

WireSafe: Preventing a Never Event

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Highly commended Award, National Patient Safety Award, 2016

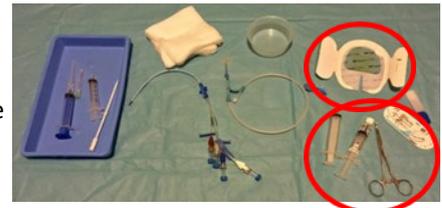
Selected by the prestigious NHS Innovation Accelerator programme, 2016

1st prize at the Royal College of Anaesthetists, Safety Anaesthesia Liaison Group 2016

The WireSafe prevents the Never Event of guidewire retention and improves sharps safety during central venous line insertion.

Retained guidewires are ranked the second highest retained foreign object in the NHS¹ and result in increased morbidity and mortality for patients² and increased costs to hospitals.³ This error is devastating personally for doctors. After a never event occurs, well-intentioned training programmes and procedural changes following root cause analyses have an effect but this is un-sustained and the reported incidence continues to rise.⁴

The WireSafe is a locked procedural pack that contains all the equipment needed to complete the procedure after the point the guidewire is normally removed (stitch, stitch holder, dressing, scissors etc). The guidewire is used as a key to open the WireSafe therefore, the clinician is unable to access the contents to complete the procedure without first removing the guidewire from the patient.⁵ In human factor terms this is known as a forcing function and is commonly used in high-risk industries. After use, the WireSafe becomes a convenient sharps box, facilitating sharps safety during clean up after the procedure.⁵



Pack before WireSafe is introduced

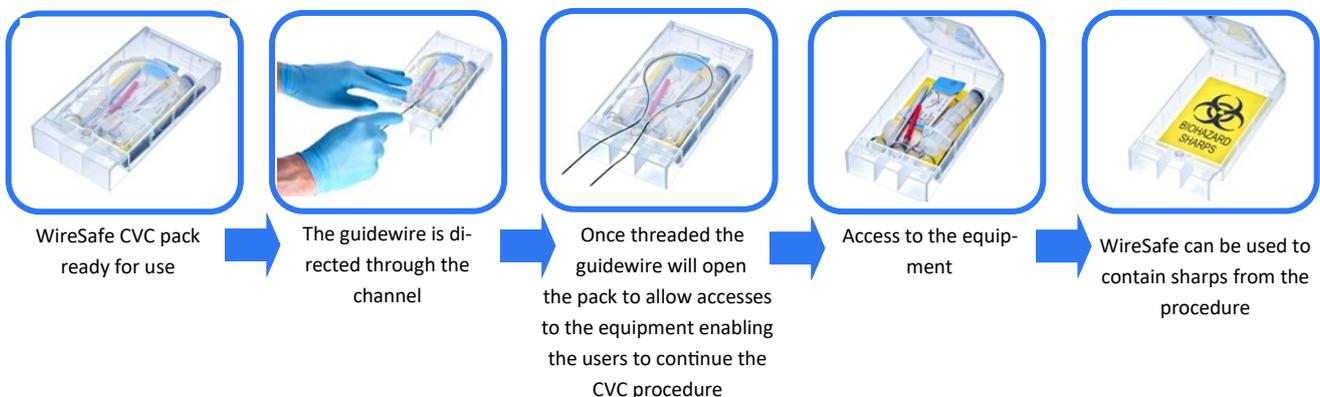


CVC pack once a WireSafe is added with contents in the pack.

Conclusion:

The WireSafe was designed as a procedural pack engineered as a solution to:

- ⇒ Prevent guidewire retention
- ⇒ Facilitates a safe completion of the procedure
- ⇒ Allow safe disposal of sharps and wires



References:

1. NHS. 2016, <https://www.england.nhs.uk/patientsafety/never-events/>
2. Schummer W. et al. 2002, BJA, 88(1): 144-146
3. Vannucci A. et al. 2013, Anesthesia & Analgesia, 117(1): 102-108
4. Mariyaselvam M. et al. Eur J Anaesthesiol 2017; In press: Abstract accepted for presentation at the European Society of Anesthesiology
5. Preventing central venous catheter guidewire retention using a novel safety procedural pack: a pilot clinical simulation randomised controlled trial European Journal of Anaesthesiology 2016; 33(e-supplement 54): 462