## The Revolutionary Catheter

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Urinary catheterisation is necessary in 25% of all hospitalised patients, as well as in those who are bedbound in hospices or in nursing homes.<sup>1</sup> Accidental urinary catheter extraction occurs in

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11-17% of all cases of urinary catheterisation and 5% of all urological catheters are traumatically dislodged.<sup>1</sup> It is common practice for inpatients to accidentally remove the catheter in an unconscious state or when the presence of the catheter is intolerable; consequently, patients cause themselves pain, further injury, and increase the risk of irreversible damage<sup>1</sup> to the bladder and urethra which may lead to serious infection.<sup>2</sup>

FoleySafe is a product developed by CATHETRIX (Tel Aviv, Israel) to actively prevent significant

damage caused by accidental catheter dislodgement. The first catheter of its kind to avoid dislodgement in this manner,<sup>2</sup> the FoleySafe improves quality of life in catheterised patients and

reduces the risk of catheter-associated urinary tract infection (CAUTI).<sup>2</sup> CAUTI is commonly observed among urinary catheter patients and increases the length of hospital stay and healthcare costs.<sup>3</sup>

The U.S. Food and Drug Administration (FDA)approved<sup>4</sup> securement device has attracted much attention thus far following its presentation at MEDICA 2019. The Director of Marketing from CATHETRIX, Robert Baum, Tel Aviv, Israel, spoke to EMJ about the ways CATHETRIX intends to maintain this momentum and explained how the organisation will ensure they achieve their desired outreach and goals. "Although the patients are the final customers, doctors and nurses make the decision about whether or not to use the device in hospitals. There are two ways to approach these decision-makers: medical expositions and better instructions to distributors on how to present the huge advantages of the FoleySafe when approaching hospital staff."

By cutting the sterile fluid tube following a vigorous pull on the catheter, the FoleySafe allows the retention balloon to deflate and the catheter slides out, minimising pain and damage to the bladder and urethra.<sup>4</sup> With regards to the impact of the FoleySafe since its development in August 2019, Baum drew upon the initial rudimentary success of the lifesaving airbag for comparison: "...after only 4 months, one could not vet reflect on its future benefit." The prevalence of the FoleySafe in hospital care is intended to become more significant, as Baum explains: "The CATHETRIX engineering team is working hard on continued improvement of the existing device and developing the next generation of the securement device to be applied in all types of catheter." Baum also set forth prospects and intentions for the progression of the device, "In the future, when the catheter is disturbed for any reason, the device will send an audio alarm to the nurse's room or any other control centre." Ambition and staggering development such as this will surely shape an age of medical innovation across the globe.

Developments that repeatedly further the field of medical innovations can be attributed to the fundamental building blocks and reason for innovation in any capacity: care. Baum explains, "There are many examples in history for which the initial idea was born from a deep friendship and care." He considered the work of the scientist, Dr Frederick Banting, who pursued a career in medicine and co-discovered insulin<sup>5</sup> after he witnessed his good friend suffering from diabetes. Baum then reflected on the development of the FoleySafe, "...the initiative was born after our chief engineer lost a dear friend following the traumatic extraction of a urinary catheter and the consequences which followed. He decided to find a solution that would ease the lives of other patients, this is how the FoleySafe was born. This was the starting point, representing the first step in our long adventure of bringing together top experts in different fields to develop additional solutions that will improve patients' quality of life." The importance of continued development of novel devices by companies such as CATHETRIX is abundantly clear, with duty of care at the forefront of the idea.

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