1. Our local guidelines have different doses to those in the CEC sepsis guidelines. What should I do?

The doses in the CEC Sepsis Neonatal and Paediatric First Dose Empirical Guidelines are based on the information in MIMS Australia and the Therapeutic Guidelines: Antibiotic version 14, 2010 and incorporates best available evidence and expert opinion. The Guideline is intended to provide an accessible resource which can be adapted to suit individual facility preferences as required. If further information is required seek advice from paediatric and infectious diseases experts and/or NETS.

2. Can the neonatal First Dose Empirical Antibiotic Guideline be used for in-patient settings such as the post natal ward and Neonatal Intensive Care Units?

The Neonatal Empirical Parenteral Antibiotic Guideline aims to guide the prescription and timely administration of the FIRST DOSE of antibiotics for neonatal patients (less than one month of age) who re-present after going home and have a diagnosis of sepsis. It is not intended to be used for pre-term neonates or infections acquired in hospital.

3. Is it safe to administer IV gentamicin via a “push” over 5 minutes in the neonatal and paediatric population?

Gentamicin is safe to administer as an intravenous push over 5 minutes in both neonatal and paediatric patients. 3,4

4. What if we do not stock the recommended antibiotic?

Alternatives are listed in the Guidelines for a number of the drugs if a site does not stock a particular drug. With the revised Guidelines we suggest hospital drug and therapeutics committees review antimicrobials available on formulary and liaise with the pharmacy department to ensure appropriate antimicrobials are readily accessible in the sepsis setting.

5. What resources are available in managing patient’s with a haematolology/ oncology diagnosis with sepsis?

Use local febrile neutropenia guidelines for any patient with a haematology or oncology diagnosis. Some sites have adapted protocols from the specialty paediatric hospitals or use the guideline from the patients treating hospital. A clinical practice guideline (CPG) Recognition and Management of
Infection in Paediatric Oncology Patients is currently being developed from the Ministry of Health. When the CPG is completed, the sepsis pathway will reflect the recommendations. Please seek urgent advice from paediatric oncologists regarding treatment and management of this high risk group.

6. Can these guidelines be utilised beyond the initial first dose?

The neonatal and paediatric guidelines are intended for the FIRST DOSE of antibiotics after which clinicians should consult local experts and guidelines or Therapeutic Guidelines: Antibiotic to decide on further therapy. Test results may also inform decisions.

Further advice is available from paediatric and infectious diseases experts or NETS. In all cases the dosing regimen for the indicated drug is given on the CEC guideline so that on-going dosing can be provided if required.

7. Can the sample from an EZ IO be used in the point of care testing machines?

There is currently not enough evidence suggesting accuracy of intraosseous (IO) sample results using point of care testing. It is possible that IO samples can damage some machines therefore it is advised that you check with your local pathology regarding testing capabilities. IO samples can be used for a number of tests including blood cultures however it is important that they are labelled as an “Intraosseous sample”.

8. Why is aciclovir suggested for all suspected sepsis without risk factors for herpes simplex virus (HSV)?

This guideline is for neonates in an emergency setting therefore broad antimicrobial cover against multiple organisms is recommended. Aciclovir is an antiviral agent that is effective against herpes simplex infection and is first-line therapy for suspected or proven herpes simplex encephalitis according to Therapeutic Guidelines: Antibiotic. Although the incidence of neonatal herpes is not common, the outcomes are often devastating if not treated appropriately. Neonatal HSV infection can present as pneumonia, hepatitis, sepsis, encephalitis and skin disease. Aciclovir is recommended for consideration in these conditions.

9. Is it safe to administer a 20mL/kg bolus of 0.9% sodium chloride solution (Normal Saline) in neonates or patients at risk of cardiac disease?

Neonates with a possible diagnosis of sepsis presenting to the emergency department may require a 20mL/kg bolus of 0.9% sodium chloride solution. However it is important to use caution in neonates and patients at risk of cardiac disease who may not tolerate larger volumes. If you have any concerns administer 10mL/kg aliquots and assess the patient’s response to the fluid bolus.
10. Is it possible to adapt either the paediatric pathway or the antibiotic guidelines to best fit our local needs?

The intention of both the pathway and antibiotic guidelines are to provide general guidance to improve the process of care for paediatric patients with sepsis. It may be necessary for some sites to make minor changes to the pathway and guidelines to “best fit” the needs of an individual department.

It is requested that an electronic copy is sent to the CEC so they have a record of the documents being used by individual facilities or local health districts. It is suggested that teams implementing the paediatric and neonatal guidelines consult their local antimicrobial stewardship committees when reviewing or changing guidelines.

References