Management of the Paediatric Non-Neutropenic Oncology Patient with Fever

All children with cancer who develop a fever (≥38.5°C x1 or ≥38°C x2) must have a rapid comprehensive nursing and medical assessment; a Full Blood Count + Blood Culture (central line); ± CXR, urine, stool, NPA as clinically indicated. If CXR abnormal, then CT chest and treat as possible fungal infection.

Discuss all patients with the regional paediatrician or paediatric oncologist at Queensland Children’s Cancer Centre, via RCH switch: (07) 3636 3777.

Empiric Antibiotic Therapy for Febrile Non-Neutropenic Paediatric Oncology Patients

If the child is clinically well, with an absolute neutrophil count >0.5x10⁹/l that is not anticipated to fall then consider outpatient management. If there is an obvious viral focus (e.g. URTI) then consider observation, otherwise give antibiotics.

Ceftriaxone (80mg/kg IV maximum dose 2g) and (if child has a portacath or tunneled CVL) gentamicin IV (<10 years 7.5mg/kg, >10 years 6mg/kg (max dose 360mg)

Observe for at least one hour (temp, pulse, respiratory rate and BP q15-20 min)

If child remains well with no signs of haemodynamic instability, poor perfusion, elevated respiratory rate or significant tachycardia and family is able to return the next day for follow-up then discharge home.

Child to return within 24 hours for follow-up medical assessment, investigations and to make a plan for ongoing antibiotic therapy or not as clinically indicated. Options include admission for IV antibiotics, continued outpatient IV antibiotics, oral antibiotics.

Exclusion Criteria for Outpatient Management, admit and use the QCCC Febrile Neutropenic Guideline, if there is:

- Clinical suspicion of bacteremia: hypotension, poor perfusion, rigors, significant tachycardia, tachypnea, dehydration
- Impending neutropenia: IV chemotherapy (other than single agent vincristine) within the last 10-14 days
- High risk patients: AML, ALL undergoing intensification or relapse therapy, High risk solid tumour, Down’s syndrome, Infants, Children post HSCT