

- Title** Screening, isolation and decolonization strategies for vancomycin-resistant enterococci or extended spectrum beta-lactamase producing organisms: a systematic review of the clinical evidence and health services impact
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- Reference** CADTH Rapid Response Report: Systematic Review, September, 2012. ISSN: 1922-8147 (online). Available from: http://www.cadth.ca/media/pdf/htis/sept-2012/RE0028_VREReport_e.pdf

Aim

To evaluate clinical evidence for the effectiveness of screening, isolation, and decolonization strategies for persons colonized or infected with vancomycin-resistant enterococci (VRE) and extended spectrum beta-lactamase or ESBL-producing organisms in acute and long-term care facilities.

Conclusions and results

Evidence from observational studies showed that active surveillance (screening of all high-risk patients), patient isolation, and specific precautionary measures in hospital settings may reduce the spread, colonization of, and infection with VRE and ESBL-producing organisms. However, there is a lack of evidence regarding whether or not these measures are cost-effective. Increased rates of depression and anxiety were seen in patients who were under strict isolation and contact precautions. No studies were found comparing the effectiveness of decolonization to non-decolonization in patients with VRE or ESBL colonization. Implications for health services provision are discussed in the report.

Methods

English language studies were identified using a peer-reviewed strategy to search bibliographic databases and grey literature sources, from January 2002 to March 2012. Trials were eligible for inclusion if they met the following criteria: involved adults or pediatric patients in acute or long-term care facilities, with VRE or ESBL-producing organisms; compared the effectiveness of screening, isolation, and decolonization with no screening, no isolation, and no decolonization; and, reported outcomes related to VRE or ESBL-producing organisms detection, transmission, and infection. An additional search was performed to find evidence related to the health services impact. Two independent researchers screened and assessed study quality, extracted data, and produced a narrative summary of the findings.

Further research/reviews required

Higher quality studies are needed to confirm rates of depression and anxiety in patients under strict isolation and contact precautions.

Written by

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