

MDU PHL REFERRAL FORM

SUSPECTED CARBAPENEMASE-PRODUCING ORGANISM (CPO)

MDU No. (MDU Use only)	Microbiological Diagnostic Unit Public Health Laboratory Department of Microbiology & Immunology, The University of Melbourne (APA) Level 1, The Peter Doherty Institute for Infection and Immunity, 792 Elizabeth Street, Melbourne, VIC 3000 Ph (03) 8344 5713, Fax (03) 8344 7833, Email publichealth.lab@mdu.unimelb.edu.au Director: Prof. Benjamin Howden, MBBS, FRACP, FRCPA, PhD, 206527 QB	FM2458
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Submitting laboratory details

Laboratory:

Address: Postcode:

Phone no: Fax no:

Requesting doctor: Requesting doctor phone no:

Copy to: Name: Fax no:

Patient details

Surname: Given Name(s): Sex: M F Not known

Date of birth: Postcode: Patient identifier (UR no.):

Patient phone no:

Patient risk factors

At the time of sample collection, patient was in a:

Health care facility Aged care facility GP/Medical clinic Other Not known

Facility name:

Ward or unit: Date of admission:

Isolate and sample details

Organism name (species): Submitting laboratory number:

Isolated from (sample type): Date of sample collection:

Reason for sampling: Clinically indicated Screening Not known

Test results

Provide results for tests performed (see over for referral criteria):

Test	CP-Enterobacteriales (CPE)	CP-Acinetobacter spp. (CPA)	CP-Pseudomonas spp. (CPP)
Antimicrobial susceptibility test	Meropenem: <input type="checkbox"/> MIC ≥ 0.5 mg/L <input type="checkbox"/> Disc diffusion zone < 28 mm (CLSI or EUCAST) or < 6 mm (CDS) OR Other carbapenem resistance: Antibiotic: AST result:	Meropenem: <input type="checkbox"/> MIC > 8 mg/L <input type="checkbox"/> Disc diffusion zone < 15 mm (EUCAST) or ≤ 14 mm (CLSI) or < 6 mm (CDS)	Meropenem: <input type="checkbox"/> MIC ≥ 4 mg/L <input type="checkbox"/> Disc diffusion zone < 24 mm (EUCAST) or < 19 mm (CLSI) or < 6 mm (CDS) AND Piperacillin-Tazobactam: <input type="checkbox"/> MIC ≥ 32 mg/L, OR <input type="checkbox"/> Disc diffusion zone < 18 mm (EUCAST) or ≤ 20 mm (CLSI) or < 6 mm (CDS)
Carbapenem hydrolysis test (e.g., CarbaNP, BlueCarba)	<input type="checkbox"/> Positive <input type="checkbox"/> Negative	<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Equivocal	<input type="checkbox"/> Positive <input type="checkbox"/> Negative
Carbapenemase inactivation method (CIM) or accepted modified CIM	<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Equivocal	<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Equivocal	<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> Equivocal
Carbapenemase gene PCR (if applicable, note which gene(s) found)	<input type="checkbox"/> Positive <input type="checkbox"/> Negative Gene(s):	<input type="checkbox"/> Positive <input type="checkbox"/> Negative Gene(s):	<input type="checkbox"/> Positive <input type="checkbox"/> Negative Gene(s):

Submitted by:

Name: Signed: Date:



NATA/RCPA
Accredited Laboratory No. 1019

Referral criteria for suspected CPO as per the *Victorian CPO guideline for health services (2023)*

Isolates that meet **any** of the following screening criteria are to be referred to MDU PHL confirmatory testing and genomic analysis.

Criteria	CPE	CPA	CPP
Meropenem susceptibility test	MIC \geq 0.5 mg/L OR Disc diffusion zone < 28 mm (EUCAST or CLSI) – if disk zone < 25mm, always refer – if disk zone 25-27mm, only refer if piperacillin-tazobactam is also resistant OR Disc diffusion zone < 6 mm (CDS)	MIC > 8 mg/L OR Disc diffusion zone < 15 mm (EUCAST) or \leq 14 mm (CLSI) or < 6 mm (CDS)	Note: Must have evidence of reduced susceptibility meropenem AND piperacillin-tazobactam <u>Meropenem:</u> MIC \geq 4 mg/L OR Disc diffusion zone \leq 24 mm (EUCAST) or < 19 mm (CLSI) or < 6 mm (CDS) AND <u>Piperacillin-Tazobactam:</u> MIC \geq 32 mg/L OR Disc diffusion zone < 18 mm (EUCAST) or \leq 20 mm (CLSI) or < 6 mm (CDS)
Resistance to carbapenem (other than meropenem)	Where the MIC is above the clinical breakpoint as defined by CLSI or EUCAST or zone diameter suggests resistance by CDS.	N/A	N/A
Positive colorimetric test for carbapenemase (e.g., CarbaNP or BlueCarba)	Yes	Yes (including equivocal result)	Yes
Positive CIM/mCIM method	Yes (including equivocal result) Note: Isolates with elevated meropenem MICs or reduced disc diffusion zones (as above) BUT test negative by CIM test do not need to be referred.	Yes (including equivocal result) Note: Isolates with elevated meropenem MICs or reduced disc diffusion zones (as above) BUT test negative by CIM test must still be referred.	Yes (including equivocal result) Note: Isolates with elevated meropenem MICs or reduced disc diffusion zones (as above) BUT test negative by CIM test do not need to be referred.
Positive carbapenemase gene PCR	Yes Note: Isolates that meet other criteria BUT are PCR negative must still be referred.	Yes Note: Isolates that meet other criteria BUT are PCR negative must still be referred.	Yes Note: Isolates that meet other criteria BUT are PCR negative must still be referred.

CDS = Calibrated Dichotomous Sensitivity, CLSI = Clinical and Laboratory Standards Institute, EUCAST = European Committee on Antimicrobial Susceptibility Testing