

Alberta Doctors' Digest

Alethea: Light at the end of the canal

As the new year begins, there is some light at the end of the tunnel in the enduring shadow of COVID-19. And for some physicians, this light is a camera equipped with real-time visualization to illuminate the dark, dank and sometimes scary auditory canal. From my past experience as a medical student, I distinctly recall an ENT lecturer saying something about looking at over 10,000 ears before feeling somewhat comfortable at diagnosing acute otitis media.

Dr. Devon Livingstone is a Calgary-based ENT physician and one of the recipients of [the 2019 Joule Innovation Grant](#) administered by the Canadian Medical Association. Like many physician-innovators, Dr. Livingstone saw challenges in patient care due to difficulties in accessing timely specialist consultations, resulting in diagnostic conundrums and potential mismanagement.

“While fielding consults over the phone, I often find myself thinking ‘I wish I had a picture or video of what they are trying to describe,’ and we’ve created a platform where this is possible!” says Dr. Livingstone.

Their new digital platform [Alethea](#) aims to shine a light on common ENT issues with not so common presentations.

As with many physician-led innovations, much thought has been given to integrating with the existing workflow of physicians. Ease of use, accessibility and practicality mark the foundations of the platform. It is compatible with the usual otoscope tips found in family physician offices. Digital images captured during physical exam can be sent electronically to specialists via a secured e-referral with a target turnaround time of 24 hours. This is aided by structured data points such as checkboxes to streamline essential information required for diagnostic clarity. Besides reducing the administrative work required for an e-referral, the quicker processing time reinforces physician learning to improve diagnostic accuracy while reducing unnecessary treatments.

The digital otoscope can be used on a standalone basis as it does not require the submission of an accompanying specialist e-referral. Many of us have examined countless ear canals, but it’s unlikely that you have ever seen your own. Having real-time imaging allows patients a rare glimpse into this mystery space with the goal of empowering them to proper self-care.

According to Dr. Livingstone, the dedicated otoscope and supporting digital platform is provided to family physicians at no cost. It is approved by Health Canada as a class 1 medical device. The administrative backend, including billing, has been digitally streamlined and is automatically handled by the platform. We have all experienced clunky and unintuitive software, but [Alethea](#)’s greatest strength is that it is neither. As a

physician innovator, Dr. Livingstone leverages his clinical insights to create a solution that works with existing physician workflows.

[Alethea](#) currently supports dermatology e-referrals through the platform and, looking forward, plans to include other specialty physicians.

Every physician innovator I have chatted with has described their experiences as personally satisfying and often a welcomed break that helps to advance patient care. Dr. Livingstone echoes this sentiment and has no regrets about his own experiences. “This process has been very fulfilling, with an opportunity to meet many of my family physician and specialist colleagues and work with them to solve real-world problems. I've had lots of success stories from patients seen through the platform, which has been very motivating,” says Dr. Livingstone.

I know we are all tired of hearing about the unprecedented and tumultuous year that was 2020. However, over the last year we have seen local stories of creativity and flexibility that have inspired advocacy, activism and innovation — roles that Alberta physicians fit effectively into. Although 2021 will bring new challenges, I am confident that with continued support of Alberta-based innovation, physicians can continue to better the lives of all Albertans.

Editor's note: The views, perspectives and opinions in this article are solely the author's and do not necessarily represent those of the AMA.

Banner image: Dr. Devon Livingstone, inventor of the ENTiD digital health platform