
**Patient Identification**

1. **All patients should be asked the following questions on presentation to SLGH:**
   - Has the patient ever been told by a hospital they have been detected positive for an MDRO/VRE/CPE/MDRKP/ESBL in the past?
   - Has the patient been in another Hospital in the previous 12 months?
   - Has the patient ever been told by a hospital they are a CPE contact?

2. Does the patient meet the screening criteria for any of the following: CPE/VRE/MRSA?

3. **Laboratory system to be checked** to be checked on all patients prior to admission.
   - An identifier will be present if a patient has a history of an MDRO in the past in the Southeast. It will be displayed differently depending on which Lab system you are using.

<table>
<thead>
<tr>
<th>SIF: (old lab system)</th>
<th>Note: (new lab system)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>HXMRSA/MRS MDRO VRE CPE*</td>
<td>HXMRSA/MRS MDRO VRE CPE*</td>
<td>Indicates the patient has been detected positive with an MDRO in the past</td>
</tr>
<tr>
<td>SIF/NOTE is left blank – this means the patient has not been detected with an MDRO in the South East but check the IPC alert on the iPMS system.</td>
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</tbody>
</table>

4. In addition to the lab identifier, **iPMS system to be checked for an Infection Control Alert (green triangle). Click on IPC alert to find more details in relation to the alert.** This is particularly important for the identification of CPE contacts or for patients who have been detected positive for an MDRO/VRE/CPE/MDRKP/ESBL in another hospital outside of the HSE South East region.

5. Inform Infection Prevention and Control Nurse for advice.
Patient Placement

- Patients known to be colonised/infected with an MDRO should be placed in single room with en-suite toilet and shower facilities and a clinical hand wash basin. An en-suite room is preferable, but if one is not available, a commode should be dedicated for each patient’s individual use in the room.

- If single rooms are not available, patients carrying the same strain of MDRO may be cohorted in the same room after consultation with the Infection Prevention and Control Team.

- Where placement in an isolation room or cohorting is not possible, consider the patient population, e.g. immunocompromised, when determining patient placement.

- **Priority for isolation:** The highest priority for isolation should be given to those patients who have conditions which may facilitate transmission of an MDRO, i.e. diarrhoea, draining wounds, incontinence of urine or faeces, copious respiratory secretions. Risk assessment will be performed with the support of the hospital IPCT for prioritisation of patients for single room isolation as per the national and local MDRO guidelines. In addition, bed managers can refer to ‘Infection Prevention and Control Advice for Bed Managers in SLGH - Isolation of Patients with Communicable Infections’ document.

- **It is recommended that in every scenario where patient isolation cannot be achieved, owing to a deficit in local isolation room capacity, that all efforts are made to minimise potential cross-infection and that each incident is formally reported via the local hospital’s risk management protocols (complete clinical risk incident form) and escalated via the appropriate corporate management structures.**

- Patients colonised or infected with an MDRO **do not** need to be put last on the list for procedures, Theatre, X-rays, CT scans etc. The area will need to be decontaminated appropriately after each patient.

- For additional information, please refer to The National Guidelines for the Prevention & Control of Multi Drug Resistant Organisms (MDRO) excluding MRSA in Healthcare setting (2012)
**Equipment**
- Only take essential items into the patient’s room.
- Medical devices (e.g. thermometers, sphygmomanometers, stethoscopes, blood glucose monitoring equipment; BP cuffs) should be dedicated to single patient use.
- If this is not possible, all devices should be disinfected with 1,000ppm av. chlorine between patients in accordance with manufacturers’ instruction and SLGH Decontamination Policy.
- Wherever possible, consideration should be given to using disposable equipment e.g. BP cuffs.

**MDRO and PPE (Contact Precautions)**
- PPE should be worn on entering the patient zone and removed prior to leaving the patient zone.
- Hand hygiene should always be the final step following removal & disposal of PPE.
- PPE is all single use.
- PPE should be changed if wet or torn.

**Gloves**
- Gloves do not preclude the need for hand hygiene. Hand hygiene should be performed immediately before putting on gloves and after glove removal.
- In addition to wearing gloves as outlined in standard precautions, gloves should be worn when entering the patient zone for all interactions that involve contact with the patient or the patient’s environment.
- Hand hygiene must not be performed whilst wearing gloves. If hand hygiene is indicated whilst in the patient zone, gloves must be discarded; hand hygiene performed, and then put on a new pair of gloves.

**Aprons Vs Long-Sleeved Gowns**
- Long-sleeved gowns are recommended to be used for the routine care of patients with certain MDROs as outlined in the table below.
- Where risk assessment is stated, HCWs should select long-sleeved gowns in preference to aprons if environmental exposure may result in contamination of unprotected clothing or arms when wearing an apron, especially if close contact with the patient is anticipated.

**Eye, Nasal and Mouth Protection**
- Face masks and eye protection should be worn in accordance with Standard Precautions when performing splash-generating procedures and where there is evidence of transmission of MDRO from heavily colonised sites, such as an extensive burn wound.
Decontamination of a room/bay with patients who have CPE/LRE/LRVRE/LRSE
- The single room should be cleaned and disinfected on a daily basis with 1,000 ppm av. chlorine.
- On discharge/transfer of the patient the single room/bay should be cleaned with detergent and water followed by decontamination with Hydrogen Peroxide Vapour (HPV). This needs to be arranged with an external specialist company once potential date of discharge/transfer is known and before the room is used for any other patient.
- Refer to Appendix I: SLGH ‘Infection Prevention and Control Advice for the Terminal Disinfection of a Room/Bay using Hydrogen Peroxide’.

Decontamination of room/bay with patients who have all other MDROs
- The single room to be cleaned and disinfected on a daily basis and a terminal clean on discharge/transfer of the patient with 1,000 ppm av. chlorine.
<table>
<thead>
<tr>
<th>Organism</th>
<th>Infective Material</th>
<th>Isolation Required</th>
<th>Duration of Isolation</th>
<th>PPE Required</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbapenemase Producing Enterobacteriales (CPE)</td>
<td>These organisms are <em>Enterobacteriales</em> which are most commonly of the <em>Escherichia coli</em> or <em>Klebsiella</em> species. Mainly rectal carriage but can be present in other sites e.g. wounds, sputum, urine etc. Prevention is essential as it is almost impossible to eradicate CPE carriage once it is established.</td>
<td><strong>Yes</strong> (single room with ensuite facilities essential)</td>
<td>If a patient is colonised /infected with CPE – isolation in a single room with ensuite facilities is to remain for current and all future admissions. Any patient meeting the screening criteria for CPE should be placed in a single room with ensuite facilities using Contact Precautions pending the results of rectal swabs. Decolonisation regimens are not currently recommended</td>
<td>Long sleeved gowns and gloves for all contact with patient / environment. Risk assess the requirement for additional PPE e.g. goggles etc.</td>
<td><strong>Screening/Screening Samples</strong> Refer to the most up to date version of ‘SLGH Infection Prevention and Control Recommendations for CPE screening’ <strong>Management of a CPE Positive Patient:</strong> - Refer to SLGH Infection Prevention and Control Recommendations for the Care of a CPE patient - Seek advice immediately from a Consultant Microbiologist or an Infection Prevention and Control Nurse</td>
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_Carbandemase Producing Enterobacteriales (CPE)_

Flagged ‘CPE’ on IPC alert & SIF
What is meant by the term CPE contact?

A CPE contact is a person who

1. Has shared a multi-bed area and/or shared toilet facilities with a person identified as colonised or infected with CPE. This includes time spent in the Emergency Department (ED) and Acute Medical Assessment Units (AMAUs). In general, a patient is considered a contact if they have shared an inpatient clinical space or been in contact with a CPE patient for at least four hours, but it is not possible to apply a simple rule in all cases. For the purpose of this document, trolleys or chairs in Emergency Departments used by patients undergoing active clinical treatment or evaluation should be regarded as in-patient clinical space.

2. Has been cared for in an inpatient area (including ED and AMAU) by nursing staff who were simultaneously caring for one or more patients colonised with CPE in the absence of Contact Precautions. This might arise in relation to a patient who was not known to be colonised with CPE at the time in question.

3. A person who has shared a waiting area, for example in out-patients or ED waiting areas or other spaces not related to treatment or evaluation, need not normally be considered as contacts however infection prevention and control practitioners may consider that under particular circumstances it may be appropriate to use a broader definition of contacts.

➢ Being a CPE contact does **NOT** mean that the person has acquired CPE. Being a CPE contact **increases the chance** that a person has acquired CPE, so there is a need to:
  - Inform the patient
  - Test the patient for CPE:
    - 4 consecutive screening samples reported as ‘CPE negative’ but with an interval of at least one week between samples and
    - There is a minimum of four weeks between the most recent contact with a CPE positive patient and the final sample reported as CPE negative).
  - Take particular precautions with the patient, particularly with those who remain inpatients or have frequent attendance at hospital

➢ Experience to date suggests that among those CPE contacts who have acquired CPE colonisation it may take several weeks from the time of contact until CPE is detectable from a rectal swab/faeces specimen. This has important implications for control of transmission.

➢ For example, a CPE contact who is reported as ‘CPE not detected’ on sequential screening specimens taken within one or two weeks after exposure to a CPE case, but who becomes positive on the third week after exposure will most likely have been shedding CPE for some days during the interval between the second and third swab. Experience suggests that this may be a key vulnerability in efforts to control CPE transmission.

**Recommended inpatient accommodation for a CPE contact**

➢ To stop the onward spread of undetected CPE, inpatient CPE contacts should be accommodated in an isolation room or designated cohort bay along with other CPE contacts while they remain in the acute hospital setting. These measures should apply throughout the period during which they are considered a CPE contact.

➢ **Contacts of CPE cases with different categories of carbapenemases should not be cohorted together. For example, the contact of a known OXA-48 CPE case should not be cohorted with the contact of a known NDM CPE case.**

➢ If a CPE contact accommodated in a designated CPE cohort area develops diarrhoea or becomes incontinent, it is advised the patient is moved from the cohort to an isolation room and investigated for possible infectious diarrhoea.
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<tr>
<th>Organism</th>
<th>Index patient</th>
<th>Management of Contact Patients</th>
<th>Decontamination</th>
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</table>
| Carbapenemase Producing *Enterobacteriales* (CPE)                       | Isolate patient in single room with ensuite facilities (essential) with standard and contact precautions using long sleeve gowns | • Cohort CPE contact patients with Standard and Contact precautions using long sleeved gowns and block index patient bed and other vacant beds in the patient bay.  
  o Screen all CPE contact patients - Rectal swab.  
  • Contact patients to remain cohorted until the required CPE screen results are available and reported as negative.  
  • **CPE contact screening requirements:**  
    - 4 consecutive screening samples reported as 'CPE negative' but with an interval of at least one week between samples and  
    - There is a minimum of four weeks between the most recent contact with a CPE positive patient and the final sample reported as CPE negative).  
  • If one of the contact screens is positive then an outbreak should be called and CPE outbreak control measures introduced.  
  • The new CPE patient must be isolated in a single room (with an ensuite facility) and the vacated bed blocked.  
  • All contact patients of the new case and the initial index patient must continue to be cohorted with standard and contact precautions and 4 weekly CPE screening recommence.  
  • This screening will continue until contact patients are discharged or all contact patients remaining have completed the CPE contact screening requirements.  
  • Contact patients discharged prior to the 4 negative screens being obtained will be alerted on IPMS and will require isolation and screening on readmission until they have completed the CPE screening requirements. Each screen must be at least one week apart.  
  **In ICU an incident team will need to be convened to decide if closure of unit to new admission is required.** | **CPE positive patient:**  
  – Bed space of index case should be cleaned and disinfected with 1,000 ppm av. chlorine following the patients transfer to a single room.  
  – Hydrogen peroxide disinfection of the bay may be necessary depending on a risk assessment by the IPCT.  
  – The single room should be cleaned and disinfected once daily with 1,000 ppm av. chlorine.  
  – On discharge/transfer of the patient the single room should be cleaned with detergent and water followed by decontamination with Hydrogen Peroxide Vapour (HPV).  
  **CPE Contacts:**  
  • The room/bay with the contacts to be cleaned and disinfected twice daily basis with 1,000 ppm av.  
  • Each patient should have their own dedicated commode. In the event a toilet is being shared amongst multiple CPE contacts, the toilet needs to be disinfected at least hourly between 7am and 12 midnight and contact surfaces are wipes by staff with a disinfectant wipe after every patient use.  
  • Refer to SLGH Infection Prevention and Control Recommendations for the Care of a CPE Contact Patient. |

Flagged 'CPE contact' on IPC alert
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| Linezolid Resistant VRE (LRVRE)   | Mainly rectal carriage but can be present in other body sites e.g. wounds, sputum, urine etc. | Yes *(Single Room with ensuite facilities)* | Remain in single room isolation for duration of admission and all future admissions | Long sleeved gowns and gloves for all contact with patient/environment. Risk assess the requirement for additional PPE e.g. goggles etc | St. Luke’s General Hospital is currently not routinely screening patients for carriage of LRVRE. However the following patients will require screening and cohorting with standard precautions:  
  - Patients epidemiologically linked to another case of resistant organism, infection or carriage, (e.g. sharing an inpatient area with a colonised or infected patient or transferred from a unit with a known resistant organism case) as directed by the Infection Prevention and Control Team  

**Screening samples**  
Obtain rectal swabs or faeces.  
Swabs and samples from other sites (e.g. urine– if catheterised, swabs from skin breaks/wounds or manipulated sites) may also be required.  

*Flagged ‘VRE’ on IPC alert & on SIF (listed as LRVRE in the comment’s box)*
<table>
<thead>
<tr>
<th>Organism</th>
<th>Index patient</th>
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<th>Decontamination</th>
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</thead>
</table>
| Linezolid Resistant VRE (LRVRE) | Isolate in single room with ensuite facilities with standard and contact precautions using long sleeve gowns | • Cohort contact patients with Standard and Contact precautions using long sleeved gowns and block index patient bed and other vacant beds in the patient bay.  
  – Screen all contact patients in the bay - Rectal swab.  
  – Contact patients to remain cohorted until contact screen results are available and reported as negative. | – Bed space of index case to be cleaned and disinfected with 1,000 ppm av. chlorine following the patients transfer to a single room.  
– Hydrogen peroxide disinfection of the bay may be necessary depending on a risk assessment by the IPCT.  
– The single room should be cleaned and disinfected once daily with 1,000 ppm av. chlorine.  
– On discharge/transfer of the patient the single room should be cleaned with detergent and water followed by decontamination with Hydrogen Peroxide Vapour (HPV).  
– The room/bay with the contacts should be cleaned and disinfected on a daily basis with 1,000 ppm av. chlorine until results are available and reported as negative. |
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| **Linezolid Resistant Enterococci** *(LRE)*        | Mainly rectal carriage but can be present in other body sites e.g. wounds, sputum, urine etc. | **Yes** *(Single Room with ensuite facilities)* | Remain in single room isolation for duration of admission and all future admissions       | Long sleeved gowns and gloves for all contact with patient/environment. Risk assess the requirement for additional PPE e.g. goggles etc | St. Luke’s General Hospital is currently not routinely screening patients for carriage of LRE. However the following patients will require screening and cohorting with standard precautions:  
• Patients epidemiologically linked to another patient with infection or carriage of the resistant organism, (e.g. sharing an inpatient area with a colonised or infected patient or transferred from a unit with a known resistant organism case) as directed by the Infection Prevention and Control Team  
**Screening samples**  
Obtain rectal swabs or faeces.  
Swabs and samples from other sites (e.g. urine – if catheterised, swabs from skin breaks/wounds or manipulated sites) may also be required. |

Flagged ‘MDRO’ on IPC alert & on SIF (listed as LRE in the comment’s box)
<table>
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<tr>
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</table>
| **Linezolid Resistant Enterococci (LRE)** | Isolate in single room with ensuite facilities with standard and contact precautions using long sleeve gowns | - Cohort contact patients with Standard and Contact precautions using long sleeved gowns and block index patient bed and other vacant beds in the patient bay.  
  - Screen all contact patients in the bay - Rectal swab.  
  - Contact patients to remain cohorted until contact screen results are available and reported as negative. | - Bed space of index case should be cleaned and disinfected with 1,000 ppm av. chlorine following the patients transfer to a single room.  
  - Hydrogen peroxide disinfection of the bay may be necessary depending on a risk assessment by the IPCT.  
  - The single room should be cleaned and disinfected once daily with 1,000 ppm av. chlorine.  
  - On discharge/transfer of the patient the single room to be cleaned with detergent and water followed by decontamination with Hydrogen Peroxide Vapour (HPV).  
  - The room/bay with the contacts should be cleaned and disinfected on a daily basis with 1,000 ppm av. chlorine until results are available and reported as negative. |
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</table>
| **Linezolid Resistant Staphylococcus epidermidis (LRSE)** | *Staphylococcus epidermidis* is a gram positive bacterium which normally resides on skin. It may cause device/line related infection, bacteraemia, endocarditis etc. | Yes (Single Room with ensuite facilities) | Remain in single room isolation for duration of admission and all future admissions | Long sleeved gowns and gloves for all contact with patient/environment. Risk assess the requirement for additional PPE e.g. goggles etc | **Screening**  
St. Luke’s General Hospital is currently not routinely screening patients for carriage of *Staphylococcus epidermidis*.  
However the following patients will require screening and cohorting with standard precautions:  
- Patients epidemiologically linked to another patient with infection or carriage of the resistant organism, (e.g. sharing an inpatient area with a colonised or infected patient or transferred from a unit with a known resistant organism case) as directed by the Infection Prevention and Control Team  
**Screening samples**  
Obtain nasal and groin swabs.  
Swabs and samples from other sites (e.g. urine– if catheterised, swabs from skin breaks/wounds or manipulated sites) may also required. |
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</table>
| Linezolid Resistant Staphylococcus epidermidis (LRSE) | Isolate in single room with ensuite facilities with standard and contact precautions using long sleeve gowns | • Cohort contact patients with Standard and Contact precautions using long sleeved gowns and block index patient bed and other vacant beds in the patient bay.  
  - Screen all contact patients in the bay  
  - Contact patients to remain cohorted until contact screen results are available and reported as negative.  
  
Please note screening sites for LRSE are  
Nasal and groin swabs and samples from other sites (e.g. urine- if catheterised, swabs from skin breaks/wounds or manipulated sites) are also required. NO rectal swabs required. | • Bed space of index case should be cleaned and disinfected with 1,000 ppm av. chlorine following the patients transfer to a single room.  
  - Hydrogen peroxide disinfection of the bay may be necessary depending on a risk assessment by the IPCT.  
  - The single room should be cleaned and disinfected once daily with 1,000 ppm av. chlorine.  
  - On discharge/transfer of the patient the single room should be cleaned with detergent and water followed by decontamination with Hydrogen Peroxide Vapour (HPV).  
  - The room/bay with the contacts should be cleaned and disinfected on a daily basis with 1,000 ppm av. chlorine until results are available and reported as negative. |
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<tbody>
<tr>
<td>Multiple Drug-Resistant Klebsiella pneumoniae (MDRKP)</td>
<td>Mainly rectal carriage but can be present in other sites e.g. wounds, sputum, urine etc.</td>
<td>Yes (Single Room with ensuite facilities)</td>
<td>Remain in isolation for duration of admission and all future admissions</td>
<td>Long sleeved gowns and gloves for all contact with patient/environment.</td>
<td>Outbreak of MDRKP in Ireland since 2013. Most commonly seen in patients with risk factors i.e. invasive devices, immunosuppression, and prolonged antimicrobial therapy.</td>
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<tr>
<td>Flagged ‘MDRKP’ on IPC alert &amp; ‘MDRO’ on SIF</td>
<td>Key Characteristics: Resistance to • Gentamicin • Ciprofloxacin and Extended spectrum beta-lactamase (ESBL) production</td>
<td>Standard Precautions with Contact Precautions</td>
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**Screening**
St. Luke’s General Hospital is currently not routinely screening patients for carriage of MDRKP. Where MDRKP is detected for the first time from an inpatient who is not already on transmission based precautions, all the inpatient contacts will need to be screened for bowel carriage of MDRKP (rectal swab or faeces sample) as directed by the Infection Prevention and Control Team.

**Screening samples**
Obtain rectal swabs or faeces. Swabs and samples from other sites (e.g. urine— if catheterised, swabs from skin breaks/wounds or manipulated sites) may also be required.

<table>
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<tr>
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<th>Contact patient screening</th>
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<tbody>
<tr>
<td>Multiple Drug-Resistant Klebsiella pneumoniae (MDRKP)</td>
<td>Isolate in single room with ensuite facilities with standard and contact precautions using long sleeve gowns</td>
<td>– Screen all contact patients in the bay - Rectal swab. Samples from other sites (e.g. urine- if catheterised, swabs from skin breaks/wounds or manipulated sites) may also be required.</td>
<td>Bed space of index case should be cleaned and disinfected with 1,000 ppm av. chlorine following the patients transferred to single room. The single room should be cleaned and disinfected on a daily basis with 1,000 ppm av. chlorine.</td>
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<tr>
<td>Multiple Drug-Resistant <em>Escherichia coli</em> (MDR E. Coli)</td>
<td>Mainly rectal carriage but can be present in other sites e.g. wounds, sputum, urine etc. <strong>Key Characteristics:</strong> Resistance to • Gentamicin • Ciprofloxacin <strong>and</strong> Extended spectrum beta-lactamase (ESBL) production</td>
<td>Yes (Single Room with ensuite facilities)</td>
<td>Remain in isolation for duration of admission and all future admissions</td>
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<tr>
<td>Multiple Drug-Resistant <em>Escherichia coli</em> (MDR E. Coli)</td>
<td>Isolate in single room with ensuite facilities with standard and contact precautions using long sleeve gowns</td>
<td>– Screening of contacts is not required unless directed by the IPCT</td>
<td>Bed space of index case should be cleaned and disinfected with 1,000 ppm av. chlorine following the patients transferred to single room. The single room should be cleaned and disinfected on a daily basis with 1,000 ppm av. chlorine.</td>
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| **Meticillin Resistant Staphylococcus aureus (MRSA)** | This is a gram positive bacterium that resides in the nose and on moist areas of the skin e.g. perineum but can be present in other sites e.g. wounds, sputum, urine, blood etc. | Patients who are colonised/infected with MRSA should be isolated in a single room or cohorted with other patients with MRSA | Until the patient has 3 negative screens from the sites where they were previously positive, 48 hours apart | Apron and gloves for all contact with patient/environment. Risk assess the requirement for additional PPE e.g. long sleeved gowns/goggles etc | **Screening**  
Refer to the most up to date version of ‘SLGH Infection Prevention and Control Recommendations for VRE/MRSA screening’  
**Screening Samples**  
Nose (both anterior nares – one swab only); Perineum or groin (one swab only); Catheter specimen of urine (CSU) if urinary catheter in situ; Sputum if productive cough; IV sites including central line sites; Any skin lesions or wounds.  
Swab of the umbilicus is only required for neonates <28 days old.  
**Decontamination**  
Bed space of index case should be cleaned and disinfected with 1,000 ppm av. chlorine following the patients transferred to single room.  
The single room/MRSA cohort bay should be cleaned and disinfected on a daily basis with 1,000 ppm av. chlorine. |

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| MRSA     | Isolate in single room/cohort with other patients who also have MRSA with standard and contact precautions | – Where a new case of MRSA is identified in a general ward area i.e. multiple bedded bay, patients in that bay should be screened for MRSA as outlined in the hospital MRSA policy. | Bed space of index case should be cleaned and disinfected with 1,000 ppm av. chlorine following the patients transferred to single room.  
The single room/MRSA cohort bay should be cleaned and disinfected on a daily basis with 1,000 ppm av. chlorine. |
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<tr>
<td>ESBL (Extended Spectrum Beta-Lactamase)</td>
<td>These organisms are Enterobacteriales most commonly of the <em>Escherichia coli</em> or <em>Klebsiella spp.</em>. Mainly rectal carriage but can be present in other sites e.g. wounds, sputum, urine etc.</td>
<td>Ideally patients who are colonised /infected with an ESBL should be isolated in a single room with ensuite facilities with standard and contact precautions. If single room is not available a risk assessment of the patient should be carried out. Based on the risk assessment priority for isolation should be given to those patients who are ESBL positive and have wounds, catheters, drains, diarrhoea etc.</td>
<td>Seek advice from IPCT</td>
<td>Apron and gloves for all contact with patient/ environment. Risk assess the requirement for additional PPE e.g. goggles etc</td>
<td>Screening St. Luke’s General Hospital is currently not routinely screening patients or patient contacts for carriage of ESBL</td>
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**Organism**  | **Index patient**  | **Contact patient screening**  | **Decontamination**                                                                 |
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<tr>
<td>ESBL</td>
<td>Isolate in single room/cohort with other patients who also have ESBL with standard and contact precautions</td>
<td>Screening of contacts is not required.</td>
<td>Bed space of index case should be cleaned and disinfected with 1,000 ppm av. chlorine following the patients transferred to single room/ESBL cohort. The single room/ESBL cohort should be cleaned and disinfected on a daily basis with 1,000 ppm av. chlorine.</td>
</tr>
<tr>
<td>Organism</td>
<td>Infective Material</td>
<td>Isolation Required</td>
<td>Duration of Isolation</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Vancomycin Resistant Enterococci (VRE)                      | Mainly rectal carriage but can be present in other body sites e.g. wounds, sputum, urine etc. | Patients who are colonised/ infected with VRE should be isolated in a single room with ensuite facilities with standard and contact precautions or cohorted with other patients with VRE ensuring VRE *faecalis* patients are not cohorted with VRE *faecium* patients. | Remain in single room isolation for duration of admission and all future admissions. Seek advice from IPCT | Apron and gloves for all contact with patient/environment. Risk-assess the requirement for additional PPE e.g. Long sleeved gowns, goggles etc. | **Screening**  
Refer to the most up to date version of ‘SLGH Infection Prevention and Control Recommendations for VRE/MRSA screening’  
**Screening Samples**  
Obtain rectal swabs or swab from faeces & Swabs and samples from other sites (e.g. urine– if catheterised, swabs from skin breaks or manipulated sites) are also required. |
<table>
<thead>
<tr>
<th>Organism</th>
<th>Index patient</th>
<th>Contact patient screening</th>
<th>Decontamination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vancomycin Resistant Enterococci (VRE)</strong></td>
<td>Isolate in a single room with ensuite facilities with standard and contact precautions or cohort with other patients with VRE.</td>
<td>– Screening of contacts is not required unless requested by the IPCT.</td>
<td>Single room or bed space of index case to be cleaned and disinfected with 1,000 ppm av. Chlorine following the patients transferred to single room. The single room to be cleaned and disinfected on a daily basis with 1,000 ppm av. chlorine.</td>
</tr>
</tbody>
</table>

**Other MDROs that require contact transmission-based precautions**

- *Pseudomonas aeruginosa* – non-susceptible to 4 or more antibiotics to which it would be expected to be susceptible to. (E.g. piperacillin-tazobactam, ceftazidime, ciprofloxacin, gentamicin), or colistin non-susceptibility when tested.
- *Acinetobacter* species non-susceptible to meropenem (when tested).
- *Enterobacteriaceae* resistant to at least 3 categories of antibiotics which include amikacin or tigecycline non-susceptibility (when tested) will be individually risk-assessed regarding the need for contact precautions.
- **Other organisms will be assessed and dealt with on a case by case basis in consultation with the clinical team, Consultant Microbiologist and the IPCN**

**References:**

1. HSE/HPSC Guidelines for the Prevention & Control of MDRO in Healthcare Setting
2. HSE/HPSC Guidance relating to CPE: interventions for control of transmission of CPE in the Acute Hospital Sector dated April 2018
3. HSE/HPSC Requirements for screening of patients for CPE in the Acute Hospital Sector dated February 2018
4. HSE/HPSC Acute hospital CPE Outbreak Control Checklist dated March 2018
Appendix I
Infection Prevention and Control Advice for the Terminal Disinfection of a Room/Bay using Hydrogen Peroxide

The use of a Hydrogen Peroxide Disinfection Service in SLGH is restricted and only to be used when approved by infection prevention and control and technical services.

- **Hydrogen Peroxide Disinfection is required for rooms occupied by patients who are currently colonised with the following MDROs:**
  - Carbapenemase-producing Enterobacteriaceae (CPE)
  - Linezolid Resistant Vancomycin Resistant Enterococci (LRVRE)
  - Linezolid Resistant Enterococci (LRE)
  - Linezolid Resistant Staphylococcus epidermidis (LRSE)
  - Multi Drug Resistant Klebsiella pneumonia (MDRKP)
  - Other MDROs/communicable infections when indicated by the IPCT

**Contact details for Hydrogen Peroxide Company**

- Sixlog Solutions is the company approved to provide this Ionised Hydrogen Peroxide Bio-Decontamination Service in SLGH.
- The company is based in Cork and can be contacted by phoning Alan Duggan 087 3913449.
- Once it is known a patient is for transfer to another ward/discharge, please phone Alan Duggan so that provisional arrangements can be made by the company to send an engineer.
- Anne Slattery has approved the use of this technology and associated costs.

**Once the patient has left the room, leave the room closed to admissions until the room has been disinfected by the company.**

- **Ventilation of the room/bay for hydrogen peroxide disinfection:**
  - If the room/bay has mechanical ventilation, check with technical services if the room is suitable. If the room/bay has mechanical ventilation, the company will seal the vents in the area when they arrive. Air conditioning units (if available) to be turned off and remain off until disinfection has been completed.
  - If the room/bay is deemed unsuitable for Hydrogen Peroxide Disinfection; terminal disinfection will be required with 1,000ppm av. chlorine. This should be supervised and a household services checklist completed.

- **Preparation of the Room/Bay for hydrogen peroxide disinfection:**
  - Remove bed linen, towels and curtains and send to laundry in water soluble bags and place in red linen bag
  - Empty and dispose of all remaining paper towels, toilet paper and leave dispenser open
  - Empty and dispose of soap and alcohol gel and leave dispensers open

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Revision no. 7: June 2018
o Dispose of all remaining disposable consumables
o Empty waste bins and leave lid/door of bin open
o **Wearing appropriate PPE (long sleeved yellow gowns/gloves), clean with neutral detergent (Biospot is not to be used)** all areas including ensuite (if applicable), dispensers etc.

o **Clean equipment/furniture with neutral detergent and water (leave in room – do not take out to corridor to clean)** includes drip stand, commode, bed table, waste bins, observation monitoring equipment, patient chair, bed and mattress, locker/wardrobe (leave drawers/door open), window blinds, floor and horizontal surfaces etc. The cleaning of the room should be supervised.

o Dry relevant surfaces with paper towel (where applicable). Ensure all surfaces are completely dry before leaving the area.

o **All the items that have been cleaned are to be kept in the room.**

o Ensure all cleaning is completed and all areas of the room are checked and noted to be clean before the company arrives. **Supervised cleaning is recommended by the IPCT and a household services checklist should be completed.**

- When the company engineer arrives in the unit, additional advice may be given.
- Once the hydrogen peroxide disinfection has been completed, the engineer will advise when the room/bay is ready for use.