

Innovation in medtech

We speak to Kieran Daly from HealthBeacon about new groundbreaking treatment options and what it feels like to make an international impact

“It is just incredible to have won the eHealth Innovation of the Year Award at the Irish Medtech Awards 2018,” says Kieran Daly, CTO and Co-Founder of HealthBeacon. “We are an Irish firm with Irish roots with an international outlook, so getting an award from this group, who are so focused on the industry, has been a big boost to us. The fact that it came from our peers has given us great confidence.”

HealthBeacon, a leading medication adherence technology company, won the award for developing an injectable medication management system. Set up over five years ago by Daly and Co-Founder Jim Joyce, HealthBeacon integrates ICT into the world of healthcare.

“I have worked in technology and hardware in both the tech and healthcare sectors for over 20 years,” says Daly. “Jim was running an organisation offering patients support. This involved nurses going to the homes of patients who needed injectable medication and trained them on how to use their injections. These types of patients have sharps bins where they can dispose of their syringes safely.

“Jim had an idea that the sharps bin could provide some insight and understanding of patients’ medication adherence. So, in our HealthBeacon smart sharps bin, it captures the moment of disposal, time stamps it, gives the



adherence score and date of next injection on the screen on the top of the bin. We are very proud of this innovation, as it is having a measurable impact on medication adherence of patients.”

Medication adherence

The HealthBeacon smart sharps bin is digitally connected to the cloud via an integrated SIM card and can provide prompts for patients to stay on track with their injections. Daly says that, on average 50pc of patients are not adhering to their medication which is a huge problem for patients themselves, doctors and even drug companies. But HealthBeacon has brought up the numbers significantly.

“If a standard medication programme is running at 60pc adherence, HealthBeacon has demonstrated double digit improvement across a variety of

conditions. With the HealthBeacon smart sharps bin, patients don’t need to do anything different than they do with a normal sharps bin. It helps them do less, not more.”

Daly says the patient can see their own adherence score and this can empower them to take control of the management of their regiment. It makes the consultation with their physician much more honest with no overestimations, and they get the best treatment possible.

“An illness like rheumatoid arthritis could have put someone out of the workforce 15 years ago,” says Daly. “But now, with new medication taken in the home, people can manage these conditions themselves and lead fuller lives. The primary person who benefits is the patient themselves, as smart-connected devices ensure better adherence to medication.”

Cutting edge healthcare

Daly has worked in technology in the healthcare sector for many years. He says that innovation in medtech can help not only patients, but the healthcare professionals taking care of them.

“One of the big challenges for doctors is that they are in the dark about whether their patient is actually taking their medication. They must accept what they are told at face value by their patient.

Doctors can see if their patient is taking the right dose at the right time and if it’s not working, they know they are making the right decision to move them onto another prescription.

“In many cases, changing treatments is made with incomplete information, so clinicians need real-world data to drive their interventions,” says Daly.

Helping doctors in their diagnoses is incredibly important, but it can also help keep costs down for the health system. In the US, current estimated costs to manage medication non-adherence are estimated to be \$290bn, and it is a similar costly practice in Ireland.

“Medications can only work if a patient takes them. Payors as well as drug companies want patients to have a good outcome which delivers value and cost savings. With better adherence in these new treatment options, there can be a reduction in unneeded medication switches and a reduction in the acute hospital population as patients are taking better care of themselves and sticking to their medication times. Anything that can stop a patient going to hospital will always save costs.”

HealthBeacon has made an international impact, with their innovations operating across 13 markets and reaching patients across the world. They have also just closed their fundraising in January where they raised €12 million, which Daly says is a signal of their ambition and market endorsement.

“I feel like we’re only getting started,” says Daly. “There is so much more work to be done with expanding the team, the geography and having a strong R&D and development pipeline in place to bring next generation products to market. We think we will be around for a long time and will impact hundreds of thousands of more lives.”



HealthBeacon Quality Manager Joyce Power with Chief Technology Officer and Co-Founder Kieran Daly