

Does using Antibiotics in End-of-Life care improve outcomes?

A Rapid Umbrella Review

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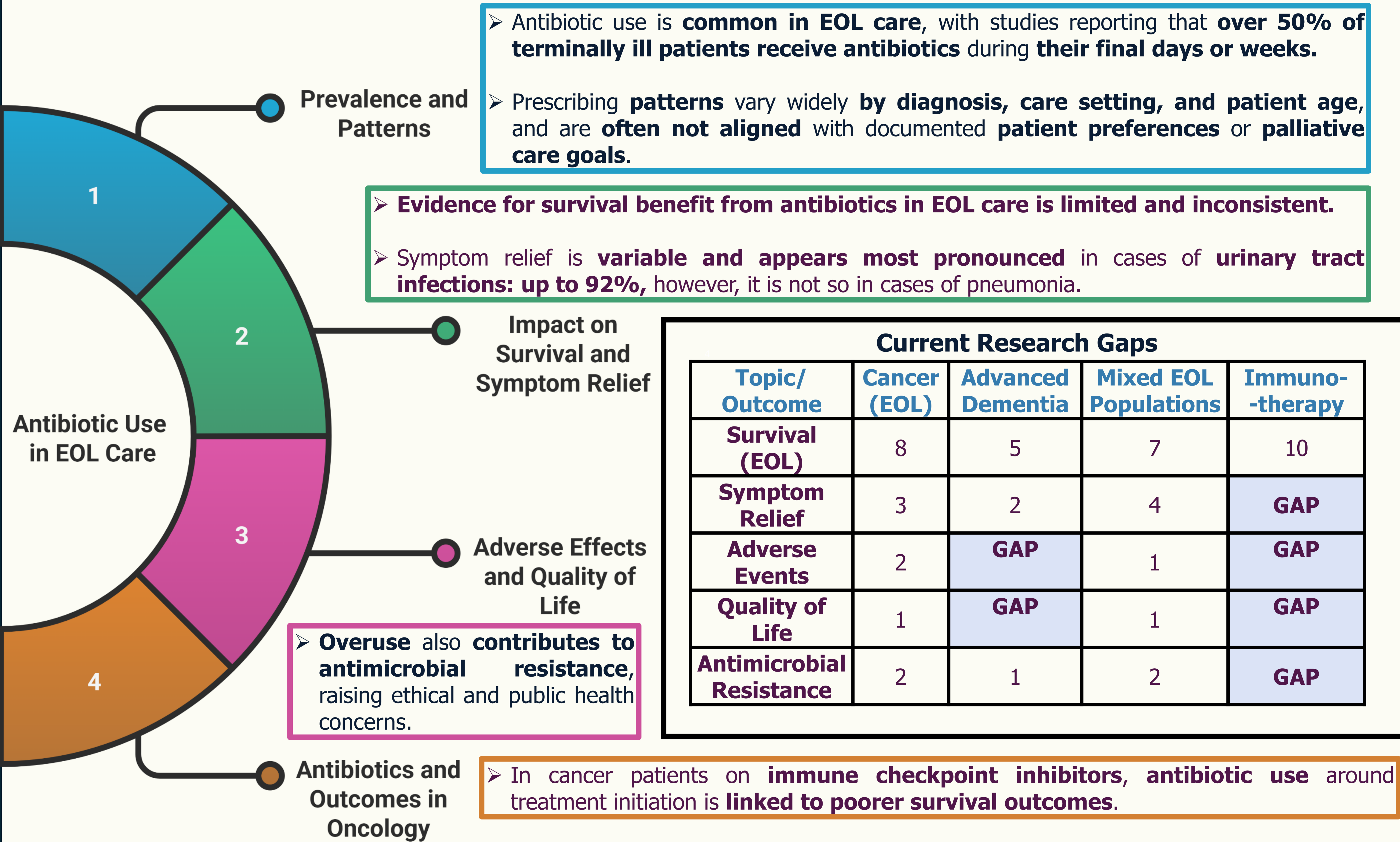
Introduction

The use of antibiotics in **end-of-life (EOL)** care is a complex and debated topic, with research exploring their **impact on survival, symptom relief, quality of life**, and broader public health concerns such as **antimicrobial resistance**. Evidence from systematic reviews and meta-analyses suggests that **antibiotics are frequently prescribed to EOL patients**, often with the intention of symptom management or prolonging life, **but the benefits are inconsistent and context dependent**.

Methods

Our search **in PubMed, EMBASE, Web of Science and Google Scholar provided 40 results** of existing reviews on topic of interest, and **it included 8 duplicates**. Further **16 articles were not appropriate** and hence **16 studies were included**. AMSTRAR 2 criteria was used to assess quality of Reviews. We assessed the consistency of findings across reviews and evaluated overlapping primary studies using the Corrected Covered Area (CCA) method.

Results



Discussion

- The current evidence **does not support routine antibiotic use in EOL care** for the **purpose of improving survival or overall symptom** burden, **except** in **select cases such as symptomatic urinary tract infections**.
- The **potential for harm**, including **adverse drug events, reduced quality of life, and increased antimicrobial resistance**, must be weighed against any possible benefit.
- In oncology, particularly among patients receiving immunotherapy, **antibiotics may actually worsen outcomes** by disrupting the gut microbiome and impairing immune response.

For Collaborations



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Conclusion

Antibiotic use during end-of-life care is widespread, but **its benefits are limited** and must be balanced **against potential harms and the risk of antimicrobial resistance**.

The literature supports a move toward **individualized, goal concordant** prescribing, **improved communication**, and **integration of stewardship principles** into palliative care.

