

The growing importance of reserve antibiotics in organ transplant care and the role of timely appropriate antibiotic treatment to preserve the benefits of prior health investments

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OBJECTIVE

The growing threat of antimicrobial resistance (AMR) and the increasing prevalence of multi-drug resistant (MDR) infections present significant challenges for kidney organ transplant (SOT) recipients.¹ This review examines the burden of AMR in SOT patients, explores management strategies, and assesses the financial implications, weighing the cost-benefit against the initial investment in SOT.

METHODS

A focused targeted literature review identified 11 publications from a 5-year period (2020-2025) using PubMed and Google Scholar (figure 1). Cost data were extracted from public databases or specific publications on costs.

FIGURE 1: LITERATURE FLOW CHART

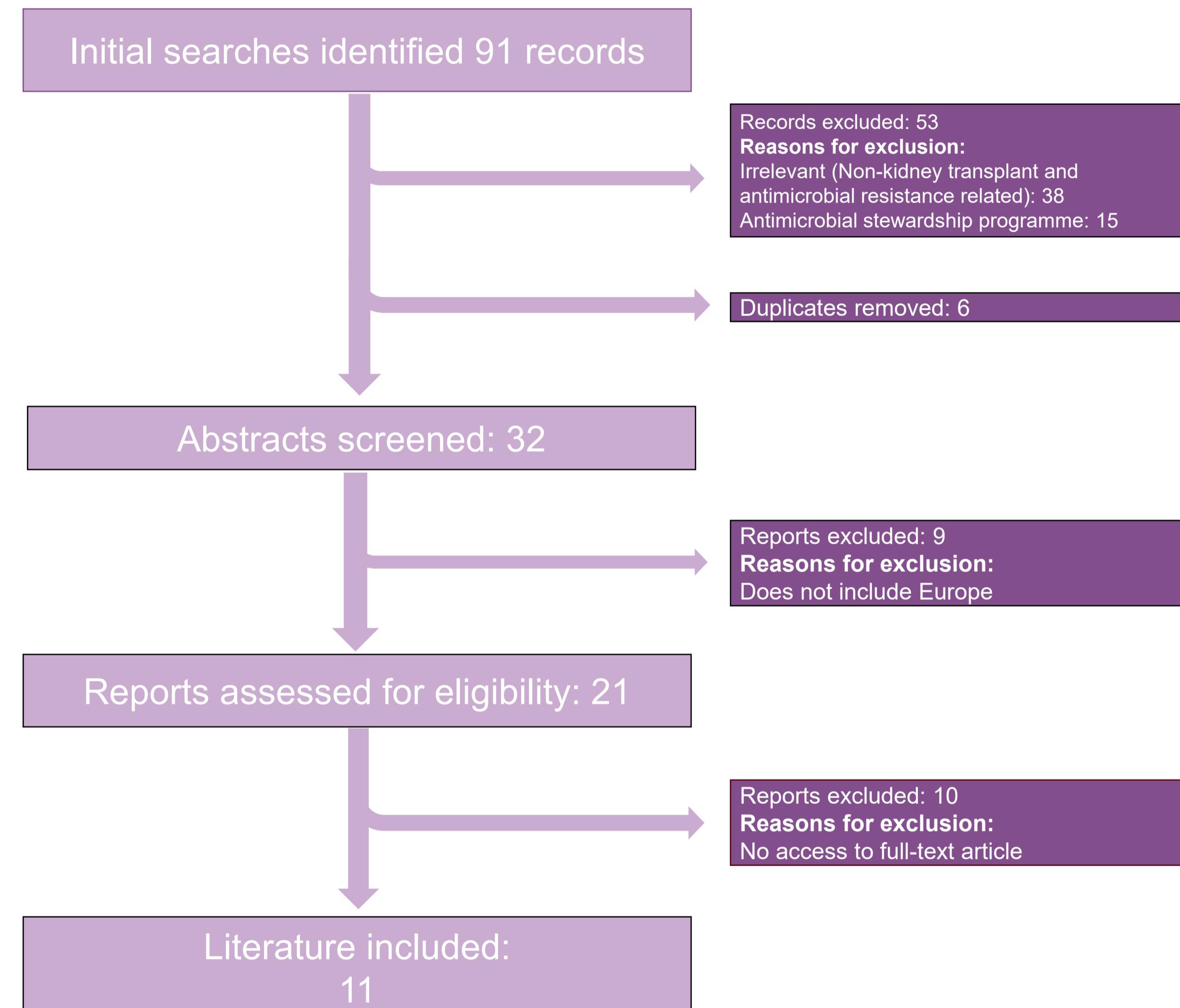
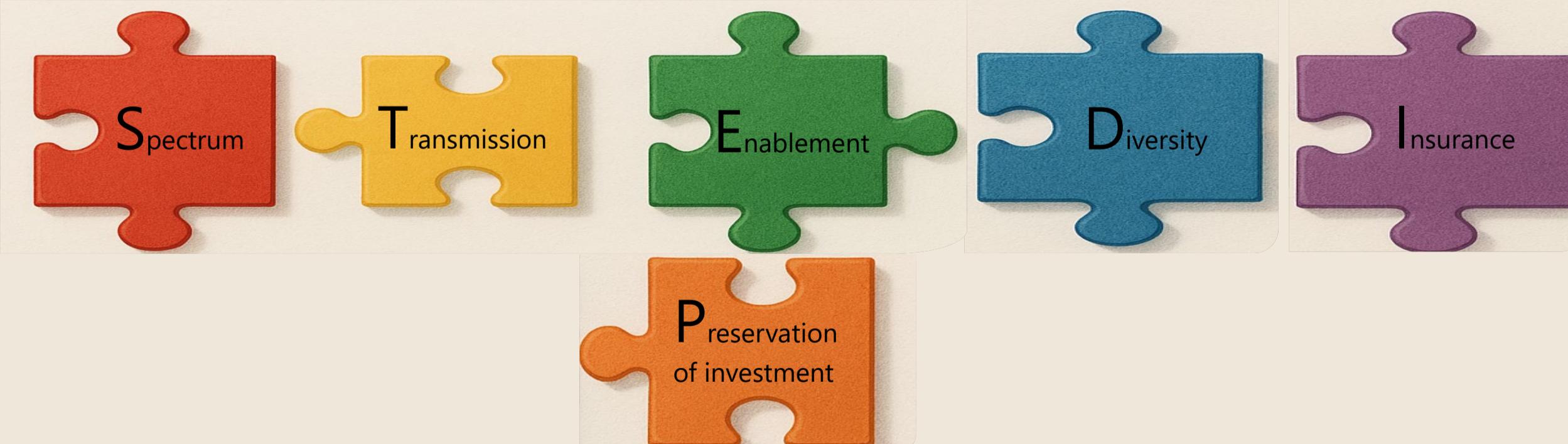


FIGURE 2: STEDI FRAMEWORK WITH ADDED DIMENSION



When prior health investments are considered in MDR infections:

- Early empiric therapy with broad-spectrum antibiotics may be justified for high-risk patients
- Investing in rapid diagnostics can improve outcomes and reduce use of inappropriate antibiotics and hospital stays

CONCLUSIONS

Investing in timely, appropriate antibiotic therapy and diagnostic tools helps preserve the value of prior health investments like SOT. Current value frameworks (e.g., STEDI) may underestimate this dimension of care.

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