Candidozyma auris the new challenge

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Population Health

Queensland Health

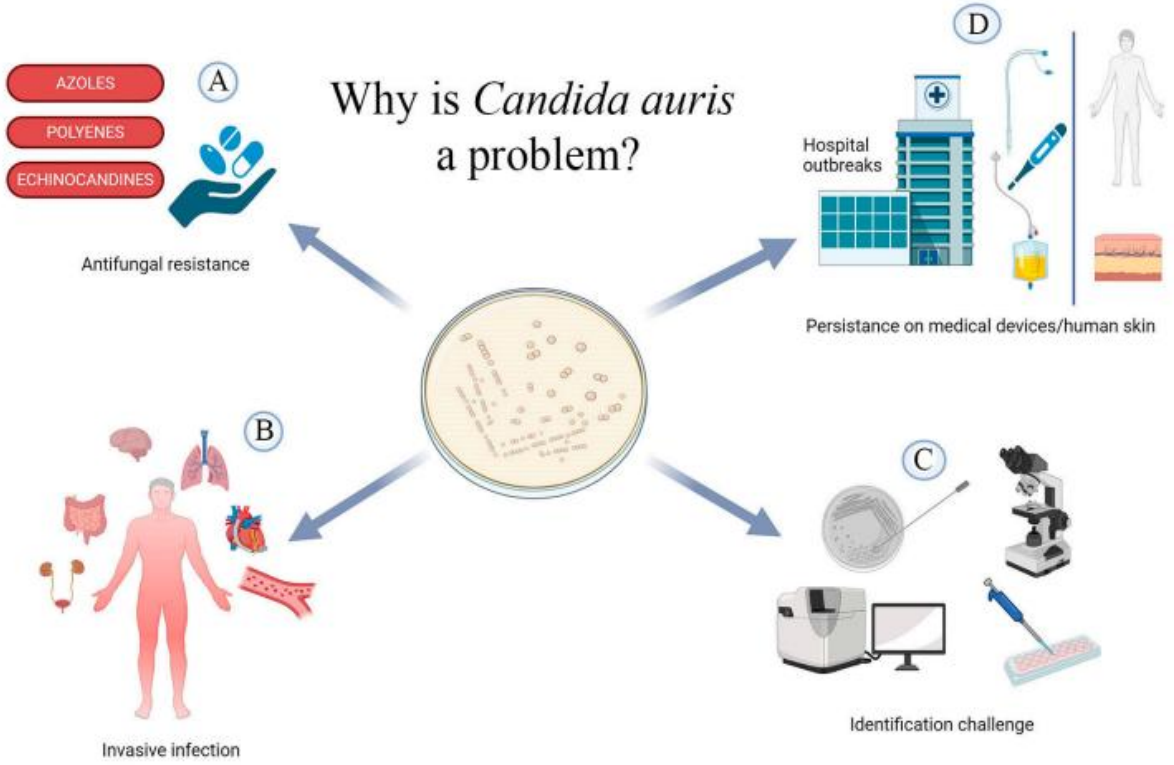
GOARN Focal point

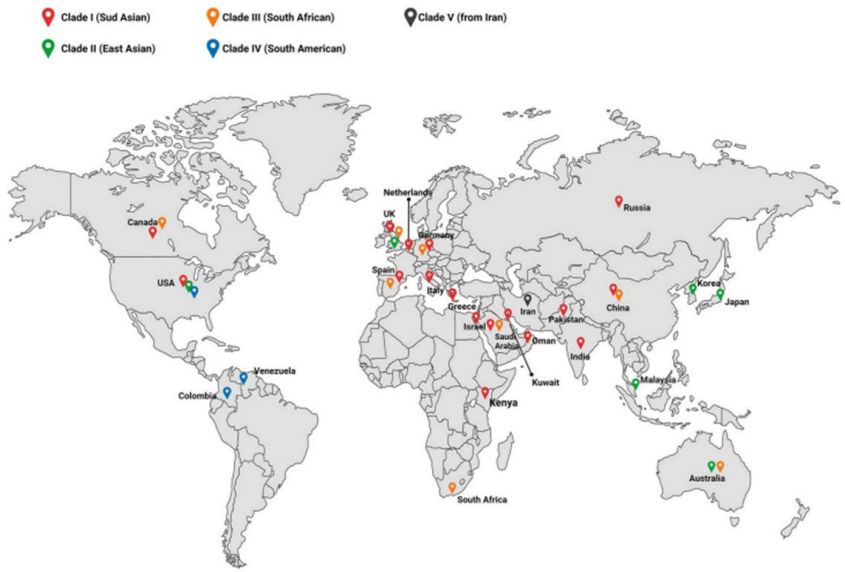
WHO

Queensland Government

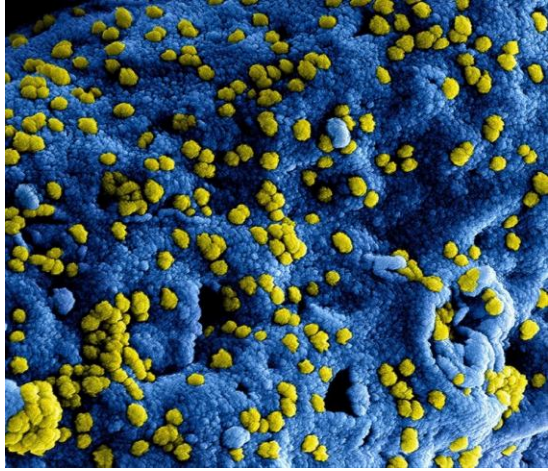
C. auris

- Yeast
- Rapid worldwide emergence since first recognised 2009 in Japan
- Emergence in different geographic areas
- Multidrug resistance
- Rapid transmissibility
- Healthcare outbreaks
- Difficulties with identification
- High mortality (30-70%)





Why is it important?



- Listed by the WHO as a Critical Priority Pathogen (2022)
- Unlike most Candida species, *C. auris*:
  - Spreads between patients
  - Survives for prolonged periods on surfaces (1 month)
  - Can progress to severe invasive infection in vulnerable patients
  - Is resistant to multiple antifungal drugs
  - Is difficult to eradicate from healthcare environments

Common colonisation sites

- Axilla
- Groin
- Skin folds
- Wounds
- Urinary catheters
- Tracheostomy sites

Environmental persistence

- Survives on dry surfaces for **weeks to months**
- Persists on:
  - Bed rails
  - Mattresses
  - Monitors
  - Blood pressure cuffs
  - Chairs
  - IV pumps

Why?

- Biofilm production
- Adherence to plastics
- Resistance to many disinfectants

Survival, Persistence, and Isolation of the Emerging Multidrug–Resistant Pathogenic Yeast Candida auris on a Plastic Health Care Surface

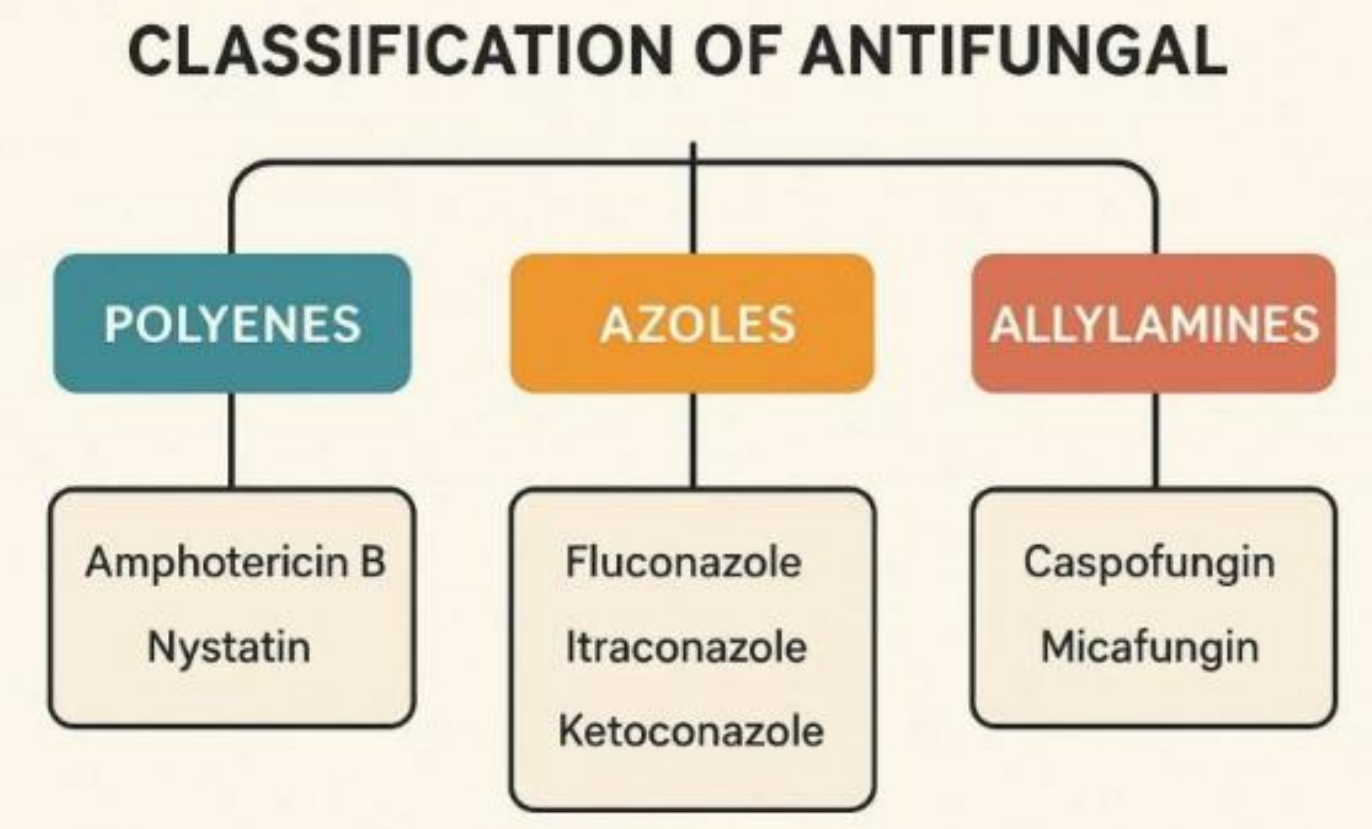
Rory M Welsh [1], Meghan L Bentz [2], Alicia Shams [3], Hollis Houston [3], Amanda Lyons [3], Laura J Rose [3], Anastasia P Litvintseva [1]

The rising challenge of *Candida auris*: insights into its transmission, drug resistance, and infection control strategies

Weiming Zhang, Xiaoli Cao, Chang Liu and Shuo Gao*

Department of Clinical Laboratory, Nanjing Drum Tower Hospital, Affiliated Hospital of Medical School, Nanjing University, Nanjing, China

Resistance



Drug class	Mechanism	Resistance
Azoles	Ergosterol synthesis	Very common
Polyenes	Cell membrane	Variable
Echincocandins	Cell wall	Increasing

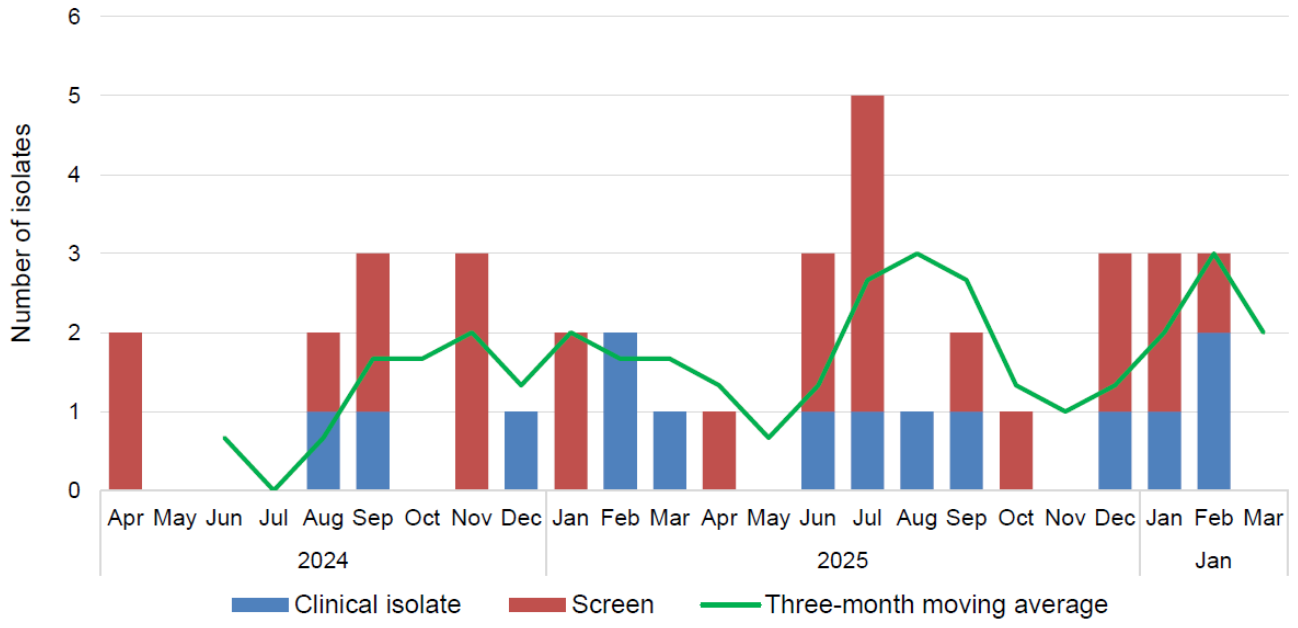
Pan resistance reported as 4%

Prevalence of *C.auris*

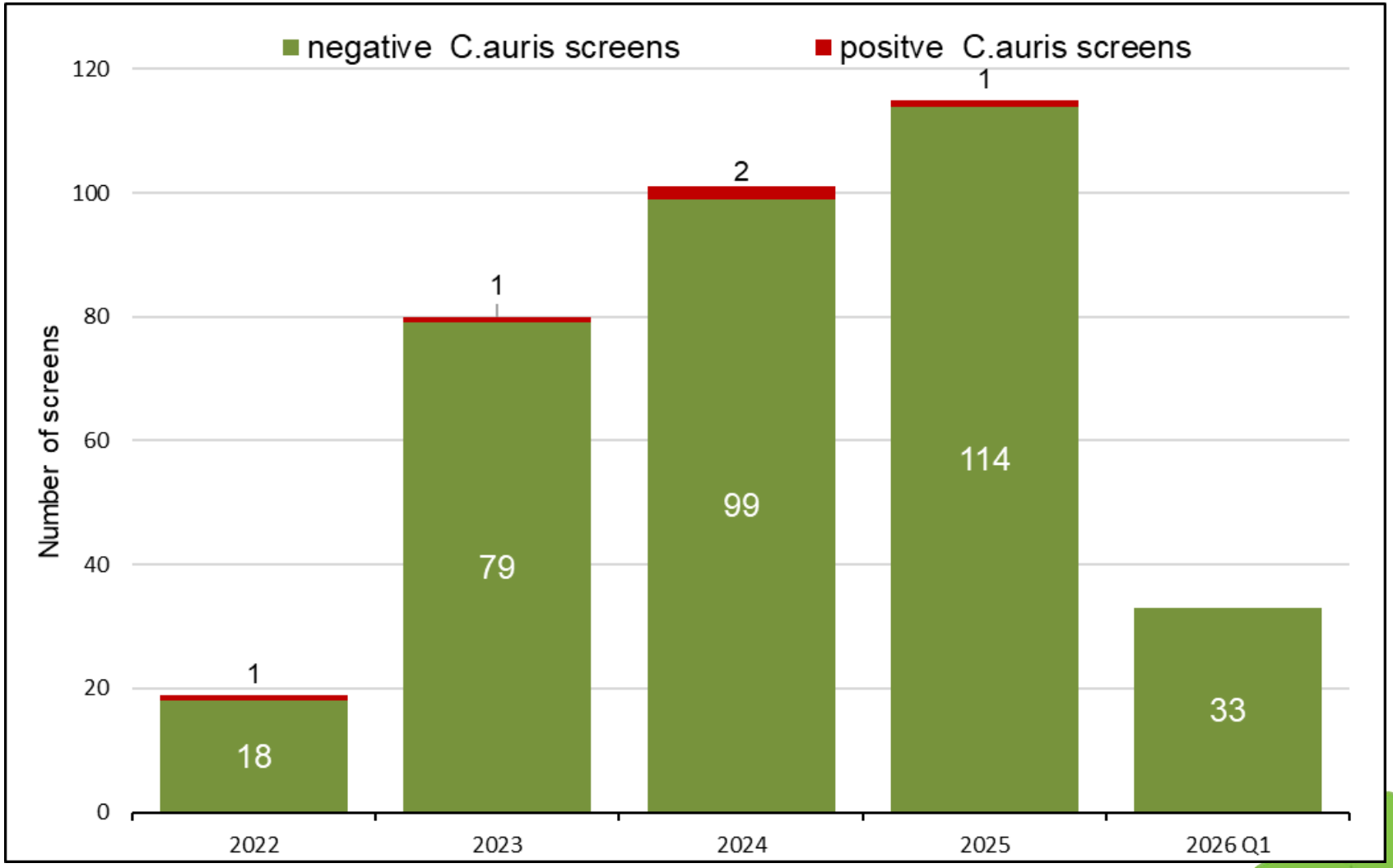
- 6,304 clinical cases in US in 2024
- 2018-2026 in Australia
  - Screening: 44
  - Clinical specimen: 37
- 2024-2026 in Australia
  - Screening: 38
  - Clinical specimen: 14

National data

Figure 3 *Candidozyma* (*Candida*) *auris*, 24-month trend by specimen type, national, 1 April 2024 – 31 March 2026



Hospital A: International Healthcare Contacts & *C.auris* screens



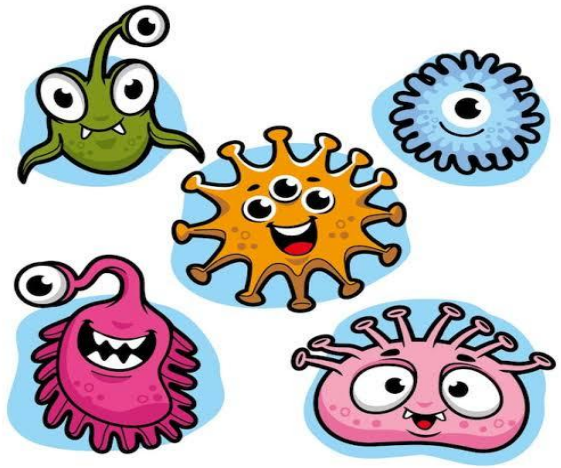
Positive C.auris April 2026

Index case Hospital A

- 33yo M, admitted 7/4/26 from hospital in South Africa
- Complex multitrauma head-on collision MVA
  - R upper limb degloving injury
  - Chest wall degloving, pneumothorax
  - Grade 4 complex liver injury with bile leak, multiple collections
  - Complex # (R) femur, patella, humerus,

International HC screening on admission

- CPE (NDM), (OXA48)
- VRE (VAN-A)
- K. pneumoniae ESBL
- *Candida auris*



Frequency	Screening criteria	
3 sets of swabs collected a minimum of 24 hours apart (bilateral axilla and groin)	Any patient who is transferred from a facility with a known outbreak or is a contact of a confirmed case of *C. auris**.	**EXPANDED SCREENING BASED ON A RISK-BASED APPROACH:* • *Some overseas units have reported cases of positivity, following repeated negative screens in contacts.* • *Expanded screening beyond the expectations of this guideline may need to be considered on a case-by-case basis when deemed appropriate (for example, where the patient is unwell and there is heightened suspicion of C. auris colonisation or infection despite negative screening, or further screening is needed on the advice of the Infectious Diseases Consultant or outbreak management team) (1–4,9,10,11)*
1 set of swabs (bilateral axilla and groin)	Any patient who has received healthcare overseas in the past 12 months*	
Point prevalence surveillance (bilateral axilla and groin)	Where novel detection of *C. auris* has occurred in a ward or clinical setting*.	

Complex care needs

- 140kg
- External fixation to leg, arm, VAC dressing, muscle flaps, pressure injuries
- 16 OT visits with 88 surgeries from 7/4/26
- Requires 6 person assist for turns every 2 hours

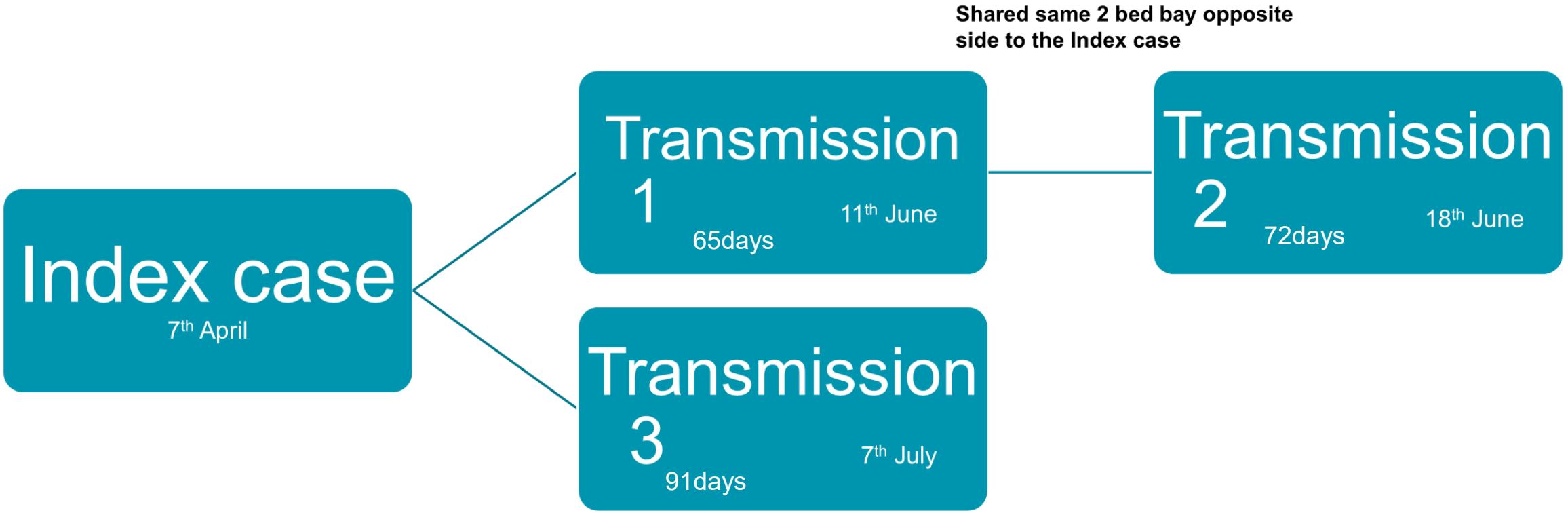
Micro on 13th April 2026

- BC 08/04 from PICC line – XDR (extensive drug resistant) *Pseudomonas, Stenotrophomonas maltophilia*
- R elbow swab 08/04 - XDR *Pseudomonas, Candida auris scant*
- Bone R forearm 09/04 - *Enterococcus sp., Pseudomonas, Candida auris*
- Tissue R forearm 09/04 - VRE (vanA), *Pseudomonas aeruginosa*
- Abdominal drain fluid 08/04 - XDR *Pseudomonas, Klebsiella pneumoniae (CPE), Candida krusei, Candida auris scant*
- Chest wall tissue 09/04 - *Klebsiella pneumoniae*
- Liver aspirate 10/04 - *Klebsiella pneumoniae, Pseudomonas aeruginosa, E. faecium, Candida krusei*

Treating teams involved

- Infectious Diseases
- Trauma
- Hepatology
- Orthopaedics
- Plastics
- Psychology
- Stoma therapy
- Allied Health

Transmission Event



Transmission

- 1st transmission (positive on specimen from 11/6/26; reported on 15/6/26):
  - Inpatient from 14/5-12/6/26 (discharged when *C. auris* reported)
  - High care neurosurgery pt requiring assistance with movement (3 staff turn for pressure area care) in a 2-bed bay on opposite side of ward to index patient)
- 2nd transmission (positive on specimen from 18/6/26; reported on 20/6/26):
  - Inpatient from 31/5-14/6/26 in same 2-bed bay as transmission 1 (overlap by 5 days)
  - Subsequently readmitted to PAH 17/6/26 and already under contact precautions as known close contact of *C.auris* and therefore swabbed

Transmission

- 3rd transmission (positive on specimen from 7/7/26; reported on 9/7/26)
  - Inpatient in same ward as index case (from 20/6/26; 17 days) before testing positive
  - No overlap on ward with 1st & 2nd transmission cases

- Linked case Hospital B 17/7/26 (Wife of index case)
  - VRE (Van A), MRSA
  - Lengthy admission including intubation in South Africia
  - Subglottal stenosis requiring ongoing ENT support
  - OPD management

Management of *C.auris*

- Strict Contact Precautions with gloves ☑
- Single room ☑
- Allocated equipment ☑
- Cleaning of pt equipment twice daily with detergent/disinfectant wipes ☑
- Restricted staff entry to positive patient rooms ☑

Outbreak and routine screening

- Close contacts (>4hr contact) require 3 X swabs, alerts on pt records and management under contact precautions
- Weekly screening of all inpatients in the management ward
- Screening on discharge for all patients that have spent >48hrs and had no swabs during their stay
- Detergent disinfectant v Peracetic acid use for cleaning

Surface disinfection challenges for *Candida auris*: an in-vitro study

R. Kean [a b], L. Sherry [a], E. Townsend [a], E. McKloud [a], B. Short [a], A. Akinbobola [b], W.G. Mackay [b], C. Williams [b], B.L. Jones [c], G. Ramage [a]

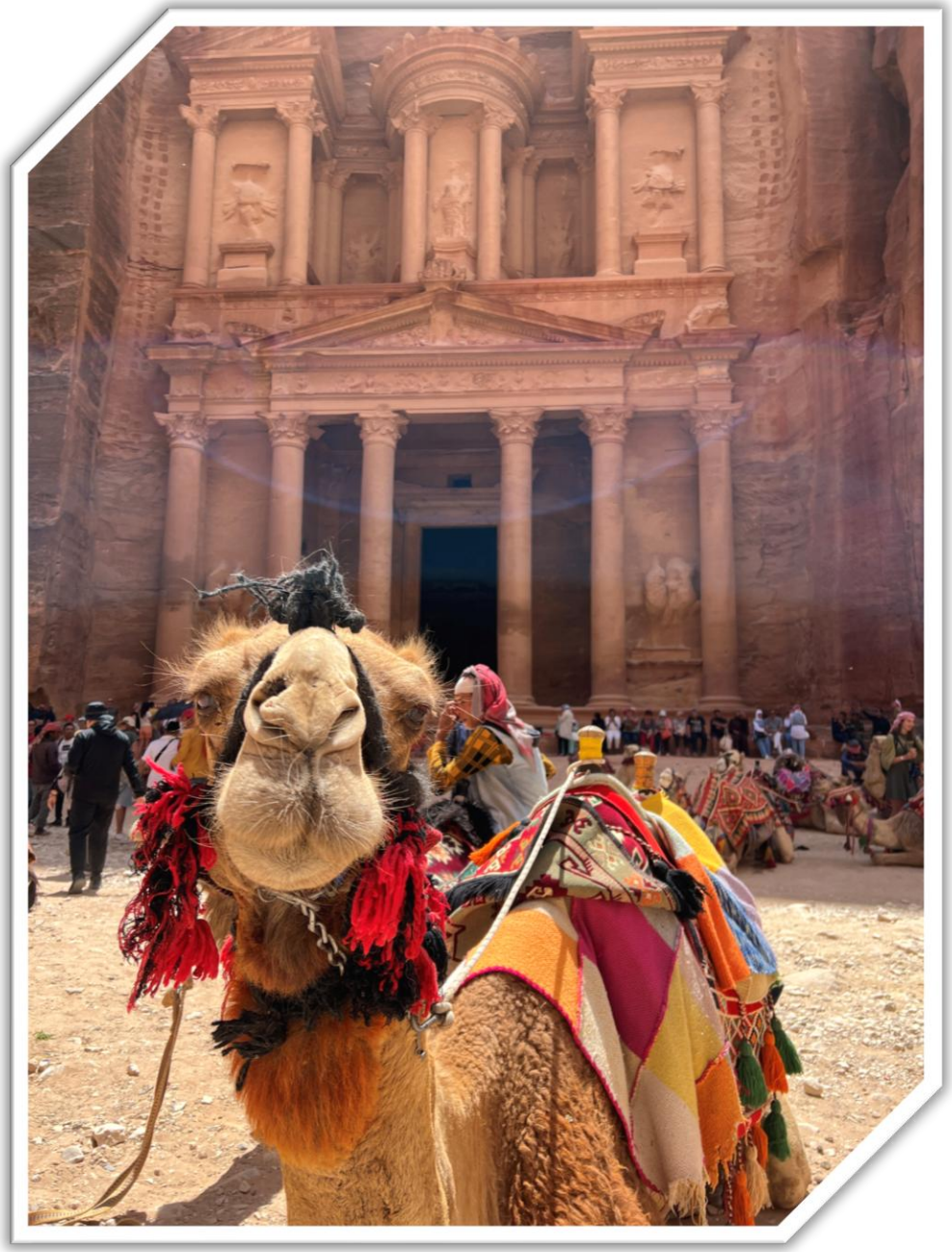
***Candida auris* Dry Surface Biofilm (DSB) for Disinfectant Efficacy Testing**

by Katarzyna Ledwoch and Jean-Yves Maillard *

Be alert and ready..

Key points

- *Candidozyma* (*Candida*) auris is an emerging fungus (yeast) that poses a serious global threat.
- *C. auris* infection may be treated with a group of antifungal drugs called echinocandins, although some *C. auris* infections have been resistant to all three main classes of antifungal medications, making them more difficult to treat or untreatable.
- Clinical spectrum ranges from asymptomatic colonisation to bloodstream, bone, CSF, and intra-abdominal infections. Additionally, *C. auris* has been isolated from wounds, ear and respiratory specimens, urine, bile, and jejunal biopsies.
- *C. auris* is more likely in patients who have been overseas and admitted to a healthcare facility (of any type) overseas in the last 12 months.
- *C. auris* is commonly found on the skin and may spread person-to-person through direct contact with someone who is infected or colonised. It may also be transmitted via contact with shared equipment or the healthcare environment.
- **At-risk patients must be immediately screened and placed into a single room with an unshared ensuite under** standard and contact transmission-based precautions**.** Early identification of actual or suspected cases and contacts is critical. Notify the infection prevention and control (IPC) teams of a suspected case. Ensure compliance with this guideline to prevent outbreaks.
- IPC measures should continue indefinitely.



Thanks to Rajiv Bawa and the QIPCU team

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