



Canadian Agency for  
Drugs and Technologies  
in Health

## RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS



**TITLE: Frequency of Rescreening of Patients Negative for Antibiotic Resistant Organisms: Clinical Evidence and Guidelines**

**DATE:** 22 December 2014

### RESEARCH QUESTIONS

1. What is the clinical evidence regarding the frequency of rescreening following a negative antibiotic resistant organism (ARO) test result at admission in the acute care setting?
2. What are the evidence-based guidelines regarding the frequency of rescreening following a negative ARO test result at admission in the acute care setting?

### KEY FINDINGS

No relevant literature was identified regarding the frequency of rescreening following a negative ARO test result at admission in the acute care setting.

### METHODS

A limited literature search was conducted on key resources including PubMed, Medline, The Cochrane Library (2014, Issue 12), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2009 and December 15, 2014. Internet links were provided, where available.

### SELECTION CRITERIA

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

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**Table 1: Selection Criteria**

<b>Population</b>	Adults who test negative for ARO when admitted to an acute care facility and are admitted for an extended period of time ( $\geq 7$ days)
<b>Intervention</b>	Rescreening or testing during the same hospital admission ( $\geq 7$ days)
<b>Comparator</b>	No rescreening or testing
<b>Outcomes</b>	Safety Patient satisfaction Infection control Guidelines
<b>Study Designs</b>	Health technology assessment reports, systematic reviews, meta-analyses, non-randomized studies, evidence-based guidelines.

**RESULTS**

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, and evidence-based guidelines.

No relevant literature was identified regarding the frequency of rescreening following a negative ARO test results at admission in the acute care setting.

References of potential interest are provided in the appendix.

**OVERALL SUMMARY OF FINDINGS**

No relevant literature was identified regarding the frequency of rescreening following a negative ARO test results at admission in the acute care setting; therefore, no summary can be provided.

## REFERENCES SUMMARIZED

### Health Technology Assessments

No literature identified.

### Systematic Reviews and Meta-analyses

No literature identified.

### Randomized Controlled Trials

No literature identified.

### Non-Randomized Studies

No literature identified.

### Guidelines and Recommendations

No literature identified.

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**APPENDIX – FURTHER INFORMATION:**

**Non-Randomized Studies – No Comparator**

*Unclear Setting or Timeline of Rescreening*

1. Liou DZ, Barmparas G, Ley EJ, Salim A, Tareen A, Casas T, et al. To swab or not to swab? A prospective analysis of 341 SICU VRE screens. *J Trauma Acute care Surg.* 2014 May;76(5):1192-200.  
[PubMed: PM24747448](#)
2. Park I, Park RW, Lim SK, Lee W, Shin JS, Yu S, et al. Rectal culture screening for vancomycin resistant enterococcus in chronic haemodialysis patients: false-negative rates and duration of colonisation. *J Hosp Infect.* 2011 Oct;79(2):147-50.  
[PubMed: PM21764175](#)

**Guidelines and Recommendations**

3. Bond K, Tjosvold L, Harstall C. Effectiveness of screening for endemic antibiotic resistant organisms (AROs) in hospital settings. Summary of systematic reviews, primary studies, and evidence-based guidelines. [Internet]. Edmonton: Institute of Health Economics; 2014 Jul. [cited 2014 Dec 19]. Available from:  
<http://www.ihe.ca/documents/Effectiveness%20of%20Screening%20for%20Endemic%20Antibiotic%20Resistant%20Organisms%20%28AROs%29%20in%20Hospital%20Settings.pdf>  
See: *Table 1. Summary of conclusions from systematic reviews, page 16*  
*Appendix 9: Guideline Recommendations for screening for AROs, pages 80-88*  
Note: *Relevance of recommendations to patients who had a negative screen upon admission is unclear.*

**Clinical Practice Guidelines – Unclear Methodology**

4. Lead Infection Prevention & Control Nurse. Section T - management of patients colonised or infected with Meticillin-resistant Staphylococcus Aureus(MRSA) & PVL Staphylococcus Aureus [Internet]. Huddersfield (UK): Calderdale and Huddersfield NHS Foundation Trust; 2014 Mar. Report No.: C-22-2006. [cited 2014 Dec 19]. Available from:  
[http://www.cht.nhs.uk/fileadmin/departments/infection\\_control/policies/new\\_for\\_2014/Section\\_T\\_-\\_Management\\_of\\_Patients\\_Colonised\\_with\\_MRSA\\_PVL\\_Version\\_7\\_CG\\_.pdf](http://www.cht.nhs.uk/fileadmin/departments/infection_control/policies/new_for_2014/Section_T_-_Management_of_Patients_Colonised_with_MRSA_PVL_Version_7_CG_.pdf)  
See: *MRSA Screening, page 8*  
Note: *Relevance of recommendations to patients who had a negative screen upon admission is unclear.*
5. Wilcox M, Cowling P, Duerden B, Fry C, Hopkins S, Jenks P, et al. Implementation of modified admission MRSA screening guidance for NHS [Internet]. London: Department of Health (UK); 2014. [cited 2014 Dec 19]. Available from:  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/345144/Implementation\\_of\\_modified\\_admission\\_MRSA\\_screening\\_guidance\\_for\\_NHS.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/345144/Implementation_of_modified_admission_MRSA_screening_guidance_for_NHS.pdf)  
See: *Interventions; # 6, page 9*  
Note: *Relevance of recommendations to patients who had a negative screen upon*

*admission and timeline of rescreening is unclear.*

6. Malone D, Hartley J, Brekle B. Microbiological screening of patients on admission (including MRSA) [Internet]. London: Great Ormond Street Hospital for Children NHS Foundation Trust; 2013 Sep 5. [cited 2014 Dec 19]. Available from: <http://www.gosh.nhs.uk/health-professionals/clinical-guidelines/microbiological-screening-of-patients-on-admission-including-mrsa/>  
*See: Admission Screening*  
*Note: Relevance of recommendations to patients who had a negative screen upon admission is unclear.*
  
7. Ontario Agency for Health Protection and Promotion (OHAPP), Provincial Infectious Diseases Advisory Committee. Annex A: screening, testing and surveillance for antibiotic-resistant organisms (AROs) in all health care settings [Internet]. Toronto: OHAPP; 2013 Feb. [cited 2014 Dec 19]. Available from: [http://www.publichealthontario.ca/fr/eRepository/PIDAC-IPC\\_Annex\\_A\\_Screening\\_Testing\\_Surveillance\\_AROs\\_2013.pdf](http://www.publichealthontario.ca/fr/eRepository/PIDAC-IPC_Annex_A_Screening_Testing_Surveillance_AROs_2013.pdf)  
*See: Recommendations; #19, page 26*  
*Table 2: Interventions to detect, manage, and control antibiotic-resistant organisms in all health care facilities, page 29*