



How to use the Empirical Antimicrobial Guidelines

Empirical antimicrobial guidelines contain "best guess" antimicrobial choices, based on Antimicrobial Stewardship principles.

Their use is only recommended if no previous microbiological culture results are available that could inform antimicrobial choice.



Before prescribing any antimicrobial, **you must review previous microbiology culture results.**

Microbiology reports show antimicrobials that are recommended for treatment of the isolated organism(s) at the site the sample was taken from **labelled as "S" or "I".**

The Empirical Antimicrobial Guideline does not apply for new antimicrobial prescriptions or IV-to-oral Switch (IVOS) decisions if:



- organisms that are **resistant "R"** to the recommended empirical agent(s) were grown in previous cultures from the suspected site of infection
- organisms **resistant "R"** to the empirical switch recommendation were grown from the site of infection during the current OR a previous infection episode

Reports for organisms like *E.coli* or *Klebsiella* species grown from urine can be used as surrogate sources of information for treatment of infections with significant gram negative elements, like intra-abdominal infections and hospital-acquired pneumonia.

Example: do not use gentamicin or co-trimoxazole for these indications if urine cultures have shown gram negatives with resistance to gentamicin or trimethoprim (as this implies resistance to co-trimoxazole).

Patients with recurrent infections and/or repeated hospital admissions are at particular risk of infections with unusually resistant organisms and the empirical policy is least likely to apply to this patient group.

The Empirical Antimicrobial Guideline applies for new prescriptions and/or IVOS decisions if:



- there are **no culture results** for samples taken **from the suspected current site of infection OR**
- **there are previous culture results** for samples taken from the suspected site of the current infection, **and the organism(s) grown are susceptible "S" or susceptible at increased dose "I" to the recommended agent(s).** The recommended dosing in the empirical guidance is the "increased dose" where this reporting category applies.

The Empirical Antimicrobial Guideline is most likely to apply to community-acquired, uncomplicated respiratory and skin and soft-tissue infections .

These infections are more likely to be caused by gram positive organisms which are less commonly resistant to the recommended empirical choices.