



TITLE: Universal Screening for Antibiotic-Resistant Organisms in Long-Term Care Facilities: Clinical Effectiveness and Guidelines

DATE: 18 December 2014

RESEARCH QUESTIONS

1. What is the clinical effectiveness of universal screening for antibiotic-resistant organisms (AROs) upon admission to a long-term care or continuing care facility?
2. What are the evidence-based guidelines regarding screening residents for AROs upon admission to long-term care or continuing care facilities?

KEY FINDINGS

One systematic review was identified regarding the clinical effectiveness of universal screening for antibiotic-resistant organisms upon admission to a long-term care or continuing care facility.

METHODS

A limited literature search was conducted on key resources including PubMed, 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. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, and guidelines. Where possible, retrieval was limited to the human population. In addition, a targeted supplemental search was conducted with focused subject headings and keywords restricted to title only. The search was also limited to English language documents published between January 1, 2010 and December 10, 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

Population	Adults being admitted to long-term care or continuing care facilities
Intervention	Universal screening for antibiotic-resistant organisms (AROs; e.g., methicillin-resistant <i>Staphylococcus aureus</i> [MRSA], vancomycin-resistant enterococci [VRE], extended-spectrum beta-lactamase [ESBL] producing organisms)
Comparator	Selective or targeted screening for AROs
Outcomes	Clinical benefits Harms Evidence-based guidelines
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, 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 and evidence-based guidelines.

One systematic review was identified regarding the clinical effectiveness of universal screening for antibiotic-resistant organisms upon admission to a long-term care or continuing care facility. No relevant health technology assessments, meta-analyses, randomized controlled trials, or evidence-based guidelines were identified.

Additional references of potential interest are provided in the appendix.

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

1. Hughes C, Tunney M, Bradley MC. Infection control strategies for preventing the transmission of methicillin-resistant *Staphylococcus aureus* (MRSA) in nursing homes for older people. *Cochrane Database Syst Rev.* 2013;11:CD006354.
[PubMed: PM24254890](https://pubmed.ncbi.nlm.nih.gov/24254890/)

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

No literature identified.

Guidelines and Recommendations

No literature identified.

PREPARED BY:

Canadian Agency for Drugs and Technologies in Health
Tel: 1-866-898-8439
www.cadth.ca

APPENDIX – FURTHER INFORMATION:

Health Technology Assessments – Not Specific to Long-Term Care

2. Screening for Methicillin-Resistant *Staphylococcus Aureus* (MRSA). Comparative Effectiveness Review No.102 [Internet]. Rockville (MD): Agency for Healthcare Research and Quality; 2013. [cited 2014 Dec 17]. Available from:
Full report : <http://effectivehealthcare.ahrq.gov/ehc/products/228/1550/MRSA-screening-report-130617.pdf>

Clinical Practice Guidelines – Methodology Not Specified

3. National Clinical Effectiveness Committee. Prevention and Control Methicillin-Resistant *Staphylococcus aureus* (MRSA). National Clinical Guideline No. 2 [Internet]. [Ireland]: Department of Health; 2013. [cited 2014 Dec 17]. Available from:
<http://www.hpsc.ie/A-Z/MicrobiologyAntimicrobialResistance/InfectionControlandHAI/Guidelines/File.14478.en.pdf>
See: 2.1.3 MRSA in the non-acute healthcare setting, page 20
4. Ontario Agency for Health Protection and Promotion, Provincial Infectious Diseases Advisory Committee (PIDAC). Annex A: Screening, testing and surveillance for Antibiotic-Resistant Organisms (AROs) in all health care settings [Internet]. Toronto, ON: Queen's Printer for Ontario; 2013. [cited 2014 Dec 17]. Annexed to: Routine practices and additional precautions in all health care settings. Available from:
http://www.publichealthontario.ca/en/eRepository/PIDAC-IPC_Annex_A_Screening_Testing_Surveillance_AROs_2013.pdf
Not specific to the long-term care setting; however, this is a well cited document and touches upon admission from long-term care to hospitals.

Review Articles – Not Specific to Long-Term Care

5. Bond K, Tjosvold L, Harstall C. Effectiveness of Screening for Endemic Antibiotic Resistant Organisms (AROs) in Hospital Settings [Internet]. Edmonton: Institute of Health Economics; 2014. [cited 2014 Dec 17]. Available from:
<http://www.ihe.ca/publications/library/2014/effectiveness-of-screening-for-endemic-antibiotic-resistant-organisms-aros-in-hospital-settings/>