Gram negative rod/bacillus

Always consider result to be significant.
See appendix for a list of common gram negative organisms.

1. Localising signs or symptoms of infection? Most frequent: **urinary or intra-abdominal sepsis**; **hospital-acquired pneumonia (HAP)** is less common.
2. **Check cultures for previous gram negative organisms RESISTANT=R to gentamicin or temocillin and *P.aeruginosa* R to gentamicin.**

Assessment
NEWS2 score ≥7 → request senior clinical review

Urosepsis
Most common source. Consider catheter change if urinary catheter in situ >7 days.

Intra-abdominal infection
Consider need for imaging and surgical source control.
Add remaining agents from the empirical regimen for intra-abdominal infection.

Sepsis without clinical focus, HAP, other suspected sources
Consider adding additional cover in line with the empirical regimen for sepsis of uncertain source.

No features of sepsis or obvious source of infection
Take a further set of blood cultures before giving gentamicin.

Give stat dose of IV gentamicin, dosed as per gentamicin calculator if no previous gentamicin resistance or contra-indications.

Contact the on call microbiologist if:
•gentamicin is absolutely contra-indicated AND the patient has a documented penicillin allergy
• OR previous cultures show gram negatives resistant = R to both gentamicin and temocillin OR *P.aeruginosa* R to gentamicin
•Blood culture was drawn after >2 doses of gentamicin in the absence of known resistance

Do not give additional doses if already receiving gentamicin. **Increased dose temocillin (adjusted to renal function if required) can replace gentamicin** if there is no history of penicillin allergy, there are no gram negative organisms resistant = R to temocillin AND no recent isolates of *P.aeruginosa*.

Document result, clinical review, and plan in notes
All cases of gram negative bacteraemia are followed up by a consultant microbiologist who will advise on further investigations and duration of treatment.