Interview: Heather Chalmers â?? Vice President and General Manager, GE Healthcare Canada

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Heather Chalmers, vice president and general manager of GE Healthcare Canada, shares the companyâ??s increasing focus on incorporating applied intelligence and digital analytics in its portfolio of innovative solutions, and how these can have significant effects on patient outcomes as well as the whole healthcare system. She further highlights the recent achievements of GE Healthcare in partnering with providers to launch a command center at Humber River Hospital and in regenerative medicine.

You took over at the head of GE Healthcare Canada in 2014. What was the vision for the GE Healthcare business in Canada at the time and how has it evolved since?

The focus was entirely on being a good healthcare partner, through best in class product and service leadership. However, over the last three years, there has been a shift. While product leadership is still important, there is a much more deliberate focus on digital analytics and applied intelligence, as well as on readjusting our partnership strategy.

The first element revolves around reconsidering how we use digital analytics and applied intelligence in our devices, our software and our service portfolio to ensure higher clinical and operational value to our clients.

In our partnerships, we are looking to align around outcomes, often in risk-sharing models. Instead of sticking to the traditional partnership where we install and service a piece of equipment, we want to accompany our customers in their journey to address the outcome they want to achieve with that equipment and help them meet or exceed those objectives.

What have been some of the recent achievements for GE Healthcare Canada?

There are three achievements we are particularly proud of. The first is within our Life Sciences business. Just over a year ago, we made a CAD 20 million (USD 15.5 million) investment, matched by CAD 20 million from the federal government, to create a joint venture with the Center for the Commercialization of Regenerative Medicine (CCRM) in Toronto. The investment in CCRM/BridGE by GE Healthcare has enabled Canada to move to the next level in Cell Therapy and the combination of commercial and scientific expertise in this collaboration has encouraged other strategic investments and allowed us to build a world class facility.

As a testament to Canadaâ??s leadership in the life sciences sector, this investment was Honorable Justin Trudeauâ??s first public announcement after he took office. Now that the facility has opened Phase 1, weâ??ve created 15 GE positions and 20 CCRM positions in Ontario as well as hired a number of contractors.

Our second highlight is our managed equipment services agreement, which has been operational at the Humber River Hospital for two years now. In this agreement, we are leasing a significant portion of HRHâ??s medical equipment rather than just selling it to the Hospital. Venturing into this agreement, we set out risk-sharing goals to make sure that the Hospital got what they needed. Iâ??m proud to say that, working together, we met and exceeded every single one.

Thirdly, on November 30th, we opened a digital command center at the Humber River Hospital that we helped develop, the second in North America, and the first in Canada. Operating with artificial intelligence, it is an outstanding example of using real time and predictive analytics to improve quality in the quest to evolve into a high reliability hospital.

What are some examples of artificial intelligence (AI) incorporated in your services and solutions?

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GE Digital, which sits in California with hundreds of software engineers has partnered with our local GE Healthcare analytics group. Several of the pilot projects have been tested in conjunction with our Ontario providers. One of those is the x-ray â??repeat/rejectâ?• analysis. Hospitals can reject as many as 25 percent of x-ray images. And with every x- ray, the patient is exposed to more radiation, it is time and resource-consuming, while the patient is not getting care and diagnosis as soon as possible. With the analysis tool, it becomes quickly apparent where most rejects stem from, thus giving a targeted education opportunity that helps improve outcomes for patients and clinicians.

Still in the x-ray field, we are exploring the use of AI to ascertain criticality of chest x- rays. Today, x-rays are taken and subsequently queued for review, unless someone notices one may present some acute needs and prioritizes its analysis. We worked with several local and one US hospital, and each did about 120,000 x-rays. With a concordance study, we are looking to establish whether AI could flag acute cases. Those would then get prioritized and are directly routed to a radiologist, at the top of the queue. Taking this one step further, depending on the type of preliminary diagnosis, it may go to a specialized radiologist that is available at that particular moment. What we are looking to accomplish is not just clinical improvement, but operational improvements within the system.

Another project uses data and analytics to help reduce the amount of anesthetics used in anesthesia machines. With our analytics, complex data can be transformed into actionable insights to help hospitals better drive operational and economic outcomes.

What is GE Healthcareâ??s partnership strategy with healthcare providers in Canada?

For too long there has been a push to separate the industry from the providers. As mentioned with the shift in our focus, we are looking for long-term partners, because we believe it generates more opportunities for action. Long-term enables mutual understanding and trust and helps in uncovering new ways to create value together.

Where do you see room for improvement within the Canadian healthcare system?

I think that the one thing we struggle with in Canada is that we cultivate a lot of innovation up to a certain point, but then our own adoption of those innovations is lacking. This is due to hurdles in the procurement, reimbursement and general funding in the healthcare sector when it comes to medical technology. In Canada, expenditures for medical technology are around 3.5 percent, while they stand at about six percent in most other countries in the OECD group. This means, that the ratio of pieces of equipment per person is low in Canada, which of course affects wait times, early diagnosis and ultimately, outcomes.

As part of MEDEC (the association for medical device companies in Canada), we have a role in advocating, by presenting value in outcomes in a more digestible manner to key decision makers.

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GE has a vast healthcare portfolio, spread across multiple therapeutic areas with competition in each category. What does your portfolio offer to Canada today, and from which area will next launches come from?

GE Healthcare probably has one of the broadest range of products and solutions across the healthcare industry. In the imaging space we are present with computed tomography (CT) and magnetic resonance (MR), positron emission tomography (PET/CT) and ultrasound, x-ray and interventional solutions. We also have a series of products in the devices space, amongst the fields of anesthesia, monitoring, diagnostics and cardiology, and also sport a portfolio in general imaging, cardiovascular, womenâ??s healthcare. Finally, we have our Life Sciences division containing biosciences and contrast media, and our healthcare IT. In most of these sectors, we rank amongst the top two providers.

When developing a new product or service, GE Healthcare conducts a very strict assessment along three criteria and will not bring the product or service to the market, if at least one of these criteria is not met. It has to decrease cost by 15%, increase procedure/patient quality by 15%, and/or increase access to the system by 15%. We can thus ensure that our launches have a meaningful impact to the healthcare system.

One of the most recent launches in Canada has been the Pristinaâ?¢ mammography system. Designed by women for women, and involving 1,200 women in its development process, it has already displayed outstanding impact. It aims at creating an environment in which the anxiety women feel when they undergo a mammogram is reduced, not only to help patient experience but also to help ensure they come back for a subsequent screening. Today, 25 to 46 percent1 of women do not come back for subsequent mammograms because of a poor experience, and while Canada has a compliance target of 70 percent, not one province meets this target. By helping to solve the comfort issues, we can help support cancer detection rates, and the feedback we have had from women

using Pristinaâ?¢ for screening have been transformational. Moreover, Pristinaâ?¢ works with a patient-assisted compression device, so that the patient can control the compression. And we are finding that women can press as much if not more than a technologist would, simply because they are in control.

What are your key priorities moving forward?

We will focus on continued leadership in our traditional technology and solutions while, secondly, continuing to develop our thought leader position in digital and applied intelligence. Weâ??ve got an incredible start out in this field with key customers wanting to take the journey. We have the tools ready and the right atmosphere to build this sought-after leadership, not just for GE, but for Canada. Finally, we will be developing more long-term partnerships, to achieve more than in traditional relationships.

References:

1. Whelehan P, Evans A, Wells M, Macgillivray S. The effect of mammography pain on repeat participation in breast cancer screening: a systematic review. Breast. 2013; 22(4):389â??94.

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