



# CRO Surveillance and Data Analysis: informing interventions and policy

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ReLAVRA Biennial Meeting, Brasilia

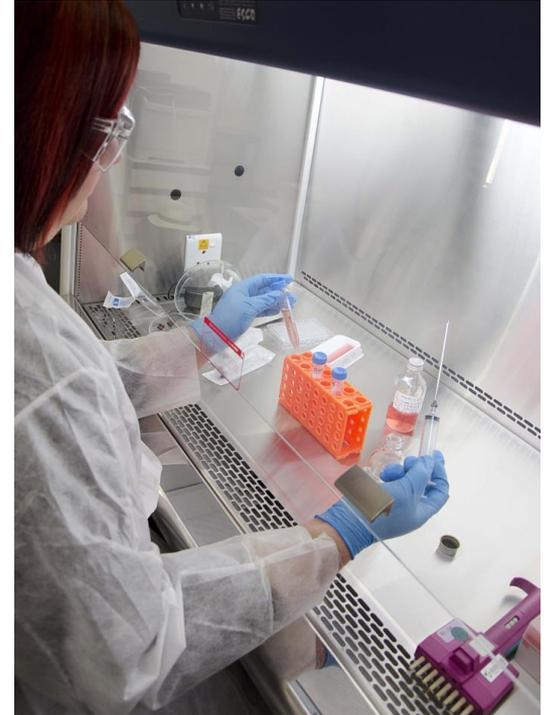
October 22, 2019

# Information for Action

- Laboratory
- Epidemiology
- Infection Prevention and Control
- Policies regarding screening
- What is the interaction with other hospitals?

# Knowing your laboratory capabilities

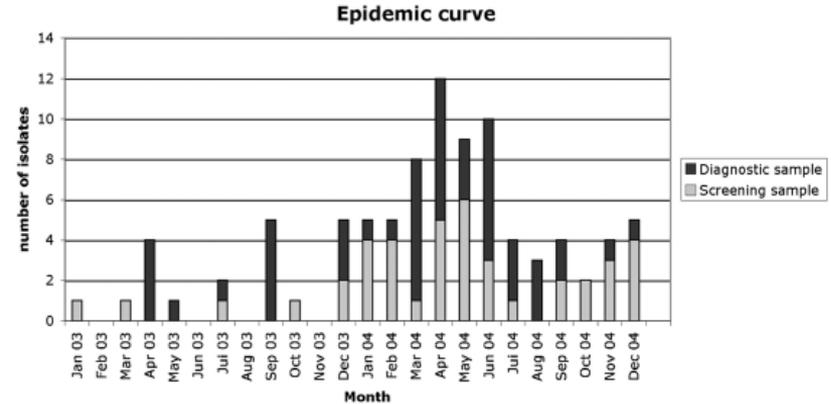
- Can the National Reference Lab distinguish between CRE and CP-CRE?
- Can the hospital lab distinguish between CRE and CP-CRE?
- If samples need to be sent from hospital lab to national reference lab, what is the turnaround time?



# Tracking Surveillance for CRE/CP-CRE

- Are isolates of CRE regularly tracked?
  - How will you know if you have an outbreak?

Epidemic curve of the outbreak.



Thierry Naas et al. J. Clin. Microbiol. 2005;  
doi:10.1128/JCM.43.9.4826-4829.2005

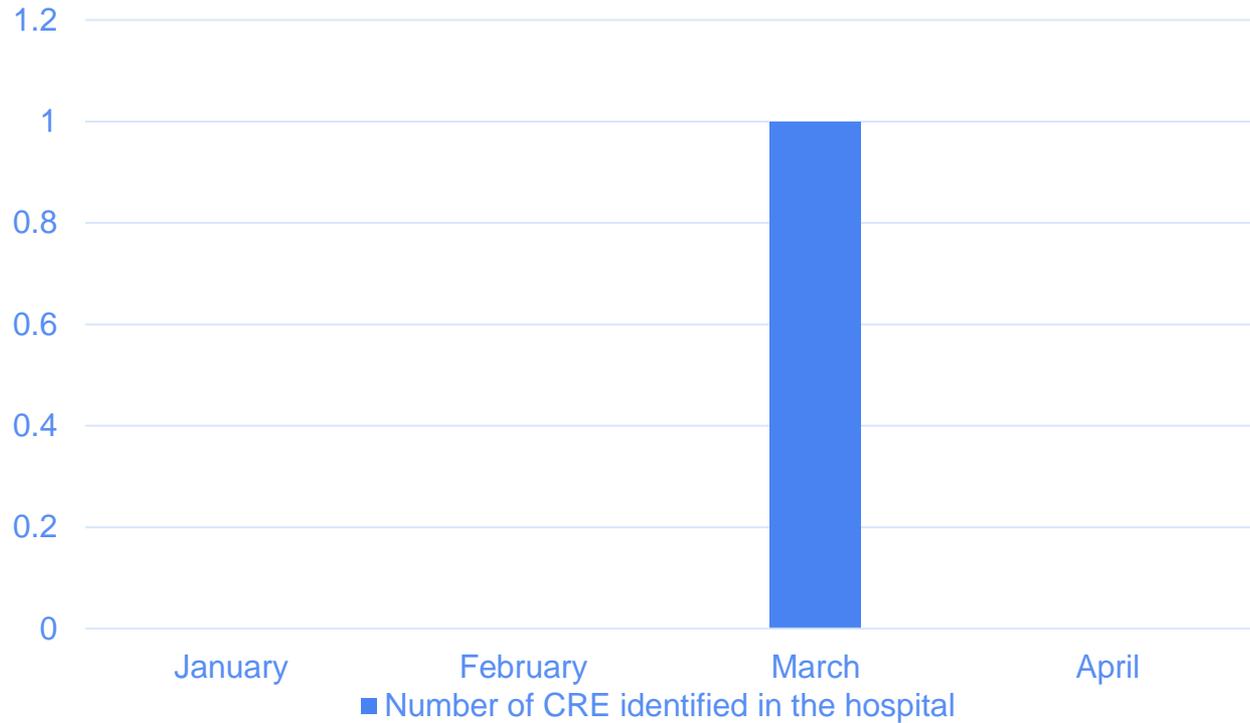
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Journal of  
Clinical Microbiology

# Is this an Outbreak?

Number of CRE identified in the hospital



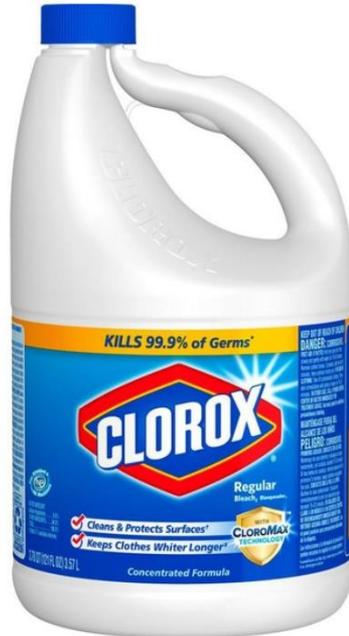
# Example of Epi Data

TABLE 1.

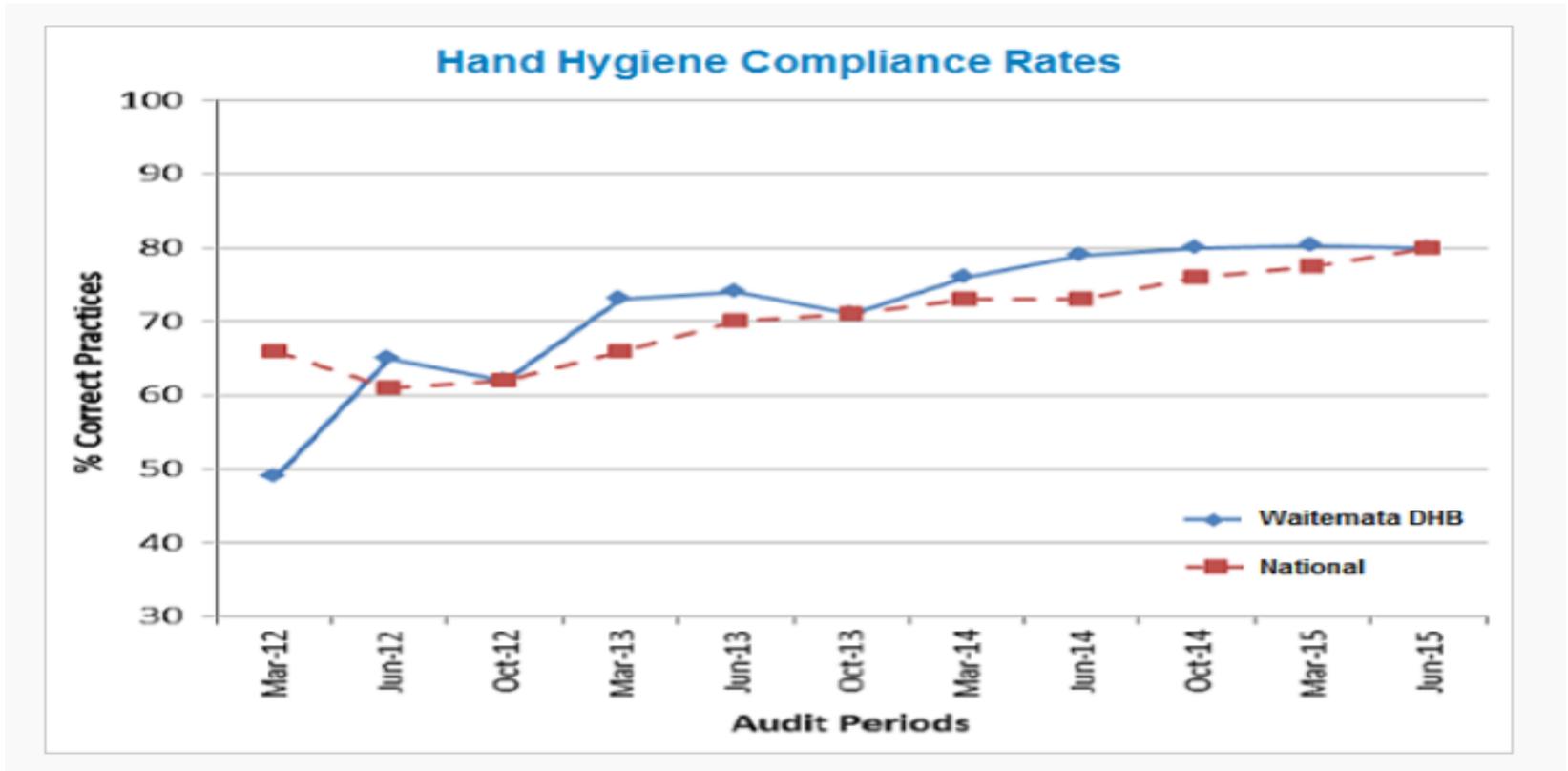
Case history of patients with OXA-23-producing *A. baumannii*<sup>e</sup>

Isolate no.	Date of hospitalization (mo/day/yr)	Age (yr)	Sex	Ward	Date of isolation (mo/day/yr)	Underlying condition	Site of isolation	Diagnosis <sup>a</sup>	Treatment <sup>b</sup>	Outcome <sup>c</sup>	PFGE pulsotype <sup>f</sup>
1	03/03/04	44	F	Gastroenterology	03/22/04	Heart failure	Rectal swab	C			A <sub>1</sub>
2	03/05/04	58	M	Cardiology ICU	03/22/04	Heart failure	Central catheter	Infection			A <sub>3</sub>
3	02/15/04	45	F	ICU	04/10/04	Asthma	Tracheal aspiration	Infection	AM, CS	Deceased	A <sub>1</sub>
4	03/28/04	50	M	ICU	04/13/04	Respiratory failure	Rectal swab	C			A <sub>3</sub>
5	02/09/04	62	M	Internal medicine	04/14/04	Paraplegia	Rectal swab	C			A <sub>3</sub>
6	04/10/04	22	M	ICU	04/20/04	Polytraumatism	Rectal swab	C			A <sub>3</sub>
7	03/31/04	39	M	Surgery	04/19/04	Arthritis	Rectal swab	C			A <sub>3</sub>
8	04/08/04	79	M	Internal medicine	04/20/04	Cerebral vascular	Urinary	Infection			A <sub>1</sub>

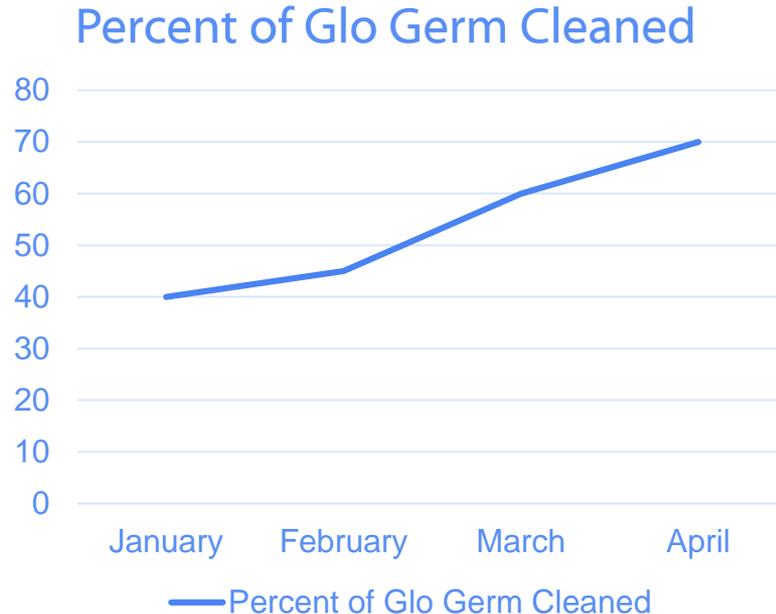
# Infection Prevention and Control



# Example of IPC Data (hand hygiene or contact precautions)

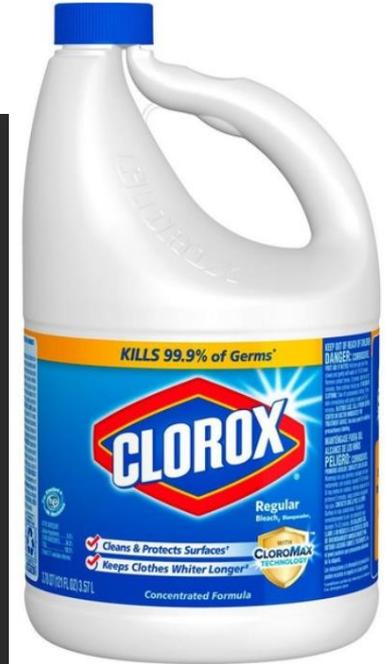


# Example of IPC Environmental Cleaning Compliance



Need to ensure that the correct disinfectant is being used for the pathogen of interest (C diff and C auris needs higher level disinfectant)

# Know what disinfectants are used at the hospital and if they are appropriate for the pathogen



# Screening Cultures – You may need these data for action

- **Of roommates/nearby beds**
- **Of high risk patients on admission**
- **Point prevalence surveys**

## Other Hospitals

- **Do you know the rate of CR0 are in other hospitals in the region?**
- **Is there a notification system between hospitals when transferring patients?**

Muchas Gracias!

Obrigado

For more information, contact CDC  
1-800-CDC-INFO (232-4636)  
TTY: 1-888-232-6348 [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

