



At its Board meeting, Brussels, 3 September 2005, the CPME adopted the following policy: CPME position paper on needle stick injuries (CPME 2005/104 EN/FR)

CPME Position Paper on Needle Stick Injuries

Contents:

1. Introduction
2. The present situation
3. Damage and Cost
4. Need for action
5. Prevention of needle stick injuries
6. In conclusion

1. Introduction

In the April meeting of the CPME it was decided to draft a position paper on the subject of sharp injuries in the medical world. It was agreed that the paper would concentrate on needle stick injuries on which a substantial number of incidents take place all over the world. Known effects are occupational exposures to bloodborne viruses: in particular Hepatitis B virus, Hepatitis C virus and HIV.

2. The present situation

It is estimated that 1 million needle stick injuries are suffered by healthcare workers across the European Union each year. More than 20 dangerous blood-borne pathogens are transmitted by contaminated needles including Hepatitis B, Hepatitis C, and of course HIV. If injured by a contaminated needle, the chances of becoming infected are as high as 1 in 3 for Hepatitis B, 1 in 30 for Hepatitis C and 1 in 300 for HIV.

If HCW's (health care workers) are encouraged to use safer devices and take adequate preventive measures when handling blood samples, it is likely that a reduction of 50-80% of needle stick injuries can be reached, thus contributing to the health and well-being of HCW's.

A lot of engineering has been done in designing desirable safety devices with a focus on intuitiveness, functionality and design. However, hospitals seem hesitant in taking these new products on board because of financial (budgetary) reasons and because of a sense of lack of need. (assuming that existing methods are sufficient and proven)

The abovementioned reduction of up to 80% of needle stick injuries can be reached through a combination of training, safer working practices and the use of new device technology.

The European Agency for Safety and Health at Work has already made a number of key recommendations:

- Eliminate the use of needles where safety and effective alternatives are available.
- Implement the use of devices with safety features and evaluate their use to determine which are most effective and acceptable.
- Modify work practices that pose a needle injury hazard to make them safer. Avoid recapping needles.
- Train workers in the safe use and disposal of needles in appropriate sharps containers.

A number of Member States are actively tackling this issue, but some sources indicate that these recommendations are not being sufficiently implemented in all member states, or are not properly being considered, by a number of healthcare providers across the EU.

For the United States OSHA has estimated that 5.6 million workers in the health care industry and related occupations are at risk of occupational exposure to blood borne pathogens. These illnesses include hepatitis B virus, human immunodeficiency virus (HIV), hepatitis C virus, and others.

An estimated 800,000 medical sharps injuries occur each year in hospitals across the US. Although a variety of workers are at risk, studies have shown that the majority of these injuries are sustained by nurses. At risk is any health care worker who handles sharp devices or equipment such as suture needles, scalpels, hypodermic needles, or other sharp devices.

Although current data show that the risk of proven transmission is exceedingly low, it must be stated that structural databases registering incidents are scarce and that there is a lack of consequent reporting in the health care culture.

In a large University teaching Hospital in the Netherlands (Amsterdam Medical Centre) between 1998 and 2004 up to 190 needle stick incidents were reported on a yearly basis. The analysis showed a chance of 11% that the HCW suffering from a needle stick injury was infected with highly infectious blood. All cases which took place with a known HIV index source patient, could have been avoided if proper safety devices had been used.

With regard to guidelines and regulations already much has been achieved. The US have the US Needle stick safety and Prevention Act (in operation since 2000) and in Europe a number of guidelines exist (89/391/EEC, 89/655/EEG, 93/42/EEG and 2000/54/EG. Despite the fact that these guidelines have led to improvement, still incidents occur with its severe consequences. The challenge now is to improve implementation of these guidelines into daily practice.

3. Damage and Cost

Although information in literature is limited and scattered, the information available is clear. Accidents in general and needle stick injuries in particular cost money. The costs must be divided in both material and immaterial aspects. Distinction has to be made between the time factor, (first aid and post-exposure management) the emotional factor (uncertainty and social implications) and the money factor (sick leave and blood exams. Thus, needle

stick injuries contribute largely to medical cost and economic loss of productivity (incapacity for work, medical examinations, treatment). It is expected that in the coming years there will be a rise in the number of claims as a consequence of permanent disability, also leading to substantial cost.

4. Need for action

Because of the potentially severe situation described above and the need of protecting the health and well-being of HCWs, there is a definite need for action. Adequate attention to the problem, both on a directive level as well as on the executing level, (implementation) will next to the use of “state of the art” safety systems lead to improvement.

5. Prevention of needle stick injuries

In order to prevent and limit the number of needle stick incidents it is necessary to:

- 1. Eliminate the use of needles when safe and effective alternatives are available**
- 2. Implement the use of devices with safety features and evaluate their use to determine which are the most effective and acceptable**
- 3. Analyze needle stick and sharps related injuries in the workplace and identify hazards and injury trends**
- 4. Set priorities and strategies for prevention by examining local and (inter)national information about risks for needle stick injuries and intervention efforts**
- 5. Ensure that healthcare workers are properly trained in the safe use and disposal of needles and sharps**
- 6. Modify work practices that pose a needle stick injury hazard to make them safer**
- 7. Establish procedures for and encourage the reporting and timely follow-up of all needle sticks and other sharps injuries**
- 8. Evaluate the effectiveness of prevention efforts and provide feedback on performance**
- 9. Encourage healthcare workers to report any hazards from needles they observe in their work environment and to participate in blood borne pathogen training and follow recommended injury prevention practices, including getting relevant vaccinations**

In addition to this it is paramount to

- **Actively raise awareness in healthcare workers with regard to the risks involved and the importance of safe working methods and safe devices**
- **Involve non-managerial workers in evaluating and selecting safety engineered devices**
- **Organize proper reporting and registration methods**
- **Invest in “state of the art” safe needle systems**
- **Managing staff in hospitals have a responsibility in the field of supervision on the proper use of safe systems and protective equipment**
- **Review the exposure control plan annually to reflect changes in technology that will help eliminate or reduce exposure to blood borne pathogens**

6. In conclusion

Despite legislation and available adequate guidelines that exist in the field of handling needles and sharp devices in medicine still a substantial number of incidents occur with severe consequences as a result. Raising awareness and the implementation of safe systems and working methods is paramount in order to limit the risk of blood borne pathogen infections. Because of the exceedingly low reported incidences, policymakers tend to diminish their attention. However, with a true focus on the introduction and implementation of recently developed safety devices in medical practice, success is to be expected.

Therefore, CPME calls upon the Commission to consider a sharpening of existing regulations and to call upon all NMAs to actively advise and urge all healthcare workers and their responsible employers to reinforce and comply with existing regulations.