Louth: Antimicrobial Guidelines - Louth Hospitals: Antimicrobial Guidelines: Neutropenic Sepsis

Indication

Neutropenic Sepsis: Initial Empiric Treatment

First Line Antimicrobials

Piperacillin/Tazobactam 4.5g **QDS** IV

AND

Gentamicin 5mg/kg daily IV (avoid gentamicin if myeloma - substitute ciprofloxacin 400mg BD IV instead)

N.B. Adjust dose if renal impairment, trough level monitoring required, click on link above for calculator and guideline.

N.B. Risk of long-lasting and disabling adverse effects with quinolones, mainly involving muscles, tendons and bones and the nervous system. Consider potential to prolong the QT interval. Consider that seizure threshold may be lowered.

+/-

If indwelling central vascular access device, MRSA or other gram positive infection suspected: Vancomycin 25mg/kg loading dose stat (max 3g), followed by15mg/kg BD IV

N.B. Adjust dose if renal impairment, trough level monitoring required, click on link above for calculator and guideline.

ADD Clarithromycin 500mg BD PO (or Clarithromycin 500mg BD IV only where oral route is not feasible - excellent oral bioavailability) if evidence of community-acquired pneumonia.

N.B. Consider potential for drug interactions, e.g. statins, prolongation of QT interval

(No need to add clarithromycin if patient on ciprofloxacin).

If patient deteriorates clinically, contact Clinical Microbiologist for advice.

Penicillin Hypersensitivity

Ciprofloxacin 400mg BD IV

N.B. Risk of long-lasting and disabling adverse effects with quinolones, mainly involving muscles, tendons and bones and the nervous system. Consider potential to prolong the QT interval. Consider that seizure threshold may be lowered.

AND

Vancomycin 25mg/kg loading dose (max 3g), followed by 15mg/kg BD IV

N.B. Adjust dose if renal impairment, trough level monitoring required, click on link above for calculator and guideline.

AND

Gentamicin 5mg/kg daily IV (avoid gentamicin if myeloma)

N.B. Adjust dose if renal impairment, trough level monitoring required, click on link above for calculator and guideline.

If patient deteriorates clinically, contact Clinical Microbiologist for advice.

Comments

Neutropenic sepsis is a medical emergency. Contact Clinical Microbiologist, Oncologist and/or Haematologist for advice as required.

N.B. Patients with neutropenic sepsis require daily clinical review.

N.B. Review need for gentamicin daily. Avoid durations in excess of 5 days.

Microbiological Investigations:

- **N.B. Check previous microbiology results – this may influence empiric choice.**
- Blood cultures – if vascular catheter in situ, take one set of blood cultures from each lumen and a set of blood cultures from peripheral vein if possible
- MSU/CSU
- Sputum sample
- If viral aetiology suspected, nose and throat viral swabs (in **red-top** tube containing viral transport medium) for respiratory virus multiplex PCR
- If influenza suspected, refer to OLOL IPCT Guidelines regarding need for isolation
- Culture all possible sources of infection, e.g. CVC lines, stool sample if diarrhoea, wound swab if applicable
- Consider expanding the differential diagnosis to include other pathogens, e.g. MDROs, viruses, PCP and fungi. Contact Clinical Microbiologist for advice if required.

ALWAYS REVIEW empiric therapy in conjunction with C&S after 48 hours.

See also Policy for the Care and Management of Chemotherapy-Induced Neutropenia and Febrile Neutropenia in Adult Patients on network drive or in ward folder.