To assess the effect of the introduction of SEDs in preventing NSIs among HCWs in the Jeroen Bosch Hospital (JBH), the Netherlands” Schuurmans et al (2018).

Summary:

Background: Needle stick injuries (NSIs) are one of the most common health hazards facing health care workers (HCWs) across the globe. Needles with safety engineered devices (SEDs) have been developed to minimize the risk of exposure to blood-borne infections such as Hepatitis B virus (HBV), Hepatitis C virus (HCV) and human immunodeficiency virus (HIV) associated with NSIs.

Aim: To assess the effect of the introduction of SEDs in preventing NSIs among HCWs in the Jeroen Bosch Hospital (JBH), the Netherlands.

Methods: We compared the incidence of reported NSIs before and after the introduction of SEDs. All HCWs who reported a NSI with a SED were interviewed in order to understand the underlying causes of the NSIs.

Findings: Despite the introduction of SEDs the incidence of NSIs increased from 1.9/100 HCWs before the introduction of SEDs to 2.2/100 HCWs after the introduction of SEDs. The registration of reported SED related NSIs showed a significant decrease in the number of NSIs related to injection needles and blood sugar needles, while an unexpected significant increase in NSIs with nadroparin calcium needles and infusion needles was found. The most common causes reported for NSIs were unsafe disposal of the needles and problems with the safety feature.

Conclusion: The application of SEDs has not led to a reduction of NSIs. The majority of NSIs caused by a needle with a SED can be prevented by stimulation of safe needle disposal, proper use of SEDs and provision of feedback to manufacturers to keep improving product design.
Do safety engineered devices reduce needle-stick injuries?

Reference:


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