Our surveillance investigated the frequency and the modality of SED-related NSIs in the Piedmont region to verify changes in the epidemiology of these events” Ottino et al (2019).

Abstract:

OBJECTIVE: Needlestick and sharps injuries (NSIs) involving healthcare workers (HCWs) are worldwide under surveillance since long time; the implementation of the European Directive 32/2010 regarding the mandatory use of safety-engineered devices (SEDs) seems to have reduced the number of these accidents. Our surveillance investigated the frequency and the modality of SED-related NSIs in the Piedmont region to verify changes in the epidemiology of these events.

METHODS: We analysed the exposure records of NSIs, device usage data and structural data of 42 acute care hospitals and compared conventional and safety devices. We calculated the accident rates per 100 000 needles and, as a measure of SED efficacy, the relative risk between the use of safety and non-safety devices with a 95% CI. We also described the dynamics of the NSIs and the most involved professional groups of HCWs, procedures and devices.

RESULTS: Total and specific device accident rates for 100 000 needles were lower with the use of SEDs. In 2015-2016, there were 1640 NSIs, with a decreasing absolute number during the observation period; 18% were SEDs related. Half of the total accidents with SEDs occurred in the patient’s room, and nurses were involved in 78% of the cases. The most involved devices were the butterfly needles and peripheral venous catheters, and the most involved procedures were venous sampling (40%) and phlebotherapy (16%). The exposures occurred mostly during the procedure, and 45% of the SED-related injuries occurred during the disposal of the device; 92% of the SEDs involved had a manual activation mechanism.

CONCLUSION: In agreement with the results of other European studies, our results show that SEDs reduce the risk of percutaneous exposure of HCWs, but in introducing SEDs, we must select those with a higher level of safety (with a passive activation mechanism) and improve the healthcare staff training programmes.
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