



Bluedrop Medical Ltd. was founded in 2014 by experienced medical device engineers Chris Murphy and Simon Kiersey. The company was established with a mission to reduce unnecessary expenditure in healthcare through innovative solutions.

Bluedrop Medical focuses on developing innovative remote monitoring solutions to prevent diabetic foot ulcers. The company's core technology is a smart device that patients use at home, which captures foot images and temperature data to identify early warning signs of ulceration.

Bluedrop Medical was recognised as one of the winners of the Health Innovation Hub Ireland (HIHI) Focused Call in 2019, highlighting their commitment to advancing healthcare through technology.



Chris Murphy and Simon Kiersey, Bluedrop Medical Co-founders

About Health Innovation Hub Ireland

Health Innovation Hub Ireland (HIHI) was established by the Department of Business, Enterprise and Innovation and the Department of Health and is supported by Enterprise Ireland (EI) and the Health Service Executive (HSE) to drive collaboration between the health service and enterprise. We offer companies the opportunity for pilot and clinical evaluation studies and we provide the health service access to innovative products, services and devices that they may not otherwise be exposed to.

HIHI is built on the recognition that collaboration with enterprise can benefit patient care, patient pathways

and outcomes. We assess all concepts for healthcare innovation from those on the frontline – from clinician to porter. We encourage healthcare professionals to get in touch with HIHI if they have an idea or solution to how something in your job might work better.



The Healthcare Challenge

Diabetic Foot Ulcers (DFUs) are among the most severe complications of diabetes, leading to over 75,000 amputations annually in the US and costing healthcare systems billions. In Ireland alone, DFUs result in over 540 amputations and 2,820 hospital admissions each year, with each

admission costing approximately €30,000. Despite being largely preventable through early detection and intervention, current care pathways rely heavily on in-clinic assessments, leaving gaps in continuous monitoring and timely response.



The Healthcare Solution



Evidence shows regular inspection of the feet can greatly reduce the risk of developing a diabetic foot ulcer. But for many, this can be a challenge. To meet this need, Bluedrop Medical Ltd. has developed the OneStep™ Foot Scanner, an AI-enabled thermovisual device designed to remotely monitor patients at risk developing diabetic foot ulcers. This device empowers patients and clinicians by enabling early detection and intervention.

Resembling a bathroom scale, the device captures daily thermal and photographic scans of the feet, identifying early signs of ulceration such as inflammation or visual abnormalities. These scans are automatically transmitted to a secure cloud platform for review by clinicians, enabling timely remote interventions.

HIHI Role

Health Innovation Hub Ireland (HIHI) played a pivotal role in facilitating the pilot study. HIHI collaborated with Bluedrop Medical and the Podiatry Clinic at Merlin Park University Hospital Galway (study sponsor) to:

- support study design and ethical approval,
- coordinate patient recruitment and device deployment,
- collect and analyse usability and clinical data and
- disseminate findings across national and international platforms.

HIHI's involvement ensured rigorous evaluation and alignment with clinical standards, enhancing the credibility and impact of the pilot.



Outcome Report

The pilot study, conducted during the COVID-19 pandemic, involved 27 participants across Ireland and the UK. Patients used the device daily for 12 weeks, with adherence averaging 80% (5.3 uses/week). Visual data proved clinically useful in 90% of cases, significantly outperforming thermal data (12%). Remote assessments showed strong agreement with in-clinic evaluations (kappa = 0.67, sensitivity: 80%, specificity: 100%).

The pilot demonstrated:

- high patient satisfaction: 56.5% felt confident in their foot care, engaged, and satisfied with the device.
- clinical utility: 41% of flagged events led to remote interventions or follow-ups.
- healthcare professional feedback: 61.6% agreed the device enabled remote care; 53.4% found it identified issues earlier than standard care.
- scalability potential: The technology showed promise for integration into routine care, reducing hospital visits and improving outcomes.

Bluedrop Medical is advancing its technology and is preparing for broader clinical deployment, supported by strategic partnerships and commercial exploration.

Testimonial

"The Bluedrop Foot Scanner has transformed how we monitor high-risk diabetic patients. It empowers patients to engage in their care and allows us to intervene earlier, often before symptoms become critical."

The pilot has shown us the future of diabetic foot care; remote, proactive, and patient-centred."

Clinical Lead,
Podiatry Clinic,
Merlin Park
University Hospital Galway



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