

In SafeHandS

Newsletter of the SafeHandS network

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In SafeHandS is the official newsletter of the SafeHandS network to promote health care worker safety in the Asia Pacific. It is compiled and distributed by the Albion Street Centre.

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Editorial panel:

Maggy Tomkins; Philip Melling; Peta-Anne Zimmerman; Peter Said & Alexandra Wilson

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? Contributions

We encourage members to contribute to *In SafeHandS* by:

- Participating in the 'Member Profile' by providing a brief profile about yourself and a brief example about your experience in improving health care worker safety in your workplace.
- Providing information about recent articles, resources or upcoming events related to health care worker safety.
- Submitting a question or concern or comment you have about health care worker safety.



Photos courtesy of Mahosot, Lao PDR & Chiang Mai University Hospital, Thailand.

Deadline for contributions for the next issue is November 28th, 2005.

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Editorial

Infection Control and Healthcare Worker Safety go Hand-in-Hand

Infection control refers to all policies, procedures and activities, which aim to prevent or minimize the risk of transmission of infectious diseases. This definition refers not only to healthcare-associated infections but includes occupational exposure to transmissible pathogens be it in healthcare or laboratory settings. However, it also encompasses infections of public health concern, making it a cross-cutting, multidisciplinary activity.

Healthcare Associated Infections (HAI) constitute one of the greatest challenges of modern medicine. In the US, healthcare-related adverse events, including nosocomial infections, are responsible for 44,000 to 98,000 deaths annually and represent a cost of 17 to 29 billion USD. Nosocomial infections concern 5 to 15% of hospitalized patients and can lead to complications in 25 to 50% of those admitted to intensive care units. In the UK, HAI contribute to at least 5000 deaths per year. The EU has calculated the annual costs of HAI to be around 800 million EUR. In developing countries, the burden of disease due to HAI is largely unknown, but estimated to be higher than in developed countries, with huge negative financial implication at patient, hospital, and societal levels.

The SARS pandemic highlighted the need to re-focus on infection control (IC) programmes as a means to prevent the spread of infectious diseases among patients and Healthcare Workers (HCW) in hospitals. HCW were the most-affected occupational risk-group during the outbreak, representing 21% of all SARS-cases with up to 57% in some countries. The overall attack rate in HCW was up to 50%. Other healthcare-driven infectious diseases can cause large numbers of infections among HCW, if hospitals are lacking infection control measures to protect them. Similarly, community-driven epidemics, such as pandemic influenza can lead to high morbidity and potentially high mortality in HCW, as large numbers of patients with influenza will seek healthcare during a pandemic.

Promoting IC policies to prevent exposure to potentially threatening pathogens, protecting HCW through education and providing the

necessary means in terms of, for example Personal Protective Equipment (PPE), should be a priority in healthcare facilities worldwide. Vaccination campaigns reduce the susceptibility of HCW against some relevant pathogens. Contact and droplet precautions lower the risk of exposure to blood borne pathogens and highly transmissible diseases such as SARS, Influenza and viral haemorrhagic fever viruses.

Especially in case of an epidemic it is important to focus on HCW protection to keep the hospital staff healthy and to deliver appropriate care at times of heightened need. In countries with limited resources highly trained HCW are not easily replaceable and HCW safety in economic terms represent a way of ensuring a return of investment in education and training.

Infection control in hospitals, including the correct use of PPE by HCW, isolation of infectious patients, barrier nursing and the use of alcoholic handrub-disinfectant have demonstrated effectiveness in reducing transmission of pathogens to patients, HCW and the environment. As a result, IC interventions, such as hand hygiene, have been shown to be highly cost-effective when compared with other preventive interventions, and they can result in net savings to the hospital.

The Western Pacific Regional Office of the WHO in Manila is developing infection control as part of communicable disease surveillance and response to emerging and re-emerging infectious diseases, which could form a public health threat. WHO appreciates the holistic approach to IC where resources can be pooled for maximum benefits: increasing awareness about the health and economic burden of HAI at highest political level, promoting evidence based practices adapted to settings with limited resources, strengthening IC as part of the epidemic response capacity, educating HCW region-wide to apply IC principles to protect themselves and their patients and procuring the necessary means, such as PPE to healthcare facilities in most vulnerable countries in the region.

*Gerald Dziekan, MD, MSc
Healthcare Associated Infections, Prevention and Control
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Manila, Philippines*

What is SafeHandS?

SafeHandS is a 'virtual' network designed to link and support health care workers across the Asia-Pacific region who are caring for people with HIV/AIDS and other communicable diseases.

We know that health care workers are essential in responding to HIV/AIDS and other communicable diseases. Without health care workers, there is no health system. We want this network to provide **information, support and practical solutions** to help health care workers in resource limited settings to feel safe and encouraged to provide optimal care.

SafeHandS is a forum where health care workers can share issues and ideas. We can encourage and learn from each other to find practical solutions to improve health care worker safety in resource limited settings.

SafeHandS is being funded by the Australian Agency for International Development (AusAID) and coordinated by the Albion Street Centre. This is a public health care facility based in Australia for the treatment, care and support for people living with or affected by HIV/AIDS. The team includes infection control specialists with international experience in health care worker safety.

Benefits of membership include:

- Receiving a **newsletter** (In SafeHandS) every 3 months
- Participating in a **moderated group email discussion e-list** for posting questions, comments and issues
- Access to a clearinghouse of new resources and publications produced by different organisations about health care worker safety (links are posted on the website)
- Access to **resources** developed by SafeHandS
- Joining a **database** of expertise

Membership is free. To join, you can either:

- Go to our website: <http://www.uow.edu.au/health/safehands/index.html> and click on the 'membership' page

OR

- Cut off the form at the back of the *In SafeHandS* newsletter and send or fax the form to the Albion Street Centre.

You can elect to receive the newsletter by post. However, this will be a shorter version than the electronic version.

Update on SafeHandS membership

We are pleased to report that we now have 30 members of SafeHandS. Members are from: India, China, Cambodia, Lao PDR, Taiwan, Pakistan, Nigeria, Turkey and Australia.

Our members' feedback on membership forms indicates that their priority services from SafeHandS are:

- Training resources
- Access to current publications on health care worker safety
- Sample policies and protocols
- Email discussion forum between members
- Advice and information

Update on SafeHandS secretariat

One of the members of the SafeHandS secretariat, Ms Peta-Anne Zimmerman, has commenced a 6 month appointment at the Secretariat of the Pacific Community (SPC).

She is the Infection Control Advisor to strengthen preparedness of the Pacific Public Health Surveillance Network and Infection Control in the Pacific Island countries and territories. We hope that we will have more members joining from the Pacific Island countries and territories!

WHO/ILO to develop guidelines on post exposure prophylaxis

The World Health Organization (WHO) and the International Labour Organization (ILO) convened a meeting of experts in Geneva in early September to discuss post exposure prophylaxis (PEP) for both occupational and non-occupational exposures to blood and body fluids. Both organizations emphasised the need for practical guidelines to inform the use of PEP as well as the development of policies.

Initially it was thought that general guidelines would be developed which would encompass the use of PEP in any setting. However, by the end of the meeting it was decided that the guidelines would be developed separately but in tandem for each circumstance.

PEP for non-occupational exposures was discussed mostly in terms of sexual assault, though issues of PEP access for specific groups such as prisoners, injection drug users and sex workers were also examined. In general it was thought that PEP after consensual exposures (such as consensual unprotected sex) was more problematic for the development of guidelines.

The group of experts agreed that post exposure management and PEP where indicated should be available after occupational exposures in all settings – not just for health care workers (although it would be mostly health care workers who would experience exposures significant (risky) enough to warrant the prescription of PEP.) It was also agreed that PEP should be an integral part of all post exposure management protocols and policies relating to HIV in the workplace. Prompt and skilled risk assessment after exposure was seen as important for worker support and the appropriate use of PEP.

Issues which were discussed in depth in regard to occupational exposures were: at what level of risk to recommend PEP; the extent to which testing of the exposed person and the source of the exposure was necessary and advisable (and strategies for in the event of consent for testing not being obtained, or the source being unavailable); the most appropriate drug regimens to recommend for PEP; and how HIV population prevalence should be incorporated into the guidelines.

It is anticipated that the guidelines for the use of PEP endorsed by both WHO and ILO will be available by the end of the year.

Summary of issues and questions

A summary of the key questions about the availability and prescription of PEP in resource poor settings examined in the paper are:

- Should PEP be available for HCWs?
- How can PEP accessibility be made equitable in all settings?
- Will the provision of HIV PEP for HCWs mean that less ART is available to reduce

New on our website!

The discussion document from this meeting on the use of PEP after occupational exposures is now available on our website. This document was written by Julian Gold and Maggy Tomkins from the Albion Street Centre to highlight for the delegates some of the difficult and controversial issues in making PEP more widely available in resource constrained settings.

- morbidity and mortality for people with HIV?
- How should PEP be equitably distributed for occupational and non-occupational exposures?
- Will the provision of HIV PEP for HCWs mean that less money is spent on prevention - such as personal protective equipment and education for Standard/Universal Precautions?
- Are HCWs more likely to report their exposures if they know PEP is available?
- What can be done to encourage and facilitate reporting of occupational exposures?
- Are HCWs more willing to care for people with HIV or HBV if they know PEP is available?
- Is there a good and simple risk assessment system that means HCWs are not given PEP for low risk exposures?
- How can you give HCWs access to good risk assessment 24 hours a day?
- What is the role of source assessment?
- Should PEP only be given if the source is known to be HIV antibody or HBV antigen positive?
- What else needs to be available to ensure

HCWs who are prescribed PEP adhere to the full course?

- What should the post-exposure management protocol be if PEP is not available?
- How can post-exposure management and PEP programs be monitored and evaluated?

Some areas for further examination and action include:

- More studies to provide more accurate information on the current issues in occupational exposures in resource poor settings e.g. safe injection, blood safety, handling and disposal of sharps and other clinical waste.
- Standardisation of risk algorithms and decision-making flow charts.
- Measures to increase the availability of trained and experienced clinicians for risk assessment and the management of occupational exposures.

Member Profile

To help link and support members, we will provide a profile of a SafeHandS member from the country in focus.

Our profiled member this month is our Guest Editor:

**Gerald Dziekan, MD, MSc
Healthcare Associated Infections,
Prevention and Control WHO-ADB
Outbreak Response Team Western Pacific
Regional Office, WHO, Manila, Philippines**

Describe your current job.

Since the beginning of 2004, I am the Infection Control specialist in a team of four consultants forming the Western Pacific Regional Outbreak Response Team in WHO, Manila office. The Outbreak Team is financed by the Asian Development Bank to strengthen the regional capacity to respond to emerging and re-emerging diseases, which pose a public health threat. Besides working with the Communicable Disease Surveillance and Response Unit, I am involved in long term capacity building and health-system development programmes in WHO at the regional and the global level. My aim is to establish infec-



tion control within WHO as a crosscutting, multidisciplinary programme. At the country level, I work towards establishing infection control as a national programme. To this end, I am engaged in researching financial incentives and barriers in local healthcare financing systems to invest in preventive programmes such as infection control.

What was your career path that brought you to your current job?

- Medical school and clinical training in internal medicine and cardiology in Germany, Switzerland, UK and Australia
- German National Reference Centre for Hospital Epidemiology (Prof. F. Daschner); co-founding a consultancy business providing hospital epidemiology services at the national and European level
- National board certificate for Hygiene and Environmental Medicine after 5 years of clinical work in infectious diseases, infection control, epidemiology and environmental medicine
- Master in Health Policy, Planning and Financing at the London School of Hygiene and Tropical Medicine (LSHTM) and the London School of Economics (LSE)
- WHO/Geneva conducting an analysis on cost-effectiveness of policies for the safe and appropriate use of injections in health-care settings
- German Ministry of Health to help developing national plans for bio-terrorism preparedness, to work with the National Commission on Infection Control and with the European Health Security Council
- During SARS, WHO China office, Beijing to assist the Chinese MoH in developing IC guidelines

What do you like most about your job?

I like the international exposure and the variety of work at very technical level, while developing guidelines or assessment and educational tools, and the involvement in the development of high-level public health strategies for the Asia Pacific Region, which comprises of 1/3 of the whole world population.

What do you like least about your job?

The administrative aspects.

What does health care worker safety mean to you?

For me HCW safety is an integral part of infection control. It is a prerequisite for a modern and sustainable work environment in health-care facilities worldwide. It is necessary for political decision makers to realize that IC and with it HCW safety does not only reduce the health burden due to HAI and occupational hazards but that investment in preventive programmes is also highly cost effective.

What are you reading at the moment?

"A Confederacy of Dunces" by John Kennedy Toole, which I enjoy thoroughly. The next book on my list is "A History of God" by Karen Armstrong, a book about Judaism, Christianity and Islam.

What are you currently listening to?

A mix of relaxing instrumental Jazz classics. But also songs by my long time favourites Michael Franks, Norah Jones and Diana Krall.

What is your favourite saying?

A German saying meaning the equivalent to "Nothing ventured, nothing gained".

Thank you.

Monitoring occupational sharps injuries

Three of the journal articles in the list of current resources (page 10) contain surveys which include health care providers' recollections of needle-stick injuries, even though the populations are very different: student nurses in Australia, injection prescribers in Cambodia and diabetes nurses in the US.

The table on the opposite page lists some of the studies which have been done to look at this issue. All the studies quoted are retrospective surveys which asked health care workers to recall occupational exposures (especially sharps injuries) and respond anonymously; some also asked whether the exposures had been reported according to local protocols.

There is an inherent flaw in this type of research in that it may be that people who have experienced exposures are more likely to respond to voluntary surveys. The response rates in these studies varied considerably, but some were extremely high. While the results are very different, they show that – regardless of the setting - too many occupational exposures to sharps occur and too few are reported.

Some studies also looked at what situations were most likely to cause exposures. The most commonly mentioned were sudden patient movement and two handed recapping of needles. The procedure most commonly mentioned was suturing.

You will notice that only about a third of the studies are from resource limited settings. Health care workers frequently tell us that they are interested in applying the principles of health care worker safety but are unable to convince their governments/administrators/managers that this is necessary and/or cost effective.

Apart from these isolated studies, there is very little baseline data on occupational exposures or other aspects of health care worker safety. Baseline information is essential not only to demonstrate a need but also to be able to evaluate any interventions implemented.



SafeHandS is interested in developing a generic health care worker safety surveillance tool which can be adapted to local needs. We would be very interested to get examples and ideas from our members and readers which would help in designing a surveillance tool.

Maggy Tomkins

Clinical Nurse Coordinator, SafeHandS

Table: Health care providers' recollections of occupational exposures

Country Year of report	Number & population surveyed	% who experienced sharps injury (Other exposure)	Over what time period	% who reported exposure
Cambodia ¹ 2005	60 injection prescribers	53	12 months	-
India ² 2005	226 rural health care workers	63	12 months	-
Australia ³ 2005	274 nursing students	13.9	12 months	61
Canada ⁴ 2005	157 medical students	35	-	>50
USA ⁵ 2005	400 diabetes nurses	78.3	12 months	22.8
W. Africa (3 countries) ⁶ 2005	1241 health care workers	38 7 (splash)	-	-
Uganda ⁷ 2005	526 nurses & midwives	57	12 months	-
USA ⁸ 2004	498 nurses	24	12 months	58
UK ⁹ 2004	279 health care workers	38 74	12 months Career	51
Egypt ¹⁰ 2003	1485 health care workers	35.6	3 months	-
Taiwan ¹¹ 2003	8715 health care workers	87	12 months	-
South Africa ¹² 2002	Doctors Junior doctors	62 ^a 91 ^a	2 years	-
Uganda ¹³ 2002	180 health care workers	55	12 months	-
South Africa ¹⁴ 2001	98 hospital interns	69 45 ^b	12 months	-
India ¹⁵ 2000	106 medical students	61	-	-
Canada ¹⁶ 2000	33 dental students 77 medical students 64 nursing students	82 57 27	- - -	48 77 59
Cote d'Ivoire ¹⁷ 2000	707 nurses, physicians, medical students	26.4 33.6 (other exposures)	2 years	15
USA ¹⁸ 1999	2985 emergency medicine residents	56.1	Duration of training	46.7
UK ¹⁹ 1999	105 medical students	33	Duration of training	43
France ²⁰ 1999	200 medical students	24	-	39
Australia ²¹ 1998	192 registered nurses	76 ^a	6 months	-
New Zealand ²² 1997	180 general practitioners 121 practice nurses	25 17	6 months	-
Tanzania ²³ 1997	623 nurses 118 doctors & medical assist. 50 laboratory workers	9.3 1.3 25	1 week 1 week 1 month	- - -
USA ²⁴ 1995	385 students & house staff	32 (52 surgical 27 students 20 medical)	6 months	29
Australia ²⁵ 1994	138 medical students 39 dental students	22 72	Duration of training	22 45
Nigeria ²⁶ 1994	474 health care workers	34 (100 dentists 60 mortuary attendants 32 physicians 31 nurses)	12 months	-
Denmark ²⁷ 1993	138 medical infectious dis- eases staff	27.4 11.1 (mucocutaneous)	-	-
USA ²⁸ 1992	550 medical students & resi- dents	71	12 months	9
USA ²⁹ 1990	221 house staff	74	-	19

a Includes mucocutaneous exposures **b** Mucocutaneous exposure to HIV source

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New guidelines from the International Labour Organization (ILO) and the World Health Organization (WHO)

Joint ILO/WHO Guidelines on Health Services and HIV/AIDS were recently released. These guidelines are the result of a collaboration between the ILO and WHO and were developed at a tripartite meeting of experts (representing employers, workers and governments) in April 2005.

The WHO website states that:

“At a time when health-care services face unprecedented challenges due to the pandemic, members of the world’s 100-million strong health-care workforce, who deal with persons with HIV/AIDS bear an inordinately large psychological and physical burden brought on by overwork, despair at seeing patients die, lack of adequate safety and health-care provisions and the risk of infection.

The new guidelines [are] designed to promote safety for both health-care providers and patients, increase opportunities for HIV/AIDS-related services, reduce the impact of stigma and discrimination and thereby enhance public trust and confidence in the health sector.”

“Guaranteeing a functioning and healthy medical workforce will ... be essential to achieving the worldwide target, established by WHO and UNAIDS, for three million people living with HIV/AIDS in developing and middle-income countries to receive antiretroviral treatment by the end of 2005.”

The guidelines outline the 10 key principles of HIV/AIDS and the world of work from the Code of Practice HIV/AIDS and the world of work (ILO 2001.) They then make recommendations under the following chapter headings:

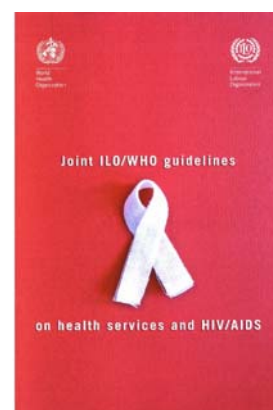
- Legal and policy framework
- The health sector as a workplace
- Occupational safety and health
- Exposure incident management
- Care treatment and support
- Knowledge education and training

The second half of the 78 page booklet contains 12 fact sheets with practical information on aspects of hazards and risk prevention and control measures to protect health workers.

The guidelines are available to download from the WHO website at: http://www.who.int/hiv/pub/prev_care/who_ilo_guidelines.pdf

They are also available in a printed booklet - ISBN number: 92-2-117553

The link will be available on the SafeHandS website also on the “Useful links” page.



Current Resources

In this section, we list the abstracts of recent relevant articles about health care worker safety in the Asia Pacific. We will also list any new resources which might be helpful such as policies, protocols and training materials. In some instances we may include references from other regions if they can potentially be adapted to the region.



SafeHandS invites members to contribute by sending an e-mail to: safehands@sesiahs.health.nsw.gov.au

Title: Needlestick and sharps injuries among nursing students

Authors: Smith D. & Leggart P.

Date: September

Source: Journal of Advanced Nursing 51 (5) 449

Aims: This paper reports the first investigation of the prevalence and nature of needle-stick injuries among Australian nursing students.

Background: Needlestick and sharps injuries are the most efficient method of transmitting blood-borne pathogens between patients and healthcare staff. Although nurses are known to be a high-risk subgroup for these events, nursing students may be at even greater risk due to their limited clinical experience. Despite this fact, the epidemiology of needle-stick and sharps injuries among nursing students has not been clearly elucidated in Australia.

Method: A questionnaire-based methodology adapted from other international investigations was conducted among nursing students. We recruited a complete cross-section of students from a large university nursing school in North Queensland, Australia, in March 2004, and analysed needle-stick and sharps events as a percentage of all students and also as a proportion of all cases. Risk factors were evaluated using logistic regression.

Results: From a group of 319 students, 274 successfully completed questionnaires were obtained (overall response rate 85.9%). A total of 38 students (13.9%) reported a needle-stick or sharps injury during the previous 12 months. By causative item, 6.2% of students

had been injured by a normal hollow-bore syringe needle, 3.6% by a glass item and 3.3% by an insulin syringe needle. Regarding prior usage, 81.6% of all injuring items were unused, 15.8% had been used on a patient and the status of 2.6% was unknown.

Most needle-stick injuries occurred either in the nursing laboratory (45%) or the teaching hospital (37%). Opening the needle cap was the most common causative event (28% of all cases). A total of 39.5% of needle-stick injuries were not reported.

The main reason for non-reporting was that the item was unused (42%). Logistic regression analysis revealed that students in the third year were 14.8 times more likely to have experienced a needle-stick injury than their counterparts in other years (odds ratio 14.8, 95% confidence interval 5.2-50.3, $P < 0.01$). These injury rates were higher among Australian nursing students than in other international studies.

Conclusions: Although hepatitis B vaccination coverage among the students was excellent, it is important that the principles of infection-control training and reporting of all needle-stick and sharps continue to be emphasized throughout undergraduate nursing education.

Title: Needlestick Injury in Acute Care Nurses Caring for Patients with Diabetes Mellitus: A Retrospective Study

Authors: Lee M., Botteman M., Nicklasson L., Cobden D., Pashos C.

Date: May 2005

Source: Journal of General Medicine 20 (5) 419

Objective: To quantify the incidence and assess the risk of needle-stick injury (NI) in nurses caring for patients with diabetes mellitus.

Methods: A total of 400 nurses caring for patients with diabetes in 381 different hospitals throughout the United States over a period of at least 1 year voluntarily completed an Internet-based data collection instrument. The nurses self-reported comprehensive data on their experience with NI, focusing on those occurring within the past year. If respondents

experienced multiple NI during this period, detailed data were collected on the most recent event.

Results: Of the 400 nurses, 313 (78.3%) reported experiencing at least one NI, 110 (27.5%) reported at least one NI within the last 12 months, and 44 (40% of 110) reported multiple NI. Nearly two-thirds of these injuries (n = 73/110; 66.4%) were punctures that drew blood, resulting in one case of contracted hepatitis C. The cumulative annual incidence of NI events was 448 NI per 1000 nurses. Nurses reported the injury in adherence with existing regulations and policies in only 21.8% of the cases. Disposable syringes were involved in 88 (80%) of the NI events. In half of the injuries (n = 55), the needled device was equipped with a safety feature that was ineffective, primarily because it was not fully activated (n = 47/55; 85.5%) or it malfunctioned (n = 2-5; 3.6-9.1%). NI most commonly occurred while nurses were injecting insulin (n = 33; 30%). In the 2 weeks following their NI, 60.1% of nurses noted that they were more afraid of needled devices than before the injury and 41.8% felt anxious, depressed, or stressed. As a direct result of the NI, nurses missed 77 days of work.

Conclusions: This study is the first to show the relatively high risk both of NI and of NI that draws blood among nurses injecting insulin with a disposable syringe and confirms previous incidence estimates of NI among nurses. Additionally, this study reveals significant post-NI emotional distress, suggests significant under-reporting of NI to hospital officials, and demonstrates the need for a more effective needle safety device.

Title: Rapid assessment of injection practices in Cambodia, 2002

Authors: Vong S., Perz J., Sok J., Som S., Goldstein S., Hutin Y. & Tulloch J.

Date: 2005

Source: BMC Public Health 5:56

Background: Injection overuse and unsafe injection practices facilitate transmission of blood-borne pathogens such as hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV). Anecdotal reports of unsafe and unnecessary therapeutic

injections and the high prevalence of HBV (8.0%), HCV (6.5%), and HIV (2.6%) infection in Cambodia have raised concern over injection safety. To estimate the magnitude and patterns of such practices, a rapid assessment of injection practices was conducted.

Methods: We surveyed a random sample of the general population in Takeo Province and convenience samples of prescribers and injection providers in Takeo Province and Phnom Penh city regarding injection-related knowledge, attitudes, and practices. Injection providers were observed administering injections. Data were collected using standardized methods adapted from the World Health Organization safe injection assessment guidelines.

Results: Among the general population sample (n = 500), the overall injection rate was 5.9 injections per person-year, with 40% of participants reporting receipt of ≥ 1 injection during the previous 6 months. Therapeutic injections, intravenous infusions, and immunizations accounted for 74%, 16% and 10% of injections, respectively. The majority (>85%) of injections were received in the private sector. All participants who recalled their last injection reported the injection was administered with a newly opened disposable syringe and needle. Prescribers (n = 60) reported that 47% of the total prescriptions they wrote included a therapeutic injection or infusion. Among injection providers (n = 60), 58% recapped the syringe after use and 13% did not dispose of the used needle and syringe appropriately. Over half (53%) of the providers reported a needle-stick injury during the previous 12 months. Ninety percent of prescribers and injection providers were aware HBV, HCV, and HIV were transmitted through unsafe injection practices. Knowledge of HIV transmission through "dirty" syringes among the general population was also high (95%).

Conclusion: Our data suggest that Cambodia has one of the world's highest rates of overall injection usage, despite general awareness of associated infection risks. Although there was little evidence of reuse of needles and syringes, support is needed for interventions to address injection overuse, healthcare worker safety and appropriate waste disposal.

Title: Posttraumatic stress after SARS.

Authors: Wu K.K., Chan S.K. & Ma T.M.

Date: August 2005

Source: Emergency Infect Dis 11 (8): 1297-300

Posttraumatic stress disorder (PTSD) can arise in patients with medical illness. We used 2 Chinese self-report measures to examine features of PTSD, anxiety, and depression in 131 survivors of severe acute respiratory syndrome at 1 month and 3 months after discharge from the hospital. Risk factors associated with psychological distress were identified.

Title: Emergency department response to SARS

Authors: Chen W.K., Wu H.D., Lin C.C., & Cheng Y.C.

Date: July 2005

Source: Taiwan Emergency Infect Dis. 11 (7):1067-73

How emergency departments of different levels and types cope with a large-scale contagious infectious disease is unclear. We retrospectively analyzed the response of 100 emergency departments regarding use of personal protective equipment (PPE) and implementation of infection control measures (ICMs) during the severe acute respiratory syndrome outbreak in Taiwan. Emergency department workers in large hospitals were more severely affected by the epidemic. Large hospitals or public hospitals were more likely to use respirators. Small hospitals implemented more restrictive ICMs. Most emergency departments provided PPE (80%) and implemented ICMs (66%) at late stages of the outbreak. Instructions to use PPE or ICMs more frequently originated by emergency department administrators. The difficulty of implementing ICMs was significantly negatively correlated with their effectiveness. Because ability to prepare for and respond to emerging infectious diseases varies among hospitals, grouping infectious patients in a centralized location in an early stage of infection may reduce the extent of epidemics.

Title: Needle-stick injuries in a tertiary care centre in Mumbai, India.

Authors: Mehta A., Rodrigues C., Ghag S., Bavi P., Shenai S. & Dastur F.

Date: August 2005

Source: Journal of Hospital Infection 60 (4) 368-373

Summary

Accidental exposure from blood/body fluid of patients is a risk to healthcare workers (HCWs). Percutaneous injury is the most common method of exposure to blood-borne pathogens. A policy was formulated at our institute, a tertiary care centre in central Mumbai, and we report a six-year (1998–2003) ongoing surveillance of needle-stick injuries. Of the 380 HCWs who reported needle-stick injuries, 45% were nurses, 33% were attendants, 11% were doctors and 11% were technicians. On source analysis, 23, 15 and 12 were positive for Hepatitis B surface antigen (HBsAg), human immunodeficiency virus (HIV) and hepatitis C virus (HCV), respectively. Immediate action following potential exposure included washing the wound with soap and water, encouraging bleeding and reporting the incident to the emergency room. Analysis of the source of injuries revealed that known sources accounted for 254 injuries, and unknown sources from garbage bags and Operating Theatre instruments accounted for 126 injuries. Most needle-stick injuries occurred during intravenous line insertion (N=112), followed by blood collection (N=69), surgical blade injury (N=36) and recapping needles (N=36). Immediate postexposure prophylaxis (PEP) for HCWs who sustained injuries with hepatitis-B-virus-positive patients included booster hepatitis B immunization for those positive for antiHBs. A full course of immunization with hepatitis B immunoglobulin was given to those who were antiHBs negative. All staff who sustained injury with HIV were given immediate antiretroviral therapy (AZT 600 mg/day) for six weeks. Subsequent six-month follow-up showed zero seroconversion.

Title: **Epidemiological characteristics of occupational blood exposures of healthcare workers in a university hospital in South Korea for 10 years.**

Authors: Oha H., Yib S. & Choe K.

Date: July 2005

Source: Journal of Hospital Infection 60 (3) 269-275

Summary

This study investigated the epidemiological characteristics of occupational blood exposures (OBEs) of healthcare workers (HCWs) in South Korea, and examined trends of OBEs after implementing blood exposure prevention (BEP) programmes. The study was conducted between 1 January 1992 and 31 December 2001 at a university-affiliated acute care hospital in Seoul. The BEP programmes comprised in-service education, hepatitis B virus (HBV) vaccination, and postexposure evaluation and prophylaxis. From 959 reported cases of OBEs, the crude incidence density (ID) was 2.62 cases per 100 person-years. The major risk groups for OBEs were physicians (ID 4.34) and new employees. The major type of OBE was from sharps injuries, including needle-sticks (94.0%). OBE cases occurred more frequently during the spring (36.4%). The frequency of the serological tests of anti-hepatitis B surface antigen of HCWs changed significantly each year ($P < 0.05$). The major serological risk for source patients was HBV (52.1%), but the risks for hepatitis C virus (HCV) and human immunodeficiency virus (HIV) increased significantly each year ($P < 0.05$). There were no seroconversion cases following OBEs among the tested HCWs. In summary, we established the epidemiological characteristics of OBEs in a South Korean university hospital, and reduced the risk of OBEs of major risk groups by BEP programmes. We also found an increase in the risk of HCV and HIV during the study period, suggesting that OBEs could be a serious threat to HCWs

Title: **Occupational Transmission of HIV: Summary of Published Reports. Data to December 2002**

Date: March 2005 Edition

Source: Health Protection Agency Centre for Infections & Collaborators (UK)

The (U.K.) Health Protection Agency's Centre for Infections has published an update on the international tables of occupational transmission of HIV in healthcare workers, a summary of reports up to December 2002. The tables collate both 'documented' and 'possible' HIV seroconversion cases occurring in healthcare workers following occupational exposure that have been reported to the Centre for Infections by national surveillance centres, or published in the literature.

There have been an additional six documented cases and eighteen possible cases described since the last edition; resulting in a total of 106 documented and 238 possible cases. There are now 24 cases of HIV seroconversion despite initiation of post-exposure prophylaxis (PEP).

Nurses and clinical laboratory workers consisted of 69% (73/106) of the documented cases of occupationally acquired HIV infection, and 39% (94/238) of possible cases. Doctors, including medical students (but not surgeons) involved 13% (14/106) and 12% (28/238) of documented and possible cases, respectively. In comparison, surgeons consisted of <1% (1/106) of documented cases and 7% (17/238) of possible cases, and 3% (8/238) of possible cases involved dentists/dental workers but none of the documented cases.

A majority [94% (325/344)] of the cases contained within this document (inclusive of documented and possible reports) are from countries with developed surveillance systems and with relatively low HIV prevalences. No information has been reported, for this new edition, to the Health Protection Agency Centre for Infections or identified in the published literature, of cases occurring in South East Asia, the Indian Sub-Continent, or Africa. As the reporting of occupational transmission of HIV is reliant on established and appropriate surveillance programmes, these world areas may not have the necessary systems in place to report occupational exposures and collate information on

Conclusions

In order to try and prevent occupationally acquired HIV infections occurring, it is obviously imperative that healthcare workers receive adequate training and education on the management and prevention of occupational exposures. Universal precautions should be adhered to, where appropriate, and healthcare workers should experience the necessary training in their use, and other preventative techniques, such as the correct methods for disposing of sharps. Procedures need to be in place for advice on the appropriate management of occupational exposures to blood-borne viruses, and provision of PEP where required. Reporting of such incidents to the appropriate hospital department is essential and should be encouraged in order to ensure adequate follow-up, testing and management of the affected healthcare worker.

http://www.hpa.org.uk/infections/topics_az/bbv/pdf/intl_HIV_tables_2005.pdf

Title: Occupational hazards

Author: Louie T.

Date: 2005

Source: New England Journal of Medicine
353 (8) August 25: 757 - 759

Description: An interesting personal perspective on needle-stick injury.

The article can be accessed at: <http://content.nejm.org/cgi/content/full/353/8/757?query=TOC>

New website for the Pacific Regional Infection Control Network (PICNet)

PICNet is a new tool being developed for Pacific Island Countries and Territories for communication and sharing of experiences, particularly how to be innovative with limited resources to ensure patient and health care worker safety from infectious diseases. The website can be found at: <http://www.spc.int/phs/PPHSN/Activities/PICNet.htm>

Title: Preventing Occupational Exposures to Blood-borne Pathogens: Articles from Advances in Exposure Prevention, 1994 – 2003

Authors: Jagger J & Perry J (eds)

Date: 2004

Source: International Health Care Worker Safety Center, University of Virginia Health System

Description: This book is a compilation of over 70 articles on preventing occupational exposures for blood-borne pathogens and analysis of percutaneous injury data from a large network of US hospital using the EPINet sharps surveillance system. The articles include: EPINet reports on percutaneous injuries and exposures; personal accounts of occupationally infected healthcare workers, and; two groundbreaking articles on occupational exposures to blood-borne pathogens that originally appeared in the New England Journal of Medicine. One of these articles is particularly relevant for SafeHandS members as follows:

Title: Risks to Health Care Workers in Developing Countries

Authors: Sagoe-Moses C. & Jagger J.

Date: 2001

Source: New England Journal of Medicine
345 (7): 538 – 41

SafeHandS provides the current resources as a service only and is not an endorsement.

Copies of the publication cost US\$25 (including shipping). You can contact the International Healthcare Worker Safety Centre at:

Tel: 1-434-924-5159

Fax: 1-434-982-0821

Email: epinet@virginia.edu

Title: Hand hygiene: simple & complex.

Author: Jumaa P.A.

Date: 2005

Source: International Journal of Infectious Diseases Jan;9(1):3-14.

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Abstract: This review gives an overview of hand hygiene in healthcare and in the community, including some aspects which have attracted little attention, such as hand drying and cultural issues determining hand hygiene behaviour.

Hand hygiene is the most effective measure for interrupting the transmission of microorganisms which cause infection both in the community and in the healthcare setting. Using hand hygiene as a sole measure to reduce infection is unlikely to be successful when other factors in infection control, such as environmental hygiene, crowding, staffing levels and education are inadequate. Hand hygiene must be part of an integrated approach to infection control. Compliance with hand hygiene recommendations is poor worldwide.

While the techniques involved in hand hygiene are simple, the complex interdependence of factors which determine hand hygiene behaviour makes the study of hand hygiene complex. It is now recognised that improving compliance with hand hygiene recommendations depends on altering human behaviour. Input from behavioural and social sciences is essential when designing studies to investigate compliance. Interventions to increase compliance with hand hygiene practices must be appropriate for different cultural and social needs. New strategies to promote hand hygiene worldwide include the formation of public-private partnerships.

Updated website for the International Federation of Infection Control

Visit the site at: <http://www.theific.org/>

Title: Sharps injuries: assessing the burden of disease from sharps injuries to health-care workers at national and local levels.

Authors: Rapiti E., Pruss-Ustun A. & Hutin Y.

Date: 2005

Source: Geneva, World Health Organization, WHO Environmental Burden of Disease Series, No. 11

The guide outlines a method for estimating the burden of disease at national or local levels from sharps injuries to healthcare workers.

Sharps include syringe needles, scalpels, broken glass and other objects contaminated with blood from a source patient. Health outcomes from pre-cutaneous injuries include infections with hepatitis B virus (HBV), hepatitis C virus (HCV) or human immunodeficiency virus (HIV). Exposure is assessed from the number of sharps injuries in health-care workers each year, and from the infection prevalence in source patients. The immunization rate against HBV, and the post-exposure prophylaxis (PEP) coverage are also needed to assess the disease burden. The assessment provides the incidence of HBV, HCV and HIV infections caused by sharps injuries to health-care workers, and the fractions of the infections attributable to sharps injuries. The number of infections that could be prevented by PEP can also be estimated. The data can be used to assess the distribution of disease burden by category of Health-care worker, by ward or by activity, which would allow protection measures to be more-specifically targeted.

The guide includes a numerical example, and a Microsoft Excel worksheet is available at the WHO website to assist with calculation (EBDassessment@who.int). Estimates from the Global burden of Disease study for sharps injuries to healthcare workers are listed in Annex 1 for each of the 14 WHO subregions.

It is available for download at:

<http://whqlibdoc.who.int/publications/2005/924159232X.pdf>

Title: **Nurses' inclination to report work-related injuries: organizational, work-group, and individual factors associated with reporting.**

Authors: Brown J.G., Trinkoff A., Rempher K., McPhaul K., Brady B., Lipscomb J. & Muntaner C.

Date: 2005

Source: AAOHN Jrnl. May; 53(5):213-7(25 ref)

Abstract: Work-related injuries such as back strain are common among health care workers. Work-related injury data are a primary data source with which managers can assess workplace safety, yet many work-related injuries go unreported. This study examined organizational, work-group, and individual factors, and nurses' inclination to report a work-related injury. Using a cross-sectional mailed survey, a probability sample of currently employed nurses (N = 1,163) indicated their inclination to re-report a workplace injury. Inclination to report injuries was higher in organizations with onsite health programs and when health and safety committees included non-management nurses and occupational health representatives. Reporting was reduced when nurses felt a lack of concern for staff welfare from supervisors and a climate of blame for worker injuries were present. Nurses were also less inclined to report work-related injuries when working in jobs with non-standard work arrangements. Improvements in the reporting climate may influence the completeness and, thus, the value of injury data for identifying hazards in the workplace. These data could provide valuable information for targeting preventive initiatives.

Title: **Occupational exposure to blood and body fluids among health care workers in Ankara, Turkey.**

Authors: Azap A., Ergonul O., Memikoglu K.O., Yesilkaya A., Altunsoy A., Bozkurt G. & Tekeli E.

Date: 2005

Source: American Journal of Infection Control. Feb; 33(1): 48-52. (14 ref)

Background: The risk of occupational acquisition of blood-borne pathogens via exposure to blood and body fluids is a serious problem for health care workers in Turkey. Because

there are no systematic recording programs in Turkey, national data concerning frequency of exposures are not readily available. Objective To determine the risk factors of exposure to blood and body fluids among health care workers (HCWs). Methods: This study was conducted in the hospitals of Ankara University School of Medicine. A structured survey form was administered by person-to-person interview. Results: The study included 988 HCWs: 500 nurses (51%), 212 residents (21%), 152 nurse assistants (15%), and others (13%). Six hundred thirty-four (64%) of the HCWs had been exposed to blood and body fluids at least once in their professional life (0.85 exposure per person-year). The most frequent cause of the sharps injuries was recapping the needle (45%). Of the injured HCWs, 60 (28%) were not using any personal protective equipment, and 144 (67%) did not seek any medical advice for injury. Conclusions: Systematic control measures, including an effective and goal-oriented education program targeting HCWs, prospective record keeping, and instillation of a special unit for the health of HCWs should be implemented in the hospital setting.

Title: **Vaccines for preventing hepatitis B in health-care workers.**

Authors: Jefferson T; Demicheli V; Deeks J; MacMillan A; Sassi F; & Pratt, M.

Date: 2005

Source: Cochrane Database of Systematic Reviews. 3.

Background: Hepatitis B causes acute and chronic liver disease and may be prevented by vaccination.

Objectives: To assess the effectiveness and safety of plasma-derived vaccines against acute and chronic hepatitis B in health-care workers in protecting them from hepatitis B infection and its consequences.

Search strategy: MEDLINE and Excerpta Medica Database (EMBASE) search using standard Cochrane strategy, Cochrane Library, full text searching of the journal "Vaccine", bibliography of retrieved studies and correspondence with authors, researchers and manufacturers.

Selection criteria: All original prospective randomised comparisons of yeast-derived

vaccines and plasma-derived vaccines against no intervention, placebo, or vaccines against other disease (control vaccines). Assessment of trial quality was made according to:

1. generation of allocation schedule
2. measure(s) taken to conceal treatment allocation
3. drop-out of allocated health-care worker participants from the analysis of trial results
4. measures taken to implement double blinding

Trial reports were blinded by removal of authors and their affiliation, journal reference, introduction, results, and discussion.

Data collection and analysis: To assess efficacy the incidence rates of acute hepatitis B were observed in the surveillance of the vaccinated and control groups of the trials included in the review. Safety was assessed from side-effect rates, classified as systemic (malaise, nausea, fever, arthralgias, rash, headache) or local (induration and soreness at the site of the inoculation).

Main results: Four trials fulfilling the criteria were identified and the data synthesised. All trials compared plasma-derived vaccines versus placebo. Differences in the settings (and level of incidence) between three of the trial settings and Dienstag's led us to stratify our comparison grouping the three trials performed in dialysis units together. After our stratification, the Desmyter, Smuzness and Crosnier group appears to be homogeneous (Chi-square = 0.11, degrees of freedom = 2). Our estimates of effectiveness and safety in the high risk group favour treatment, the OR for cases of HB being 0.34; 95% CI (0.21, 0.55). The analysis also revealed a non-significant trend towards benefit in the lower risk health-care workers (Dienstag trial, OR 0.26 (0.05, 1.30). Overall the evidence strongly favours vaccination (OR=0.33; 95% CI (0.21, 0.53)). There was no significant difference in the incidence and severity of side-effects between the two arms of the trials. We calculated that it was necessary to vaccinate between 145 (assuming a baseline rate of 10 cases/1000/year) and 7 (for a baseline rate of 200/1000/year) health-care workers with plasma-derived vaccines to avoid one case of hepatitis B. Completeness of trial reporting was not good with all four trials failing to report titre results on antibodies against hepatitis B

surface antigen and hepatitis B core antigen in the placebo arms (correspondence with two of the four authors failed to shed light on the reasons for such an omission). All four trials achieved low scores in the four quality dimensions assessed (generation of allocation schedule, measure(s) taken to conceal treatment allocation, exclusion of allocated participants from the analysis of the trial and measures taken to implement and protect double blinding). Mean length of follow-up was 14.5 months.

Conclusions: Plasma-derived vaccines appear to be efficacious and safe for use in high risk health-care workers, such as staff of renal dialysis and transplant units. There is some uncertainty concerning the effectiveness of the vaccine in lower risk health-care workers, although the trend is towards benefit. We found no evidence of a long-term protective effect due to the short follow-up time of the four trials included in this review. We found relatively poor standard of trial reporting, possibly related to the age of the trials.

Title: **Evaluation of N95 respirator use as a tuberculosis control measure in a resource-limited setting.**

Authors: Biscotto C.R., Pedroso E.R., Starling C.E. & Roth V.R.

Date: May 2005

Source: International Journal of Tuberculosis & Lung Disease. 9(5):545-9.

Abstract: SETTING: A 150-bed public Brazilian hospital that serves as reference hospital for tuberculosis (TB) patients. OBJECTIVE: To evaluate the use of personal respiratory protection by health care workers (HCWs) as a measure to reduce TB occupational risk. DESIGN: One hundred and forty-five HCWs were randomly observed for the use of a N95 respirator when entering high-risk areas or performing high-risk procedures. RESULTS: N95 respirators were infrequently used, even for high-risk procedures such as endotracheal intubation (25%) and respiratory aspiration (12%), and in high-risk areas such as the respiratory ward (69.2%), emergency department (29.5%), intensive care unit (8.8%), and TB room isolation (39.5%). Facial-seal leakage was observed in 39% of HCWs due to failure to wear the mask with a tight facial fit as directed.

CONCLUSION: Respirator use as a sole control measure is inadequate in any setting and is not cost-effective in resource-limited settings. Alternative or additional measures are clearly needed in hospitals with a high incidence of active TB admissions, specially following recent recommendations from the WHO, which consider personal respiratory protection as the third line of defence for TB control, indicated when TB risk cannot be adequately reduced by administrative and engineering controls.

Title: Needlestick and sharps injury prevention.

Author: Wilburn S.Q.

Date: 2004

Source: Online J Issues Nurs. V9(3):5.

Every day while caring for patients, nurses are at risk to exposure to blood-borne pathogens potentially resulting in infections such as HIV or hepatitis B and C. These exposures, while preventable, are often accepted as being a part of the job. In the United States, needlestick injuries have begun to decrease from an estimated one million exposures per year in 1996 to 385,000 per year in 2000. This decline has resulted from the protections afforded by the Occupational Safety and Health Administration's (OSHA) Blood-borne Pathogens Standard. Reasons for the success in decreasing needle-stick and sharps injuries may be attributed to the elimination of needle recapping and the use of safer needle devices, sharps collection boxes, gloves and personal protective gear, and universal precautions. The prevention of needle-stick injuries has made slow progress over the past 20 years since the HIV epidemic drew attention to the deadly nature of health care work and to protection of health care worker health and safety. In Africa, where the AIDS virus originated and where the prevalence of the human immunodeficiency virus (HIV) among hospitalized patients is highest in the world, attention has been directed only recently at protecting health care workers. Nurses, especially those infected from a preventable exposure, have been at the forefront of advocacy for prevention. This article includes a review about the hazard of exposure to blood-borne pathogens and epidemiology of occupational infection. The author discusses how to apply standard methods of occupational health and industry

hygiene using the hierarchy of controls framework to prevent exposure to blood, and discusses evidence-based prevention and efficacy of particular control measures. Legislative progress and implementation of enforceable policy to protect health care workers is outlined.

Title: Occupational risk for blood exposure and staff behaviour: a cross-sectional study in 3 Moroccan healthcare centres.

Authors: Djeriri K., Charof R., Laurichesse H., Fontana L., El Aouad R., Merle J.L., Catilina P., Beytout J.& Chamoux A.

Date: August 2005

Source: Med Mal Infect.

[Article in French].

Objective: As in other countries, Moroccan health-care workers are exposed to occupational blood exposure (OBE) hazards. The purpose of this study was to estimate the occupational safety and hygiene conditions determining the OBE risk for health-care workers. Workers and methods. - In March 2000, a multicentric study was carried out in Morocco on 420 health-care workers, with an anonymous questionnaire. The study included health-care workers in the Taza and Temara hospitals and health centers, as well as in a Rabat public medical analysis laboratory. Results. - The participation rate was 67.8% (285/420). The population was mainly female (61%) with a mean age of 41.4 years (+/-7 years). Health-care workers answered that: occupational hygiene and safety were inadequate (55.1%); wearing single-use gloves was rare (34.5%); re-sheathing used needles was frequent (74.5%); safe containers were often missing (67%). In 1999, the annual average incidence of OBE was 1.5 (+/-4.3) per capita. If we consider the whole career of health-care workers, the incidence reached about 14.3 +/- 28.1 per capita. The absence of post-exposure chemoprophylaxis was the rule.

Conclusion: The study shows that there is a need to improve occupational hygiene and safety conditions for Moroccan health-care workers in order to reduce OBE hazards.

Title: **Clinical review: Tokyo - protecting the health care worker during a chemical mass casualty event: an important issue of continuing relevance.**

Authors: Okumura S., Okumura T., Ishimatsu S., Miura K., Maekawa H. & Naito T.

Date: 2005

Source: Crit Care.V9(4):397-400.

Determine the effectiveness of decontamination, and perform thorough dry or wet decontamination, depending on the circumstances. Always remain cognizant of the fact that, even after decontamination has been completed, contamination may not have been completely eliminated. Perform periodic monitoring to determine whether secondary exposure has occurred in health care workers; if it appears that secondary exposure has occurred, then the PPE level must be increased and attempts must be made to identify and eliminate the source of the contamination. Finally, if the victims were exposed through ingestion, then consider the possibility that secondary exposure will occur during gastric lavage.

Title: **Intervention study of needle stick injury in Iran.**

Authors: Mobasherizadeh S., Abne-Shahidi S.A., Mohammadi N.A. and Abazari F.

Date: 2005

Source: Saudi Med J. V26(8):1225-7.

Objective: Injury resulting from contaminated sharp devices among health care workers (HCWs) is one of the most important concerns in medical centers. This can lead to dangerous infections such as human immunodeficiency virus, hepatitis B virus and hepatitis C virus among such people. The documentation of needle stick injuries started in Sadi Hospital, Isfahan, Iran in 2003, and our objective was to study cases of injuries by sharp devices before and after the implementation of intervention methods. **METHODS:** In an intervention survey of the type of before and after study, we studied injuries by needle and other sharp devices among 87 HCWs in Sadi Hospital, a private hospital in Isfahan, Iran, during the years 2003-2004. The groups under study were workers and paramedical staff; and the

wards under study included surgery, internal, lab, x-ray and laundry. We entered and evaluated the data in SPSS software. **RESULTS:** In the first phase of the study in 2003, 55.2% of those injured had been injured by sharp devices. After intervention in 2004, this percentage was reduced to 19.5% ($p < 0.05$). At the beginning of the study, 26.4% of the injured had been injured by sharp devices more than twice, and at the end of the study this number was reduced to 2.3% ($p < 0.05$). Also, injuries resulting from recapping were 45.8% at the beginning of the study, which was reduced to 5.9% at the end ($p < 0.05$). **CONCLUSION:** With regard to this study and other studies carried out in other countries, a large number of injuries by contaminated sharp devices can be prevented by im

Title: **Compliance and efficacy of hand rubbing during in-hospital practice.**

Authors: Karabay O., Sencan I., Sahin I., Alpteker H., Ozcan A. & Oksuz S.

Date: September-October 2005

Source: Med Princ Pract. 14(5):313-7.

Department of Infectious Diseases & Clinical Microbiology, Faculty of Medicine, Abant Izzet Baysal University, Bolu, Turkey.
drkarabay@yahoo.com

Objective: To compare alcohol-based hand rubbing with hand washing using antimicrobial soap regarding antimicrobial efficacy and compliance with routine practice in hospital and intensive care units.

Subjects and methods: From February to June 2003, 35 nurses were randomly selected from a nursing staff of 141 and divided into two groups: hand-rubbing and hand washing groups. Hand cultures were obtained before and after health care procedures. The nurses were observed on days 1, 7 and 14 of the study, in order to determine compliance and efficacy of the hand hygiene methods.

Results: A total of 368 routine patient care activities were observed during the study period. Hand rubbing with alcohol-based solutions significantly reduced the bacterial contamination of the hands of the nurses more

than hand washing with an antimicrobial soap (54 and 27%, respectively; $p < 0.01$). Compliance was also better in the hand rubbing group than in the hand washing group (72.5 and 15.4%, respectively; $p < 0.001$). Compliance with hand rubbing was markedly lower among the nurses who had experience of more than 3 years in hospital practice. Both hand rubbing and hand washing compliance were poorer among nurses working in intensive care units than among nurses working in the other hospital wards. Generally, after taking off gloves, nurses preferred hand washing to hand rubbing.

Conclusion: These data indicate that alcohol-based hand rubbing reduces mean bacterial counts on the hands of nurses more effectively than hand washing with antimicrobial soaps, and compliance rates with hand rubbing were also higher than with hand washing. Nevertheless, the compliance with hand rubbing was markedly lower in more experienced nurses.

Calendar of Events

In safeHandS invites members to advise us about any future events related health care worker safety which other members may be interested to attend. Send an email to: safehands@sesiahs.health.nsw.gov.au

You can also access a calendar of global infection control conferences at:
<http://www.chica.org/ific/ific.html#2005>

6th Congress of the International Federation of Infection Control 13-16 October, 2005, Istanbul, Turkey

For more information, visit the website:
<http://www.ificistanbul.org/index.html>

Some scholarships to attend the conference are being awarded including a specific travel fund established by the International Federation of Infection Control to encourage and support colleagues from the countries affected by the tsunami. For more information, visit the website: <http://www.ific.narod.ru/>

4th National Symposium on Nosocomial Infections and Disinfection 27-28 October, 2005, Sofia, Bulgaria

For more information, visit the website for the International federation of Infection Control (IFIC) which lists all the infection control conferences:
<http://www.chica.org/ific/ific.html#2005>

2005 Global Infection Control & Injection Safety Meeting, Safe Injection Global Network (SIGN) Meeting 14-16 November, 2005, Hanoi, Vietnam

This is the 2005 annual meeting for the Safe Injection Global Network which will be held at the Sofitel Plaza Hotel. Submission of abstracts has already closed.

For more information (including the draft agenda) visit the WHO injection safety website and the SIGN Alliance Secretariat at:
http://www.who.int/injection_safety/en/

2nd International Scientific Conference on Occupational and Environmental Health 16-19 November, 2005, Hanoi, Vietnam

Submission of abstracts has already closed. For more information, visit the website:
<http://depts.washington.edu/ehce/CFP-ICOEH.pdf>

Association of Professionals in Infection Control and Epidemiology (APIC) Annual Educational Conference and International Meeting 11-15 June, 2006, Tampa, Florida, USA

APIC's Annual Educational Conference and International Meeting is considered an important educational opportunity for health-care professional in all settings who have infection control and prevention responsibilities. It is also the meeting place for novice and experienced infection control practitioners to expand their knowledge base, establish practical expertise in infection control and epidemiology and network with infection control experts and colleagues.

The 2006 Call for Presentations—Proposal Submission Deadline was Friday, 1 July, 2005.

For more information, visit the website:
http://www.apic.org/Content/NavigationMenu/Education/Annual/Conference_Conference1.htm

12th International Congress on Infectious Diseases (ISID) 15-18 June, 2006, Lisbon, Portugal

ISID has membership from more than 100 countries and focuses on both low and high resource settings. Abstract submission will begin no later than 1 October, 2005. If you pre-register with the conference, they will send you an announcement when abstract submission has begun.

For more information, visit the website:
http://www.isid.org/12th_icid/

SafeHandS Membership Form



Welcome to SafeHandS! To help us develop a network which meets your needs to improve healthcare worker safety, we would appreciate if you could take the time to complete this membership form.

* Compulsory fields to complete

Title:

First Name*:

Last name*:

Position*:

Department*:

Organisation*:

E-mail address:

Postal address:

Address Line 1:

Address Line 2:

Suburb/City:

State/Province:

Postal/Zip Code:

Country*:

Country of work*:

<input type="checkbox"/> Australia	<input type="checkbox"/> Cambodia	<input type="checkbox"/> Fiji
<input type="checkbox"/> India	<input type="checkbox"/> Indonesia	<input type="checkbox"/> Japan
<input type="checkbox"/> Loa PDR	<input type="checkbox"/> Malaysia	<input type="checkbox"/> Myanmar
<input type="checkbox"/> New Zealand	<input type="checkbox"/> Papua New Guinea	<input type="checkbox"/> People's Republic of China
<input type="checkbox"/> Thailand	<input type="checkbox"/> Vanuatu	<input type="checkbox"/> Vietnam
<input type="checkbox"/> Other (please specify)		

Gender: Female Male

Preferred method to receive newsletter*: (select one only)

From the website (PDF or HTML)

By email (PDF)

By post (this will be a shorter version)

Other (please specify)

Professional: (select one)

- Nurse
- Doctor
- Counsellor
- Dentist
- Dental nurse/staff assistant
- Pharmacist
- Occupational therapist
- Physiotherapist
- Laboratory staff
- Other (please specify)

Position: (select one)

- Health care worker
- Health manager
- International consultant
- Student
- Volunteer
- Other (please specify)

Sector: (select one)

- Public
- Private
- Non-government
- Academic
- Other (please specify)

Principal type of workplace: (select one)

- Hospital
- Outpatient clinic
- Nursing home/hostel
- Community centre or clinic
- Home based care
- Private practice
- University/college
- Other (please specify)

Main are of work: (select as many as apply)

- Infectious diseases
- Infection Control
- HIV/AIDS
- Hepatitis
- General
- Other (please specify)

How did you hear about SafeHandS? (select one)

- Website
- Newsletter
- Another person
- Other (please specify)

What are the 2 most important things you would like from SafeHandS network: (select 2 only)

- Access to current publications on health care worker safety
- Tools (eg surveillance forms, checklists) for health care safety
- Training resources
- Email discussion forum between members
- Directory of other practitioners/consultants in region
- Advice and information
- Upcoming regional conferences
- Links to other organisations
- Sample policies and protocols
- Other (please specify)

Areas of expertise or resources in relation to health care worker safety I am willing to share with colleagues: (select 3 only)

- Education and training
- Education resources—training package
- Education resources—Web-based training
- Clinical consultancy—HIV or hepatitis
- Clinical consultancy—Infection control
- Policy development
- Sample policies and protocols
- Other (please specify)

Privacy

Individual information collected on this form will only be accessed by the SafeHandS secretariat (who are employees of the Albion Street Centre of the University of Wollongong) unless consent is given as below.

I give consent for any information in this form to be made available to other members of SafeHandS.

Yes

No

If you tick yes above, personal information provided in this form will only be disclosed to a third party if an individual or organisations are seeking advice or services from members with specific expertise or wishing to contact members with similar areas of interest. This will only be done with your prior consent.

Thank you for completing this for.

We look forward to sharing information through SafeHandS!

You can return this form by:

Email: safehands@sesiahs.health.nsw.gov.au

Or Fax: 61 2 9360 4387

**Or Mail: SafeHandS, International Health Services Unit
150 Albion Street
SURRY HILLS NSW 2010
AUSTRALIA**