

A HUMAN FACTORS SOLUTION  
TO GUIDEWIRE RETENTION

# VENNER WIRESAFE™

## FACILITATING PREVENTION OF GUIDEWIRE RETENTION

Central Venous Catheterisation (CVC) is a common hospital procedure.<sup>1</sup> After swabs, retained guidewires are the most common retained object Never Event in the NHS.<sup>2</sup>

**"Never Events  
are serious  
incidents that  
are wholly  
preventable"**  
(NHS 2016)

Case reports of retained guidewires describe reasons for the error as:

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- Inattention<sup>4,5,7,8</sup>
- Distraction
- Inexperience<sup>1,4,6,7</sup>
- Inadequate supervision<sup>1,4,5,6,7</sup>
- High workload
- Staff fatigue<sup>1,4</sup>

**No.1**

**RETAINED GUIDEWIRES ARE THE  
MOST COMMON NEVER EVENT IN  
EMERGENCY MEDICINE<sup>3</sup>**

# VENNER WIRESAFE™

## YOUR SOLUTION TO GUIDEWIRE RETENTION

Venner WireSafe™ is an innovative procedural pack designed, using human factors principles, as an engineered solution to:

- Prevent guidewire retention<sup>7</sup>
- Facilitate a safe and more timely completion of the procedure<sup>7,8</sup>

The Venner WireSafe™ contains the equipment required to complete the CVC insertion procedure.

Clinicians cannot access the equipment unless the guidewire is removed and used to open the locked pack.

To prevent guidewire retention, use the simple guidewire unlocking channel to access the contents within the Venner WireSafe™.

1.

### Simple guidewire unlocking channel

Uses the guidewire to open the box

2.

### Procedure pack

Contains all of the equipment required to safely secure the catheter and complete the procedure

100%

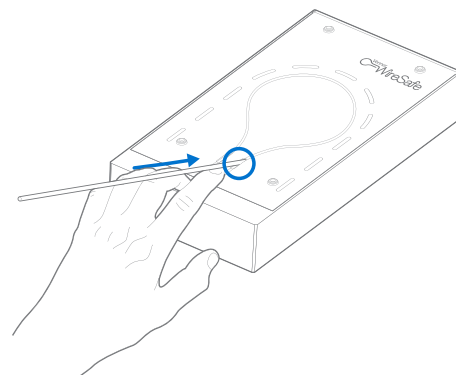
## SUCCESS RATE PREVENTING GUIDEWIRE RETENTION

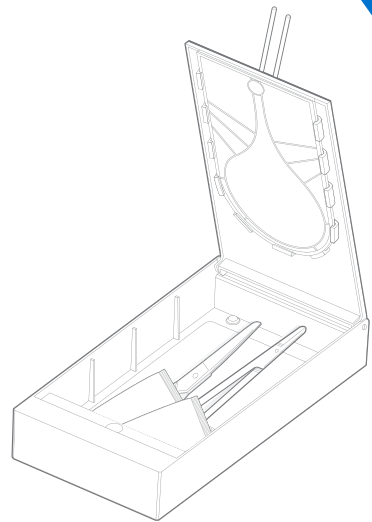
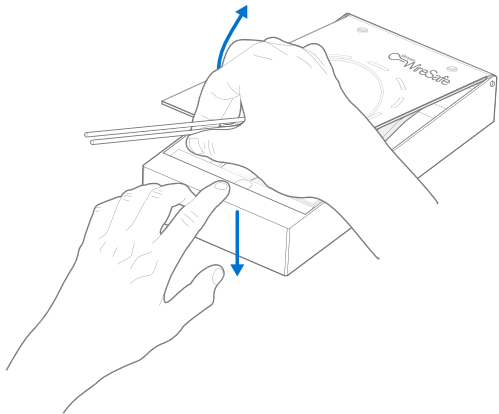
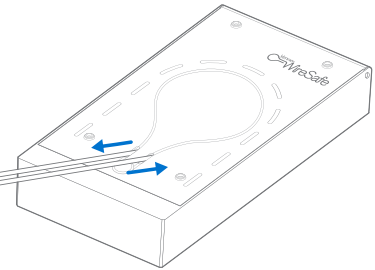
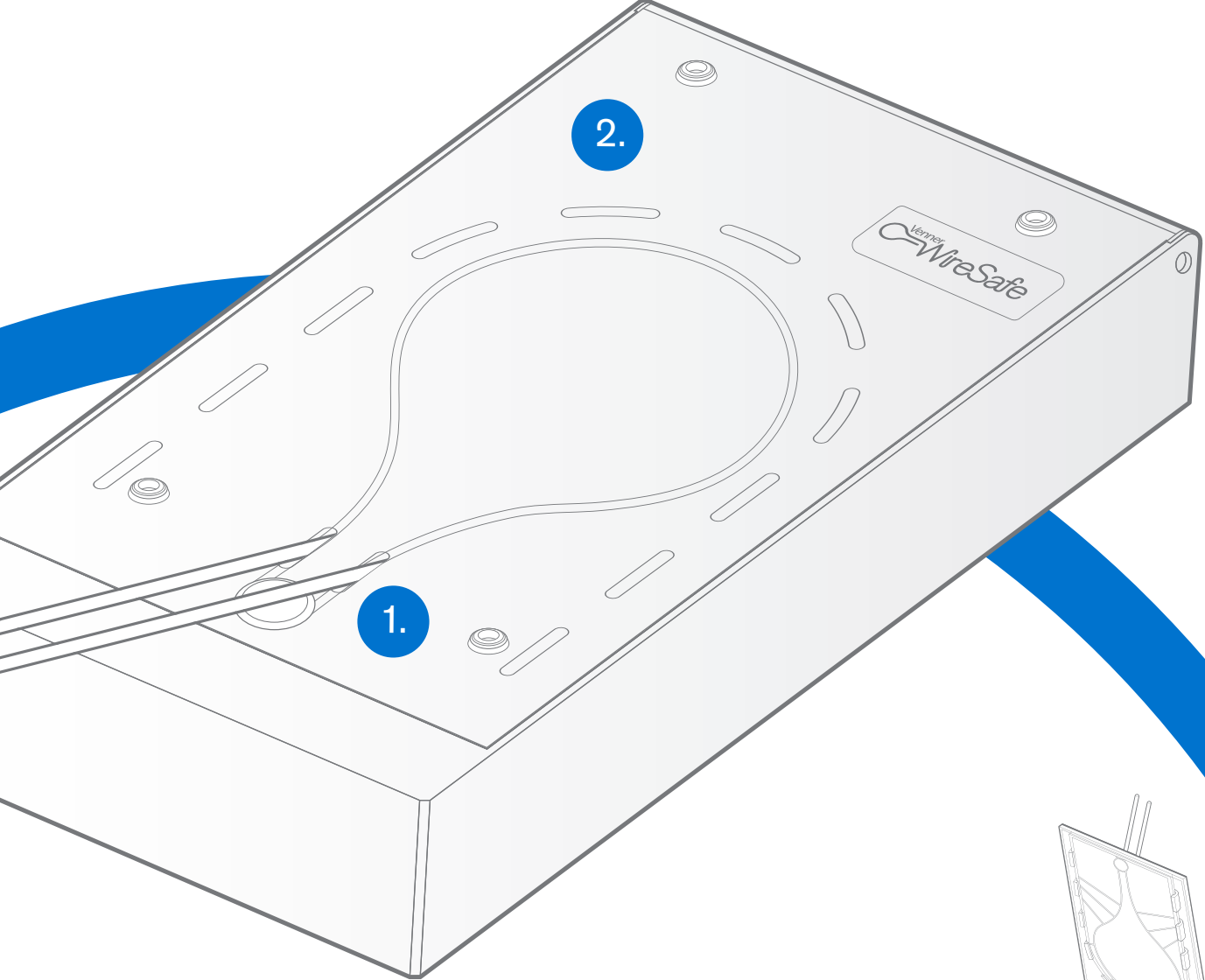
( $p=0.0001$ )<sup>7</sup>

18%

## FASTER PROCEDURE USING OPTIMISED CONTENTS

( $p<0.05$ )<sup>8</sup>





# CONSEQUENCES OF GUIDEWIRE RETENTION

Consequences of guidewire retention:

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- Arrhythmias<sup>4</sup>
- Vascular damage<sup>4</sup>
- Thrombosis<sup>4,6</sup>
- Tamponade<sup>6</sup>
- Infectious complications<sup>5,6</sup>
- Increase cost of care<sup>5</sup>

Complications of guidewire retention occur in:

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**333**

**OUT OF  
EVERY MILLION  
PROCEDURES<sup>5</sup>**

**ONE  
—IN—  
3000**

**CASES<sup>5</sup>**

**1 | IN | 5**

**REPORTED  
MORTALITY<sup>4</sup>**

# TECHNICAL SPECIFICATIONS

## Product codes

200000 Venner WireSafe™ – Clear

200100 Venner WireSafe™ – Blue

## Material

MABS

## Dimension

210L x 106W x 34.6H (mm)

## Capacity

480cm<sup>3</sup>

## Weight

160g (empty)

## References:

1. Horberry T. et al. 2014, International Journal of Risk & Safety in Medicine, **26**: 23-37
2. NHS. 2016, <https://www.england.nhs.uk/patientsafety/never-events/>
3. Royal College of Emergency Medicine, 2017
4. Schummer W. et al. 2002, BJA, **88(1)**: 144-146
5. Vannucci A. et al. 2013, Anesthesia & Analgesia, **117(1)**: 102-108
6. Peh W.M. et al. 2016, BMJ, Feb **12**:5(1)
7. Mariyaselvam M et al., 2017, Anesthesiology, **127(4)**: 658-665
8. Hodges E. et al. 2017, British Association of Critical Care Nursing, September

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