

## Waterford: Antimicrobial Guidelines - Antimicrobial Guideline: Gram Negative Bacilli (GNB)

### Gram Negative Bacilli (GNB)

Gram Negative Bacilli (GNB) GNB on Gram of blood culture represents presumptive Gram negative septicaemia and the need for urgent review and prompt antibiotic treatment pending confirmation of identification.

Potential GNB organisms (most common):

Enterobacterales including *E coli* , *Klebsiella* spp, *Enterobacter* spp, *Pseudomonas* spp, *Acinetobacter* spp, Gram negative anaerobes including *Bacteroides* (less common) Note that MDRO (Multi-Drug Resistant Organism) including ESBL *E coli* / *Klebsiella* , CPE *E coli* / *Klebsiella* , MDR *Pseudomonas* / *Acinetobacter* are included in this category.

### Risk assessment

The key is to review the patient carefully for signs and symptoms of sepsis / bacteraemia. Carry out a NEWS score and follow the Sepsis Six protocol if clinically indicated.

Bear in mind that the Gram stain result of GNB may reflect a causative organism of life threatening sepsis and may harbour antibiotic resistance mechanisms.

Ensure Sepsis Protocols are followed as clinically appropriate. In a very small number of cases GNB on blood culture may turn out to be contaminants (e.g some *Acinetobacter* / environmental GNBs) but the vast majority are clinically significant and often pathogens of life-threatening sepsis, warranting immediate appropriate antibiotic therapy and source control.

### Empiric Antibiotic Cover

Gram negative sepsis requires urgent review and appropriate empiric antibiotic therapy. Consult this document for advice on empiric cover in the relevant section. If the potential pathogen appears likely from the likely source of sepsis ensure patient is on appropriate antimicrobial therapy for that source and pathogen. If source unclear – see [Sepsis - Undetermined Origin](#) Section.