



TITLE: Antimicrobial Stewardship Programs in Acute and Long-Term Care: Guidelines

DATE: 16 November 2012

RESEARCH QUESTION

What are the evidence-based guidelines regarding the development and implementation of antimicrobial stewardship programs in acute and long-term care settings?

KEY MESSAGE

Two systematic reviews and two evidence-based guidelines were identified regarding the development and implementation of antimicrobial stewardship programs in acute and long-term care settings.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2012, Issue 10), 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, 2007 and November 2, 2012. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.

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 evidence-based guidelines.

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Two systematic reviews and two evidence-based guidelines were identified regarding the development and implementation of antimicrobial stewardship programs in acute and long-term care settings. No relevant health technology assessments were identified. Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

One systematic review¹ evaluated the use of antimicrobial stewardship programs in the critical care unit. Overall, the quality of the identified research was poor. The authors identified six types of interventions used to manage the use of antimicrobials in the critical care unit and found that reductions in resistance rates were associated with stewardship programs that were carried out for at least six months. The authors concluded that more study is needed in this area before recommendations can be made. A second systematic review² was identified regarding antimicrobial control strategies in pediatric settings. The majority of the studies identified by the authors reported positive outcomes resulting from the implementation of stewardship programs; however, they also reported that most of the studies had an obvious risk of bias. The authors concluded that the limited literature and heterogeneous study designs made it difficult to determine which antimicrobial stewardship interventions might be the most effective.

Two evidence-based guidelines^{3,4} were identified. The guideline from Australia³ recommends that specialized units, such as intensive care and oncology, which use antimicrobials most frequently, should be a main target for surveillance programs. The American guideline⁴ provides guidance for the development of a hospital-based antimicrobial stewardship program. Most of the studies used to create the guideline were focused in intensive care settings. Both guidelines^{3,4} include a list of key requirements of antimicrobial stewardship programs for hospitals. Some common characteristics include the core membership of the stewardship team (infectious diseases physician and clinical pharmacist with infectious disease training), collaboration between the team and the existing infection control group within the hospital, and education for prescribers regarding antimicrobials. The full lists of key requirements can be found within the full text of the guidelines.

REFERENCES SUMMARIZED

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

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Guidelines and Recommendations

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APPENDIX – FURTHER INFORMATION:

Recommendations and Position Statements

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