

DEVELOPMENT OF GENERIC QUALITY INDICATORS FOR ANTIBIOTIC TREATMENT IN HOSPITALIZED ADULTS

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Background

Antimicrobial stewardship programs aim to optimize clinical outcome while minimizing unintended consequences of antimicrobial use, including the emergence of resistance.

An important requirement for an effective stewardship program is its ability to measure the appropriateness of antibiotic treatment and to monitor the impact of education and other interventions to improve antibiotic treatment.

Quality indicators (QIs) can be used to validly define and measure the appropriateness of the antibiotic treatment provided and to monitor improvement in antibiotic treatment.

Aim

The aim of this study was to develop QIs which can accurately measure the appropriateness of antibiotic use in the treatment of all prevalent bacterial infections in hospitalized adult patients.

Patients and Methods

A RAND-modified Delphi procedure (a systematic, stepwise method combining evidence and expert opinion) was used to develop a set of QIs. Potential QIs were retrieved from scientific literature.

An international multidisciplinary expert panel appraised and prioritized the QIs regarding relevance to clinical outcome, antimicrobial resistance and costs, in two questionnaire mailings with an in-between face-to-face consensus meeting.

Results

Our literature search resulted in a list of 24 potential QIs. The 17 international experts appraised and prioritized these potential QIs.

After the expert panel meeting, 11 QIs remained. These indicators all had a high medium score of 8 or 9 (scale 1-9) during the first questionnaire and were approved by the experts in the second questionnaire.

We also asked the experts to rank these 11 QIs by selecting a personal 'top 5'. This resulted in a subset of 6 prioritized QIs.

Consensus procedure and selected Quality Indicators

Figure 1: RAND-modified Delphi procedure for developing QIs to monitor the appropriateness of antibiotic treatment in hospitalized adults

