

Focus on IFA's work

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Needlestick injuries to health care workers

Problem

Needlestick and cutting injuries and the associated risk of infection continue to present a health hazard to employees in the health care sector. Infection with hepatitis B or C or HIV in particular may lead to serious diseases giving rise to high costs, besides the social aspects.

Since the 1990s, a range of measures have been employed for the avoidance and reduction of needlestick injuries. These prevention approaches vary in their effectiveness. The current prevention regulations are contained chiefly in the Technical Rule 250 "Biological Agents in Health Care and Welfare Facilities" (TRBA 250, November 2003), which was developed by the Committee on Biological Agents (Ausschuss für Biologische Arbeitsstoffe, ABAS) in conjunction with the BG Expert Committee on Health Care and Welfare and adopted in 2006. Despite the measures set out in the TRBA technical rule, deficits remain in their practical implementation.

Activities

The international literature was analysed in a collaborative project conducted by the German Federal Ministry of Labour and Social Affairs (BMAS), the Institution for Statutory Accident Insurance and Prevention in the Health and Welfare Services (BGW), the then BG Central Office for Health and Safety at Work (BGZ) and the IFA.



Workplace presenting an increased risk of needlestick injuries
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The objective of the study was to produce an international survey of the nature and distribution of occupational needlestick injuries, a summary of the existing prevention programmes for reducing the incidence of needlestick injuries in the health care sector, and an evaluation of the efficacy and cost-effectiveness of these programmes. The focus lay upon the use of safe instruments.

Results and Application

The studies, which evaluated the efficacy of instruments introduced for protection against needlestick injuries, show a clear drop in the incidence of such injuries following the introduction of safety-designed devices. They therefore constitute an effective protective measure.

Those with the most patient contact, nurses and physicians, were the most likely to report needlestick injuries. Patient and operating rooms were identified as particularly critical areas. An obstacle to precise risk assessment is the fact that, as experience has shown, not all injuries are reported. The disposal of used cannulas constitutes a further area of risk.

The few cost-benefit analyses that have been performed are methodically inconsistent and are limited to hospitals. A conclusive economic assessment is not therefore possible at the present time. An overall assessment is to cover social and non-economic damage, and also the benefits.

Area of Application

Managerial staff and persons responsible for occupational health and safety in the health care services (hospitals, out-patient services, doctors' practices, emergency and rescue services, etc.), regulatory bodies.

Additional Information

- Sulsky, S.I.; Birk, T.; Cohen, L.C.; Luippold, R.S.; Heidenreich, M.J.; Nunes, A.: Effectiveness of measures to prevent needlestick injuries among employees in health professions. Published by: Hauptverband der gewerblichen Berufsgenossenschaften (HVBG), Sankt Augustin 2006
www.dguv.de/ifa, Webcode [e22374](#)

Expert Assistance

IFA, Division 1: Information Technology – Risk Management

Literature Requests

IFA, Central Division