



# Follow up for *C. auris* Cases & Contacts in Residential Care Homes (CGAS)

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Kowloon Central Cluster





# Content



- **Type of MDROs: C. auris**

- **Role of CGAS**

- **Contact Case**



- **Confirmed Case**

- ICT alert
- Communication with RCHE before discharge
- Joint Visit
- Residents upon arrival at RCHEs
- Monitoring
- Specimen screening
- Clearance



- **Challenges**

- Environment
- Special precaution for residents with dementia





# Types of MDROs



- Carbapenemase-Producing *Enterobacteriaceae* (CPE)



- Vancomycin-Intermediate *Staphylococcus aureus* (VISA)



- Vancomycin-Resistant *Staphylococcus aureus* (VRSA)



- Vancomycin-Resistant *Enterococci* (VRE)



- Multi-Drug Resistance *Pseudomonas aeruginosa* (MRPA)

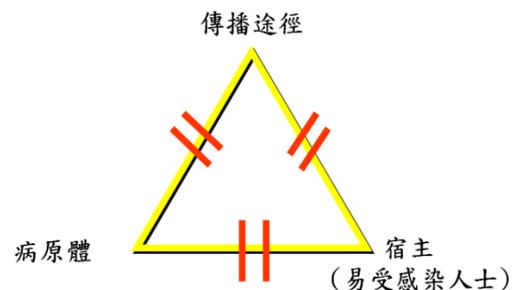


- *Candida auris* (C. auris)

# C. auris



- **Candida auris** 耳念珠菌
- **Resistant to Antifungal**
- Was first reported in **Japan** in **2009**
- **Hong Kong** in **2019** : first case was from Swiss
- PMH and YCH: C. auris Outbreak in 2020
- Can colonize in **patient for at least 1 to 3 months** after initial infection
- Can survive on **environmental surfaces for weeks to months**
- Transmission:
  - Contaminated hands
  - Patient-to-patient contact
  - Contaminated environment or equipment





# Role of CGAS



- Important role in **prevention and management** infection outbreak

- Surveillance and early treatment
- Infection control management: **early detection and early intervention**
- As a **gatekeeper** to prevent infection disease outbreak and unnecessary hospital
- Collaboration with ICT/HA, ICB/CHP, LORCHE/SWD and RCHE



- Important role in **discharge management** of MDRO carrier

- Conduct **Joint Visit** with ICB for risk assessment at RCHE
- Ensure safe and successful discharge
- RCHE staff empowerment
- Conduct specimen screening

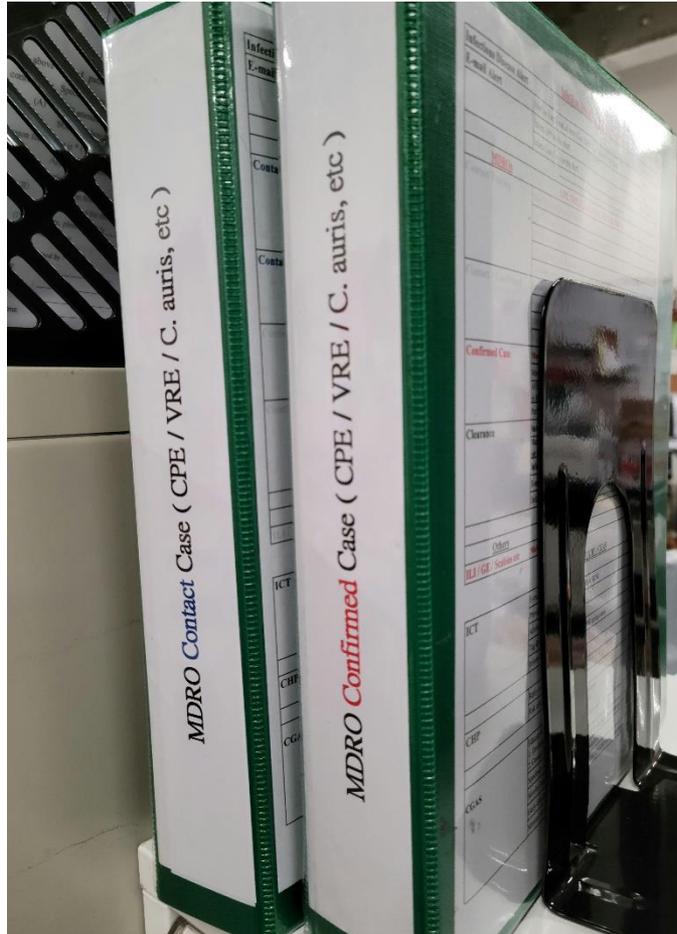


- **Ongoing monitoring**



- Contact ICB/CHP if any **mal-practices**

# Role of CGAS



Infectious Disease Surveillance Workflow		
<b>Infectious Disease Alert</b>		<b>Action by</b>
<b>E-mail Alert</b>	Print the Alert E-mail & write Case Nurse Name beside RCHE Name	Clerk
	Inform APN for the Alert	Clerk
	Inform Case Nurse for the Alert	APN / Clerk
	Inform RCHE staff for the Alert and reinforce ICT measure	Case Nurse
	Inform Doctor to issue specimen GCRS label accordingly	Case Nurse
<hr/>		
<b>MDROs</b>		<b>CPE, VRE, C. auris, VISA, VRSA &amp; MRPA</b>
<b>Contact Tracing</b>	Mark "Contact Screening Record - Infectious Diseases"	APN / Clerk
	Sign & file the Alert E-mail to MDRO Contact Tracing Folder	Case Nurse
	Perform screening accordingly	Case Nurse
	Write Collection Date & Result beside the RCHE Name in the preceding Alert E-mail	Case Nurse
<b>Contact → Confirmed</b>	Submit the +ve result to APN	Case Nurse
	Inform RCHE staff for the +ve detected from Contact Screening	Case Nurse
	Call e-mail ICN (& CHP) for -ve from Contact Screening	APN
<b>Confirmed Case</b>	Mark the "Confirmed Case Record"	APN / Clerk
	Move the Alert E-mail to Confirmed Case (MDROs) Folder in Share Folder	APN
	Affix patient FULL LABEL on "MDRO Confirmed Case (CPE/VRE, etc) Record" in MDRO Confirmed Case (CPE/VRE, etc) Folder	Case Nurse
	Perform monthly screening accordingly	Case Nurse
	+/- arrange Joint Visit as needed (risk assessment by CHP)	APN + Case Nurse
<b>Clearance</b>	Submit all the -ve results for Clearance to APN	Case Nurse
	Mark the Clearance Date on "MDRO Confirmed Case (CPE/VRE, etc) Record" (or DEATH Date)	Case Nurse
	E-mail corresponding ICN (using CMS Alert Flagging) & CHP for the Clearance by using the preceding Alert E-mail	APN
	Delete the Alert E-mail in Share Folder	APN
	Inform RCHE staff for the Clearance Date	Case Nurse
<hr/>		
<b>Others</b>		
<b>ILI / GE / Scabies etc</b>	Mark the "Confirmed Case Record"	APN / Clerk

Roles of ICT / CHP / CGAS	
<b>ICT</b>	E-mail CGAS & CHP for the Alert & D/C Provide MDRO status, information & infection control advice Remind the RCHE to enhance infection control measures accordingly Advise CGAS on the screening Tag & untag the MDRO CMS Alert Flagging Inform CHP when the case has cleared the MDRO carriage status
<b>CHP</b>	Reply e-mail for the notification Risk assessment, determine +/- arrange Joint Visit as needed
<b>CGAS</b>	Educate RCHE staff on strict infection control measures 1. Environment Screening, Cleaning & Disinfection 2. Contact Precaution & Hand Hygiene Specimen collection & subsequent screening Monitor health condition of residents & staff, observe for any signs & symptoms of infection Early detection & early treatment for clustering of infection Monitor infection control practice of RCHE & report to ICB/CHP for any mal-practice

# Role of CGAS

## Infectious Diseases Statistic ( Year 2023 )

	Jan			Feb			Mar		
	CPE	VRE	C.auris	CPE	VRE	C.auris	CPE	VRE	C.auris
<b>CPE / VRE / C.auris etc</b>									
Contact	14	47	1	5	28	46	14	36	63
Confirmed from Contact		1						1	
Confirmed from Adm Screening					1				
Confirmed from DC	8	36		8	19	4	8	21	4
Clearance	4	7		5	14		3	7	
Joint Visit						4			3
Outbreak in RCHE				大角咀: 6 GE					
ILI				2 Parainfluenza-3					
GE	4 CD, 1 Norovirus			1 CD, 1 Norovirus			1 Norovirus		
Scabies							4		

## 1/2023 -3/2023

### ● MDROs:

#### ● Contact: 254

- CPE: 33
- VRE: 111
- C. auris: 110

#### ● Confirmed: 108

- CPE: 24
- VRE: 76
- C. auris: 8

### ● Joint Visit: 7 (C. auris)

# Role of CGAS

## Infectious Diseases Statistic ( Year 2023 )

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#### ● **C. auris: 8**

#### ● **Joint Visit: 7 (C. auris)**

ICT Alert

Communication with  
RCHE

Infection Control  
Measures Advice

Specimen Screening

Off Alert

# Contact Case

- Retrospective contact tracing

ICT Alert

Communication with RCHE

Infection Control Measures Advice

Specimen Screening

Off Alert

# Contact Case

- ICT Alert



- Alert RCHE: apply preemptive Contact Precautions



- Perform screening ASAP (according to the corresponding ICT advice)

- **Candida auris CONTACT Screening: 3 sets of screening (at least 24hrs apart)**

- Each set:

- bil nasal swab
- bil axilla
- bil groin



- Cont'd to apply preemptive contact precautions until 3 results tested -ve

- Inform ICT if detected  from the Contact Screening



- ICB determine +/- will arrange Joint Visit for risk assessment
- ICB decide +/- Secondary Contact Screening

ICT Alert

Communication  
with RCHE  
before DC

CHP  
Determine  
+/- Joint Visit

Arrival at  
RCHEs

Infection  
Control  
Measures  
Monitoring

Specimen  
Screening

Clearance



# Confirmed Case



- From Discharge
- From Contact Screening



ICT Alert

Communication  
with RCHE  
before DC

CHP  
Determine  
+/- Joint Visit

Arrival at  
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Infection  
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Clearance



## Report and Alert in Hospital



Ward -> inform Infection Control Team (ICT)

**ICT** -> inform Infection Control Branch (ICB)

-> inform CGAS or CNS

> **CMS Alert** and MDRO tagging system

> **Contact tracing**

> **Remove Alert**: clearance of MDRO carriage



- Case notification: Chief Infection Control Officer (**CICO**) Office

- Frontline staff have to Inform ICT: admission / transfer in



ICT Alert

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with RCHE  
before DC

CHP  
Determine  
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## Discharge Arrangement of C. auris Case



- Ward and CGAS inform RCHE staff
- **Prepare** Isolation Room and related equipment



- **ICB** -> perform risk assessment

+ ? needs for screening

+ ? needs for **Joint Visit**



ICT Alert

Communication  
with RCHE  
before DC

ICB  
Determine  
+/- Joint Visit

Arrival at  
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**Joint Visit** before patient discharge:

+ ICB/CHP

+ CICO

+ CGAS / CNS

→ Risk assessment

→ On-site training and education talk

→ **Specific tailor-made advice**



• To ensure:

- **Isolation Room** is well equipped for **Contact Precaution**
- **Free from other at high risk of infection residents**



ICT Alert

Communication  
with RCHE  
before DC

CHP  
Determine  
+/- Joint Visit

Arrival at  
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## Post-Discharge Support

- Remind RCHE
- ✓ enhance **infection control measures** as advised during **Joint Visit**
- ✓ notify the resident's C. auris status when resident is **transfer or FU**



ICT Alert

Communication  
with RCHE  
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CHP  
Determine  
+/- Joint Visit

Arrival at  
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Clearance



## Ensure adherence: ongoing monitoring



- Empower **knowledge** and **skills**
- Resolve misunderstanding or myth of taking care C. auris resident
- Develop **culture** of hand hygiene, environmental cleaning and disinfection, appropriate signage with adequate resources and medical equipment
- Daily routine, personal care, environment



ICT Alert

Communication  
with RCHE  
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CHP  
Determine  
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# Donning & Doffing



## Gown Up Area



## Gown Down Area



Wash hands with soap and water  
when hands are visibly dirty  
OR visibly soiled with blood or other body fluids

### 5 moments for hand hygiene 五個必須潔手的時刻



ICT Alert

Communication  
with RCHE  
before DC

CHP  
Determine  
+/- Joint Visit

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## Environment – Disinfection

### Cleansing & Disinfection: clean to dirty

- 1:99, 1:49, 1:4
- 70% alcohol – metallic surface

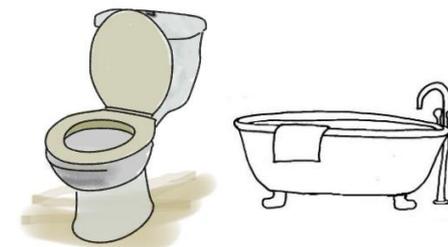


### Frequently touched surfaces: $\geq 2x$ / day

- 1:49
- 70% alcohol – metallic surface



### Terminal cleaning and disinfection

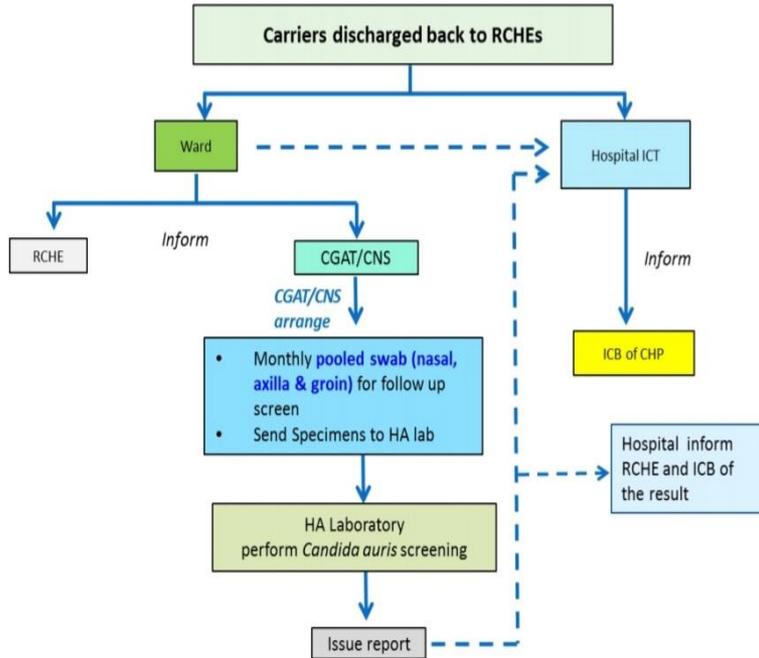




# Specimen screening according to the corresponding ICT

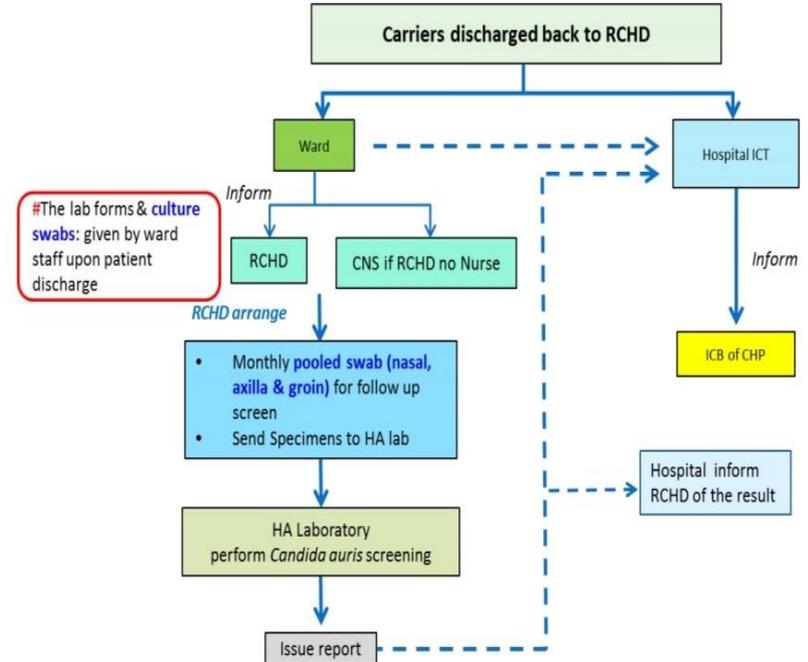
## RCHE

Carriers discharged to RCHEs covered by CGAT/CNS (if no CGAT coverage)



## RCHD

Carriers discharged to Residential Care Home for Persons with Disabilities (RCHD)

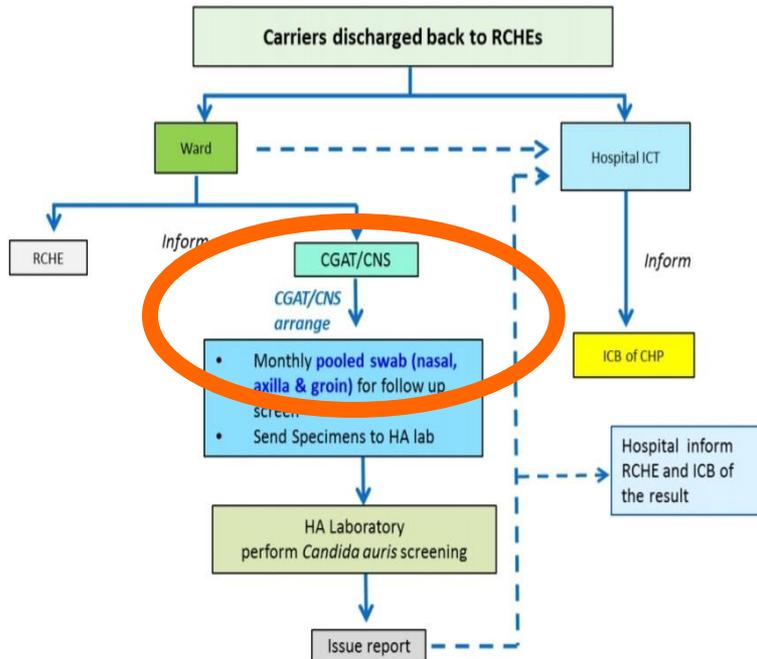




# Specimen screening according to the corresponding ICT

## RCHE

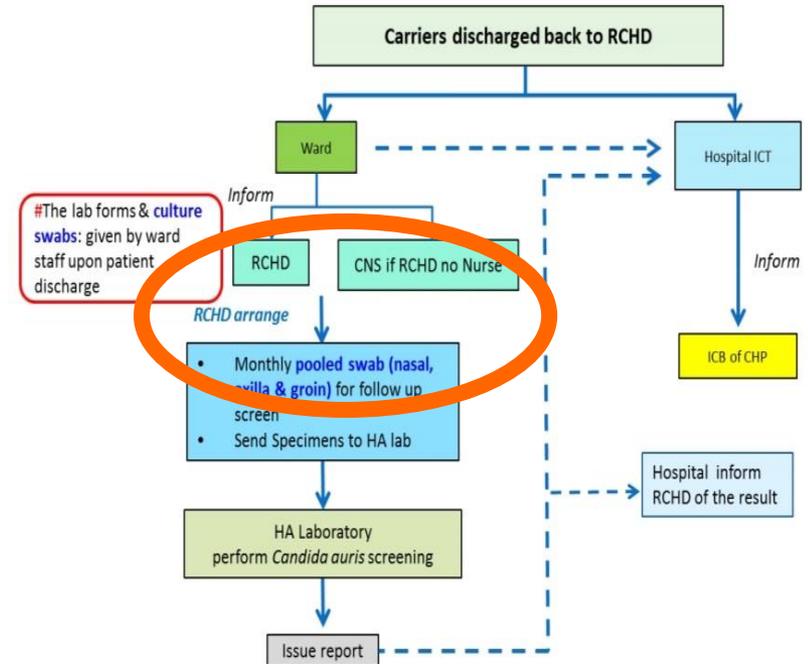
Carriers discharged to RCHEs covered by CGAT/CNS (if no CGAT coverage)



**CGAS / CNS / RCHE Nurse**

## RCHD

Carriers discharged to Residential Care Home for Persons with Disabilities (RCHD)



**CNS / RCHD Nurse**

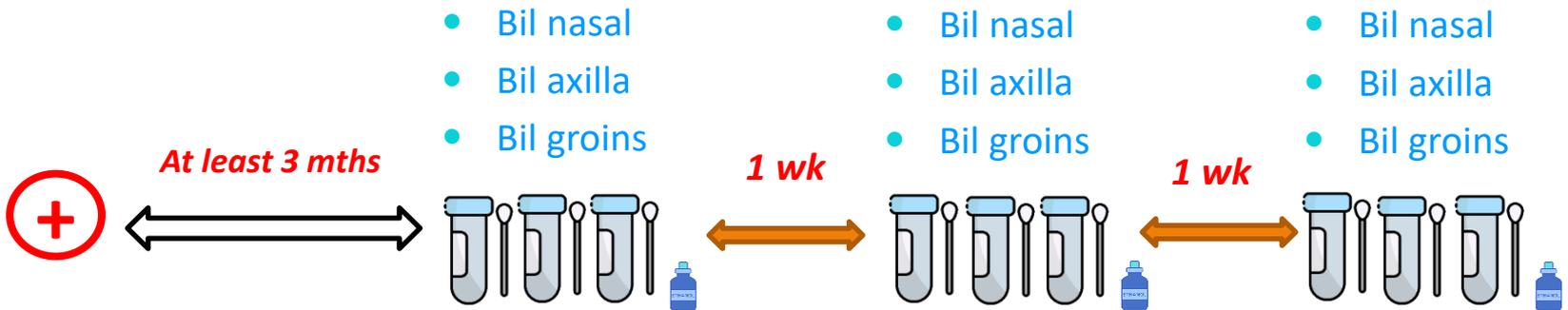


# KWH ICT

Known carrier	Clearance of MDROs <b>The screening should be taken 48 hours after antibiotic therapy.</b>
CPE	<u>3</u> consecutive negative screening results at least 48 hours apart in • All previous positive body sites
Candida Auris	At least 3 months after the patient's last test result positive. The patient should not be on antifungal medication active against <i>C. auris</i> for past one week and topical antiseptic e.g. chlorhexidine for past 48 hours. <u>3</u> consecutive negative screening results at 1 week apart in • Rectal swab/stool • All previous positive body sites • Bilateral nasal • Bilateral axilla • Bilateral groins
MDRA	<u>2</u> consecutive negative screening results at least 48 hours apart in • Throat swab • Bilateral nasal • Bilateral axilla • Bilateral groins • Wound (if present)
MRPA	<u>3</u> consecutive negative screening results at least 48 hours apart in • All previous positive body sites
VRE	<u>2</u> consecutive negative screening results at least 48 hours apart in • All previous positive body sites, and <u>1</u> negative screening result • Rectal swab/stool

- Not on **antifungal medication** for the past **1 wk**
- Not on **topical antiseptic** for the past **48 hrs** e.g. chlorhexidine

## 3 Sets Specimen - \*\*all previous +ve body sites





## Clearance and off Alert:

- Inform ICT the case has cleared the C. auris status
  - 3 consecutive **NEGATIVE** screens
- Off Isolation

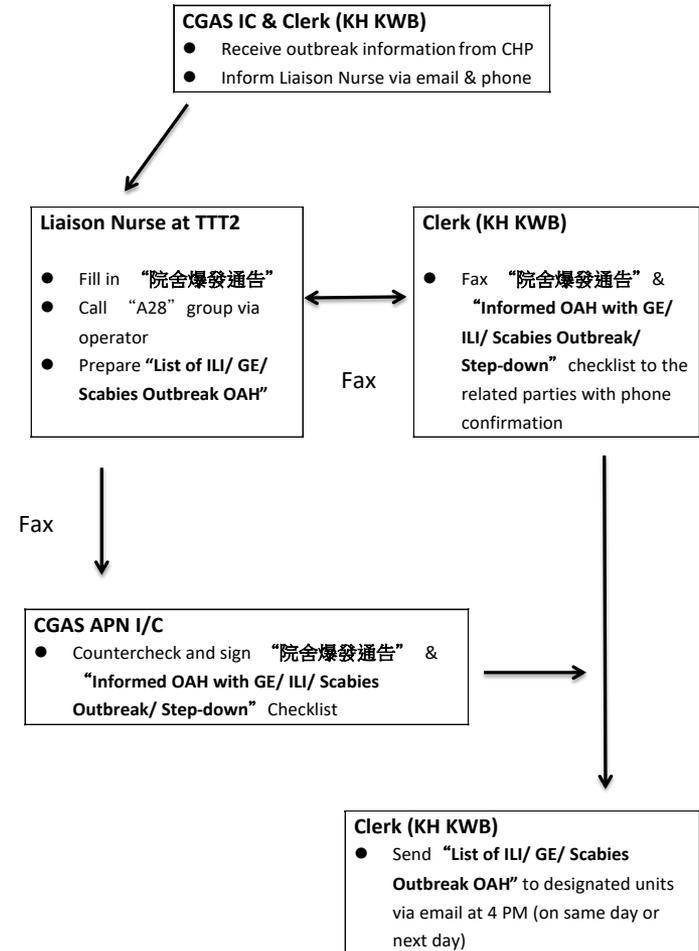


# Outbreak

- Report to ICB:
  - Infection control advice: managing the MDRO residents in RCHE
- Control measures:
  - An epidemiological **investigation and assessment on source of infection**, and prevent further cases
    - Resident screening
    - Environmental sampling
  - Enhanced **infection control measures**:
    - Hand hygiene, contact precaution, environmental cleansing
    - Extra attention on high risk care: catheter, tracheostomy site, wound
  - **Environmental cleaning**
  - Skin decontamination with 2% chlorhexidine wipe, targeted topical management
  - Admission if necessary, and regular in-patient screening as advised by HOCT meeting

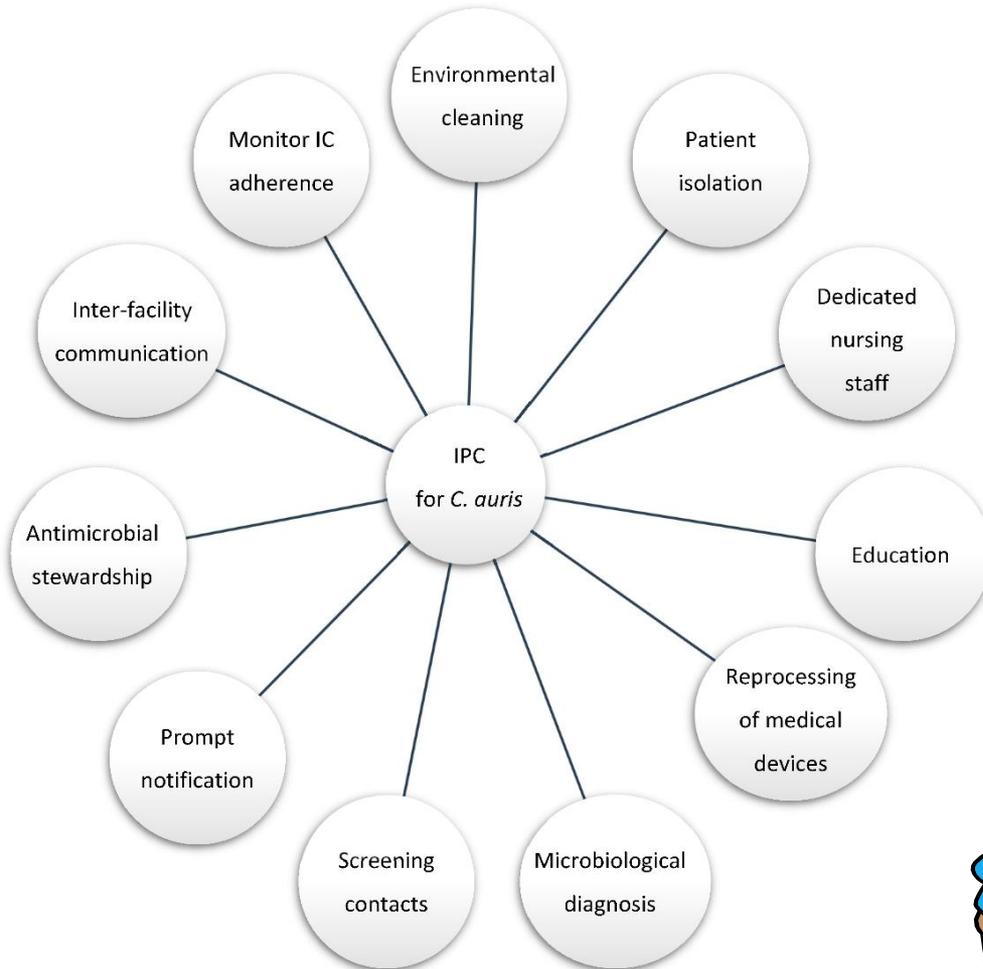
## KWH Community Geriatric Assessment Team

### Infectious Disease Outbreak Mechanism



# Challenges

## Infection Control Practice (IPC) for *C. auris*



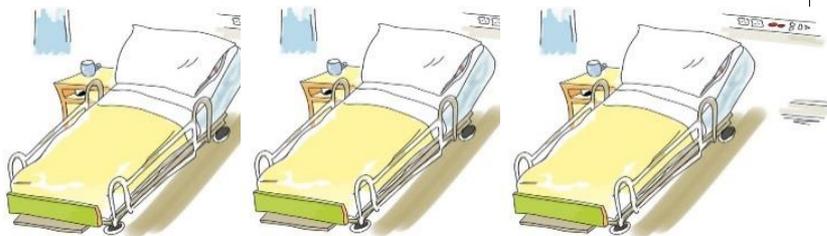
### Infection Control Practice

- ✓ Communication and notification
- ✓ Placement – Isolation
- ✓ Environment cleaning and disinfection
- ✓ Dedicated facilities
- ✓ \$\$ - Dedicated equipment
- ✓ Education
- ✓ Monitoring
- ✓ Reporting



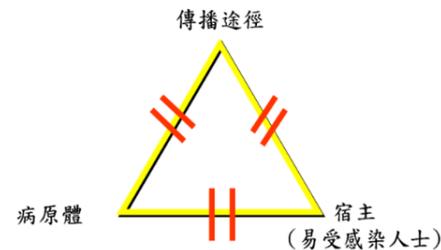
# Challenges

## Environment:



## Dementia Resident:

- RCHE Staff:
  - **Pay extra attention**
  - hand hygiene, and environmental cleansing and disinfection
- Environment:
  - safety and comfort, security and familiarity
  - confirms **identity** on Isolation Rm – pix
- MDRO Dementia Resident:
  - minimize confusion
  - minimize physical & chemical restraint





## Reference



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thank you

