

NATIONAL SURVEILLANCE OF ACCIDENTAL BLOOD EXPOSURE IN BELGIAN HOSPITALS

Introduction

Needlestick injuries as well as blood and body fluid exposure occur frequently in hospitals and other health care institutions. On average, 30 incidents of accidental blood exposure are reported per 100 occupied hospital beds per year, which is an underestimation, as a lot of blood contacts are not declared. An occupational blood exposure may place a hospital worker at risk of Hepatitis B, Hepatitis C and HIV infections, possibly leading to complications. Even if no subsequent infection occurs we cannot underestimate the emotional strain due to the delay in receiving the results of the tests. The financial cost is important as well (serological tests from the victim and source patient, post exposure prophylaxis, absenteeism). The employer is bound by juridical regulations and ethical obligations to assess and prevent the exposure of health care workers to biological hazards. The Royal Decree of 08/04/1996 concerning "Biological agents" imposes upon employers to undertake a regular risk assessment, to engineer preventive control measures and to apply universal precautions.

Surveillance, a first step towards prevention

The registration system of accidental blood exposure is an instrument to identify the number of injuries and the high-risk circumstances, to evaluate the efficiency of the preventive control measures and devices and to increase the health care workers awareness of the risk of accidental blood contact. The results of a questionnaire prior to the start of the surveillance showed that a registration system already exists in many Belgian hospitals (69% of the responders). Because of the heterogeneity of the existing local surveillance systems and the increasing importance of quality in health care practices, a uniform and standardised national registration system was needed. National and international comparisons become possible. Eighty five per cent (64/75) of the respondents were interested to participate in the national surveillance. They represent 51% of the Belgian hospitals (64/126).

The evolution of the development of a national registration form

In November 2002, the IPH started the development of a national registration form in collaboration with a scientific steering group. The EPINet™ [1] registration form served as a work document; It was adapted to the Belgian situation and tested by IDEWE (external department for prevention and protection at the workplace) in the university hospitals of Leuven and Gent. The actual protocol is the result of the collaboration between occupational doctors, prevention advisors, hospital hygienists, microbiologists, epidemiologists and emergency doctors. At the end of February 2003, the steering group reached a consensus on the definitive registration form, which is approved by EPINet™ USA. The right balance between the epidemiological and research concerns and the feasible workload for victims or concerned departments has been worked out. A short version was developed as well allowing the collecting of the most essential data. Hospitals are free to choose the version of the registration form.

Software and feedback

The IPH provides (free of charge) an MS-Access application for the recording and (local) analysis of the data with standardised reports. It centralises the annual reception of "anonymised" data and provides feedback to the participating hospitals concerning the individual results and benchmark graphs for the most important indicators (number of accidental blood contacts (AB)/ 100 FTE per job category, number of AB / 100 occupied beds, etc.). These graphs allow the comparison of the local hospital situation with other participating Belgian hospitals. The surveillance started the first of June 2003. Participation is free of charge and voluntary. For more information, please contact Eva Leens, tel: 02/642 57 35, eva.leens@iph.fgov.be, <http://www.nsih.be/>

[1] The Exposure Prevention Information Network (EPINet™) was developed by the University of Virginia. The program allows recording and analyzing percutaneous injuries and blood and body fluid contacts. Since its introduction in 1992, more than 1,500 hospitals in the U.S. have acquired EPINet for use; it has also been adopted in different European countries. <http://hsc.virginia.edu/medcntr/centers/epinet/>