

## Paediatric Sepsis - Full Clinical Guideline-UHDB

Reference no.: CH CLIN G126

**Guidance on how to manage Sepsis can be found from Academy of Medical Royal Colleges :**

[Statement on the initial antimicrobial treatment of sepsis V2 1022.pdf \(aomrc.org.uk\)](#)

**The UK Sepsis trust has created guidance and tools based on ARMOC guidance.**

[ACUTE HOSPITAL INPATIENTS | The UK Sepsis Trust](#)  
[Sepsis-Manual-Sixth-Edition.pdf \(sepsistrust.org\)](#)

### 1. Introduction

- Sepsis is a life-threatening illness caused by the body's dysregulated host response to an infection.
- Recognition of sepsis in children is often very difficult as clinical signs and symptoms can be similar to self-limiting or less severe conditions.
- Early recognition coupled with early antibiotic administration and protocolized management saves lives, reduces morbidity, and reduces hospital length of stay <sup>(1)</sup>.
- Bacterial infections are by far the most common cause of sepsis, but it can also be caused by viral or fungal infections. Common causes include respiratory tract infections, urinary tract infections, congenital infections, bloodstream infections, abdominal infections, infected wounds or indwelling lines and catheters, and cellulitis.
- Severe sepsis is responsible for >8% of all paediatric intensive care unit (PICU) admissions and causes >4.5 million childhood deaths worldwide per year.



### 2. Aim and Purpose

This document provides guidance to all staff on the initial recognition and management of sepsis in children within UHDB.

This guideline has been written in line with the statement from the Academy of Medical Royal Colleges regarding the antimicrobial treatment of sepsis. This statement aims to balance the new evidence that there does not have to be such a rush for embarking on the septic pathway in less sick patients *versus* the need for timely treatment of the sick child.

This balance is to give more time for assessment, investigation, and best treatment of the non-septic child with uncomplicated infections while effectively managing children who are more likely to be septic in a timely fashion. The aim is to enhance better patient outcomes and judicious antimicrobial use.

### 3. Definitions

There is a pressing need for a standardised taxonomy for paediatric sepsis to emphasise the requirement for both infection and new-onset organ dysfunction. There are now clear definitions in the adult population based on 2016 Sepsis-3 study.

There is still some debate as to whether these are relevant to children. The most recent meta-analysis reviewing the criteria for paediatric sepsis was published in 2021 by the Paediatric Sepsis Definition Taskforce. It revealed strong associations of several markers of organ dysfunction with outcomes.

**Sepsis** = Infection + new organ dysfunction

**Septic shock** = 'severe infection' leading to cardiovascular dysfunction (including hypotension, need for treatment with a vasoactive medication, or impaired perfusion)

Misleading description of uncomplicated urinary infections as 'urosepsis'; and meaningless terms such as septicaemia need to be discarded.

Standardisation will permit more accurate estimates of the incidence and burden of illness and provide more reliable evaluations of interventions and services targeting patients with life-threatening infection.

### 4. Clinical features SEPSIS:

- The recognition of sepsis requires being aware and acting on the possible signs and symptoms.
- However, sometimes, there can be limited evidence and it is important to highlight either a family's concern or a health professional's concern around sepsis.
- Signs and symptoms are not to be taken in isolation but in the context of clinical situations for

example, oxygen requirement, fever, or petechiae in isolation do not equate to having sepsis and there are often other potential causes. Therefore, the clinical evidence of inappropriate observations should be thoroughly assessed and actioned upon on a case-to-case basis.

- Under 3 months, patients with indwelling devices, post-op patients, and patients who are immunocompromised are at higher risk of sepsis and need senior input/lower threshold for timely intervention.
- **Parental Concerns and Health Professionals' gut feelings should be taken seriously and may require an escalation for management as sepsis.**

Table 1: Signs and symptoms that might suggest sepsis as a diagnosis.

<b>Appearance</b>	<ul style="list-style-type: none"> <li>• No response to social cues</li> <li>• Appears ill to a healthcare professional.</li> <li>• Does not wake, or if roused does not stay awake.</li> <li>• Weak, high-pitched, or continuous cry</li> <li>• History from patient, friend or relative of new onset of altered behaviour or mental state</li> <li>• History of acute deterioration of functional ability</li> </ul>
<b>Breathing and Circulation</b>	<ul style="list-style-type: none"> <li>• Grunting</li> <li>• Apnoea</li> <li>• Oxygen saturation of less than 90% in air or increased oxygen requirement over baseline</li> <li>• Inappropriate Tachypnea or Tachycardia</li> <li>• Low/Unrecordable Blood Pressure (as per NPEWS)</li> <li>• Low urine output / Anuria</li> </ul>
<b>Disability and Exposure</b>	<ul style="list-style-type: none"> <li>• Lethargic/Irritable/Floppy/<b>AVPU</b></li> <li>• Mottled or ashen appearance</li> <li>• Cyanosis of skin, lips or tongue</li> <li>• Non-blanching rash of skin</li> <li>• Temperature &lt; Less than 36°C</li> <li>• Temperature &gt; 38°C in under 3-month-old</li> <li>• Temperature &gt; 39°C in 3 month-5 years.</li> <li>• Leg pain</li> <li>• Cold hands or feet</li> </ul>
<b>Others</b>	<ul style="list-style-type: none"> <li>• Impaired immune system (illness or drugs including oral steroids)</li> <li>• Trauma</li> <li>• Surgery</li> <li>• Invasive procedures in the last 6 weeks</li> <li>• Indwelling Medical/Surgical Devices</li> <li>• Signs of potential infection including redness, swelling, or discharge at the surgical site or breakdown of a wound</li> <li>• Lactate &gt; 2 mmol/L/ or significant metabolic acidosis</li> </ul>

## 5. Clinical decision framework to treat infection and sepsis:

The AOMRC framework is used to support health professionals in managing sepsis and infection based on the PEWS score which includes concerns raised by family or health professionals.

**A PEWS score of  $\leq 4$  doesn't exclude sepsis.**

PEWS can be found in the Trust's paediatric observations and monitoring and escalation policy.

**This framework provides a maximum timeframe for definitive decisions. There should be no delay in the treatment of infection or sepsis once the decision to treat is made.**

Figure 2: Clinical Decision Support Framework for the initial evaluation of sepsis in children <16 years

		Child appears unwell to health professional			
		YES NO			
Vital signs	National PEWS	0	1-4	5-8	$\geq 9$
Initial assessment	Assessment	Assess Airway, Breathing, Circulation, Disability - correct urgent problems as identified • Other Rx as indicated (e.g. analgesia, correct hypoglycaemia)			
		Inform senior clinical decision maker <sup>^</sup> if concerned	Arrange Senior clinical review (ST4+) <sup>^</sup>	Appears unwell to health professional /High PEWS: <ul style="list-style-type: none"> <li>• If septic shock suspected, resuscitate and administer antimicrobials following microbial tests</li> <li>• Arrange Senior clinical review (ST4+)<sup>^</sup> , <math>\pm</math> ICU/HDU referral</li> </ul>	
Initial (generic) actions	Initial monitoring, escalation plan	Standard observations Laboratory / imaging tests as indicated	<ul style="list-style-type: none"> <li>• Registered nurse review &lt;1 h</li> <li>• Obs 4-6 hrly if stable.</li> <li>• Escalate if no improvement</li> <li>• Laboratory / imaging tests as indicated</li> </ul>	<ul style="list-style-type: none"> <li>• Obs hourly.</li> <li>• Review &lt;30 min by clinician competent in acute illness assessment</li> <li>• Escalate if no improvement</li> <li>• Laboratory / imaging tests as indicated</li> </ul>	<ul style="list-style-type: none"> <li>• Obs every 30 mins.</li> <li>• Review &lt;15 min by clinician competent in acute illness assessment.</li> <li>• Senior doctor review &lt;1 hr if no improvement: refer to ICU</li> <li>• Laboratory / imaging tests as indicated</li> </ul>
	Timeframe for definitive decision regarding further treatment	< 4 hrs		<3 hrs	<1 hr
Likelihood of infection & specific actions	Unlikely	Treat other underlying causes. Consider whether antibiotics should be used empirically or not from clinical perspective.			
	Possible/Definite	<b>Within 4 h</b> <b>Re-assess patient and test results OR earlier if PEWS worsens <math>\geq 2</math> points OR clinical concern</b> <ul style="list-style-type: none"> <li>• Source identification/control</li> <li>• Microbiology tests</li> <li>• Antimicrobials: prescribe or revise</li> <li>• D/w ID/micro if uncertain</li> <li>• If parent still concerned, discuss with senior clinical decision maker<sup>^</sup></li> </ul>	<b>Within 3 h</b> <b>Re-assess patient and test results OR earlier if PEWS worsens <math>\geq 2</math> points OR clinical concern</b> <ul style="list-style-type: none"> <li>• Source identification/control</li> <li>• Microbiology tests</li> <li>• Antimicrobials: prescribe or revise</li> <li>• D/w ID/micro if uncertain</li> </ul> <b>Within 48 h</b> <ul style="list-style-type: none"> <li>• Review antimicrobials with ID/micro</li> </ul>	<b>Within 1 h:</b> <b>Re-assess patient and test results OR earlier if PEWS worsens <math>\geq 2</math> points OR clinical concern</b> <ul style="list-style-type: none"> <li>• Microbiology tests</li> <li>• Antimicrobials: prescribe or revise (broad-spectrum if causative organism uncertain).</li> <li>• Source identification/control</li> </ul> <b>Within 24 h:</b> <ul style="list-style-type: none"> <li>• Review antimicrobials with ID/micro</li> </ul>	

## 6. Sepsis Screening tool

See Appendix ( pages 12/13 ) for the screening tool ( electronic available via meditech at QHB):

This tool is a checklist and needs completing if a health professional has concerns around infection and either the PEWS score has triggered, the child looks very unwell, there are risk factors for infection (fever in < 3 month old, central line or immunosuppression) or there is persistent significant parental concern.

- **Key features of the tool for any child likely to have an infection are as follows:**
- **If significant concern that a child is very unwell irrespective of the PEWS score → treat promptly**
- PEWS score  $\geq 9$  → **treat as per sepsis 6** (unless another diagnosis is obvious eg. acute severe viral wheeze or asthma)
- If the PEWS score is 5- 8 and/or significant parental concern, **consider treating as per sepsis 6**
- If the PEWS score is 5- 8 DO LACTATE - if  $> 4$  mmol/l → **treat as per sepsis 6**
- A lactate 2-4 mmol/l should prompt detailed clinical assessment and may require further investigations and antibiotic treatment.
- Those with **risk factors** for severe infection e.g < 3 months with unexplained fever, Immunosuppressed, Post-op, or patients with indwelling devices → **treat promptly either via the amber or red pathway.**
- **Temperature does not contribute to the PEWS score.**
- The PEWS RR has higher thresholds than APLS and other previous observation scales ( POPS) hence needs to be factored-in with consideration of the absolute values (and not just the overall PEWS score) in the context of the clinical situation

### De-escalation of sepsis 6 pathway

If there is a need to deviate from the sepsis-6 pathway, ensure:

- Clear documentation as to why the de-escalation from the pathway and the rationale (In Patient Track / Meditech/ notes)
- Senior discussion and review as required.

## 7. Treatment of EARLY SEPSIS and septic shock

**Get senior help early.**

**THINK - Neonatal sepsis may be disseminated HSV.**

Remember:

- Consider the history and don't use 1 sign in isolation but consider the whole picture.
- Normal PEWS doesn't exclude sepsis.
- 'If significant parental concern/health professional concern, initiate the sepsis screening tool and ensure timely senior clinical review.

### **Important Principles of Treatment**

Once the diagnosis SEPSIS or SEPTIC SHOCK is made, the clinician should follow the treatment principles laid out in this section alongside the guideline and therapeutic endpoints.

#### **1. Fluid Boluses**

**Aggressive fluid resuscitation is of fundamental importance to the survival of septic shock in children.**

Initial resuscitation often commences with an intravenous fluid bolus of 10mls/kg of either Plasma-Lyte 148 as first line or 0.9% Sodium Chloride if plasma lyte not available or over 5-10 minutes .

When giving fluid, titrate to clinical monitors of cardiac output, including heart rate, urine output, capillary refill, and level of consciousness, but treatment should not be delayed if physiological parameters cannot be obtained.

Children normally have lower blood pressure than adults and compensate for a fall in blood pressure by vasoconstriction and increasing heart rate. Therefore, blood pressure by itself is not a reliable endpoint for assessing the adequacy of resuscitation. **However, once hypotension occurs, cardiovascular collapse may soon follow.**

Hepatomegaly occurs in children who are fluid-overloaded and can be a helpful sign of adequacy of fluid resuscitation. Inotropic support should be implemented if hepatomegaly or rales/crackles exist.

Fluid resuscitation usually requires at least 40-60mls/kg but significantly more may be required.

The rate of fluid administration should be reduced substantially when there are clinical signs of adequate cardiac filling without haemodynamic improvement.

*(Consider if available, Point of Care Ultrasound (**POCUS**) to assess filling vs. contractility where there's poor response to fluid resuscitation to avoid detrimental outcomes from fluid overload.)*

## **2. Antibiotics**

### **Early antibiotic treatment saves lives in sepsis.**

#### **GIVE ANTIBIOTICS WITHIN ONE HOUR OF IDENTIFICATION OF SEPSIS or SEPTIC SHOCK - DON'T DELAY FOR CULTURES**

The recommendation is for antibiotics to be administered within 1 hour of the identification of severe sepsis/septic shock (*see framework on page 4*).

Blood Cultures including lumbar puncture obtained, where possible ([Meningitis and septicaemia guideline CHG46](#)), **but this should not delay prompt administration of antimicrobial therapy.**

#### **Considerations:**

- First-line antibiotic choice for a child with Sepsis will be guided by the source of infections i.e. [pneumonia guideline](#) or [Urinary tract guideline CHG85](#) or [meningitis and septicaemia guideline](#)
- 
- Sepsis with no identified focus and no concerns around shock should be **IV ceftriaxone**.
- If patient has **Septic Shock** then first line of IV **cefotaxime** should be used. [meningitis and septicaemia guideline](#)
- Add Aciclovir in neonates with potential disseminated HSV.
- Add Clindamycin for Toxic Shock syndromes with refractory hypotension.
- Those with known neutropenia follow the Febrile Neutropenia [.Management of Febrile Neutropenia](#)

**If ceftriaxone has been started for a patient who is shocked, continue to give the ceftriaxone and ensure a fluid flush is given through that line. This will provide the patient**

with 24 hour Antibiotic cover.

-Give **cefotaxime** 24 hours later if still in shock and likely to need calcium containing infusions

### **3. Hypoglycemia** (Glucose <2.8mmol/l)

Administer 3ml/kg of 10% glucose by bolus IV or IO ( as per the new APLS version 7)

True hypoglycaemia is less than 2.6 mmol/l and should be investigated as per hypoglycaemia guidelines (Clinical guideline CHISCG12)

### **4. Hypocalcaemia** (if total Calcium < 2 mmol/l or ionized Ca<sup>++</sup> <1.0)

0.11 mmol/kg (0.5 mL/kg of calcium gluconate 10%), max 4.5 mmol (20 mL calcium gluconate 10%). Can be given peripherally. See more detail in the [calcium gluconate monograph](#)

Where a calcium –containing infusion is required, do not use ceftriaxone. Use cefotaxime instead

### **5. Inotropes**

Failure of the haemodynamic status to improve with 40ml/kg fluid boluses in patients with septic shock (fluid-refractory septic shock) is an indication for Inotropes.

Increased mortality is associated with a delay in the initiation of inotropes in fluid-refractory septic shock.

**First-line inotrope is adrenaline** IV peripheral or IO (dose 0.05- 0.2 micrograms/kg/min) which should be started until definitive central access is obtained with Early Discussion with PCCU Consultant via COMET. See Paediatric Adrenaline monograph [Drug Name: \(koha-ptfs.co.uk\)](#)

### **6. Intubation**

**Early intubation saves lives!** The need for intubation should be considered in all children receiving in excess of 40mls/kg of fluid resuscitation due to the increased risk of pulmonary and cerebral oedema.

Proactiveness is paramount and COMET input should be sought **early** when patients don't respond to early fluid resuscitation.



Intubation drugs can cause hypotension so consider fluids and Inotropes if required and COMET Advice should be sought prior where possible.

### **Therapeutic End Points**

Therapeutic end points of resuscitation of septic shock are:

- Restore and maintain normal perfusion (no difference between quality of central and peripheral pulses, warm extremities (may be misleading in warm shock), HR and BP within normal limits for age, central capillary refill time < 2sec),
- Improvement in GCS,
- Improving (or trending down) serum Lactate
- Urine output >0.5 ml/kg/hour (ideally >1ml/kg/h),

Using clinical end points, such as reversal of hypotension and restoration of capillary refill for initial resuscitation before transfer to a tertiary centre is associated with significantly improved survival rates in children with septic shock.

## References

1. Tong J, Plunket A Trainees and Quality Improvement Session: G218(P) The Paediatric Sepsis 6 Initiative : 2014 Arch Dis Child ;99:Suppl 1 A93 Published Online First: 7 April 2014  
doi:10.1136/archdischild-2014-306237.215
2. Miranda, M, Nadel .Pediatric Sepsis: a Summary of Current Definitions and Management Recommendations . Current Pediatrics Reports (2023) 11:29–39
3. Singer et al. The Third International Consensus Definitions for Sepsis and Septic Shock (Sepsis-3) JAMA. 2016 Feb 23;315(8):801-10.
4. NICE Clinical Guideline 102: Bacterial meningitis and meningococcal septicaemia. June 2010 [www.nice.org.uk/guidance/CG102](http://www.nice.org.uk/guidance/CG102)
5. Nottingham Paediatric Clinical guidelines – The sepsis guideline. Queens medical Centre. Nottingham.
6. Statement on the initial antimicrobial treatment of sepsis. [Statement on the initial antimicrobial treatment of sepsis V2.0 - Academy of Medical Royal Colleges \(aomrc.org.uk\)](http://aomrc.org.uk) Oct 2022 v2.0.
7. Sepsis: recognition, diagnosis and early management: [NICE GUIDELINE: Stratifying risk of severe illness or death from Sepsis \[NG51\]](https://www.nice.org.uk/guidance/ng51).
8. Guide to Identifying High-Risk Sepsis in Children and applying the Paediatric Sepsis Bundle V3. NUH NHS Trust.
9. Paediatric Critical Care Management of High Risk Sepsis V1. PCCU, Nottingham University Hospital Trust.
10. Singer et al. The third international consensus definitions for sepsis and septic shock (Sepsis-3). PubMed DOI: [10.1001/jama.2016.0287](https://doi.org/10.1001/jama.2016.0287)
11. Manu Shankar-Hari et al. Developing a new Definition and assessing new clinical criteria for septic shock. 3<sup>rd</sup> International Consensus Definitions for sepsis and septic shock. JAMA. 2016;315(8):775-787. doi:10.1001/jama.2016.0289
12. Advanced Paediatric Life Support (APLS) 7<sup>th</sup> edition August 2023

- **Documentation Controls** (these go at the end of the document but before any

<b>Reference Number</b> CH CLIN G126	<b>Version:</b>		<b>Status</b> Final	
<b>Version / Amendment History</b>	<b>Version</b>	<b>Date</b>	<b>Author</b>	<b>Reason</b>
	1	17th November 23	Dr Olumayowa Odipe /Dr E Starkey	Update in line with changes with AROMC Sepsis guidance and national PEWS
<b>Intended Recipients:</b>				
<b>Training and Dissemination:</b> By Paediatric Education team				
<b>Development of Guideline:</b> <b>Job Title</b> Dr Elizabeth Starkey: Consultant Paediatrician Dr C. Hearnshaw(Consultant, PEM) Paediatric Nursing and Education team				
<b>Consultation with: (Relevant peer review): Paediatric Consultants across Derby and Burton , Trust Deteriorating Patient Group</b>				
<b>Linked Documents:</b> (Nice guidance/Current national guidelines) <a href="#">Our AoMRC Clinical Tools for Healthcare Professionals - UK Sepsis Trust Statement on the initial antimicrobial treatment of sepsis_V2_1022.pdf (aomrc.org.uk)</a>				
<b>Keywords: (Search term for KOHA) SEPSIS , INFECTION</b>				
<b>Business Unit Sign Off</b>			<b>Group:</b> Paediatric Guidelines Group <b>Date:</b> 21 <sup>st</sup> November 2023	
<b>Divisional Sign Off</b>			<b>Group:</b> Women's and Children's Clinical Governance Group <b>Date:</b>	
<b>Date of Upload</b>			03/01/2024	
<b>Review Date</b>			November 2028	
<b>Contact for Review</b>			Dr E Starkey	



Appendices

SEPSIS SCREENING TOOL ACUTE ASSESSMENT - CHILD		AGE <16				
PATIENT DETAILS:		DATE: _____ TIME: _____ NAME: _____ DESIGNATION: _____ SIGNATURE: _____				
<p><b>01</b> START IF THE CHILD IS LIKELY TO HAVE AN INFECTION, AND EITHER YOU'RE WORRIED CLINICALLY OR PEWS HAS TRIGGERED</p> <p>ADDITIONAL FACTORS PROMPTING SCREENING FOR SEPSIS INCLUDE:</p> <table border="0"> <tr> <td><input type="checkbox"/> Parent or carer concern</td> <td><input type="checkbox"/> Age less than one year</td> </tr> <tr> <td><input type="checkbox"/> Known (or risk of) immunosuppression</td> <td><input type="checkbox"/> Recent surgery/ trauma or indwelling lines</td> </tr> </table>			<input type="checkbox"/> Parent or carer concern	<input type="checkbox"/> Age less than one year	<input type="checkbox"/> Known (or risk of) immunosuppression	<input type="checkbox"/> Recent surgery/ trauma or indwelling lines
<input type="checkbox"/> Parent or carer concern	<input type="checkbox"/> Age less than one year					
<input type="checkbox"/> Known (or risk of) immunosuppression	<input type="checkbox"/> Recent surgery/ trauma or indwelling lines					
<p><b>YES</b> CALCULATE PEWS SCORE USING LATEST VITAL SIGNS &amp; MEASURE LACTATE USING VBG/CAP IF AVAILABLE</p>						
<p><b>02</b> IS PEWS 9 OR ABOVE?</p> <p>OR IS PEWS BETWEEN 5 AND 8 AND LACTATE &gt; 4 MMOL/L</p> <p>OR DOES THE CHILD LOOK EXTREMELY UNWELL TO A HEALTH PROFESSIONAL?</p>	<p><b>NO</b> <b>03</b> IS PEWS BETWEEN 5 AND 8?</p> <p>OR IS THERE PERSISTING SIGNIFICANT PARENTAL CONCERN?</p> <p>IF LACTATE &gt; 4 MMOL/L ESCALATE TO RED FLAG SEPSIS</p>					
<p><b>YES</b></p> <p><b>RED FLAG SEPSIS</b></p> <p><b>START PAEDIATRIC SEPSIS SIX</b></p>	<p><b>YES</b></p> <p>SEND FULL SET OF BLOODS</p> <p>ENSURE SENIOR CLINICAL REVIEW (ST4+) WITHIN 30 MINUTES</p> <p>IF ANTIMICROBIALS ARE NEEDED, THESE SHOULD BE GIVEN AND A PLAN MADE FOR ESCALATION &amp; SOURCE CONTROL WITHIN 3 HOURS</p> <p>I have prescribed antimicrobials <input type="checkbox"/></p> <p>This patient does not require antimicrobials as:</p> <ul style="list-style-type: none"> <li>- I don't think this child has an infection <input type="checkbox"/></li> <li>- This child is already on appropriate antimicrobials <input type="checkbox"/></li> <li>- Other _____ GRADE: _____</li> </ul> <p>NAME: _____ GRADE: _____</p> <p>DATE: _____ TIME: <input type="checkbox"/> : <input type="checkbox"/> : <input type="checkbox"/></p> <p>SIGNATURE: _____</p>					
<p>NO AMBER CRITERIA = ROUTINE CARE / CONSIDER OTHER DIAGNOSIS</p>						



**SEPSIS SCREENING TOOL - THE SEPSIS SIX****AGE <16**

PATIENT DETAILS:

DATE:

TIME:

NAME:

DESIGNATION:

SIGNATURE:

**COMPLETE ALL ACTIONS WITHIN ONE HOUR****01 ENSURE SENIOR CLINICIAN ATTENDS**

TIME

 :  :  : 

NOT ALL PATIENTS WITH RED FLAGS WILL NEED THE 'SEPSIS 6' URGENTLY. A SENIOR DECISION MAKER MAY SEEK ALTERNATIVE DIAGNOSES/ DE-ESCALATE CARE. RECORD DECISIONS BELOW

**02 OXYGEN IF REQUIRED**

TIME

 :  :  : 

START IF O<sub>2</sub> SATURATIONS LESS THAN 92% OR THERE IS EVIDENCE OF SHOCK

**03 OBTAIN IV/IO ACCESS, TAKE BLOODS**

TIME

 :  :  : 

BLOOD CULTURES (FULLY FILL AEROBIC BOTTLE FIRST!), BLOOD GLUCOSE, LACTATE, FBC, U&E'S, CRP AND CLOTTING LUMBAR PUNCTURE IF INDICATED

**04 GIVE IV ANTIBIOTICS, THINK SOURCE CONTROL**

TIME

 :  :  : 

MAXIMUM DOSE BROAD SPECTRUM THERAPY  
CONSIDER: LOCAL POLICY / ALLERGY STATUS / ANTIVIRALS  
EVALUATE NEED FOR IMAGING/ SPECIALIST REVIEW

IF SOURCE AMENABLE TO DRAINAGE ENSURE ACHIEVED AS SOON AS POSSIBLE BUT ALWAYS WITHIN 12H

**05 GIVE IV FLUIDS**

TIME

 :  :  : 

IF LACTATE 2-4 mmol/L GIVE FLUID BOLUS 10 ml/kg WITHOUT DELAY IF LACTATE >4 mmol/L CALL PICU. (REPEAT FLUID BOLUS IF REQUIRED)

**06 CONSIDER INOTROPIC SUPPORT**

TIME

 :  :  : 

CONSIDER INOTROPIC SUPPORT IF NORMAL PHYSIOLOGY IS NOT RESTORED AFTER ≥20 ml/kg FLUID (10 ml/kg IN NEONATES), AND CALL PICU OR A REGIONAL CENTRE URGENTLY

**RED FLAGS AFTER ONE HOUR – ESCALATE TO CONSULTANT NOW****RECORD ADDITIONAL NOTES HERE:**

e.g. allergy status, arrival of specialist teams, de-escalation of care, delayed antimicrobial decision making, variance from Sepsis Six



UKST CHILD INPATIENT 2023 2.0 PAGE 2 OF 2

The controlled copy of this document is maintained by The UK Sepsis Trust. Any copies of this document held outside of that area, in whatever format (e.g. paper, email attachment) are considered to have passed out of control and should be checked for currency and validity. The UK Sepsis Trust registered charity number (England & Wales) 1158843 (Scotland) SC050277. Company registration number 8644039. Sepsis Enterprises Ltd. company number 9583335. VAT reg. number 293133408.