlySense system in place, hospitals also see a shorter average length of stay as they often prevent deterioration and may be able to send a patient home earlier. In the current reimbursement models, when hospitals send patients home earlier or prevent or reduce ICU days, this directly benefits their bottom line. Similarly, hospitals using our systems see fewer code blue event cases where they need to resuscitate the patient after they have suffered a cardiac arrest. They also see fewer patients fall out of bed, because the nurses are alerted when patients try to get out of bed and they come in and prevent the fall. Furthermore, they see fewer pressure ulcers or bed sores that happen when the patient is not moved enough. From the combination of these five benefits,

administrators and clinicians see a rapid return on investment on the implementation of this system. This clearly has a “light bulb” affect, as you would say.

The point of utilizing a continuous monitoring technology like ours is to achieve early identification of deterioration. That has a dramatic clinical impact. For example, one major clinical trial done independently of EarlySense showed that early intervention reduces seventy percent of unnecessary patient deaths in hospitals and reduces cost of care by thirty-eight percent. Therefore, there is dramatic value in early detection and that is what we are helping hospitals achieve.

CEOCFO: What is your revenue model? Is this an outright sale?

Mr. Halperin: We actually offer our system as a purchase so hospitals can buy it directly. We also provide alternative purchasing models to allow overcoming a shortage of capital. We also offer some rental and pay per use models as well.

CEOCFO: How is business so far?

Mr. Halperin: Excellent. We are very happy about how the business has been developing. We see fast growth in the number of hospitals that are adopting the technology and we are very optimistic about the future.

CEOCFO: Is this a patent protected technology? What are the barriers to entry for someone who might want to come up behind you and say, “That is a great idea, we should do it also”?

Mr. Halperin: The answer, first of all, is yes, this is a patented technology. We recently announced, about a month or so ago, that we were granted a US patent on this technology and we expect several more patents to be allowed in the foreseeable future. That is one barrier to entry. The other is that it is very complicated to develop this technology. A system that detects the heart, respiratory and motion very accurately took close to nine years to develop and for others trying to do the same, it would take at least as long. The third thing is that developing this technology is that it is not just about technology but also the whole clinical concept and the full system solution. Our solution is also based on years of clinical experience in which we have collected over five million hours of patient monitoring signals and built a huge clinical data base. We did not get it right the first time. It took us several iterations. We believe we have it right now and of course we will continue improving in the future.

CEOCFO: Why should investors and people in the business community pay attention to Early Sense? What makes you a special company?

Mr. Halperin: If you look at the patient monitoring market it is a rapidly growing technology market for hospitals and long term care. To date, if you look at hospitals in the United States the estimate is that about seventy to eighty thousand patients are continuously monitored today in US hospitals every day. If you look five or six years into the future that number is expected to grow by more than a factor of ten. That has not happened in over the last

two or three decades. So what we are facing right now is the biggest opportunity in the history of patient monitoring. We expect it to create a business opportunity that is well over five billion dollars and a clinical opportunity to help millions of patients. Obviously, I am not going to tell you that EarlySense will get every one of those five billion dollars, but we expect to be the leader in this rapidly growing field and take significant advantage of this unique market opportunity, both to make significant returns for our investors while helping many, many patients.

Everything said about this being the biggest opportunity is just a preamble, because after this technology is implemented in hospitals then there is an even larger opportunity in post-acute care in both nursing homes and patient homes. Therefore, this technology is starting in hospitals and will then expand through the continuum to also go into practically every nursing home in the US and then into patients' homes. That is because eventually for every modern medical system we want to have as many patients as possible, including outside of the hospital and in homes. To do that we need to have advanced technologies that continuously monitor them and help prevent deterioration through early detection leading to effective intervention. Our technology is in a position to take a significant part of that fast growing opportunity.

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