

Reference Number: UHB 347 Version Number: 2	Date of Next Review: 11 Jul 2021 Reference Number: N/A
<p style="text-align: center;">PROCEDURE FOR THE PREVENTION, CONTROL & MANAGEMENT OF MULTI DRUG RESISTANT ORGANISMS (MDRO) INCLUDING CARBAPENEMASE RESISTANT ORGANISMS (CRO), METICILLIN RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) AND GLYCOPEPTIDE RESISTANT ENTEROCOCCI (GRE).</p>	
<p>Introduction and Aim</p> <p>This procedure describes the infection prevention and control management to be applied when a patient is identified with a Multi Drug Resistant Organism (MDRO) in all UHB locations.</p>	
<p>Objectives</p> <p>To describe the actions required when a case of Multi Drug Resistant Organism (MDRO) is identified either on admission or subsequently. To outline the procedure for screening patients. To outline decontamination procedures if indicated. To provide advice on the action required during an infectious incident or outbreak situation caused by MDRO. To advise on patient management in the community following identification of MDRO colonisation / infection.</p>	
<p>Scope</p> <p>This procedure applies to all Clinical Boards within Cardiff and Vale and to staff in all locations including those with honorary contracts and students on placement at Cardiff and Vale UHB.</p>	
<p>Equality and Health Impact Assessment</p>	<p>An Equality and Health Impact Assessment (EHIA) has been completed and this found there to be no impact.</p>
<p>Documents to read alongside this Procedure</p>	<ul style="list-style-type: none"> ▪ Standard Precautions ▪ Transmission Based Precautions Policies/Procedures ▪ Procedure for Infectious Incidents and Outbreaks ▪ Procedure for Hand Hygiene ▪ Carbapenemase Producing Enterobacteriaceae; early detection, management and control toolkit for acute trusts. Public Health England 2013 ▪ Toolkit for managing carbapenemase producing enterobacteriaceae in non-acute and community settings. Public Health England 2015 ▪ Prevention and Control of Multi-Drug Resistant Gram negative bacteria: Recommendations from a joint working party. APR Wilson et al. Journal of Hospital Infection 2016. Volume 92 Supplement 1 ▪ Hand Hygiene Procedure ▪ Decontamination Policy ▪ Infectious Incident & Outbreak Procedure
<p>Approved by</p>	<p>IP+C Group</p>

Document Title: MDRO procedure	2 of 37	Approval Date 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication 29 Nov 2019
Approved By: IP&C Group		

Accountable Executive or Clinical Board Director	Executive Director of Nursing
Author(s)	Director IP&C, CNS in IP&C, PHW Microbiology
<p><u>Disclaimer</u> If the review date of this document has passed please ensure that the version you are using is the most up to date either by contacting the document author or the Governance Directorate.</p>	

Summary of reviews/amendments			
Version Number	Date of Review Approved	Date Published	Summary of Amendments
1	21/11/17	24/04/18	This is a new procedure
2	11/07/18	29/11/19	Reviewed document

Document Title: MDRO procedure	3 of 37	Approval Date 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication 29 Nov 2019
Approved By: IP&C Group		

Contents page

1.1.1	Key Messages	4
1.1.2	Glossary	5
1.2	Introduction	6
2	Routes of transmission	7
3	Identification of patients who require screening and/or isolation on admission	7
4	Multi-Drug Resistant Gram Negative Organisms Including Carbapenem Resistant Organisms (CRO)	8
5	Screening of Contacts	11
6	MRSA Risk Assessment & Screening	11
7	Glycopeptide / Vancomycin Resistant Enterococcus (GRE / VRE)	13
8	8.1 Infection Prevention & Control – Management Principles	13
	8.2 Contact Isolation	13
	8.3 Hand Decontamination	15
	8.4 Personal Protective Equipment (PPE)	16
	8.5 Disposal of Waste	16
	8.6 Linen	16
	8.7 Instruments or Equipment	16
	8.8 Cleaning	17
9	9.1 Transfer of Colonised or Infected Patients	17
	9.2 Within the Hospital	17
	9.3 Visits to other departments	18
	9.4 Ambulance Transportation	18
	9.5 Transfers to other hospitals	18
	9.6 Discharge of patients	19
	9.7 Deceased patients	19
10	Management in the Community	19
11	Decolonisation of MRSA Positive Patients	21
12	Surgical Operations	22
13	Resources	23
14	Training	23
15	Implementation	23
16	Audit	23
17	Review	23
18	References	24
	Appendix 1: Admission Risk Assessment Tool	25
	Appendix 2: Patient Card	26
	Appendix 3: Patient Information Leaflet English & Welsh	27

Document Title: MDRO procedure	4 of 37	Approval Date 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication 29 Nov 2019
Approved By: IP&C Group		

1.1.1 KEY MESSAGES

- **Multi Drug Resistant Organisms (MDRO)** are bacteria that are resistant to at least three different classes of antibiotics. They include organisms such as Meticillin Resistant *Staphylococcus aureus* (MRSA) and Gram negative organisms that produce carbapenemase enzymes.
- Our main defence against the spread of MDROs is early identification of infected or colonised patients and effective isolation.
- All patients admitted to Cardiff and Vale University Health Board services must be risk assessed for the presence of infections or colonisation with MDRO. This is to enable early identification of risk factors and appropriate isolation and screening.
- This procedure introduces the Admission Infection Risk Assessment Tool (appendix 1) which will help staff to identify patients who require screening +/- isolation on admission.
- The MRSA procedure has been incorporated into this procedure. Screening for MRSA should be undertaken according to the risk factors for MRSA carriage.
- In addition the following patients **MUST** be **identified, isolated and screened** for Carbapenem Resistant Organisms (CRO).
 - Those who are transferred in from a hospital abroad or a hospital in the UK known to have a high prevalence of CROs.
 - Those who have received healthcare abroad or in a hospital in the UK with known high prevalence of CROs within the last 12 months
 - Healthcare abroad includes the whole range of in-patient care, also dental care, cosmetic surgery, elective surgery (including day surgery) and fertility treatments
 - Those who are known to be infected / colonised with a MDRO.
- Patients transferred in from other hospitals or who have been in-patients within the last 12 months in hospitals outside the Health Board and who are admitted onto high risk units: Critical Care, Cardiac Surgery, Neurosurgery, Renal, Haematology, PICU & NNU, should be **isolated if possible and screened** for CRO and MRSA.
- Patients found to be positive for MRSA will require decolonisation.

Document Title: MDRO procedure	5 of 37	Approval Date 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication 29 Nov 2019
Approved By: IP&C Group		

1.1.2 Glossary

MDRO	Multi-Drug Resistant Organisms – bacteria resistant to at least three different classes of antibiotics.
CRO	Carbapenem Resistant Organisms – organisms that are resistant to the carbapenem group of antibiotics, which includes Meropenem. The resistance may be due to a variety of resistant mechanisms including the production of Carbapenemase enzymes.
CPE	Carbapenemase Producing Enterobacteriaceae – resistance resulting from production of enzymes that breakdown carbapenem antibiotics in the group of organisms that includes <i>E. coli</i> and <i>Klebsiella</i> spp.
MR-GNB	Multi Resistant Gram negative bacteria.
CRAB	Carbapenem Resistant Acinetobacter - resistance resulting from production of enzymes that breakdown carbapenem antibiotics in Acinetobacter sp.
MRSA	Meticillin Resistant <i>Staphylococcus aureus</i>
GRE	Glycopeptide Resistant Enterococci – resistance to the Glycopeptide antibiotics Vancomycin & Teicoplanin.
VRE	Vancomycin Resistant Enterococci, may also be called GRE. Enterococci that are resistant to Vancomycin.
Specialist / Augmented Care Units	Critical Care, Cardiac Surgery, Neurosurgery, Renal, Haematology, PICU & NNU

Document Title: MDRO procedure	6 of 37	Approval Date 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication 29 Nov 2019
Approved By: IP&C Group		

1.2 INTRODUCTION

- 1.2.1 Multi Drug Resistant organisms (MDRO) are bacteria that are resistant to representatives of at least three classes of antimicrobials, to which the bacterial species involved are usually susceptible. In some cases this can significantly limit therapeutic options, such that safety and efficacy of available treatment options are reduced or uncertain. Although most infections with MDRO are not more severe than those with susceptible organisms, in some cases there is evidence that clinical outcomes are worse, probably because of late institution of effective antimicrobial chemotherapy.
- 1.2.2 MDROs can develop through naturally occurring genetic changes. MDROs can then opportunistically colonise and infect humans, with secondary transmission between patients, particularly between vulnerable individuals in close proximity to one-another in healthcare environments. Antimicrobial use can preferentially select for MDROs encouraging infection/ colonisation with these organisms and secondary spread.
- 1.2.3 This procedure covers the infection prevention and control of MDROs including Carbapenem Resistant Organisms (CRO), other Multi Resistant Gram negative bacteria (MR-GNB) and Gram-positive Multi-Drug Resistant organisms such as MRSA and Glycopeptide Resistant Enterococci (GRE).
- 1.2.4 Many species of MR-GNB are of clinical and epidemiological concern, for example resistant isolates of *Escherichia coli*, *Klebsiella* sp. *Pseudomonas aeruginosa* and *Acinetobacter* spp. These Gram negative bacteria are part of the normal gastrointestinal tract flora and/ or are present in the environment. Colonisation of the oropharynx with GNB is common in long term and high risk hospitalised patients. They can cause a range of infections including wound, bloodstream, urinary tract, and respiratory tract infections, as well as infections associated with invasive procedures or medical devices.
- 1.2.5 Of particular recent concern has been the spread internationally and within certain regions of the United Kingdom of Carbapenemase resistant organisms (CRO) Most concerning is the emergence of Carbapenemase Producing Enterobacteriaceae (CPEs). These are organisms like *E. coli* or *Klebsiella* sp. which produce enzymes (carbapenemases) that destroy Carbapenem and other β -lactam antibiotics conferring broad resistance. There are different types of carbapenemases of which KPC, OXA-48, NDM and VIM enzymes are currently the most common. Treatment options for CPE are usually extremely limited and significant outbreaks have been associated with international and interregional spread of these organisms. The other group of organisms that can be resistant to carbapenem antibiotics are “non-fermenting” Gram negative organisms such as *Acinetobacter* sp. and *Pseudomonas aeruginosa*.
- 1.2.6 *Staphylococcus aureus* (*S. aureus*) colonises the skin or anterior nares (nose) of approximately 20 - 30% of healthy individuals but this percentage can rise in hospitalised patients. The organism can cause abscesses, wound infections and septicaemia. One strain of *S. aureus* known as methicillin resistant *Staphylococcus aureus* (MRSA) is resistant to an antibiotic called methicillin and other antibiotics used to treat infection. This strain accounts for 2 – 3% of all *S. aureus* strains but is no more virulent or more readily spread than methicillin sensitive *S. aureus* (MSSA). Treatment options are more limited however due to the multi-drug resistance seen in the MRSA strains.
- 1.2.7 Enterococci are Gram positive bacteria normally present in the human intestines and female genital tract and are often found in the environment. These bacteria can

Document Title: MDRO procedure	7 of 37	Approval Date 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication 29 Nov 2019
Approved By: IP&C Group		

sometimes cause infections, mainly urinary tract, line related blood stream infections or wound infections associated with surgery. They are normally susceptible to

glycopeptides antibiotics such as Vancomycin and Teicoplanin. They can become resistant to the Glycopeptide antibiotics and when they do they can be difficult to treat effectively.

- 1.2.8 Within the hospital setting patients have more interventions and are co-located with other vulnerable patients. The risk of spreading infection is higher in the hospital setting than in the community. However when patients transition from acute care through intermediate care and back into their community there will be a need to ensure certain precautions are in place and to ensure that patients and their carers are informed of the infection / colonisation and of actions required.
- 1.2.9 This policy does NOT cover the individual management of patients infected with MDRO. Treatment options for these cases MUST be discussed with the microbiology team in order to ensure an optimised management strategy for the individual patient.

2. ROUTES OF TRANSMISSION

- 2.1 Whilst some patients may develop an infection caused by MDROs many will only be colonised, in particular in the gastrointestinal tract, wounds or urine.
- 2.2 Transmission of MDROs is through contamination of healthcare workers hands and direct contact between the hands of healthcare workers and patients or via the environment. Hence the importance of effective hand hygiene.
- 2.3 Organisms transferred on the hands of staff may cause infection in susceptible sites, e.g: wounds, endotracheal tubes or intravenous devices, or may result in a patient becoming colonised with a MDRO.
- 2.4 Some MDROs, in particular Acinetobacter spp., are able to survive for prolonged periods in the environment. Contact between healthcare workers, the environment and patients can also contribute to the transmission of MDROs.

3. IDENTIFICATION OF PATIENTS WHO REQUIRE SCREENING AND/ OR ISOLATION ON ADMISSION.

- 3.1 A Clinical Risk Assessment MUST be conducted on admission to establish whether a patient has risk factors for carriage / infection with a MDRO:
- 3.2 **An Admission Infection Risk Assessment tool is attached in appendix 1 – this must be filled in when a patient is admitted to any hospitals within C&V UHB to assess the infection risks and aid with appropriate decision making regarding isolation and screening of patients.**

Document Title: MDRO procedure	8 of 37	Approval Date 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication 29 Nov 2019
Approved By: IP&C Group		

4. MULTI-DRUG RESISTANT GRAM NEGATIVE ORGANISMS INCLUDING CARBAPENEM RESISTANT ORGANISMS (CRO).

4.1 Risk factors for Carbapenem Resistant Organisms (CRO)

- Has the patient been transferred in from a hospital abroad or a hospital in the UK with known high prevalence of CRO?
- Has the patient been transferred from a hospital in the UK outside C&V UHB?
- Has the patient received healthcare abroad within the last 12 months? - Healthcare abroad includes the whole range of in-patient care, also dental care, cosmetic surgery, elective surgery, fertility treatment and out-patient wound care.
- Has the patient received healthcare in a hospital in the UK outside C&V UHB in the last 12 months?
- Is the patient known to be infected / colonised with a CRO / MDRO?

4.2 If the patient is considered to meet one or more of the criteria above for being colonised or infected with a suspected MDRO, Isolation and contact precautions and screening are required according to the table below.

4.3 Screening samples required for CRO are a rectal swab (with visible material) or a faecal sample. A urine sample should be taken if the patient is catheterised, respiratory secretions if an ET tube is present and a wound swab from any lesions. Initial samples must be taken promptly, which may make a rectal swab the most practical initial sample. Further 2 screens should be obtained approximately 48 hours apart (i.e. sample on days 0, 2 and 4). Umbilical swabs may be included in CRO screens for neonatology only. Please discuss with IP&C.

4.4. In some circumstances other screening samples may be requested by medical microbiology or the Infection Prevention & Control Team.

4.5 It is essential that staff clearly indicate the type of investigation required and relevant clinical information on the Bacteriology Form. For CRO screening, clearly mark the form as '? CRO' and indicate on the form the reason why the patient is at risk (eg hospitalisation in high risk country or previous history).

PATIENT HISTORY

CARE ENVIRONMENT		Known to be infected or colonised with a Carbapenem Resistant Organism (CRO)	Direct medical transfer from abroad or from a UK care setting with <i>known high prevalence of CRO*</i>	Has received healthcare abroad (e.g. in-patient care, dental care, cosmetic surgery, fertility treatment) OR from a UK care setting with <i>known high prevalence of CRO</i> in last 12 months*	Medical transfer from hospitals outside C&V UHB.	Identified as contact of positive case (colonisation or infection)	History of hospitalisation in last 12 months in a UK care setting outside C&V UHB	No risk factors identified on admission
		HIGH			MEDIUM		LOW	
Admission to or receiving care in specialist / augmented care unit	HIGH	Red	Red	Red	Yellow	Yellow	Yellow	Green
Admission to or receiving care in acute general ward	MEDIUM	Red	Red	Red	Yellow	Yellow	Yellow	Green
Day care		**	**	**	**	**	**	Green
Outpatient clinic	LOW	**	**	**	Green	Green	NA	NA

KEY:

High risk	Isolate immediately in a side room with en suite facilities (or dedicated commode) and retain in isolation as follows: Suspected case – isolate until 3 consecutive NEGATIVE screens, taken 48 hours apart (if still in hospital). <i>Should any sample</i>
-----------	---

* Contact IP&C
** See next page

	<p><i>screen positive treat as a confirmed case</i></p> <p>Known case or case confirmed via clinical / screening sample (further screening not required) – <i>isolate throughout hospital stay</i></p>
Medium risk	<p>Isolate in side room with en suite facilities (or dedicated commode) if possible (see increased transmission risks) until first screening result demonstrates NEGATIVE. If not possible to continue isolation then:</p> <p>EITHER cohort patient (Please discuss with the IP&C team)</p> <p>OR, if not possible to cohort, nurse with <i>strict emphasis</i> on maintaining compliance with standard precautions and optimal environmental cleaning (without fail)</p> <p>AND submit further 2 samples to achieve 3 consecutive NEGATIVE screens if still in hospital. <i>Should any sample test positive treat as a confirmed case.</i></p> <p>**For outpatients and day cases: provide appointment timed for end of clinic or list; consider caring for day case in single room depending on facilities and on degree of contact with body fluids (see below: increased transmission risks). Maintain compliance with standard precautions and optimal environmental cleaning (without fail).</p>
Low risk	<p>No action, other than be alert to change in risk-level in light of any further information relating to patient status. Maintain compliance with standard precautions and optimal environmental cleaning (without fail).</p>

RISK CATEGORIES OF CLINICAL AREAS

Risk level	Clinical Area
High	Critical Care, HDU, Renal, Haematology/oncology, Cardiac Surgery, Neurosurgery, PICU and NNU
Medium	In patient wards, eg: surgery, medicine, elderly care
Low	Outpatient areas

Document Title: MDRO	11 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

5 SCREENING OF CONTACTS

- 5.1 Screening of patients may be recommended during outbreaks or clusters of MDROs, on the advice of the IPC team in conjunction with microbiology and the Clinical Board.
- 5.2 In some circumstances patients in close proximity to MDRO colonised/infected patients should be screened for asymptomatic carriage. This should ONLY be done on the advice of the IPC Team in conjunction with Clinical Microbiology and the Clinical Board.
- 5.3 The frequency and duration of screening should be based on risk assessment of the individual situation. **IP&C will advise.**
- 5.4 Screening of patient contacts of a positive CRO case SHOULD be undertaken if the case had spent time (or remained) in an open ward or bay with other patients before (or despite) having a positive result for CRO. If screening of patient contacts is required all patients in the bay (or ward, if patient has occupied more than one bay) will be screened on a weekly basis for a period of 4 weeks after the last case was detected. Screening of patient contacts will be directed by the IP&C team.
- 5.5 *Screening of household contacts and healthcare staff exposed to a CRO case* is NOT required – there is no compelling evidence to suggest that screening the household or healthcare staff to check for colonisation will provide additional benefit in controlling spread in the healthcare setting. The main focus should remain on promotion of strict standard precautions throughout, especially hand hygiene.

6. MRSA RISK ASSESSMENT & SCREENING

- 6.1 A Clinical Risk Assessment MUST be conducted on admission to establish whether a patient has risk factors for carriage / infection with a MDRO (Appendix 1). If risk factors for MRSA carriage / infection are detected screening for MRSA is required. Screening should be carried out according to the guidance below or as directed by the IPCT. A patient screen should only include taking swabs from:
- Nose
 - Perineum/groin
 - Any wounds or abnormal skin lesions including IV sites, catheter sites or other medical device sites.
 - Umbilicus (in neonatology ONLY)
- 6.2 Specimens other than those listed above will not be processed as an MRSA screen unless prior arrangements have been made with the IPCT/Microbiology Laboratory.
- 6.3 Charcoal (black) swabs should be moistened with sterile saline or sterile water prior to use.
- 6.4 "MRSA screen" should be clearly marked in the investigation required box on the Bacteriology Request Form. It is essential that ward staff clearly indicate the type of

Document Title: <i>MDRO</i>	12 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

investigation required; samples for MRSA screening investigations are processed differently in the laboratory to clinical samples for routine microbiological investigation.

- 6.5 The clinician requesting the investigation must sign all forms and provide the relevant clinical information.
- 6.6 Screening for admissions to acute sites (UHW, UHL). Complete the admission infection risk assessment tool to establish whether or not a patient has/is:
- a past history of colonisation/*infection* with MRSA at any time;
 - resident in a care home, other institutional setting
 - a wound or in-dwelling device present on admission to the UHB;
 - all transfers from other hospitals (outside of the UHB)
 - all admissions from care homes (nursing or residential)
- 6.7 Any patient who answers yes to any of the above questions **MUST** have an MRSA screen.
- 6.8 “Universal” Pre-admission/pre-surgical screening is required for patients being admitted for:
- Cardio-thoracic surgery
 - Orthopaedic Surgery
 - Vascular surgery
 - Breast surgery
 - Oncology Surgery
 - Other surgical specialties **if there is evidence of increasing rates**
- 6.9 “Universal” screening of all patients admitted to the following areas is also required:
- Critical Care
 - Neonatal Unit
 - Haematology and stem cell transplant unit
 - Renal medicine and transplant
 - Neurosurgery
 - Trauma wards

All these areas should have clear local screening protocols in place developed through their Clinical Boards in conjunction with the IPCT and should use a CRA process to pre-emptively isolate any patients thought to be at high risk of being colonised with MRSA.

- 6.10 The screening of family members/close contacts is not routinely recommended unless in special circumstances and under the direction of IPCT/Consultant Microbiologist.

Document Title: MDRO	13 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

7. GLYCOPEPTIDE / VANCOMYCIN RESISTANT ENTEROCOCCUS (GRE / VRE)

- 7.1 Patients may become colonised or infected with glycopeptide / vancomycin resistant enterococci (GRE / VRE). If they are known to be colonised or infected with these organisms the patient should be isolated on admission and advice sought from IP&C.
- 7.2 Screening for GRE / VRE may be required as part of the investigation of an outbreak or in response to an endemic problem on a specific unit. Screening for GRE / VRE will be on the advice of Microbiology / IP&C teams.

8 INFECTION PREVENTION & CONTROL – MANAGEMENT PRINCIPLES

8.1 Early detection and effective infection prevention & control measures are key to managing and preventing spread of Multi-Drug Resistant Organisms. Control measures include:

- Clear concise documentation of infection risk assessments and care plan.
- Provision of single room with en-suite facilities (or a designated commode if no en-suite).
- Effective hand decontamination with soap and water and appropriate use of alcohol gel. 5 moments of Hand Hygiene.
- Effective and appropriate use of Personal Protective Equipment (PPE)
- Safe disposal of waste and sharps.
- The maintenance of appropriate cleaning and decontamination.
- Minimisation of inter – intra ward transfers of patients.
- Maintenance of adequate and appropriately skilled staff levels.
- Patient movement – as an inpatient or on medical transfer.
- Rational use of antibiotics.
- For *P. aeruginosa*, including MDR strains, in accordance with the organisation's water safety plan, a risk assessment should be made when levels of patient colonisation or infection rise in order to determine if there is a secondary water source.

8.2 CONTACT ISOLATION

8.2.1 Contact precautions/isolation is used to control the spread of MDROs (spread usually via direct hand contact). If a patient is colonised with an MDRO a single room is preferred but not always required. If a patient is colonised or infected with a CRO they **MUST** be isolated. Patients found to be positive for MRSA or GRE / VRE should also be isolated – when single room facilities are not available decisions on individual cases should be made by risk assessment by clinicians/bed managers with support from IPCT. Individual rooms should preferably have their own toilet facility. The door of the room should be kept closed unless the clinical need of the patient dictates otherwise.

8.2.2 Risk assessment for prioritising the use of single room isolation facilities for patients infected/colonised with MDROs depends on a number of factors and is best done in discussion with infection prevention control and/or medical microbiology specialists. However, consideration should be given to the following:

Document Title: <i>MDRO</i>	14 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

- Patient factors which may increase the risk of transmission of some MDROs
 - Diarrhoea
 - Faecal or urinary incontinence
 - Discharging wounds
 - Medical devices in situ
 - Patient unable to comply with basic hygiene measures
- The type of drug resistance. Infected / colonised patients should be isolated in a single room according to the type of drug resistance: Carbapenem Resistant organisms (CPE or Carbapenem resistant Acinetobacter) **MUST** be isolated. For other MDROs please consult IP&C team for advice.
- Patients who are considered to be at risk of CRO **MUST** be isolated pending further assessment.
- Cohorting of a group of patients may be considered on discussion with the IPCT.
- See also transmission based precautions.

8.2.3 Prior to transferring the patient to a single room the implications of colonisation or infection with a MDRO should be clearly explained to the patient and treatment options should also be clearly explained to the patient and/or relative. Leaflets are available to be provided to patients and relatives regarding MDRO / CRO (see appendix) and MRSA.

8.2.4 A contact isolation sign should be displayed on the door.

8.2.5 Patients should not leave the room/ward area to attend other departments without prior arrangement/notification with the receiving department.

8.2.6 Visitors and members of staff from other departments must report to the nurse-in-charge before entering the room.

8.2.7 For all patients colonised or infected with CRO isolation is necessary throughout their admission. This should NOT be reversed following negative screening or clinical culture results, as experience shows that culture results can be intermittently positive over a period of time. If there is a clinical need to remove a patient colonised or infected with CRO from isolation this should only be done following a careful risk assessment involving both the clinical team and senior representatives of infection prevention control and medical microbiology. The reason for the decision to reverse the single room isolation should be clearly documented in the patient's records and the decision kept under review.

8.2.8 Patients colonised or infected with MRSA may be removed from isolation once they have had three negative screening samples and in discussion with IP&C.

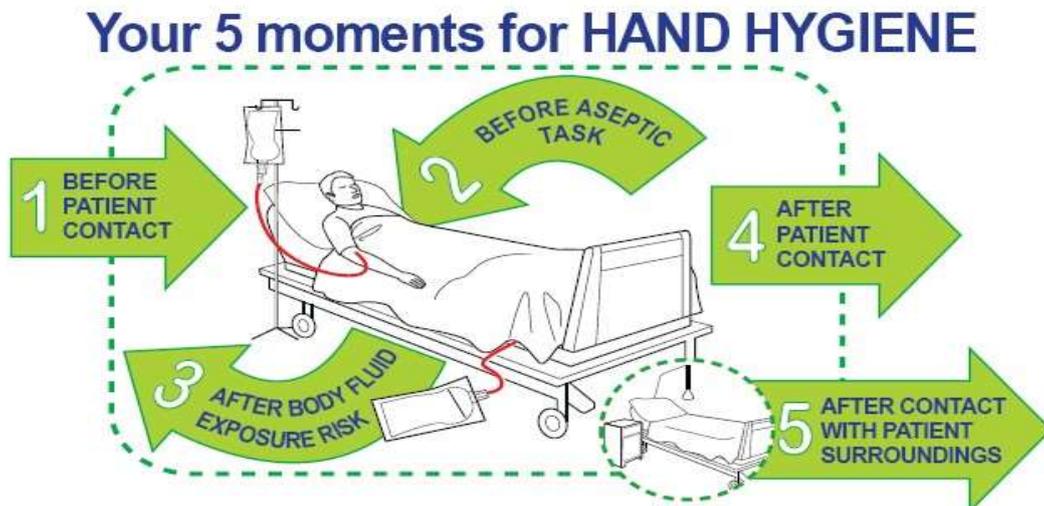
Document Title: MDRO	15 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

8.3 HAND DECONTAMINATION

8.3.1 Hands must be decontaminated by either washing with liquid soap and water and then applying an alcohol rub or washing with a hand disinfectant.

8.3.2 Hand decontamination should be performed in accordance with C&V UHB Hand Decontamination Procedure

1. Before patient Contact.
2. Before aseptic task
3. After body fluid exposure risk
4. After patient contact
5. After contact with patient surroundings



8.3.3 All staff present in a clinical environment **MUST** adhere to the following principles of Bare Below the Elbows (BBE) to enable effective hand hygiene:

- Wear short sleeves (rolled up sleeves are acceptable), or elbow length sleeves.
- No wrist watches or bracelets to be worn.
- Keep nails short and clean.
- Artificial nails (acrylic and gel nails included) and nail varnish must not be worn.
- Plain wedding rings only to be worn.
- Any cuts and abrasions on hands and arms should be covered with a non-permeable dressing.

Document Title: MDRO	16 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

8.4 PERSONAL PROTECTIVE EQUIPMENT (PPE)

- 8.4.1 Gloves must be worn for all patient contacts when patients are under contact precautions. Gloves should be removed and hands decontaminated before leaving the room/area.
- 8.4.2 Plastic aprons must be worn when direct contact with the patient or the patient's equipment is anticipated.
- 8.4.3 Face protection e.g. masks, visors/goggles must be worn if there is a risk of aerosol production or splashing from blood or body fluids and secretions.
- 8.4.4 All PPE should be disposed of before leaving the room and hand decontamination performed.

8.5 DISPOSAL OF WASTE

- 8.5.1 All infected waste should be disposed of into the appropriate clinical waste bag (HTM 07-01 Safe Management of Healthcare Waste 2006)

8.6 LINEN

- 8.6.1 All linen should be placed in an alginate bag prior to placing in a red bag for infected linen and returned to the laundry.
- 8.6.2 Curtains, including window curtains, adjacent to positive patients should be changed when a patient has been transferred / discharged or when visibly soiled.
- 8.6.3 Patient clothing should be placed in a patient alginate bag and given to relatives / carers for laundering at home using normal washing temperatures. Relatives / carers should be advised to place the alginate bag containing the clothes in the washing machine directly without emptying the clothes out.

8.7 INSTRUMENTS OR EQUIPMENT

- 8.7.1 Whenever possible instruments and equipment such as writing materials, sphygmomanometers and stethoscopes should be designated for positive patients. Disposable BP cuffs should be in use for patients with CRO, consideration should be given to using disposable BP cuffs when dealing with other MDRO colonised / infected patients.
- 8.7.2 If this is not possible, such items should be cleaned and disinfected before use on another patient. Using a combined detergent and chlorine releasing agent. For more information, see the Cardiff and Vale UHB Decontamination Procedure.

Document Title: <i>MDRO</i>	17 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

8.7.3 Respiratory and other contaminated equipment should be decontaminated (or respiratory secretions discarded) away from the immediate bed area in designated cleaning sinks and not in hand wash sinks.

8.7.4 Instruments / equipment should be put through a Hydrogen Peroxide Vapour (HPV) clean following a clean with a combined detergent and chlorine preparation. Staff need to ensure that instruments and equipment are compatible with a HPV clean.

8.8 CLEANING

Daily cleaning

8.8.1 If the patient is in a single room, the nurse-in-charge must ensure that twice daily cleaning with a combined detergent and chlorine releasing disinfectant at 1,000ppm (e.g. Actichlor+) is carried out by liaising with ward housekeeping staff.

8.8.2 If the patient is not in a cubicle, the bed space where the patient is present should be cleaned twice a day with a combined detergent and chlorine releasing disinfectant at 1,000ppm (e.g. Actichlor+).

Cleaning on discharge

8.8.3 The patient's room must be cleaned thoroughly with a combined detergent and chlorine releasing disinfectant at 1,000 ppm (e.g. Actichlor +). Curtains must be changed.

8.8.4 All hospital furniture (e.g. bed frame, tables) and any dust collecting ledges should also be wiped with a chlorine releasing disinfectant.

8.8.5 The mattress should be checked then decontaminated with chlorine releasing disinfectant solution at 1,000 ppm then rinsed with water.

8.8.6 A Hydrogen Peroxide Vapour (HPV) clean should then be carried out in accordance with instructions.

9. TRANSFER OF COLONISED OR INFECTED PATIENTS

9.1 The ward manager or nurse-in-charge of the ward has the responsibility to ensure that the necessary information regarding an infected/colonised patient is passed on to a senior member of staff of the receiving ward/department or other healthcare establishment, prior to transfer and must ensure information is clear as part of patient handover.

9.2 WITHIN THE HOSPITAL

9.2.1 Unnecessary movement within the ward area should be avoided if at all possible, as should transfers to other wards. If transfer has to be effected then the receiving ward should be informed of the current status of the patient.

Document Title: <i>MDRO</i>	18 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

9.2.2 Patients that require surgery should be placed at the end of the list/session wherever possible. Theatre equipment /environment should be cleaning in accordance with the Transmission based precautions Guidance and Decontamination Policy.

9.2.3 Surgical antibiotic prophylaxis may need to be adjusted for patients colonised or infected, particularly in high risk surgery such as implant surgery. Further advice can be obtained from a medical microbiologist.

9.2.4 After transfer, all linen should be treated as infected and the trolley/chair should be wiped down with detergent and water and disinfected with a chlorine releasing disinfectant (Actichlor +).

9.3 VISITS TO THE OTHER DEPARTMENTS

9.3.1 Visits to other departments by patients colonised or infected should be kept to a minimum and risk assessed. When visits are essential, prior arrangements should be made with the senior staff of the department concerned.

9.3.2 Transferring wards need to give full information to the receiving departments. Forward planning is essential to ensure that receiving department's work flows are not jeopardised.

9.3.3 Patients may be seen at the end of a working session but should spend the minimum time in the department. They should be sent for when the receiving department is ready and not left in a waiting area with other patients.

9.3.4 Equipment used and the number of staff attending the patient should be kept to a safe minimum, and the equipment should be disinfected after use.

9.3.5 If a patient has an investigation in a clinical room the room will need to have a full clean after the procedure including a HPV clean if possible.

9.4 AMBULANCE TRANSPORTATION

9.4.1 The ambulance service or other transport provider should be notified prior to transfer. Further information for the ambulance service should be obtained from Public Health Wales (029 20402478).

9.5 TRANSFERS TO OTHER HOSPITALS

9.5.1 Inter-hospital movements should be kept to the minimum possible. It is the responsibility of the transferring ward to identify the patient as positive, contact the receiving hospital directly pre-transfer and to highlight it in the patient's notes.

9.5.2 Patients that are discharged from high-risk areas should have their status established on discharge. This can either be done by the discharging or receiving hospital by arrangement. There is however no need to delay or prevent discharge while waiting for the results as long as the receiving unit is aware of the current status.

9.5.3 Please inform IP&C of any patient transfers or discharges.

Document Title: MDRO	19 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

9.6 DISCHARGE OF PATIENTS

- 9.6.1 The General Practitioner, other health care and relevant social agencies involved in the patient's care should be informed and advised of any on-going procedures. Ward staff should inform patients that there is no risk to healthy relatives. It is important to note that continued carriage does not preclude discharge from hospital.
- 9.6.2 Patients colonised with CRO should be given a card to be used to inform other healthcare workers / carers of their infection / colonisation with a CRO – see appendix 2. They should also be given a patient information leaflet (appendix 3)
- 9.6.3 Patients colonised or infected with MRSA should be given an information leaflet and advised of their colonisation or infection.

9.7 DECEASED PATIENTS

- 9.7.1 Inform the mortuary. Precautions taken should be the same as when the patient was alive. Any lesions should be covered with impermeable dressings. Plastic body bags are not necessary.

10. MANAGEMENT IN THE COMMUNITY

- 10.1 Robust inter-care communications (within and between settings and carers) are central to a successful concerted effort to prevent and control spread of MDRO including CRO.
- 10.2 It is important that individuals (and/or their families) play a role in preventing spread, having a full understanding of their status and of the infection prevention and control measures needed. Advice leaflets to assist with this can be found in appendix 3.
- 10.3 A 'patient-held' card (appendix 2) will assist the individual in explaining their carrier state to health and social care staff when attending or being transferred to another setting.
- 10.4 There is no reason for non-acute settings to refuse admission or readmission of service users on the grounds that they are colonised with MDRO including Carbapenem Resistant Organisms (CRO).
- 10.5 If a patient known to be positive for a CRO is discharged into the community it will be helpful to risk assess the patient's needs and arrangements for care according to the risk assessment on the following page. This is a guide only. Further advice can be sought from the IP&C team.

Document Title: MDRO	20 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

Community Risk Assessment of Patient Needs related to colonisation with Carbapenem Resistant Organisms.

At all risk levels ensure the following:

- **standard precautions are maintained at all times**
- **effective environmental hygiene:** prevention of faecal and environmental contamination is crucial; remain alert to episodes that risk direct transmission to others and/or environmental contamination; ensure timely and through cleaning
- **hygiene advice to individual and family/contacts:** it is important to inform individuals and those around them to ensure they take appropriate personal hygiene measures to prevent the spread of infection, especially when using the toilet

Risk assessments must include consideration of the care environment, e.g. nursing care setting, specialist or general rehabilitation, haemodialysis unit, EMI, dementia care unit, community hospital or hospice, mental health trust, residential care, domiciliary care or detention centre/prison.

If the individual is colonised: single room with en-suite facilities including toilet or designated commode is recommended; no curtailment of communal activities is required where standard precautions and effective environmental hygiene are being maintained and there is no risk of infecting others.

If the individual is infected: conduct a risk assessment with usual IP&C advisor and/or PHE centre to discuss possible isolation (with defined end-of-isolation criteria); consider the mental and physical health and wellbeing of the individual when deciding to isolate.

Always communicate the positive status of an individual appropriately when transferring the individual between care settings.

CARE NEEDS	GUIDANCE for RISK ASSESSMENT
HIGH RISK E.g. patient has: Diarrhoea, Discharging wound, Long term ventilation, Confusion/dementia, Device(s) in situ, Undergoing invasive Procedures, smearing or 'dirty protests'	<ul style="list-style-type: none"> • identify if there is an immediate risk of infecting others • discuss the management with GP/ clinician in charge, IP&C nurse • consider if the individual requires supervision • consider options to facilitate terminal cleaning and disinfection and minimise the risk of spread of infection where possible by: <ul style="list-style-type: none"> • giving individuals an end of list appointment • using mobile equipment away from others
MEDIUM RISK E.g patient requires: assistance with hygiene, mobility or physical rehabilitation	<ul style="list-style-type: none"> • no immediate risk of infecting others identified • standard precautions are maintained
LOW RISK E.g patient is independent and self- caring	<ul style="list-style-type: none"> • hygiene advice is provided to individual and family/contacts as appropriate • effective environmental hygiene. • if unsure, please contact the C&V UHB IP&C team.

Document Title: <i>MDRO</i>	21 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

11. DECOLONISATION OF MRSA POSITIVE PATIENTS

- 11.1 All patients found to be MRSA positive should be decolonised for five days. Contact the IP+C team if advice required.
- 11.2 Eradication of carriage of MRSA may fail. This is especially the case in patients with multiple co-morbidities, when patients are colonised at sites other than the nose and when patients have multiple sites of MRSA colonisation. Systemic treatment may sometimes be necessary for eradication of colonisation but this must be considered carefully and should only be employed if eradication with topical agents has failed. A risk assessment should be made in conjunction with the IPCT as to whether the benefits of decolonisation outweigh the risks. It is important to discuss this with the affected patient.
- 11.3 For decolonisation of neonates, discussion with IPCT is advised as an alternative to Skinsan is suggested.
- 11.4 DECOLONISATION OF CARRIERS

RECOMMENDATIONS FOR MRSA DECOLONISATION
<p><i>Nasal decolonisation</i> Mupirocin 2% (Bactroban Nasal) TDS for 5 days topically</p> <p><i>Superficial decolonisation/suppression</i> Triclosan (Skinsan) topically as a body wash for 5 days. Hair wash to be included on two non consecutive days Do not dilute</p>

11.4.1 Nasal carriage

The most effective treatment for nasal carriage is 2% mupirocin - Bactroban Nasal. As a paraffin base preparation, it is applied to the anterior nares using a cotton wool swab three times daily for five days (available from pharmacy). Prolonged (more than seven days) or repeated courses (more than two per hospital admission) of mupirocin must be avoided to prevent the development of resistance.

11.4.2 Other sites

The staphylococcal load on the skin may be reduced by using an antiseptic for skin and hair washing. Triclosan antiseptic solution (Skinsan) is used for this purpose, attention should be given to the manufacturer's instructions. Special attention should be paid to axilla, groin, perineum and buttocks.

Document Title: <i>MDRO</i>	22 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

Mupirocin (Bactroban) in a polyethylene glycol base is particularly effective in removing staphylococci from lesions such as eczema and small pressure sores, but should be avoided on burns and large raw areas.

During the decolonisation course and after it has been completed, clean clothing, bedding and towels should be provided.

11.5 TESTS FOR CLEARANCE FOLLOWING DECOLONISATION

11.5.1 Following decolonisation, the nose, perineum, skin lesions, and other sites that were previously positive in colonised or infected patients should be sampled two days after the completion of the decolonisation regimen. Any further sampling will be advised by the IPCT.

11.5.2 MRSA clearance screens are NOT required for transfer of a colonised patient from an isolation room to other wards/hospitals, or for discharge. Ideally MRSA positive patients should not be moved around the hospital, but where clinical need requires a move the MRSA status of the patient should not hinder patient care. The receiving hospital or unit must be informed of the current status of the patient.

11.5.3 It must be remembered that screening samples should be clearly marked "MRSA Screen" on the Bacteriology Request form.

11.5.4 Repeated sampling for MRSA is **not** necessary for patients in whom decolonisation is not carried out.

12. SURGICAL OPERATIONS

12.1 Every effort, taking into account the needs of the patient e.g. emergency surgery, should be made to eliminate or suppress colonisation or infection with MRSA before surgery. As part of the pre-operative preparation:

- bathe/shower the patient with an antiseptic solution (eg Skinsan), applied direct to dampened skin as a wash, and rinsed off.
- cover affected lesions with an impermeable dressing.
- apply mupirocin to the nose before the operation if the patient is a nasal carrier
- consideration may be given to placing the patients at the end of the theatre list. However, with effective theatre ventilation systems, there should be an adequate number of air exchanges to provide a safe environment within 15 minutes of removal of the MRSA patient from the operating theatre.
- theatre surfaces in close contact or near the patient, such as the operating table or instrument trolley, should be decontaminated with a combined detergent and chlorine releasing product such as actichlor plus before being used for the next patient.
- patients may be allowed to recover after surgery in the operating theatre

Document Title: <i>MDRO</i>	23 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

or an area not occupied by other patients to avoid possible contamination of the usual recovery area. If this is not possible, the patients should be segregated as far as possible within the recovery area, and nursed by staff dedicated to their care, employing contact precautions.

- 12.2 Surgical antibiotic prophylaxis may need to be adjusted for patients colonised or infected with MRSA, particularly in high-risk surgery such as implant surgery. This should be discussed with a Consultant Microbiologist.

13. RESOURCES

- 13.1 The implementation of this procedure will entail additional costs in terms of CRO screening.

14. TRAINING

- 14.1 Mandatory Infection and Prevention and Control training updated every two years.
14.2 Further departmental based training as identified by training needs analysis.

15. IMPLEMENTATION

- 15.1 The document will be available on the UHB Intranet site and the Infection Prevention and Control clinical portal site. Individual Clinical Boards will be responsible for the implementation of the procedure document in clinical areas.

16. AUDIT

- 16.1 Audit of compliance with the procedure document, will be carried out by the Infection Prevention and Control Department, as part of their procedure audit programme.

17. REVIEW

- 17.1 This procedure will be reviewed every three years or sooner if the national guidelines are updated.

Document Title: <i>MDRO</i>	24 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

18. REFERENCES

HTM07-01 Safe Management of Healthcare Waste 2006

Health & Safety Work Act 1974 Control of Substances Hazardous to Health Regulations 2002, SI 2002 No 2677.

Transmission Based Precautions: Policies/Procedures National Infection Control Policies for Wales, Healthcare Associated Infection Programme, PHW.

Carbapenemase Producing Enterobacteriaceae; early detection, management and control toolkit for acute trusts, Public Health England 2013

Toolkit for managing carbapenemase producing enterobacteriaceae in non-acute and community settings. Public Health England 2015

Wilson APR, et al., Prevention and control of multi-drug-resistant Gram-negative bacteria: recommendations from a Joint Working Party, Journal of Hospital Infection (2015)

Document Title: MDRO	25 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

Appendix 1

Infection Prevention and Control (IP&C) Admission Risk Assessment	NO	YES	If 'YES' to any question action the following immediately	Initial
CRO				
In the last 12 months has the patient had any healthcare contact outside of the U.K.? Healthcare abroad includes the whole range of in-patient care, also dental care, cosmetic surgery, elective surgery (including day surgery) and fertility treatments			Isolate (High priority) and contact precautions Seek advice from IP&C / Microbiology out of hours. Screen for CRO & MRSA	
In the last 12 months has the patient been an in-patient in a hospital outside of Cardiff and Vale UHB (NHS or Private)?			Refer to UHB MDRO Procedure	
Does the patient have any IP&C flags (on Clinical Workstation) for any multi-drug resistant organisms?			Screen for CRO & MRSA Discuss with IP&C	
Does the patient have a history of MDRO infection/colonisation (inc. Candida auris)?			Discuss with IP&C	
MRSA				
Is patient screened for MRSA routinely on admission to specific clinical areas or prior to specific procedures ?(e.g. Critical Care, Renal , Orthopaedic Surgery)			Screen for MRSA: Nose Groin Invasive device site(s) Wound(s)/...../..... (Screen sent date / time / initial)	
Does the patient have a previous history of MRSA?				
On admission does the patient have a wound or invasive device?				
Has the patient been transferred from a hospital outside of the Cardiff and Vale UHB?				
Has the patient been admitted from a Nursing Home or Long-term care facility?			Refer to UHB MRSA Procedure / Clinical Risk Assessment	
Diarrhoea and Vomiting				
Does the patient have a history of diarrhoea / vomiting within the last 48 hours that may be infectious?			Isolate / cohort (High priority) Contact Precautions Send two separate diarrhoea samples for Microbiology and Virology Refer to UHB Viral Gastroenteritis Procedure	
Any contact with someone with symptoms of D&V in the last 72 hours? (e.g. from a care home with an outbreak of D&V)			Isolate if possible. Commence Stool chart. Monitor closely.	
C. difficile				
Current diagnosis or suspected of having <i>C difficile</i> infection?			Isolate (High Priority) Refer to UHB <i>Clostridium difficile</i> Algorithm / Procedure	
Does the patient have a history of <i>C difficile</i> infection? (Check workstation flags)			Recurrence possible, isolate if diarrhoea develops.	
Other infections				
Suspected or confirmed acute viral respiratory infection? e.g. flu (Check Admission notes)			Isolate or cohort Respiratory precautions Refer to Transmission Based Precautions	
Suspected or confirmed open TB?			Isolate (high priority) & Respiratory precautions. Refer to UHB TB Procedure	
High risk rash of infectious or unknown origin e.g. Chicken Pox, disseminated or exposed Shingles (refer to Admission Notes)?			Isolate (high priority) & Respiratory precautions Refer to Transmission Based Precautions. Seek advice from IP&C	
If patient due to have surgery / endoscopy, has the patient ever been suspected or confirmed CJD or vCJD?			Refer to CJD Procedure	
For Emergency Unit / Assessment Unit and Infectious Disease Ward only: Travel or clinical history consistent with very high risk infection e.g. Ebola or Middle East Respiratory Syndrome (Refer to Admission Notes)?			Isolate (high priority) in a negative pressure isolation facility according to agreed pathway. Inform IP&C / Microbiology	
Person completing assessment: Sign / Print:				Date:

Document Title: MDRO	26 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

APPENDIX 2

Patient card

If a patient is found to be infected or colonised with a Carbapenem Resistant Organism, they should be issued with a copy of the card below to assist with informing others offering healthcare to the patient of their status. This card can be cut out and folded in half to fit in a standard wallet.

 <p>Important information about: Carbapenem-Resistant Organism (CRO)</p> <p>Please show this card to health and social care staff</p>	<p>For the Attention of Health and Social care staff</p> <p>This patient is known to be colonised with CRO. Please follow your local infection control guidelines. For further advice please contact your local infection prevention and control team.</p> <p>Date Issued: _____</p> <p>Organisation: _____</p> <p>https://www.gov.uk/government/publications/carbapenemase-producing-enterobacteriaceae-early-detection-management-and-control-toolkit-for-acute-trusts</p>
---	--

 <p>Important information about Carbapenem-Resistant Organism (CRO)</p> <p>Please show this card to health and social care staff</p>	<p>For the Attention of Health and Social care staff</p> <p>This patient is known to be colonised with CRO. Please follow your local infection control guidelines. For further advice please contact your local infection prevention and control team.</p> <p>Date Issued: _____</p> <p>Organisation: _____</p> <p>https://www.gov.uk/government/publications/carbapenemase-producing-enterobacteriaceae-early-detection-management-and-control-toolkit-for-acute-trusts</p>
---	--

 <p>Important information about Carbapenem-Resistant Organism (CRO)</p> <p>Please show this card to health and social care staff</p>	<p>For the Attention of Health and Social Care staff</p> <p>This patient is known to be colonised with CRO. Please follow your local infection control guidelines. For further advice please contact your local infection prevention and control team.</p> <p>Date Issued: _____</p> <p>Organisation: _____</p> <p>https://www.gov.uk/government/publications/carbapenemase-producing-enterobacteriaceae-early-detection-management-and-control-toolkit-for-acute-trusts</p>
--	--

Document Title: MDRO	27 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

APPENDIX 3

Advice for Patients Multi-Drug Resistant Organisms (MDRO) including Carbapenem Resistant Organisms (CRO) and Carbapenemase- producing *Enterobacteriaceae* (CPE)

What are Multi-Drug Resistant Organisms?

MDRO are bacteria (or germs) that are resistant to at least three different antibiotics. MRSA (Meticillin resistant *Staphylococcus aureus*) is a multi-drug resistant organism, but there are many other organisms that can become resistant and this information covers common organisms such as *Escherichia coli*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa* and other organisms **that have** become resistant to three or more antibiotics. You may see these organisms referred to as Carbapenem Resistant Organisms (CRO), Carbapenem Resistant *Acinetobacter baumannii* (CRAB), Carbapenemase Producing Enterobacteriaceae (CPE) or simply MDRO.

Why does Multi resistance to antibiotics matter?

Some antibiotics e.g. Carbapenem antibiotics can only be given in hospital directly into the bloodstream. Until now, doctors have relied on certain antibiotics to successfully treat particularly 'difficult' infections when other antibiotics have failed to do so. When organisms become resistant to these "last resort" antibiotics there are few treatment options left. In a hospital, where there are many vulnerable patients, spread of resistant bacteria can cause problems. If the bacteria get into the wrong place, such as the bladder, bloodstream or open wound they can cause infection which may be difficult to treat.

Does carriage of or infection with an MDRO need to be treated?

If a person is a carrier of an MDRO such as Carbapenem Resistant Organisms (CROs), they do not need to be treated. However, if the bacteria have caused an infection then antibiotics will be required as advised by a Consultant Microbiologist.

How might I 'pick up' an MDRO?

These bacteria can sometimes be found, living harmlessly, in the gut and on the skin of humans and this is called 'colonisation'. It can be difficult to say when or where you picked it up. However, there is an increased chance of picking up these bacteria if you have been:

- a patient in a hospital abroad
- in a UK hospital that has had patients carrying the bacteria,
- **or** if you have been in close contact with a carrier in hospital **or** in the community
- **or** you have had repeated courses of antibiotics.

If any of these apply to you, and you need to be admitted to hospital, screening will be arranged and you may be accommodated in a single room at least until the results of the tests are known.

Document Title: MDRO	28 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

How will I be cared for while in hospital?

You may be accommodated in a single room whilst you are in hospital and on any subsequent admissions. You may be asked to provide a number of samples to send to the laboratory to check if you are carrying or have an infection with the bacteria. These will probably be taken on a weekly basis during your stay. The samples might include swabs e.g. the site an intravenous drip enters the skin, a rectal swab i.e. a sample taken by inserting a swab briefly just inside your rectum (bottom), and/or a sample of faeces. You may also be tested if you have been in close contact with a patient during your hospital stay who has later been found to have a resistant organism. You will normally be informed of the results within two to three days but none of these measures will hinder your care in any way.

How can the spread of MDRO's be prevented?

If a patient in hospital is carrying these bacteria they can get into the ward environment and be passed on by direct contact to another patient. For that reason, you may be accommodated in a single room to help prevent spread. Healthcare workers must wash and clean their hands regularly. They will use gloves and aprons (or gown) when caring for you. The most important measure for you to take is to wash your hands well with soap and water, especially after going to the toilet. You should avoid touching your medical devices (if you have any) such as your urinary catheter tube, any wound and your intravenous drip, particularly at the point where it is inserted into the body or skin. Visitors will be asked to clean their hands on entering and leaving the room and may be asked to wear gloves and apron (or gown) especially if they are assisting in your care. Effective environmental cleaning and good hand hygiene by all, staff, patients and visitors, can reduce the risk of spread significantly.

What about when I go home?

While there is a chance that you may still be a carrier when you go home quite often this will go away with time. No special measures or treatment are required; any infection will have been treated prior to your discharge. You should carry on as normal, maintaining good hand hygiene especially after using the toilet. If you have any concerns you may wish to contact your GP for advice.

Before you leave hospital, ask the doctor or nurse to give you a letter or card advising that you have had an infection or have been/are colonised with an MDRO and which MDRO you have had. This will be useful for your future care and it is important that you make health and social care staff aware of it e.g. when attending an outpatient appointment or being visited by the community nursing team. Should you or a member of your household be admitted to hospital, you should let the hospital staff know that you are, or have been a carrier and show them the letter/card.

Where can I find more information?

Do ask your doctor or nurse to explain this to you in more detail. They may also contact the Infection Prevention and Control Team for you if you need further information about the management of MDRO and CRO.

<https://www.gov.uk/government/publications/carbapenemase-producing-enterobacteriaceae-early-detection-management-and-control-toolkit-for-acute-trusts>

Document Title: <i>MDRO</i>	29 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

<https://www.gov.uk/government/publications/carbapenemase-producing-enterobacteriaceae-non-acute-and-community-toolkit>

This information has been produced from the Public Health England Toolkit and with reference to the Guideline: Prevention and control of multi-drug-resistant Gram-negative bacteria: recommendations from a Joint Working Party. APR Wilson et al. Journal of Hospital Infection 92 (2016) S1-S44

Author Dr Eleri Davies – additions G. Lusardi April 2016

Document Title: MDRO	30 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

Cyngor i Gleifion Organebau sy'n Ymwrthol i Gyffuriau Lluosog (MDRO) yn cynnwys *Enterobacteriaceae* (CPE)

Beth yw Organebau sy'n Ymwrthol i Gyffuriau Lluosog (MDRO)?

MDRO yw bacteria (neu ermau) sy'n ymwrthol i o leiaf dri o wahanol wrthfotigau. Mae MRSA (Meticillin resistant *Staphylococcus aureus*) yn organeb sy'n ymwrthol i gyffuriau lluosog, ond mae yna lawer o organebau eraill a all ddod yn ymwrthol ac mae'r wybodaeth hon yn trafod organebau cyffredin fel *Escherichia coli*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa* ac organebau eraill **sydd wedi** dod yn ymwrthol i dri neu fwy o wrthfotigau. Gallech weld cyfeirio at yr organebau hyn fel Carbapenem Resistant Organisms (CRO), Carbapenem Resistant *Acinetobacter baumannii* (CRAB) neu'n syml MDRO.

Pam fod ymwrthedd lluosog i wrthfotigau o bwys?

Mae yna rai gwrthfotigau e.e. gwrthfotigau Carbapenem na ellir eu rhoi ond mewn ysbyty ac yn uniongyrchol i mewn i lif y gwaed. Hyd yn awr mae meddygon wedi dibynnu ar wrthfotigau arbennig i drin heintiadau sy'n arbennig o 'anodd' pan fydd gwrthfotigau eraill wedi methu â gwneud hynny. Mewn ysbyty lle mae yna lawer o gleifion sy'n agored i niwed, gall lledaeniad bacteria sy'n ymwrthol beri problemau. Os bydd y bacteria'n mynd i'r lle anghywir, fel y bledren, llif y gwaed neu archoll agored gallant achosi haint a allai fod yn anodd ei drin.

Oes angen trin cludiad MDRO neu heintiad ag o?

Os yw person yn gludwr MDRO fel *Enterobacteriaceae* sy'n cynhyrchu carbapenemase (a elwir weithiau'n CPE), does dim angen eu trin. Fodd bynnag, os yw'r bacteria wedi achosi haint yna bydd angen gwrthfotigau yn ôl cyngor gan Ficrobiolegydd Ymgynghorol.

Sut allwn i 'godi' MDRO?

Gellir dod o hyd i'r bacteria hyn weithiau'n byw'n ddiniwed yng ngholuddion ac ar groen pobl a gelwir hynny'n 'gytrefu'. Gall fod yn anodd dweud pa bryd neu ym mhle y cawsoch chi o. Ond mae yna siawns cynyddol o godi'r bacteria hyn os buoch chi'n glaf mewn ysbyty dramor **neu** mewn ysbyty yn y Deyrnas Unedig lle mae yna gleifion sy'n cludo'r bacteria, **neu** os buoch chi mewn cysylltiad agos â chludwr mewn ysbyty **neu** yn y gymuned **neu** os cawsoch chi gyrsiau mynych o wrthfotigau. Os oes unrhyw rai o'r rhain yn gymwys i chi, ac mae angen i chi gael eich derbyn i ysbyty, fe drefnir sgrinio ac ef allech gael eich rhoi mewn ystafell sengl o leiaf hyd nes y bydd canlyniadau'r profion yn hysbys.

Sut ofal fyddaf i'n ei gael yn yr ysbyty?

Mae'n bosib y cewch eich rhoi mewn ystafell sengl tra byddwch yn yr ysbyty ac os cewch eich derbyn ar unrhyw adeg wedi hynny. Mae'n bosib y gofynnir i chi ddarparu nifer o samplau i'w hanfon i'r labordy i wirio a ydych yn cario neu a oes gennych haint â'r bacteria. Mae'n debygol y cymerir y rhain yn wythnosol yn ystod eich arhosiad. Gall y samplau gynnwys swabiau e.e. y safle y bydd drif mewnwythiennol yn mynd i mewn i'r croen, swab rhefr h.y. sampl a gymerir drwy roi swab i mewn am fyr dro fymryn y tu mewn i'ch rectwm (pen ôl), a/neu sampl o ysgarthion. Efallai y cewch brofion hefyd os ydych chi wedi bod mewn cysylltiad agos â chlaf yn ystod eich arhosiad yn yr ysbyty a'r claf hwnnw yn ddiweddarach wedi'i ganfod i fod ag organeb ymwrthol. Fel arfer fe gewch wybod y canlyniadau o fewn dau i dri diwrnod ond ni fydd yr un o'r camau hyn yn llesteirio eich gofal mewn unrhyw ffordd.

Sut mae atal lledaeniad MDRO?

Os bydd claf mewn ysbyty'n cario'r bacteria hyn fe allan nhw fynd i mewn i amgylchedd y ward a chael eu pasio ymlaen gan gysylltiad uniongyrchol â chlaf arall. Am y rheswm hwnnw, mae'n bosib y cewch eich rhoi mewn ystafell sengl i helpu i atal lledaeniad. Mae'n rhaid i weithwyr gofal iechyd olchi a glanhau eu dwylo'n rheolaidd. Fe fyddan nhw'n defnyddio menig a ffedogau (neu ynau) wrth ofalu

Document Title: MDRO	31 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

amdanoch chi. Y mesur pwysicaf i chi ei gymryd yw golchi eich dwylo'n dda â dŵr a sebon, yn enwedig ar ôl bod yn y toiled. Dylech osgoi cyffwrdd eich dyfeisiadau meddygol (os bydd gennych chi rai) fel tiwb eich cathetr wrin, unrhyw archoll a'ch drip mewnwythiennol, yn enwedig yn y pwynt lle mae'n cael ei roi i mewn yn y corff neu'r croen. Fe ofynnir i ymwelwyr lanhau eu dwylo wrth ddod i mewn ac wrth adael yr ystafell ac mae'n bosib y gofynnir iddyn nhw wisgo menig a ffedog (neu ŵn) yn enwedig os ydyn nhw'n helpu â'ch gofal.

Gall glanhau amgylcheddol effeithiol a hylendid dwylo da gan bawb, staff, cleifion ac ymwelwyr, leihau'r risg o ledaeniad yn sylweddol.

Beth am yr adeg y byddaf yn mynd adref?

Er bod yna siawns y gallech ddal i fod yn gludwr pan ewch chi adref, fe fydd hynny'n diflannu'n eithaf aml gydag amser. Nid oes angen unrhyw fesurau na thriniaeth arbennig; bydd unrhyw haint wedi cael ei drin cyn eich rhyddhau. Dylech fwrw ymlaen fel arfer gan gynnal hylendid dwylo da yn enwedig ar ôl defnyddio'r toiled. Os bydd gennych unrhyw bryderon efallai yr hoffech gysylltu â'ch Meddyg Teulu am gyngor.

Cyn i chi adael yr ysbyty, gofynnwch i'r doctor neu'r nyrs roi llythyr neu gerdyn i chi'n rhoi gwybod eich bod wedi dioddef haint neu eich bod wedi eich cytrefu yn y gorffennol/yn awr ag MDRO a pha MDRO a gawsoch chi. Bydd hynny'n ddefnyddiol o ran eich gofal yn y dyfodol ac mae'n bwysig eich bod yn gwneud staff iechyd a gofal cymdeithasol yn ymwybodol o hyn e.e. pan fyddwn yn mynd i apwyntiad cleifion allanol neu pan fydd y tîm nyrsio yn y gymuned yn ymweld â chi. Pe byddai i chi neu aelod o'ch teulu gael eich derbyn i ysbyty, dylech roi gwybod i staff yr ysbyty eich bod chi'n gludwr neu y buoch chi'n gludwr a dangos y llythyr/cerdyn iddyn nhw.

Ym mhle mae dod o hyd i fwy o wybodaeth?

Gofynnwch i'ch doctor neu eich nyrs esbonio hyn i chi'n fanylach. Fe allan nhw hefyd gysylltu â'r Tîm Atal a Rheoli Heintiau os bydd arnoch angen gwybodaeth bellach ar reolaeth MDRO a CPE.

Mae gwefan Iechyd Cyhoeddus Cymru a gwefannau Iechyd Cyhoeddus Lloegr yn ffynhonnell arall i gael gwybodaeth:

<http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/CarbapenemResistance>

Cynhyrchwyd y wybodaeth honno Becyn Cymorth Iechyd Cyhoeddus Lloegr a chyda cyfeiriad at y 'Guideline: Prevention and control of multi-drug-resistant Gram-negative bacteria: recommendations from a Joint Working Party. APR Wilson et al. Journal of Hospital Infection 92 (2016) S1-S44'<https://www.gov.uk/government/publications/carbapenemase-producing-enterobacteriaceae-early-detection-management-and-control-toolkit-for-acute-trusts>

Final - G. Lusardi 22nd Nov. 2016

Document Title: MDRO	32 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

Equality & Health Impact Assessment for

The Prevention, Control & Management Of Multi Drug Resistant Organisms (MDRO) Including Carbapenemase Producing Organisms (CPO), Meticillin Resistant Staphylococcus Aureus (MRSA) And Glycopeptide Resistant Enterococci (GRE)

1. For service change, provide the title of the Project Outline Document or Business Case and Reference Number	Procedure For The Prevention, Control & Management Of Multi Drug Resistant Organisms (MDRO) Including Carbapenemase Producing Organisms (CPO), Meticillin Resistant Staphylococcus Aureus (MRSA) And Glycopeptide Resistant Enterococci (GRE)
2. Name of Clinical Board / Corporate Directorate and title of lead member of staff, including contact details	Clinical Nurse Specialists, Infection Prevention and Control (Ext 46703), Corporate Department.
3. Objectives of strategy/ policy/ plan/ procedure/ service	This procedure describes the infection prevention and control management to be applied when a patient is identified with a Multi Drug Resistant Organism (MDRO) in all UHB locations.
4. Evidence and background information considered. For example <ul style="list-style-type: none"> • population data • staff and service users data, as applicable • needs assessment • engagement and involvement findings • research • good practice guidelines • participant knowledge • list of stakeholders and how 	<p>An internet search was conducted on 09/01/17 using the following search terms in combination “MDRO”, “policy”, “procedure” and “equality” impact”. The search revealed several equality impact assessments. Examples can be found by following the links below:</p> <p>Royal Devon and Exeter NHS Foundation Trust ‘Multi-Drug Resistant Policy’ (2016) http://www.rdehospital.nhs.uk/docs/patients/services/infection_control/multi-drug-resistant-organism-policy.pdf</p> <p>East Cheshire NHS Trust. Infection Prevention & Control. Multi- Resistant Gram Negative Bacilli including E.coli and Acinetobacter Species Policy 2016. http://www.eastcheshire.nhs.uk/About-The-Trust/policies/IC%20Multi-Resistant%20Gram%20Negative%20Bacilli-%20Including%20Ecol%20and%20Acinetobacter%20species%20ECT2626.pdf</p> <p>Gateshead NHS Foundation Trust ‘Meticillin Resistant Staphylococcus Aureus (MRSA) and Other Multi Drug Resistant Organisms (MDRO) Policy’ (2012) http://www.google.co.uk/url?url=http://www.qegateshead.nhs.uk/sites/default/files/users/user1/MRSA%2520-%2520EA%2520summary.doc&rct=j&frm=1&q=&esrc=s&sa=U&ved=0ahUKEwi-2rHLtLfRAhVrCsAKHS6FC_MQFgg-MAU&usq=AFQjCNFEyl_IBG6OWyxYWJdu1_ievlfzQ</p> <p>Black Country Partnership NHS Foundation trust. Infection Prevention &</p>

Document Title: MDRO	33 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

<p>stakeholders have engaged in the development stages</p> <ul style="list-style-type: none"> • comments from those involved in the designing and development stages <p>Population pyramids are available from Public Health Wales Observatory¹ and the UHB's 'Shaping Our Future Wellbeing' Strategy provides an overview of health need².</p>	<p>Control Assurance – Standard Operating Procedure 22. Alert Organisms – Multi resistant Gram negative Bacteria (MR –GNB) excluding MRSA. July 2016. http://www.bcpft.nhs.uk/documents/policies/i/1356-infection-prevention-and-control-assurance-sop-22-alert-organisms-multi-resistant-gram-negative-bacteria/file</p> <p>Carbapenemase-producing Enterobacteriaceae: non-acute and community toolkit 30 June 2015 Public Health England. Practical advice to prevent or reduce the spread of carbapenemase-producing Enterobacteriaceae (CPE) in community and non-acute healthcare setting. https://www.gov.uk/government/news/phe-launches-toolkit-to-manage-hospital-infections-caused-by-antibiotic-resistant-bacteria</p> <p>Isle of Wight NHS Trust. Antibiotic –Resistant Bacteria Policy. Including GRE (glycopeptide-resistant Enterococci) and multiresistant Gram-negative bacteria: ESBL-producing <i>Enterobacteriaceae</i>, AmpC-producing <i>Enterobacteriaceae</i>, CPE (carbapenemase-producing <i>Enterobacteriaceae</i>), multiresistant <i>Pseudomonas aeruginosa</i> and multiresistant <i>Acinetobacter</i> spp. http://www.iow.nhs.uk/Downloads/Policies/Antibiotic%20Resistant%20Bacteria%20Policy.pdf</p> <p>Southern Health Foundation Trust (2016) Procedure for the Management and Control of Carbapenemase-producing Enterobacteriaceae (CPE) Infection Prevention and Control Policy: Appendix 21Version 2. http://www.southernhealth.nhs.uk/_resources/assets/inline/full/0/84793.pdf</p>
<p>5. Who will be affected by the strategy/ policy/ plan/ procedure/ service</p>	<p>This procedure applies to all staff in all locations including those with honorary contracts and students on placement at Cardiff and Vale UHB.</p> <p>Patients, their visitors and UHB staff will benefit from compliance with the policy in that the risk of transmission of infection will be reduced. The UHB will benefit organisationally and financially from reducing the impact and cost of the transmission of infection.</p>

6. EQIA / How will the strategy, policy, plan, procedure and/or service impact on people?

Questions in this section relate to the impact on people on the basis of their 'protected characteristics'. Specific alignment with the 7 goals of the Well-being of Future Generations (Wales) Act 2015 is included against the relevant sections.

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts	Recommendations for improvement/ mitigation	Action taken by Clinical Board / Corporate Directorate. Make reference to where the mitigation is included in the document, as appropriate

¹ <http://nww2.nphs.wales.nhs.uk:8080/PubHObservatoryProjDocs.nsf>

² <http://www.cardiffandvaleuhb.wales.nhs.uk/the-challenges-we-face>

Document Title: <i>MDRO</i>	34 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate. Make reference to where the mitigation is included in the document, as appropriate
6.1 Age	No impact identified	N/A	N/A
6.2 Persons with a disability as defined in the Equality Act 2010	No impact identified	N/A	N/A
6.3 People of different genders: Consider men, women, people undergoing gender reassignment	No impact identified	N/A	N/A
6.4 People who are married or who have a civil partner.	No impact identified	N/A	N/A
6.5 Women who are expecting a baby, who are on a break from work after having a baby, or who are breastfeeding.	No impact identified	N/A	N/A
6.6 People of a different race, nationality, colour, culture or ethnic origin including non-English speakers, gypsies/travellers, migrant workers	No impact identified	N/A	N/A
6.7 People with a religion or belief or with no religion or belief.	No impact identified	N/A	N/A
6.8 People who are attracted to other people of: <ul style="list-style-type: none"> • the opposite sex (heterosexual); • the same sex (lesbian or gay); 	No impact identified	N/A	N/A

Document Title: <i>MDRO</i>	35 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate. Make reference to where the mitigation is included in the document, as appropriate
<ul style="list-style-type: none"> both sexes (bisexual) 			
6.9 People who communicate using the Welsh language in terms of correspondence, information leaflets, or service plans and design	No impact identified. The patient leaflet has been translated into the Welsh Language	N/A	N/A
6.10 People according to their income related group:	No impact identified	N/A	N/A
6.11 People according to where they live:	No impact identified	N/A	N/A
6.12 Consider any other groups and risk factors relevant to this strategy, policy, plan, procedure and/or service	No impact identified	N/A	N/A

7. HIA / How will the strategy, policy, plan, procedure and/or service impact on the health and well-being of our population and help address inequalities in health?

Questions in this section relate to the impact on the overall health of individual people and on the impact on our population. Specific alignment with the 7 goals of the Well-being of Future Generations (Wales) Act 2015 is included against the relevant sections.

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts and any particular groups affected	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate Make reference to where the mitigation is included in the document, as appropriate
7.1 People being able to access the service offered:	No impact identified	N/A	NA
7.2 People being able	No impact identified	N/A	N/A

Document Title: MDRO	36 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

How will the strategy, policy, plan, procedure and/or service impact on:-	Potential positive and/or negative impacts and any particular groups affected	Recommendations for improvement/mitigation	Action taken by Clinical Board / Corporate Directorate Make reference to where the mitigation is included in the document, as appropriate
to improve /maintain healthy lifestyles:			
7.3 People in terms of their income and employment status:	No impact identified	N/A	N/A
7.4 People in terms of their use of the physical environment:	No impact identified	N/A	N/A
7.5 People in terms of social and community influences on their health:	No impact identified	N/A	N/A
7.6 People in terms of macro-economic, environmental and sustainability factors:	No impact identified	N/A	N/A

Please answer question 8.1 following the completion of the EHIA and complete the action plan

8.1 Please summarise the potential positive and/or negative impacts of the strategy, policy, plan or service	We consider there to be no differential impact on any of the equality groups. All patients, their visitors and carers, and UHB staff will benefit from compliance with the procedure in that the risk of transmission of infection will be reduced.
--	---

Action Plan for Mitigation / Improvement and Implementation

	Action	Lead	Timescale	Action taken by Clinical Board / Corporate Directorate
8.2 What are the key actions identified as a result of completing the EHIA?	No significant impacts identified			

Document Title: <i>MDRO</i>	37 of 37	Approval Date: 11 Jul 2018
Reference Number: UHB 347		Next Review Date: 11 Jul 2021
Version Number: 2		Date of Publication: 29 Nov 2019
Approved By: IP&C Group		

	Action	Lead	Timescale	Action taken by Clinical Board / Corporate Directorate
8.3 Is a more comprehensive Equalities Impact Assessment or Health Impact Assessment required?	NO			
8.4 What are the next steps?	<p>Procedure continues unchanged as there are no significant negative impacts.</p> <p>Publish report of this impact assessment with procedure.</p>			