CARE OF THE ONCOLOGY PATIENT ADMITTED TO PICU

FEVER

- > 38 deg C (oral or tympanic) on two consecutive occasions > one hour apart OR
- > 38.5 or on one occasion (oral or tympanic)

NEUTROPENIA

- A neutrophil count of <0.5 x 10^9/L
- OR recent intensive chemotherapy where neutropenia is expected for 8 to 14 days post start of chemotherapy.

EVALUATION OF A PATIENT WITH A TEMPERATURE SPIKE

- Examine patient
- FBC, urea and electrolytes. If pt has history of coagulation issues check coagulation bloods
- Culture blood from ALL central line lumens (prior to administration of antibiotics)
- Peripheral blood culture
- Culture other sites as clinical indicated (sputum, tracheal aspirate, NPA, urine, stool, pleural)
- Chest X-ray as clinically indicated
- Check Multi-resistant organisms status and/or for clinical alerts

INITIAL TREATMENT

Ticarcillin/clavulanic acid IV 75mg/kg (max 3g) Q6H (as ticacillin content)

AND Amikacin IV 20mg/kg (max 1.5g) once daily.

- Antibiotic therapy to be commenced within 1 hour of presentation of fever spike
- Culture all lumens every 24 hrs if the patient remains febrile
- Cycle the antibiotics administration through the different lumens

SPECIFIC HIGH RISK SUBGROUPS

‘Shocked” septic patients
- Start with Amikacin, Ticarcillin/clavulanic acid and Vancomycin
- If Cisplatin exposure, use Meropenem and Vancomycin
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AML- Post high dose cytarabine (HD ARA-C) AND BMT – Post BuCy conditioning
- High risk for Steptococcus mitis infection
- Start with Amikacin, Ticarcillin/clavulanic acid and consider adding Vancomycin
- Review after 48 hrs
Prior or planned Cisplatin exposure

- Need to avoid nephrotoxic/ototoxic agents
- Start with Ceftazidime as substitute for Amikacin and Ticarcillin/clavulanic acid
- If other high risk factors present then use Meropenem

ESBL colonised patient

- If ESBL Amikacin-sensitive – use Amikacin
- If ESBL Amikacin-resistant or sensitivities unknown – use Meropenem
  - If organism is shown to be susceptible to other antibiotics, switch ASAP
  - Avoid prolonged courses of 3rd generation cephalosporins – consider stopping antibiotics when afebrile

EVALUATE AFTER 48 HOURS

All culture results should be review and antibiotics adjusted according to isolates and antibiotic sensitivities

- If afebrile with negative cultures and still neutropenic, consider change to Ceftriaxone and Amikacin
- Antibiotics to continue until neutrophil count >0.5 x 10^9/L