

GUIDANCE ON INITIAL ANTIBIOTIC MANAGEMENT OF NEUTROPENIC SEPSIS/FEBRILE NEUTROPENIA IN ADULT CANCER PATIENTS (including HAEMATO-ONCOLOGY)

This guidance has been developed for local adaptation to reflect local resistance rates. In addition previous microbiology results should be reviewed for resistance on an individual patient basis.

FEVER: Pyrexia OR Hypothermia (temperature > 38°C OR < 36°C)

SEPSIS: EVIDENCE OF INFECTION + ORGAN DYSFUNCTION i.e. ≥ 2 of hypotension, confusion or tachypnoea (Resp Rate ≥22/minute)

SEPTIC SHOCK: Sepsis induced hypotension requiring inotropic support or hypotension that is unresponsive (within 1hr) to adequate fluid resuscitation i.e. systolic BP <90mmHg or a reduction of >40mmHg from baseline

NEUTROPENIC SEPSIS OR FEBRILE NEUTROPENIA

Neutrophil count < 0.5, or < 1 if recent chemotherapy (usually within 10 days but can persist for up to 21 days) PLUS FEVER/HYPOTHERMIA or SEPSIS/SEPTIC SHOCK

OTHER PATIENT GROUPS INCLUDED:

Cancer patients who are clinically unwell with undifferentiated infection with normal Neutrophil count but known to be immunocompromised e.g. recent stem cell transplant, high dose corticosteroid therapy

In line with current standards for management of sepsis all patients with suspected neutropenic sepsis should be assessed within 30 minutes of presentation to hospital and resuscitation should be commenced following the 'Sepsis 6' care bundle. Sepsis severity should be assessed using an National Early Warning Score (NEWS) and patients assigned to STANDARD RISK or HIGH RISK based on the following criteria:

STANDARD RISK PATIENTS: NEUTROPENIC SEPSIS OR FEBRILE NEUTROPENIA plus NEWS ≤ 6

HIGH RISK PATIENTS: SEPTIC SHOCK or NEWS ≥ 7 plus ALL PATIENTS WITH ACUTE LEUKAEMIA OR ALLOGENEIC TRANSPLANT



REVIEW IV THERAPY DAILY - CONSIDER IVOSTATS (as per local guidelines) AND STOP IF INFECTION EXCLUDED - MAXIMUM GENTAMICIN DURATION WITHOUT REVIEW 3 DAYS

*Antimicrobial cover for specific additional infection risks:

1. **IV vancomycin or teicoplanin** (following local guidelines) if recent infection with MRSA, MRSA colonised (current or previous), suspected central line infection or signs of skin/soft tissue infection.
2. **IV clarithromycin** 500mg 12 hourly if Community Acquired Pneumonia suspected and atypical cover required (check drug interactions)

Cautions

1. Suggested antibiotic dosage is based on normal renal function
2. If using gentamicin / vancomycin combination - potential for additive adverse renal effects. Consider teicoplanin in place of vancomycin. Monitor renal function closely
3. Seek early appropriate senior specialist advice and refer patient to specialist haemato-oncology/ transplant unit
4. Seek senior specialist advice before using gentamicin in myeloma patients due to the risk of renal toxicity