

SAFETY FIRST

How subcutaneous infusion sets can comply with **needle stick** safety regulations



Improving the lives of the people we touch

INTRODUCTION

NEEDLE STICK INJURY

– MORE THAN 3 MILLION NEEDLE STICK INJURIES PER YEAR WORLDWIDE¹

Definition

Needle Stick Injury (NSI) is an accidental piercing of the skin by a contaminated needle, which has been in contact with blood or other body fluids, with an increased risk of contracting serious infectious diseases.

Incidents

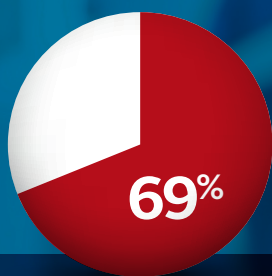
NSI caused by a contaminated sharps instrument usually a needle from a syringe including subcutaneous infusion sets is one of the most frequent routes of transmission in occupationally acquired bloodborne infections².

Burden and prevention

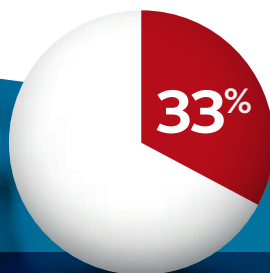
Safety-engineered devices for hypodermic injection demonstrate value by reducing NSI risk, and the associated direct and indirect costs, psychological stress on Healthcare Professional (HCP), and occupational blood-borne viral infection risk³.



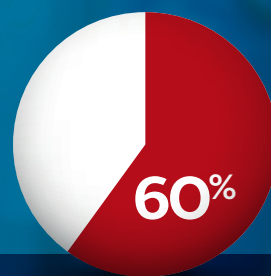
Have you experienced a needle stick injury and how did/would it make you feel?



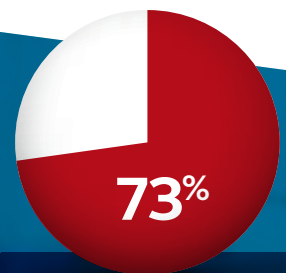
NSIs have been reported by up to 69% of HCPs⁴



Disposable syringes and needles are the most frequent cause (33%) of NSIs (Hypodermic)⁵



Up to 60% of NSIs go unreported⁶



NSIs appear to be repetitive in up to 73% of all HCP⁷

BURDENS & COSTS



Economical Burden

Total cost per NSI is in average \$747 (range: \$99-1691)⁸.

Both the humanistic and economic burden of NSI could be reduced by implementation of safety needles⁹.



Humanistic Burden

The human burden is playing a significant impact for the nurse.

Emotional effects after NSI¹¹:

- Depressive symptoms and Excessive Worry
- Stress, including PTSD, Anxiety and panic Attacks
- Crying Spells and Adjustment disorder (AD)
- Tension in families

Nurses report changing their working habits/department or stop working the time after NSI¹².



Clinical Burden

More than 20 blood-borne infections may be transmitted by NSI¹³.

For every 1,000 NSIs from an infected patient, there is a risk that:

- 300 will become infected with Hepatitis B
- 30 will become infected with Hepatitis C
- 3 will become infected with HIV¹⁴



Can you identify any medical devices that could be replaced by a safety device in your workplace?

PREVENTION & REGULATION

Preventive regulations have been reinforced

These legislations require that where risks have been identified, processes and devices must be put in place to reduce or eliminate the risk.

EU: 2010/32/EU (Among the prevention measures Safety Engineered Devices must be made available)¹⁵

US: NSPA (Needlestick Safety and Prevention Act)¹⁶



The World Health Organization (WHO) recommends the use of safety injection devices and instructs governments to transition to their exclusive use by 2020¹.



Preventive interventions

Up to 100% of all NSI could be prevented³.

The preventive interventions (PI) that regulations recommend as contribution towards decrease of NSI frequency and the consequently economical and humanistic costs, could be:

- Administrative, behavioral, and technical interventions
- Safety Engineered Devices (SED)
- Education
- Prevent improper needle manipulations
- Provision of sharps containers

Despite preventive interventions, NSIs are still a significant global issue among HCPs and a continual focus is needed for both ethical and economic reasons³.



Cost-effectiveness review of safety devices showed US annual savings of \$228 million (HIV) and \$216 million (hepatitis)¹⁹.

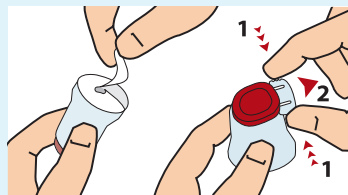
Using safety devices instead of conventional needles was found to save money for tests, investigations, and treatment³.

SOLUTION

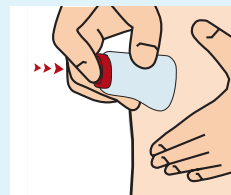


neria™ guard – protecting healthcare workers with a passive needle safety system and intuitive insertion technique.

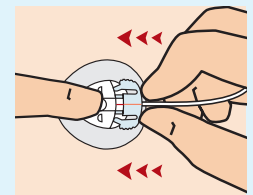
neria™ guard product complies with EU, US and WHO guidelines and regulations on safer sharps, and is manufactured in accordance with ISO 23908 (Sharps injury protection)^{1,16,17,20}.



1. PREPARATION



2. INSERTION



3. CONNECTION

IN SUMMARY

SAFETY

- ✓ Complies with guidelines and regulations on safer sharps^{1,16,17}
- ✓ Designed, approved and tested for subcutaneous infusion
- ✓ Passive needle safety system
- ✓ Manufactured in accordance with ISO23908²⁰

EASE OF USE

- ✓ Intuitive^{18,21}
- ✓ Fully automatic
- ✓ Few user steps
- ✓ Can be used by everyone^{20,21}

COMFORT

- ✓ Smooth insertion technique
- ✓ Soft cannula with no exposure to needle
- ✓ No exposure to visible needle
- ✓ Secure and gentle adhesion to skin



WE HAVE ASKED THE USERS ABOUT **neria™ guard**

HCPs & patients would change to neria™ guard infusion set due to ease of use and automatic insertion¹⁸.

100% of HCPs and patients prefer neria™ guard infusion set over current infusion set and would recommend it to others¹⁸.





At ConvaTec, we exist to improve the lives of the people we touch. Our products are developed with this in mind and the latest result is the neria™ guard infusion set. Neria™ guard is the only commercially available infusion set with a fully automatic insertion technique for a safe and needle free operation.

Neria™ guard meets the highest standards for needle safety regulations and could contribute to reducing the clinical, economic and humanistic burden associated with needle stick injuries.

ConvaTec infusion Care is a leading manufacturer of infusion sets. Since the 1980s ConvaTec Infusion Care has sold millions of infusion sets world wide for use with continuous subcutaneous drug delivery.

ConvaTec Infusion Care is located in Denmark.

Please visit www.neria.com for more information about the neria™ infusion sets including instruction videos and brochure materials.

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