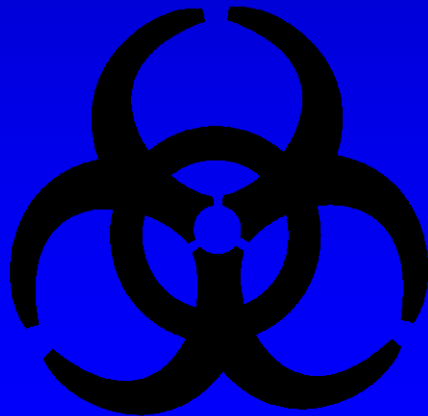


Process Control Devices For autoclaves

in Collaboration with
Al-Essa Medical & Scientific Equipment Co. W.L.L



**Kuwait University
Health Science Center
10 January – 14 January, 2016**

Agenda for the past 4 days

- ✓ Overview of waste management and health and safety walkthrough findings
- ✓ Hand Hygiene
- ✓ Global Perspectives
- ✓ Blood Borne Pathogen Review for Dentistry
- ✓ Chemical Compatibility/Spill response
- ✓ Spill response workshop

Waste management segregation /containers

Follow-up on questions / comments

Post conference quiz

And

Let the Fun Begin – Round 2 – 2016!

Avoid the 12 most common laboratory safety problems

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.

Avoid the 12 most common laboratory safety problems

1. Eyewashes should be flushed weekly and documented on eyewash tags.
2. Label chemical waste with specific contents. Keep waste tag attached to the container at all times.
3. Maintain labels on chemical containers received from manufacturers and label secondary containers. Replace old and deteriorated labels.
4. Segregate chemicals properly. Store acids in an acid cabinet or in a plastic container (tub). Store nitric acid separately.
5. Dispose of unwanted chemicals through the KU waste disposal program.
6. Keep chemical waste containers closed (do not forget to remove the funnel).

Avoid the 12 most common laboratory safety problems (Continued)

7. Chemical fume hood sashes should be kept closed whenever possible. Maintain the minimum possible opening when working. Limit storage in hoods to essential items only.
8. Do not store or consume food or drinks in labs where hazardous materials are present.
9. Secure gas cylinders properly and keep safety caps on cylinders when not in use.
10. Do not wear shorts or open-toed shoes (e.g. sandals) in labs. Wear appropriate personal protective equipment (PPE) when working in labs where hazardous materials are present.
11. Have appropriate spill supplies available and follow response procedures.
12. Remove clutter and practice good housekeeping. Keep exits and aisles clear. Eliminate extension cords and power strips in series.



OPEN ACCESS

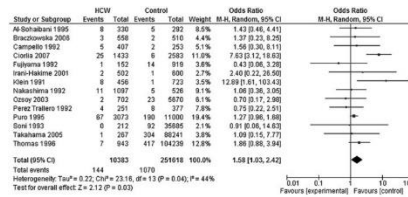
The prevalence of hepatitis C among healthcare workers: a systematic review and meta-analysis

Claudia Westermann,¹ Claudia Peters,¹ Birgitte Lisiak,² Monica Lamberti,³
Albert Nienhaus^{1,2}

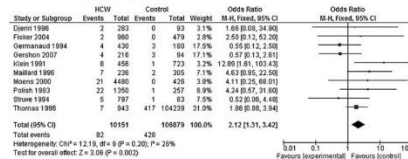
A systematic search for the years 1989–2014 was conducted in the Medline, Embase and Cochrane databases.

Looked at Exposure Prone Procedures (EPP)

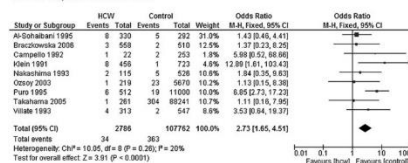
Forest plots of high and moderate quality studies on hepatitis C among healthcare workers.



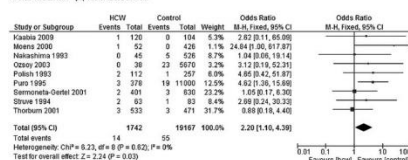
Strata: Studies with serological confirmatory tests - population-based controls



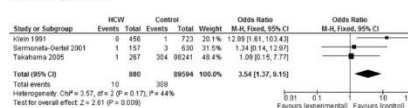
Strata: Low HCV prevalence countries - all controls



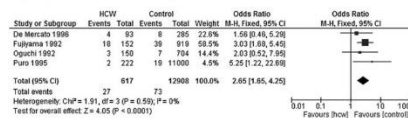
Strata: Medical staff - population-based controls



Strata: Laboratory staff - all controls



Strata: Dental staff (medical and non-medical) - all controls



Strata: Combining professionals at high risk for blood contacts - population-based controls

Claudia Westermann et al. *Occup Environ Med*
doi:10.1136/oemed-2015-102879



Healthcare workers (HCWs) have contact with infected patients and their body fluids. A particularly important factor is repeated performance of exposure prone procedures (EPPs) that may cause injuries to employees. Injuries to medical and health staff from sharp or pointed objects are among the most frequently reported occupational accidents in healthcare. The results of epidemiological studies indicate that approximately 80% of HCWs have been affected by needlestick injuries (NSI).⁶ Many such injuries go unreported. The risk of seroconversion after an injury depends on factors including the type of injury (deep cuts or pricks), the quantity of infectious material transferred, the virus load in the index patient and possibly genetic factors in the injured person.

Odds Ratios

An odds ratio (OR) is a measure of association between an exposure and an outcome. The OR represents the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure.

Odds ratios are used to compare the relative odds of the occurrence of the outcome of interest (e.g. disease or disorder), given exposure to the variable of interest (e.g. health characteristic, aspect of medical history). The odds ratio can also be used to determine whether a particular exposure is a risk factor for a particular outcome, and to compare the magnitude of various risk factors for that outcome.

OR=1 Exposure does not affect odds of outcome

OR>1 Exposure associated with higher odds of outcome

OR<1 Exposure associated with lower odds of outcome

Professions

Medical staff: For medical personnel, pooled analysis of studies with confirmatory tests gave an OR of 2.7

For medical staff excluding dentists, the OR was 2.2

Dental staff (medical and non-medical): Pooled analysis of studies with confirmatory tests gave an OR of 3.5

.

Nursing staff: The pooled analysis of studies with confirmatory tests showed an OR of 1.7

Laboratory staff: Pooled analysis of studies with confirmatory tests gave an increased OR of 2.2

Professionals at high risk for blood contacts: Six sources contributed data on the following professions/working areas performing EPPs: surgeons, midwives, microbiologists, pathologists, blood bank and dialysis staff. All studies were published before 2000.

FIGURE 10

WHO poster on indications for hand hygiene in a dental care situation

Your 5 Moments for Hand Hygiene Dental Care



1	BEFORE TOUCHING A PATIENT	WHEN?	Clean your hands before touching a patient.
		WHY?	To protect the patient against harmful germs carried on your hands.
2	BEFORE CLEAN/ASEPTIC PROCEDURE	WHEN?	Clean your hands immediately before performing a clean/aseptic procedure.
		WHY?	To protect the patient against harmful germs, including the patient's own, from entering his/her body.
3	AFTER BODY FLUID EXPOSURE RISK	WHEN?	Clean your hands immediately after a procedure involving exposure risk to body fluids (and after glove removal).
		WHY?	To protect yourself and the environment from harmful patient germs.
4	AFTER TOUCHING A PATIENT	WHEN?	Clean your hands after touching the patient at the end of the encounter or when the encounter is interrupted.
		WHY?	To protect yourself and the environment from harmful patient germs.
5	AFTER TOUCHING PATIENT SURROUNDINGS	WHEN?	Clean your hands after touching any object or furniture in the patient surroundings when a specific zone is temporarily and exclusively dedicated to a patient - even if the patient has not been touched.
		WHY?	To protect yourself and the environment from harmful patient germs.

<http://www.slideshare.net/diegozanatagrilli/guideline-hm-2012-oms>

How to handrub?

WITH ALCOHOL-BASED FORMULATION



Apply a palmful of the product in a cupped hand and cover all surfaces.



Rub hands palm to palm



right palm over left dorsum with interlaced fingers and vice versa



palm to palm with fingers interlaced



backs of fingers to opposing palms with fingers interlocked



rotational rubbing of left thumb clasped in right palm and vice versa



rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa



rinse hands with water



dry thoroughly with a single use towel



use towel to turn off faucet



20-30 sec



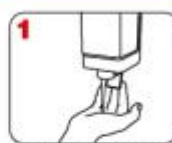
...once dry, your hands are safe.

How to handwash?

WITH SOAP AND WATER



Wet hands with water



apply enough soap to cover all hand surfaces.



palm to palm with fingers interlaced



rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa



use towel to turn off faucet



40-60 sec



...and your hands are safe.



WHO acknowledges the Hôpitaux Universitaires de Genève (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.



October 2006, version 1.