

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 mdu-general@unimelb.edu.au
Director: Prof. Benjamin Howden, MBBS, FRACP, FRCPA, PhD, 206527 QB

FM2458

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: ☐ MIC $\geq$ 0.5 mg/L ☐ Disc diffusion zone < 28 mm (CLSI or EUCAST) or < 6 mm (CDS) OR Other carbapenem resistance: Antibiotic: AST result:	Meropenem: ☐ MIC > 8 mg/L ☐ Disc diffusion zone < 15 mm (EUCAST) or $\leq$ 14 mm (CLSI) or < 6 mm (CDS)	Meropenem: ☐ MIC $\geq$ 4 mg/L ☐ Disc diffusion zone < 24 mm (EUCAST) or < 19 mm (CLSI) or < 6 mm (CDS) AND Piperacillin-Tazobactam: ☐ MIC $\geq$ 32 mg/L, OR ☐ Disc diffusion zone < 18 mm (EUCAST) or $\leq$ 20 mm (CLSI) or < 6 mm (CDS)
Carbapenem hydrolysis test (e.g., CarbaNP, BlueCarba)	☐ Positive ☐ Negative	☐ Positive ☐ Negative ☐ Equivocal	☐ Positive ☐ Negative
Carbapenemase inactivation method (CIM) or accepted modified CIM	☐ Positive ☐ Negative ☐ Equivocal	☐ Positive ☐ Negative ☐ Equivocal	☐ Positive ☐ Negative ☐ Equivocal
Carbapenemase gene PCR (if applicable, note which gene(s) found)	☐ Positive ☐ Negative Gene(s):	☐ Positive ☐ Negative Gene(s):	☐ Positive ☐ Negative Gene(s):

Submitted by:

Name: Signed: Date:



NATA/RCPA
Accredited Laboratory No. 1019

E:\Mdu Doc\FORMS\Request Forms COC Forms\FM2458-3.2 (Suspected Carbapenemase-Producing Organism (CPO)).docx
Custodian: Donna Cameron; Authorised by: Susan Ballard
Original issue: 27.09.2012 Current issue: 07/09/2026

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

PRIVACY NOTE: The information provided will be used to perform pathology testing as requested, assess any Medicare benefit payable for the services rendered and to facilitate the proper administration of government health programs. Its collection and disclosure are authorised by provisions of the Health Insurance Act 1973, the Public Health and Wellbeing Act 2008 (Vic) and the My Health Records Regulations 2026 (Cth).