Sick Kids

ASSESSMENT AND EARLY MANAGEMENT OF THE UNWELL CHILD 16 YEARS AND UNDER

STEP 1

ALL children 0-16 years presenting acutely unwell (reported or actual) to a Kimberley health site MUST have:

1. Full PARROT EWS or Remote EWS, inclusive of HR, RR, BP, SpO_2, temperature, CRT;
2. Hydration status and weight;
3. Examination for focal signs of infection / serious illness.

CAUTION

INFANTS AGED <1 MONTH PHONE ON-CALL PAEDIATRICIAN

The following have a low threshold for admission **AND** need early consult with doctor and paediatrician

- ❒ Less than 3 months of age
- ❒ Recent surgery, burn or wound
- ❒ Unimmunised or incomplete course
- ❒ History of prematurity and less than 2 years old
- ❒ Re-presentation with same illness or within 72 hours
- ❒ Underlying medical condition, including chemo, steroids, asplenia
- ❒ Family/clinician concern
- ❒ Invasive devices
- ❒ Remote location

STEP 2

RISK STRATIFY - USE TRAFFIC LIGHT TOOL

	LOW RISK – GREEN No symptoms/signs in amber or red columns	INTERMEDIATE RISK – AMBER Any symptom/sign in amber column, none in red	HIGH RISK – RED Any symptom/sign in red column
REMOTE EWS	**EWS 0** ❒	**EWS 1-4** ❒	**EWS 5+ or MER** ❒
Airway & Breathing	Normal respiratory rate (breaths/min): < 3 months: 30-60 3-12 months: 25-55 1-4 years: 20-40 5-11 years: 15-35 12-16 years: 15-30 ❒	Respiratory rate (breaths/min) < 3 m 20-30 *or* 60-75 3-12 m 15-25 *or* 55-75 1-4 y 10-20 *or* 40-55 5-11 y 5-15 *or* 35-50 12-16 y 5-15 *or* 30-40 ❒ Nasal flaring ❒ Crackles in chest ❒ Oxygen saturation ≤95% in air ❒	Respiratory rate (breaths/min) < 3 m < 20 *or* > 75 3-12 m < 15 *or* > 75 1-4 y < 10 *or* > 55 5-11 y < 5 *or* > 50 12-16 y < 5 *or* > 40 ❒ Moderate to severe chest in-drawing ❒ Grunting ❒ Oxygen saturation ≤90% in air ❒
Circulation & Colour (of skin, lips and tongue)	Normal heart rate (beats/min) < 3 months: 110-160 3-12 months: 100-160 1-4 years: 90-140 5-11 years: 80-140 12-16 years: 60-120 ❒ Normal colour ❒ Lactate (if done) <2 mmol/L ❒	Heart rate (beats/min) < 3 m 70-110 *or* 160-180 3-12 m 70-100 *or* 160-180 1-4 y 60-90 *or* 140-170 5-11 y 50-80 *or* 140-170 12-16 y 40-60 *or* 120-140 ❒ Paleness of skin ❒ CRT ≥ 3 seconds ❒ Lactate 2-4 mmol/L ❒	Heart rate (beats/min) < 3 m < 70 *or* > 180 3-12 m < 70 *or* > 180 1-4 y < 60 *or* > 170 5-11 y < 50 *or* > 170 12-16 y < 40 *or* > 140 ❒ Pale/ mottled / ashen / blue ❒ Decreased peripheral perfusion; cool ❒ CRT >3 sec ❒ Hypotension / Circulatory collapse ❒ Lactate >4 mmol/L ❒
Hydration	No/mild dehydration (<3% weight loss) No physical signs ❒ Normal skin and eyes ❒ Moist mucous membranes ❒	Moderate dehydration (4-6% wt loss) Circulatory signs as above ❒ Oliguria (<0.5 ml/kg/hr) ❒ Dry mucous membranes ❒ Poor feeding in infants ❒	Severe dehydration (>7% weight loss) Circulatory signs as above ❒ Anuria ❒ Reduced skin turgor ❒ Absent tears ❒
Disability (Activity)	Responding normally to social cues / age appropriate behaviour ❒ Content / smiles ❒ Stays awake or awakens quickly ❒ Strong normal cry / not crying ❒ A on AVPU scale ❒	Not responding normally to social cues ❒ No smile ❒ Difficult to wake, harder than usual. Confused ❒ Decreased activity ❒ Unexplained pain ❒ V or P on AVPU scale ❒	No response to social cues ❒ Appears ill to a health care professional ❒ Does not wake, or if roused does not stay awake. ❒ Weak, high pitched or continuous cry ❒ Status epilepticus / focal neurology ❒ BSL <3mmol/L ❒
Exposure	Temperature fluctuations with illness in children is normal and may extend above or below the 'usual' range See notes about fevers on page 3	Age 3 -12 months: temperature ≥39°C ❒ Fever for ≥ 5 days ❒ Rigors ❒ See notes about fevers on page 3	Age < 3 months: temperature ≥38°C ❒ Non-blanching rash ❒ Bulging fontanelle ❒ Neck stiffness ❒
Other	None of the amber or red symptoms ❒	Swelling of limb or joint ❒ Non-weight bearing / not using limb ❒ Limb pain ❒	***Note**: Fever alone is not a good predictor of sepsis. **Hypo**thermia may be present, especially in the very young*

Adapted from: Feverish Illness in Children Clinical Guideline National Institute for Health and Care Excellence (Jan 2023), Observation parameters as per PARROT

Kimberley Aboriginal Health Planning Forum

Kimberley Clinical Guideline

Sick Kids

STEP 3

Could this be sepsis? NO, not sepsis or infective. Refer to appropriate clinical guideline for management according to the risk stratification in Step 2. **YES**, sepsis or infection is possible or confirmed, continue with the management outlined in Step 4.

STEP 4

PAEDIATRIC SEPSIS PATHWAY MANAGEMENT

	LOW RISK MANAGEMENT Respond to parental / carer concerns	INTERMEDIATE RISK MANAGEMENT Must be discussed with the doctor responsible for your service Identified **FOCUS** of infection?		HIGH RISK MANAGEMENT Local doctor / nurse to consult Kimberley Regional Paediatrician 9194 2222
		YES	**NO**	
Airway	Assess and observe airway patency	Assess and maintain airway patency	Assess and maintain airway patency	Assess and maintain airway. If compromised, call MER. Intubation in sepsis/shock is high risk
Breathing	Assess and monitor	Assess and apply oxygen as required to keep SpO2 ≥92%	Assess and apply oxygen as required to keep SpO2 ≥92%	Give oxygen as required to keep SpO2 ≥92%
Circulation	Infants and children in this path may have an infection in the early stages, that has a potential to escalate to sepsis. They may appear well. Treat early if concerned **Vascular access:** Consider, but not required. **Bloods**: Consider checking CBG for electrolytes and lactate. **Antibiotics:** Consider oral antibiotics, targeted for identified source If concerned at any time, seek senior advice and escalate to next column	**Vascular access**: Consider if clinically indicated **Bloods:** If possible and clinically indicated. Consider: • BGL • VBG/CBG (including lactate) • Blood Culture (2-6ml) • FBC, UEC, LFT, CRP, Coag **Antibiotics**: Targeted for illness as per ChAMP guidelines, only if clinically indicated. **Fluids:** Consider oral or NG rehydration as appropriate. Give 10 mL/kg IV NaCl 0.9%, only if clinically indicated. **(See 'Plan' below for other investigations)** If concerned at any time, seek senior advice and escalate to next column	**Vascular access**: Insert IVC, consider IO if IV unsuccessful and clinically warranted **Bloods:** If possible and does not delay treatment • BGL (<3mmol/L give 2ml/kg IV 10% glucose) • VBG/CBG (including lactate) • Blood Culture (2-6ml) • FBC, UEC, LFT, CRP, Coag **Antibiotics**: **Within 60 mins**. Give *Ceftriaxone* 50mg/kg and *Gentamicin* 7.5mg/kg. Use IMI if delay in IV or IO. Consider *Vancomycin* (IV/IO). If <3mths old, check with paediatrician. **DON'T DELAY ANTIBIOTICS** **Fluid Resus**: Consider 10-20mL/kg IV NaCl 0.9% bolus, up to 40ml/kg (then discuss). **(See 'Plan' below for other investigations)**	**Vascular access**: Insert IVC, use IO if IV unsuccessful **Bloods:** If does not delay resus • BGL (<3mmol/L give 2ml/kg IV 10% glucose) • VBG/CBG (including lactate) • Blood Culture (2-6ml) • FBC, UEC, LFT, CRP, Coag **Antibiotics**: **ASAP and within 60 mins**. If no IV/IO, give first doses IMI. Check ChAMP guidelines, but at least *Ceftriaxone* 50mg/kg & *Gentamicin* 7.5mg/kg. Consider IV/IO *Vancomycin*. If <3months old, check with paediatrician. **Fluid Resus**: 10-20mL/kg IV NaCl 0.9% bolus, up to 40ml/kg (then discuss). **Inotropes**: Consider for refractory shock. Peripheral IV or IO adrenaline per *protocol
Disability	Interacts with examiner (plays/resists)	Assess LOC. BGL as appropriate.	Assess LOC. Repeat BGL as appropriate.	Assess LOC. Repeat BGL as appropriate. Consider airway support for low GCS
Exposure	Re-examine top to toe. Targeted history	Re-examine top to toe. Targeted history	Re-examine for sources of infection. Targeted history	Re-examine for sources of infection. Targeted history
Fluids	Encourage oral fluids	Encourage oral fluids. Monitor input / output. Urinalysis	Fluid balance chart; monitor for fluid overload (SOB, wheeze, hepatomegaly). Monitor input / output. Weigh nappies	Fluid balance chart; monitor for fluid overload (SOB, wheeze, hepatomegaly). Strict input / output. Consider IDC
Plan	**RETURNING HOME & FOLLOW UP** *Parent/carer education should include:* ▪ How to contact the local health service if concerned ▪ When to return for planned review / assessment. ▪ Signs & symptoms to look for to prompt earlier review. ▪ Providing the "Are you worried about your child?" pamphlet *Consider the following when discharging a child:* ▪ Social and environmental safety factors ▪ Parent or carer ability to check on the child during the night, and whilst unwell. ▪ If concerned, then **admit to hospital.**	Other Investigations – may include throat swab, urine, stool MC&S. Consider safe discharge, or admit/evacuation (if remote). **SOME NOTES ON FEVER** ▪ Fever alone does not require routine use of antipyretics ▪ Temperature alone is *not* a good predictor of serious bacterial infection. The degree of temperature, its rapidity of onset, response to anti-pyretics and febrile convulsions do n**ot** correlate with severity of illness. ▪ Behaviour, appearance, and localising symptoms are the best indication of the degree of illness / potential for serious infection. Serious illness or infection can still be present without fever.	Other Investigations – throat swab, urine MC&S. Consider CXR, LP. ***Must admit or evacuate***. Discuss paediatrician. **PCH ChAMP (Antimicrobial) Guidelines** **Scan the** QR code	Other Investigations Throat swab, urine MC&S, CXR, LP. Continuously monitor. ***Must admit or evacuate*** *** PERIPHERAL ADRENALINE INFUSION** To prepare an ***IV peripheral adrenaline infusion***, all ages: a) Add 6mg adrenaline (6mls of 1:1000 solution) to a 1L bag of NaCl 0.9% *OR* Glucose 5% b) Start infusion at ***0.5ml/kg/hr***, then titrate to effect. c) 1ml/kg/hr = 0.1mcg/kg/min http://kidshealthwa.com **KAMS GP on call: 91940390** **ETS: 1800 422 190** **PCH PICU: 6456 2222**