

## Now More than ever, compliant use of SIP and RUP devices in your Healthcare facility is essential. “Be Sure – Be Safe”

**2020** will undoubtedly be a land mark year, never to be forgotten, due to the COVID-19 virus. If nothing else, it highlights the need for safety and prevention from infection and how we address that need. It is paramount that frontline healthcare workers are kept safe and free from infections with the onus on the Hospital Administrators, Material Managers, Human Resources and Clinicians to ensure your frontline workers have the appropriate equipment in insuring their own safety and that of their families.

**DMC Medical Ltd.** in assisting and addressing the safety of the healthcare worker during these challenging times is introducing the *SureSafe™* retractable syringe product line, offering SIP (Sharps injury protection and RUP (re-use prevention). The occurrence of an accidental needlestick injury and the reduction of the transmission of over 20 different pathogens has never been more important.

More than 50 outbreaks of viral and bacterial infections occurred in the United States during 1998-2014 because of these unsafe medical practices.<sup>1-4</sup> These outbreaks resulted in the transmission of hepatitis B virus (HBV), hepatitis C virus (HCV), and bacterial pathogens to more than 700 patients.<sup>1-4</sup> During 2001-2012 an estimated 150,000 patients received notification recommending that they undergo bloodborne pathogen testing after they were potentially exposed to unsafe injections.

*Ref: APIC POSITION PAPER: Safe injection, Infusion and Medication Vial Practices in Health Care (2016) p. 1-18*

### Cause of transmission of infections and needlestick injuries:

- ✚ Notably, the next most risky procedure among both nurses and aides was placing sharps into containers (27% and 22%), and 6% of aides associated their injuries with emptying sharps containers.
- ✚ When the timing of sharps injuries was evaluated, it was found that most such injuries occurred after the sharp had already been used for its intended medical procedure.
- ✚ Despite regulations, we found that almost 40% of nurses reported using sharps without safety features.

*Ref: Study in Research and Practice Journal of Public Health (2009 Vol 99, No. 53)*

### OSHA Guidelines supported by The Joint Commission (JC) and CDC specifies obligations of licensed Healthcare facilities and professionals with:

- ✚ Each employer shall establish a written Exposure Control Plan designed to eliminate or minimize exposure.
- ✚ Exposure Plan shall be reviewed and updated at least annually.
- ✚ Reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens.
- ✚ Document annually considerations and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.
- ✚ Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except as noted in paragraphs (d)(2)(vii)(A) and (B) below. Shearing or breaking of contaminated needles is prohibited.
- ✚ Such bending, recapping or needle removal must be accomplished through the use of the mechanical device or a one-handed technique.

*Ref: OSHA Bloodborne Pathogen's Standards (29 CFR 1910.1030)*

## OSHA's Recommended Solution:

1. We recommend the use of injection devices with a sharps injury protection (SIP) feature.
2. We recommend the use of injection devices with a re-use prevention feature (RUP).

Ref: OSHA Bloodborne Pathogen's Standards (29 CFR 1910.1030)

**WHO** recommends that all countries should transition by 2020 to the exclusive use, where appropriate of WHO prequalified safety-engineered injection devices, including RUP syringes and SIP devices for therapeutic injections, and develop related national policies to bring about a smooth transition (3).

As with most organization cost is a major factor, therefore we will demonstrate how the use of the *SureSafe™* retractable safety syringe is the most cost-effective solution to both protecting your healthcare workers and improving your bottom line.

Ref: WHO Guidelines on the use of Safety Engineered Syringes. 2016 p. 33-49

## Calculating the actual cost of using non-compliant SIP/RUP devices includes:

- ✚ Risk of liability tied to breach of clinical infection control standards and risk mitigation.
- ✚ Hospitals and licensed professionals risk legal liability tied to the breach of regulatory requirements for use of non-compliant devices.

Accidental needlestick injuries occurs approximately once every 6,000<sup>4</sup> injections given with a conventional disposable syringe.

Whenever an accidental needlestick injury occurs, it is imperative that tests are conducted to determine whether a bloodborne disease has been contracted. Such testing is expensive with the average cost being in the region of \$3,000.

For each conventional syringe that is used for an injection, the approximate testing cost can be calculated by dividing \$3,000 by 6,000<sup>4</sup>. Each injection with a conventional syringe carries a hidden cost (the cost for disease testing of needlestick injury victims) of approx. \$0.50. However, *SureSafe™* syringes eliminates that additional cost.

Disposal costs must also be considered which captures the cost of the sharps container, transportation to the incineration site and the actual incineration. That disposal cost is approximately \$0.18 each.

### The actual cost of a syringe can be calculated as follows:

**Purchase price + testing cost + disposal cost = actual cost of a syringe**

Even if the purchase price of a *SureSafe™* syringe were 3 to four times more than a conventional syringe, and that syringe cost was \$0.08 then the actual cost calculation is as follows.

$$\text{\$0.08}^1 + \text{\$0.50}^2 + \text{\$0.18}^3 = \text{\$0.76}$$

Assuming a purchase price of \$0.30 for a *SureSafe™* syringe, the actual cost is:

$$\text{\$0.30}^1 + \text{\$0.00}^2 + \text{\$0.09}^3 = \text{\$0.39}$$

<sup>1</sup> Syringe purchase price: <sup>2</sup>Testing: <sup>3</sup>Sharps container + disposal

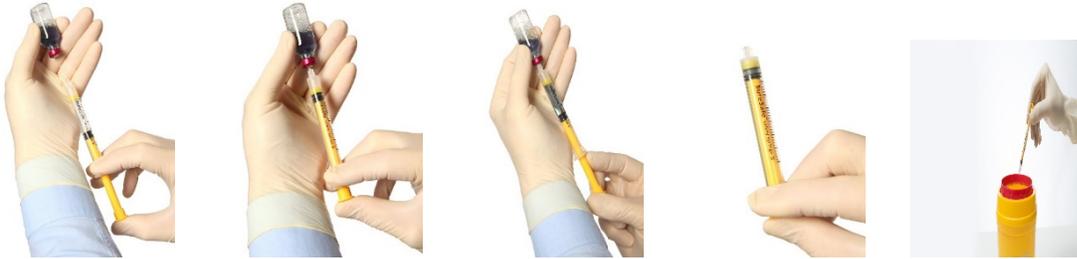
The use of the *SureSafe™* retractable safety syringes delivers a cost saving of 49%.

**DMC Medical Ltd.** will introduce the *SureSafe™* retractable safety syringe in the following fixed needle formats in a variety of needle gauge & length.

✚ 1ml Standard, Insulin & Tuberculin, 3ml, 5ml, & 10ml Standard.

### **Ease of Use:**

The needle is automatically retracted into the plunger once the injection is administered delivering preventing SIP (sharps injury protection) and RUP (re-use prevention). For more information request a Trifold brochure and/or IFU in 9 languages.



### **References:**

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<https://www.cdc.gov/sharpsafety/resources.html>
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9. DMC Medical Limited the Needlestick Crisis  
<http://www.dmcmedical.net/needle-stick-crisis/>