

NHS Innovations Case Study

Tracheseal: Sterile Wound Dressing

Unmet Need

It is conservatively estimated that 4 million temporary tracheostomies are performed throughout Europe and the United States of America each year. The procedure involves making an incision on the anterior aspect of the neck and opening a direct airway through an incision in the trachea.

The resulting stoma (hole) can serve independently as an airway or as a site for a tracheal tube or tracheostomy tube to be inserted; this tube allows a person to breathe without the use of the nose or mouth. Following decannulation – or removal of the tube – it is important that the tracheostomy wound heals as quickly as possible, preventing any delay which can be problematic for the patient.

Current wound dressings applied following decannulation are associated with complications such as slow wound healing, slow restoration of speech and damage to the skin when the dressing is removed.

The Solution

To address these issues, Tracheseal was invented by two Maxillofacial Surgeons, Malcolm Russell and Luke Cascarini, and Tracheostomy Nurse Consultant Claudia Russell from Cambridge University Hospitals NHS Foundation Trust.



Tracheseal is a dedicated tracheostomy wound dressing to be used after the removal of the tracheostomy tube. It has an integrated wound location button which enables easy, accurate and consistent location of the tracheostomy wound and which when pressed, prevents unwanted air passage

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through the wound during actions such as coughing and sneezing.

Tracheseal offers a number of benefits over alternative wound dressings including quicker wound healing, faster restoration of speech and no damage to the skin when the dressing is removed. Approximately 500,000 patients could benefit from this technology per year, giving an annual market in excess of £17 million.

Commercialisation

Health Tech Enterprise supported the inventors by securing patents and design rights for the technology, funding prototyping designs and proof of concept work as well as finding a suitable commercial partner, P3 Medical. Collaboration subsequently between Cambridge University Hospitals, HTE and P3 Medical enabled a successful market launch of the product in 2014.

For more information please contact [P3 Medical](#) via their website.

About Health Tech Enterprise

Our business and innovation management services support healthcare innovators throughout the product development journey, from concept to commercialisation and final roll-out.

We offer healthcare market and health economics insights and evaluation, as well as regulatory, business and IP advice and management. We also advise on strategic market access, support with securing funding and deliver training and entrepreneurship services.

Our work ensures medical technology innovations are developed to realise their potential and benefit patients. We work with 20 NHS Trusts across England providing a range of innovation management services delivered by our expert team.