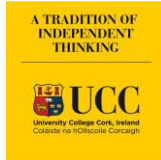




Infection Prevention and Control in Primary Care

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Resistance HCAI AMR



Why are we here ?

HIQA 2009



12 National standards

"The implementation plan to meet these standards for each facility, should contain steps to immediately address and mitigate the risk of serious shortfalls in these areas"



Preventing HCAI –What should the public expect from us

- Patients are cared for in an environment that is safe and clean, and where the risk of them acquiring an infection is kept as low as possible.
- A person centered approach is taken respecting the dignity privacy and needs of individual patients.
- **First do no harm-keep our patients safe**



Potential modes of transmission of infection



- Hands healthcare workers contaminated-MRSA
- Equipment contaminated –Hep B
- Inhalation of pathogens e.g. influenza
- Ingestion faeco-oral spread e.g. norovirus



HCAI from resistant bacteria-Difficult to treat, prolonged illness, hospital stays, risk of death

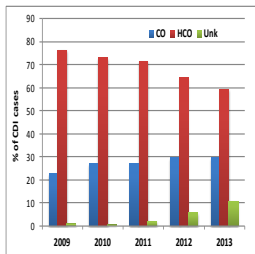
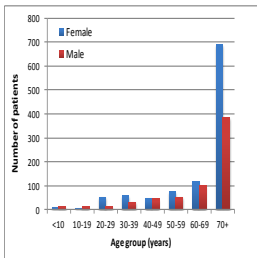
"SUPERBUGS "



25,000 deaths from multi-drug resistant organisms each year in Europe



Who's getting CDI in Ireland & where are they when they develop symptoms?



Source: Fiona Roche, HPS



Standard 6
Hand hygiene practices that prevent, control and reduce the risk of the spread of Healthcare Associated Infections are in place.



Describe how a service can demonstrate how the Standard is being met or not.

The application of criteria should reflect the clinical and service context – for example the criteria would have different implications in a large acute hospital compared to a small clinic or surgery.



Hand hygiene HIQA – Team Knowledge



- Is everyone in your workplace HH aware ?
- Hand hygiene is one of the most important methods of preventing HCAI
- **Alcohol based gel/foams are the preferred method for hand hygiene** when the hands are not soiled and are physically clean.
- When and how do they perform HH
- Do they understand the WHO 5 Moments



Where the bug's love !



<http://www.hse.ie/go/handhygiene>

Hand hygiene facilities- HIQA



- Clinical hand wash sinks should be available in all clinical areas and used only for hand wash .
- Liquid soap and alcohol rub
- Alcohol rub should be available at point of care
- Paper towels ONLY
- In appropriate items should not be stored at hand wash sinks
- Waste bins should be foot operated.
- HTM 64 sink elbow taps, mixer, no plugs.



Hand hygiene when should you do it? WHO 5 Moments of HH



- Before touching a patient
- After touching a patient
- Before clean/aseptic procedures
- After body fluid exposure risk
- After contact with the patient environment



WHO 2012 Hand hygiene in outpatient and home-based care and long-term care facilities
HH Video for General Practice HSE website

<http://www.hse.ie/go/handhygiene>



Handwash and alcohol rub



There are 2 situations where alcohol hand rub alone is not sufficient:-

- * After contact with a patient with known or suspected diarrhea
- * (e.g. *Clostridium Difficile* or norovirus.)
- * Where hands are visibly soiled.
- * **In these instances hand wash with plain soap followed by use of an alcohol rub is recommended.**
- * Be careful re diamonds!



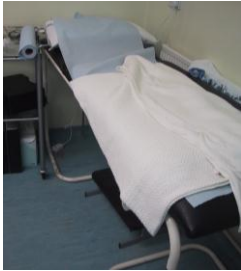
What's different in the community ?



- Sub-standard hand hygiene facilities
- Out of Hours co-op
- House calls
- Nursing homes
- Always carry alcohol rub
- Always carry PPE
- Always carry sharps container



Paper Disposable v laundered linen / cloth towels



Laundry from infected patients can be contaminated with microorganisms.

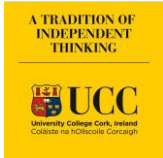
Disposable linen or paper towels are recommended.

A contracted laundry service compliant with current Irish legislation should be used for reusable linen.





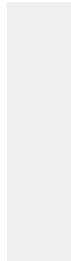
Is it time to get rid of the autoclave?



Practices that use sterile medical devices must choose from the following 3 options



- Have reusable devices sterilized by a certified Sterile Services department (SSD)
- Decontaminate and reprocess devices in the practice
- Use single use devices which will obviate the need for decontamination



Single use Item for individual patient for single procedure



Must never be decontaminated and reused



Single patient use



• A medical device that is intended for **single-patient** use means that the device may be used for more than one episode of use on one patient only



Decontamination is Necessary for Reusable invasive medical devices RIMDS



- A process which removes or destroys contamination & therefore prevents micro organisms reach a susceptible site in sufficient quantities to initiate an infection or other harmful responses
- It involves cleaning ,disinfection and sterilisation.
- *NB-manufacturers instructions*



HIQA

1. The Health Information and Quality Authority is an independent statutory body with responsibility for developing and monitoring standards for health and social care services
2. May 2009 National Standards for the Prevention and Control of HCAI
3. The standards require evidence that the management and decontamination of RIMDS conforms to the HSE 2007 code of practice for Decontamination of RIMDS
4. HSE code identifies the Irish medicines Board(IMB) as the competent authority general medical devices in Ireland.
5. Irish Medicines Board (IMB); Cleaning and decontamination of reusable medical devices IMB safety notice; SN2010 (11).
6. **SN2009(04): Safe and Effective Use of Bench-top steam sterilisers**



Suitability of decontamination facilities

- Provide effective segregation of **clean and dirty** activities
- Ideal 2 rooms or dirty to clean flow within room
- Not in a clinical room
- Separate sinks for hand washing and cleaning
- Documented training schedule for all involved
- Separate Storage area for sterile packs



Manual cleaning of devices is **restricted** to those items deemed incompatible with automated processes

Equipment used to decontaminate devices must be **fit for purpose, validated and tested** in accordance with current recommendations.



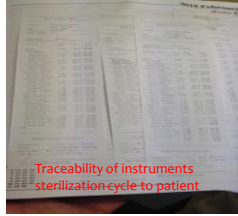
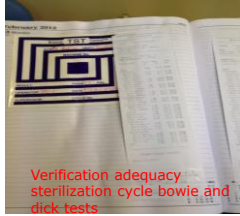
Washer disinfecter



B Type autoclave



Documentation required -HIQA



Dedicated enclosed space for sterile goods



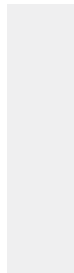
- Clean - dry - well ventilated
- No direct sunlight - not under sinks
- Stock rotation system
- Set minimum / maximum stock levels
- Well spaced
- Inspect before use



Requirements for decontamination and reprocessing of RIMDS -HIQA

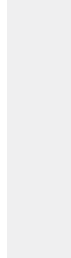


- Separate clean and dirty areas /spaces
- Separate cleaning and hand wash sinks
- Washer disinfectant
- B-type autoclave
- Verify adequacy of steriisation cycle
- Separate storage space
- Traceability of instrument cycle to patient
- Documented training schedule for staff



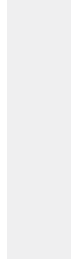
The future ?-can you attain necessary standards in Irish General Practice

- * Economic evaluation of single use sterile instruments for your practice
- * Licensing of healthcare facilities
- * Would you pass a HIQA inspection?
- * Look at what has happened in UK



SHARPS -HIQA

- ❖ Safe handling use and disposal of sharps is essential to prevent injury/ transmission of disease to patient's, healthcare workers and cleaning staff.
- ❖ **Each practice needs to have a policy in place for assessment and management of a needle stick injury**
- ❖ All practice staff demonstrate they know how to prevent sharps injury
- ❖ All staff need to demonstrate they know what to do if sharps injury occurs



How do Sharps injuries occur?

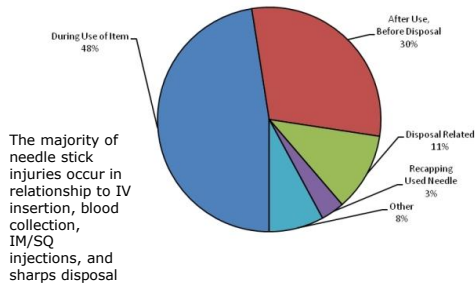


Figure 1: Activities associated with percutaneous injuries in EPINet hospitals by % total percutaneous injuries (n= 951), 2007 (Source: [EPINet \[2009\]](#))



Be prepared for uncooperative patient
Consider patient placement



Appropriate PPE should be put on before the task is started.



Sharps High and Hidden from children-not under your desk !



Remember Blood splatters
Most Gp settings can place sharps container within arms reach avoiding need for tray



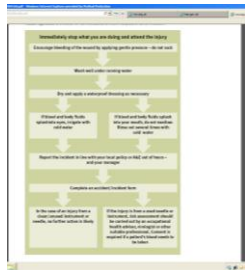
Prevention sharps injuries- summary

- Seek help uncooperative patient
- Wear gloves and other PPE if nessecary
- Place into approved container immediately single action if possible
- Never resheath needles
- Do not put contaminated sharps on desk or any other surface always in disposable tray /neutral zone .
- Sharps container location **never** at floor height or within reach of children
- Filled containers labelled and stored in locked holding area



Emergency Management Sharps Injury –HIQA

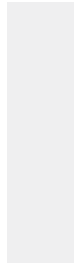
- Immediate action /posters
- Patient management form/practice toolkit
- Signifgant or non signifgant injury
- 2 patients Source and recipient
- Post exposure treatment options
- Seek expert help



<http://www.hpsc.ie/hpsc/A-Z/EMIToolkit>

Immediate Action –sharps injury /contamination

- **Needle Stick/Sharps Injury**
- Encourage bleeding of the wound under running water.
- Do not suck the wound.
- Wash the wound thoroughly with soap under running water for 2-3 minutes.
- Cover the area with a waterproof dressing or bandage.
- Dispose of sharp carefully into the appropriate puncture resistant sharps box.
- **Mucocutaneous Exposure**
- Wash the affected area with copious amounts of water.
- **Eye Exposure**
- Irrigate the affected eye with copious amounts of saline or water (before and after removal of contact lenses, if applicable).



What everyone working in healthcare setting needs to know

Is the exposure signifiant ? type of injury ?



- **Significant injuries include:**
 - Percutaneous injuries
 - Human bites which break the skin, ie involving a breach of the epidermis, not just bruising or indentation
 - of the skin
 - Exposure of broken skin to blood or body fluids.
 - Exposure of mucous membranes (including the eye) to blood or body fluids, eg by splashing.
- **Non-significant injuries include:**
 - Superficial graze not breaking the skin.
 - Exposure of intact, undamaged skin to blood or body fluids.
 - Exposure to sterile or uncontaminated sharps

Clinical decision non-significant reassure , information leaflet , no further tests required .



Signifcant exposure -2 Patients



The Source

- Every effort should be made to ascertain the HBV, HCV and HIV status of the source.
- Request permission from the source, either directly or through their doctor, to take a blood sample for testing for: HBV (hepatitis B surface antigen - HBsAg), HCV (antibody to hepatitis C - anti-HCV) and HIV (HIV antigen/antibody - Ag/Ab). Informed consent must be obtained for this testing including the implications of a positive test for them .
- Inform lab (10mls of clotted blood) should be marked **Urgent. Possible bloodborne virus exposure - source**

The recipient

- The actions to be taken will depend on the outcome of the risk assessment
- If the source results indicate that the **source is negative** for HBsAg,anti-HCV and HIV Ag/Ab, and the investigation has identified it is unlikely that source is in window period for infection.
- Then no further follow up of the recipient is required. They can be reassured and discharged.



Treatment of recipient following a significant exposure- seek expert help

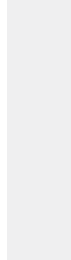


- **Hepatitis B post-exposure prophylaxis**- highly effective at preventing infection, provided that the vaccine is administered preferably within 48 hours but up to 7 days post-exposure
- Currently there is **no recommended post-exposure prophylaxis for HCV.3** However, treatment of early infection has been shown to be successful, therefore follow-up monitoring for evidence of HCV infection should be carried out
- **HIV PEP** should only be considered in patients who present within 72 hours with a significant exposure to either a known HIV positive person or a suspected high-risk source.



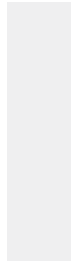
Examples type of information in EMI toolkit

- On-site assessment form (Dental/Primary care)
- Flow chart for management of injuries
- Algorithm for needlestick/sharps exposure, mucous membranes ,sexual exposure.
- Testing of recipient for bloodborne viruses
- Checklist: Testing of source person or recipient
- Information leaflet – no risk of exposure to bloodborne viruses
- Information leaflet – significant exposure to bloodborne viruses
- Community acquired needlestick injuries CANSI

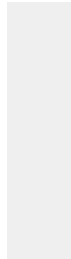


Sharps management- the 6 p's

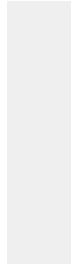
- Prevention of injury
- PPE be prepared for where you work and what you are doing .
- Placement of sharps bin , patient ,and doctor/nurse
- Proper disposal of sharps
- Policy for immediate management needlestick/sharps injury
- Resource pack –create one that suits your work environment from EMI toolkit .



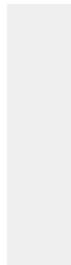
What's wrong here ?



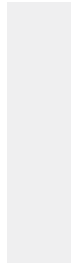
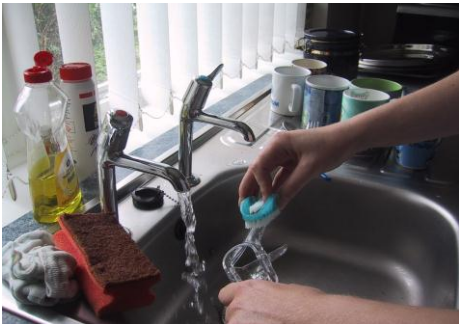
Whats wrong here ?



What's wrong in this picture ?



What's wrong here ?



4 Things you can do now to improve infection prevention and control



- Hand Hygiene –paper towels ,liquid soap, alcohol rub available in all clinical areas
- Hand hygiene training for all staff
- Sharps – safe position, ¾ full, single movement ,safe disposal ,Injury policy displayed .Compile practice resource pack for management of a needle stick injury
- Consider single use items for all procedures , review economics, if reprocessing RIMDS would you pass a HIQA inspection ?

