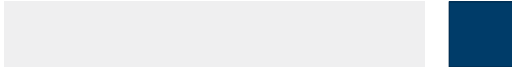




Infection Prevention and Control A Foundation Course 2014





Standard Precaution – Element 6 : Spillages, Laundry and Waste Management

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Linen management

1. Categories of linen
2. Segregation and colour coding
3. Handling of linen
4. Transportation & Delivery
5. Laundering
6. Patients clothing

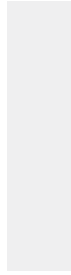


Regulations

• HSG 98 (18).Hospital Laundry Arrangements for Used and Infected Guidelines.

• HIQA National Standards for the Prevention and Control of Healthcare Associated Infections (2012)

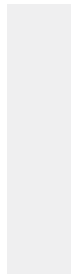
Refer to local policy in each area



Used Linen

• Used linen is contaminated with potential pathogens.
• i.e MRSA, C DIFF, VRE

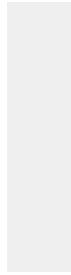
• Risk of transmission of infection.



Categories of Linen

Used dry linen:
• Used dry, non-infected linen

Contaminated and/or wet linen:
• Linen stained with blood or body fluids
• Linen from patients in isolation



Storage of linen

Clean linen

- Clean dry cupboard 2 inches off floor/clear of wall to aid cleaning
- Door closed
- Linen stored in cellophane packaging.
- No inappropriate items. (patient clothing, bags, equipment)

Dirty linen

- Locked dirty linen store (sluice)
- ¾ filled bags (2 beds)/no over filling of bags
- Swan neck tie can prevent overfilling
- **NEVER STORE SOILED LINEN WITH CLEAN LINEN ALWAYS USE SEERSTE TRANSPORTATION TROLLEYS**



Colour coding

WHITE LINEN BAG

- **REGULAR LINEN**
Used dry, non-infected linen

RED LINEN BAG

- **Soiled/Infected Linen**
- Place infectious linen in this bag (Firstly place in an alginate bag)
- Blood or body fluid stained linen (Firstly place in an alginate bag prior to a RED bag)



Surface survival

Organism	Survival time
<i>Clostridium difficile</i> (spores)	5 months
<i>Acinetobacter</i> spp.	3 days to 5 months
<i>Enterococcus</i> spp. including VRE	5 days – 4 years 1 (Wagenvoort 2011)
<i>Pseudomonas aeruginosa</i>	6 hours – 16 months
<i>Klebsiella</i> spp.	2 hours to > 30 months
<i>Staphylococcus aureus</i> , inc. MRSA	7 days – 7 months
Norovirus (and feline calicivirus)	8 hours to > 2 weeks (Douttree et al 1999)
SARS Coronavirus	72 hours to >28 days (Rabenu et al 2005)
Influenza	Hours to several days. (Bean et al 1982)

Adapted from Kamer et al. *BMC Infect Dis* 2006;6:130
 1.Wagenvoort et al. *J Hosp Infect* 2011;77:282-283.
 2.Douttree et al. *J Hosp Infect* 1999;41:51-57.
 3.Rabenu et al. *Med Microbiol Immunol* 2005;194:1-6.
 4.Bean et al. *J Infect Dis* 1982;148:47-51.



Bed making

- Skin scales may contain MRSA particles which are released into the air during bed making.
- Potential to contaminate the hospital environment.
- May lead to increase in nasal or respiratory colonisation

(Shiomori,2002)



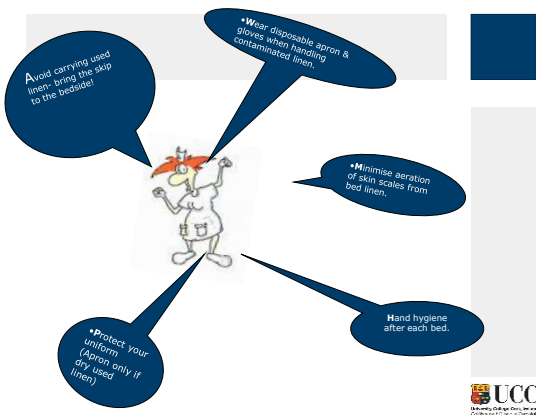
Correct Bed making

The number of MRSA particles significantly higher 15 mins after bed making than during the resting period

(Shiomori et al, 2002)

- Avoid making beds until after breakfast
- Avoid wound dressings directly after bed making.
- Environmental cleaning begins after bed making.





Transportation guidelines

- Wear PPE.
- Handle as little as possible.
- Use a skip.
- Bagging at source.
- Avoid over-filling



Laundering process

- Use PPE. (gloves and aprons)
- Handle as little as possible.
- Segregate dirty and clean.
- Disinfection cycle: **Minimum 65 degrees for 10 mins.**
Preferably 71 degrees for not less than 3 mins.
- Manufacturers guidelines in using machine.
- Tumble dry & steam Iron all items if these temperatures cannot be reached all items and do not leave wet.
- Service contract for all machines
- Never sluice laundry/patients own clothing
- No eating or drinking in laundry room.





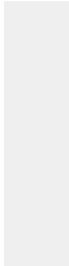
"OK, next on the agenda: waste management"



Guidelines



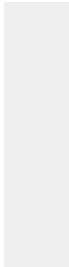
1. Segregation, Packaging and Storage Guidelines for Healthcare Risk Waste: Department of Health and Children, (4th edition), 2010
2. Carriage of Dangerous Goods by Road Regulations, S.I. No. 288 of 2007
3. EU Directive on Restriction on the use of Certain Hazardous Substances
4. Litter Pollution Act, 1997
5. Safety, Health and Welfare at Work (Biological Agents) S.I. 147 Regulations 1994
6. Safety, Health and Welfare at Work Act 2005
7. The Waste Electrical and Electronic Equipment Regulations
8. Waste Management (Collection Permit) Regulations S.I. No. 402 of 2001
9. Waste Management (Licensing) Regulations 2000 (SI 185 of 2000), 2001 (SI 397 of 2001), and 2002 (SI 326 of 2002 and SI 337 of 2002 (EC Amendment).
10. Waste Management (Movement of Hazardous Waste) Regulations S.I. No. 147 of 1998
11. Waste Management (Packaging) Regulations 1997, 2003
12. Waste Management Act 1996, Waste Management (Amendment) Act 2001
13. Water Pollution Act 1997



Basic elements for good management



- Understanding nature of waste generated
- Correct segregation of all waste
- Correct packaging
- Appropriate transportation
- Correct record keeping (tagging and tracking)
- Management of spills
- Prevention of incidents
- Refer to local policy

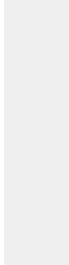


Categories of risk waste



Infectious substances are divided into two categories

- Category A – includes waste from highly infectious diseases
UN 2814 i.e Ebola, Hepatitis B . In general with the exception of laboratory waste there is very little Category A waste produced in Ireland (HSE 2011)
- Category B – includes all clinical risk waste generated in a healthcare facility, residential setting
UN 3291 i.e. contaminated with blood and body fluids, known infected case



HRW – Cost€€€€€

•Infectious HRW – €823.39/ton



•Special Waste (Purple and Black lid waste) – €1872.72/ton



Potentially Infectious General Waste

- Blood and items visibly soiled with blood.
- Contaminated waste from patients with transmissible infectious diseases.
- PPE worn when in contact with patients with transmissible infectious diseases
- Incontinence wear/nappies from patients with known or suspected enteric pathogens.



Biological waste

- Specimens and potentially infectious waste from pathology departments.
- Microbiological cultures (liquid or solid media in which organisms have been artificially cultivated.)
- Other laboratory waste



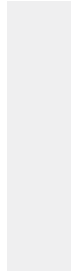
Sharps

Any items which have been used on patient which may cause a puncture wound or pierce the skin.
i.e. razors, needles etc



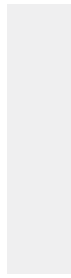
Toxic waste
Hazardous chemicals
Reagents
Medicines

i.e. waste meds, infusions ,
unused infusions



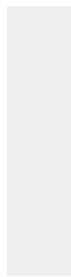
General risk waste

- Drains
- IV lines with blood residue
- Some organisations dispose Blood giving sets post transfusion (refer to local policy)
- Urine specimens
- Suction catheters
- Suction liners
- Redivac drains
- Infected sputum pots



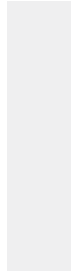
Sharps Bin assembly

- Place used sharp items immediately after use into an approved sharps container
- No more than 2/3 full.
- Correctly seal and label.
- Traceability tag.
- Complete the identification record (IR)
- Assemble a New Sharps Container correctly and leave ready for use.
- Sharp Containers **must not** be within easy reach of children

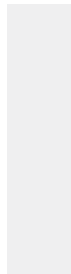


Risk waste collection procedure

- Collected from designated collection points
- Correct PPE: disposable aprons and safety gloves.
- Bags no more than 2/3 full.
- Handle by neck only
- Swan neck tie.
- Clinical waste identity tag attached.
- Always decontaminate hands

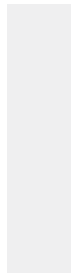


Swan neck tie procedure



Clinical waste collection

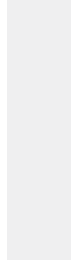
- Correct Transportation
- Keep clinical waste wheelie bins closed
- Secure clinical waste compound
- Bins should be cleaned and disinfected prior to re-use
- Always segregate clean and dirty transportation trolleys
- Ensure hand hygiene is carried out



Spillages – Blood and Body fluid spillages

- Always ensure the area is well ventilated
- Always ensure PPE is worn – gloves, Apron, Goggles
- Always refer to local cleaning procedure
- Ensure wet floor sign is in use
- Always refer to the MSDS- CARA

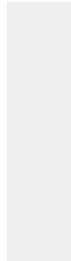
Never use hypochlorite solution on Urine Spill (chlorine reacts)



How to clean a blood spillage

- Spill Kit should contain absorbent material, clinical waste bag, cleaning solution in undiluted form, gloves, apron, goggles
- Disperse the granules on the spillage
- Allow settle for 2 minutes to denature/de-activate and potential viruses in the blood
- Scoop up and dispose of in the clinical waste bag provided the contents will solidify with the granules making it easier to scoop up
- Dispose of in clinical waste
- Decontaminate the area using hypochlorite solution 1:100 ml ratio to disinfect the area
- General clean of the area with a neutral detergent

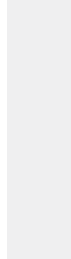
Dispose of PPE correctly
Decontaminate your hands
Ventilate the area



How to clean Urine/Vomit Spillage

- DON PPE gloves, Apron Goggles
- Soak as much as the spill with absorbent material.
- Wash the area with a general purpose neutral detergent.

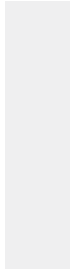
Hypochlorite solution is not suitable for use on carpet or fabric



Remember



- Correct segregation of waste/linen
- Correct use of PPE
- Always refer to MSDS/ CARA





Thank You

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