Infection and infection control

General measures (Edinburgh)

Infection control precautions should be the same for all patients.

White coats are not worn in the unit.

Hand hygiene is the most important infection control measure. Wash your hands thoroughly before and after each patient contact, even if gloves have been worn. Alcohol gel is an acceptable alternative.

Disposable plastic aprons and gloves are widely available and should be used if there is risk of cross-infection.

- Apron to examine patients in all HDU areas
- Gloves as well as apron if performing procedures or handling dressings, fluids etc or needles.
- Be cautious – play safe – when examining patients known to carry MRSA or other resistant organisms. Use an identified stethoscope for MRSA patients.

When worn, all gloves and aprons must be changed between each patient and disposed of in a clinical waste bag.

Methicillin resistant Staphylococcus aureus (MRSA)

All staff are reminded that it is hospital policy to screen for MRSA all known positive patients and patients admitted from:

- other hospitals
- nursing homes
- residential care

All patients known to be either colonised or infected with MRSA are cohort-nursed in single rooms or 4 bed bays in Ward 206. Haemodialysis patients with MRSA must dialyse in Room 1 in ODA or in the single rooms at BGH/SJH Satellite Units. Currently, there are no facilities to dialyse MRSA colonized patients at the WGH Satellite and patients must move to Room 1 ODA.

Colonised patients

It is important to remember that MRSA may colonise one or many sites without necessarily infecting the patient. Patients who are simply colonised may be suitable for the organism eradication protocol. This should be done only after consultation with a microbiologist or Senior Infection Control Nurse.

The protocol is carried out for five days:

- Chlorhexidine gluconate 4% to wash daily (only for patients with intact healthy skin)
- Chlorhexidiine gluconate 4% as shampoo twice in five days
- Mupirocin (Bactroban) nasal ointment one application to each nostril three times daily
- Chlorhexidine gluconate mouthwash 0.2% or oral spray 0.2% gargled or sprayed to the throat four times a day

Once the protocol is completed, the patient should be treatment-free (including anti-staphylococcal antibiotics) for 48 hours before screening swabs are taken. Three consecutive negative sets of swabs without intervening antibiotics are required for an eradication to be declared successful.

It is Unit policy that all MRSA patients are screened monthly, unless they are receiving antibiotics or on an eradication regime. Normally, three eradication treatments will be tried. Patients still positive after three eradication treatments are screened 3-monthly.

Vancomycin resistant enterococci (VRE)

The Renal Unit had a large outbreak in 1995, and further cases since 2000. While VRE is generally considered to be an organism of low pathogenicity, we have had a number of cases of VRE septicaemia. It is sensible therefore to make sparing use of vancomycin, cephalosporins and qunolones.

We do not screen for VRE, but should an in-patient be found to have VRE-positive diarrhoea, they must be isolated in a cubicle or cohort nursed in 4 bed bays in Ward 206. It is preferable to segregate MRSA and VRE positive patients in Ward 206 but it is acknowledged this is not always possible. A patient isolated in Ward 206 must remain so throughout that admission and move to bay 1 in the outpatient dialysis area if they are on haemodialysis. At 2 weeks after discharge,

if the patient is continent and has good personal hygiene, they should be swabbed for MRSA, and if negative, they may move out into the main ODA bays or WGH/SJH after discussion at the dialysis moves meeting.

BGH patients must be discussed with Dr W Metcalfe. Patients isolated in Room 1 for VRE must be screened monthly for MRSA.

Clostridium difficile

Clostridium difficile infection (CDI) is a potentially life-threatening complication of antibiotic treatment. Patients with symptomatic CDI (e.g. diarrhoea) should be isolated in a side-room. Alcohol gel does not destroy or remove spores of Clostridium difficile; soap and water and the physical action of washing are essential for decontamination of hands. If a haemodialysis patient has CDI, then they must be dialysed in a side-room on the ward (206) until they have completed a full treatment course and have normal bowel motions. They must not be dialysed in ODA*.

Please see UHD Antibiotic Prescribing Guidelines for further advice, including management and prevention of CDI. Optimum management of CDI involves more than just prescribing metronidazole or vancomycin. Severity assessment and daily review are important, as is stopping causative antibiotics, PPIs, antimotility agents (e.g. loperamide, opiates etc) and laxatives.

* an exception are dialysis patients who are not admitted. They must be dialysed in Room C2 on the evening shift with a terminal clean afterwards. The charge nurses and relevant consultant must be notified.

Blood-borne viruses

Patients infected with blood-borne viruses represent an infection risk within the haemodialysis unit, and may require special consideration. For screening procedures, see Preparing patients for RRT, and Haemodialysis and Peritoneal Dialysis sections.

Because of differences in infectivity, not all viruses present the same risk. Furthermore, negative serology does not exclude virus positivity and high risk patients also require special consideration. The current protocol is as follows:

Edinburgh protocols for viral infections

Hepatitis B	**acute dialysis** in side room, Hep B machine only **chronic dialysis** in OPDA side room, high risk machine/Hep B machine only
High risk individual (eg. IV drug use, return from some foreign countries)	as per hepatitis B/HIV until clearly virus-negative. All potentially positive bloods must be sent as “High Risk”
Hepatitis C	chronic dialysis in isolation area if available, dedicated machine during chronic treatment. Machines can then be safely decontaminated
CAPD	no restrictions; HBV/HIV patients should be positively encouraged to do PD
CVVH	no requirement to isolate Aquarius machines