



EMET Tasmania

Emergency Medicine Education & Training

EMERGENCY MEDICINE EDUCATION AND TRAINING

An ill child: APLS in a nutshell

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Outline

- Spotting the sick child – recap
- Simultaneous management: systematic approach
- Communication: tips on how to be effective when you're stressed

Spotting the sick child: Recap

- Sick children challenge all of us
- Luckily most are not seriously ill or injured but.....
-they can deteriorate quickly if we miss the warning signs
- A **systematic approach is key** – it *also enables effective communication* of key information in a stressful situation (the “common language” benefit)

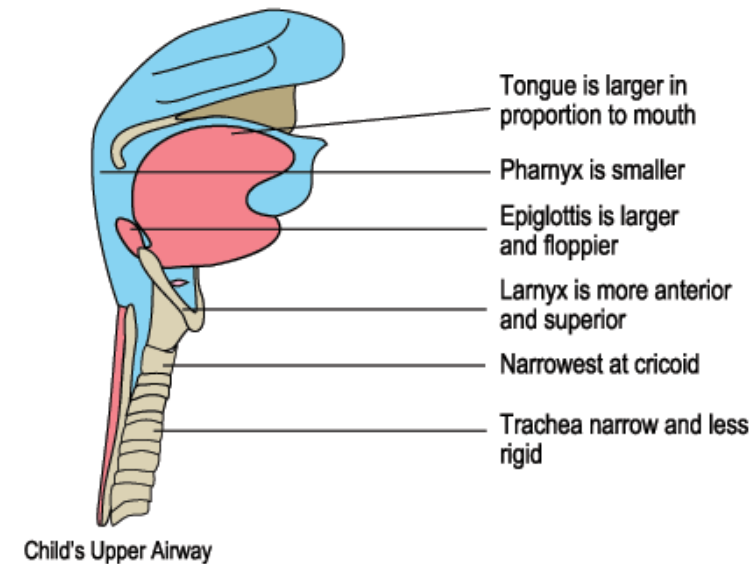
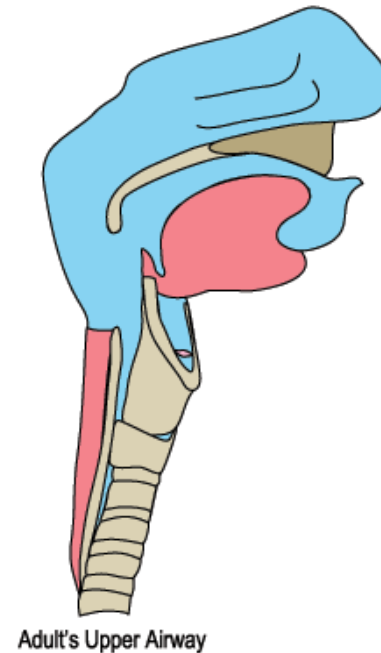
General appearance (The 'Eyeball' test)

- If the child looks sick to you...they probably are
- Don't wait for a thorough assessment, just get them in/call for help/000
- What does "look sick" mean to you?
 - Pale, mottled, blue, non-blanching rash, fitting, floppy



Airway

- Look (Swelling? Trauma? Vomit/secretions?)
- Listen..
 - Stridor (often subtle..)
- Indicates
 - Upper airways' obstruction
 - Need to be seen asap
 - *Top tip: allow an alert child with stridor to sit how they want to!*



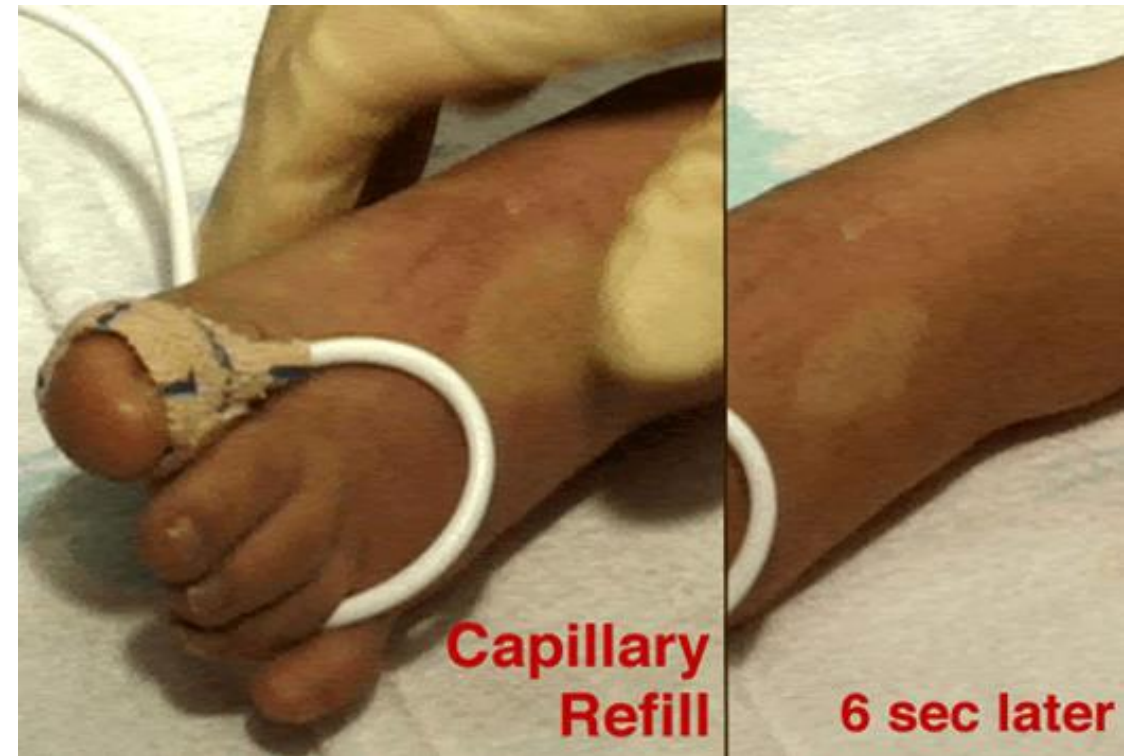
Breathing

- **Work of breathing:**
 - RR
 - Recession (sternal/sub-/inter-costal)
 - Head bobbing, tracheal tug
 - Added sounds (wheeze/**grunting**)
 - Nasal flaring
- **Effectiveness of breathing:**
 - “Get your kit out” (stethoscope & O2 sats)
- **Effects of inadequate breathing:**
 - Heart rate/skin colour/mental status



Circulation

- **Assess circulation:**
 - Heart rate
 - CRT
 - (BP)
- **Effects of inadequate circulation:**
 - Respiratory system
 - Skin
 - Mental status
 - Urinary output



So where's the problem?

B or C?

- 2 year old unwell
- RR 50
- No increased WoB
- HR 180, CRT 4

This is a C problem

B or C?

- 5 year old unwell
- RR 18
- Moderate sternal & sub-costal recession
- HR 160, CRT 2

This is a B problem

Why low RR?

Disability

1. Assess **conscious level**:

- AVPU
- GCS (caution!)

2. Assess **posture**:

- Floppy, decorticate, decerebrate

3. Assess **pupils**:

- Equal? Size? Reaction?

**Don't
Ever
Forget the
Glucose**

Exposure and Everything Else!

- **Rash:**

- Non-blanching = worrying
- Blanching *can* = worrying!



- **Temperature:**

- > 38 degrees in under 3/12 old
- > 39 degrees in older



- Abdomen (including hernial orifices etc)

- ENT

- Joints

- etc

OK, got it.
What next?



*Simultaneous assessment
and management*



Cases...



Case 1

Case 1: 8/12 boy with barking cough and stridor

Assessment

- Eyeball: Miserable
but not “sick”
- A: Stridor at rest
- B: Moderate ↑ WoB,
sats – won’t pick up
- C: ↑HR, CRT < 2
secs
- D: Alert

Management

- A: Calm environment, keep
with parent, allow to sit
comfortably
- B: Are the sats < 92%? Try
blow-by O2 held by Mum
- C & D: No intervention
required
- Specific intervention: steroids*



Case 2

Case 2: 5 yo boy post-witnessed grand mal seizure in your waiting room

Assessment

- Eyeball: Unwell
- A: Snoring noise
- B: RR 10, mild sternal recession
- C: ↑HR, normal CRT
- D: avPu, floppy, BSL 5.8
- E: Temp 39.5, no rash

Management

- Call for help
- A: Support the airway (head tilt/ chin lift/jaw thrust), **turn on his side**
- B: **Watch & wait** (vs careful BVM to normal RR), **O2 aim for sats > 92%**
- C: ? Early IV access
- D: No intervention required
- E: Antipyretic, look for source; refer



Case 3



Case 3: 8 yo girl with difficulty breathing

Assessment

- Eyeball: Anxious
- A: No stridor
- B: Moderate ↑WoB, bilateral exp wheeze, O2 sats 88% on RA
- C: HR↑ CRT < 2secs
- D: Avpu, BSL 5
- E: No rash, apyrexial

Management

- Calm, reassuring approach
- A: No intervention
- B: O2 via nasal cannulae or mask, aim for sats > 92%, bronchodilator (route?)
- C&D: No intervention
- E: RCH guidelines for asthma

Case 4: 8 yo girl with difficulty breathing

Assessment

- Eyeball: Anxious
- A: No stridor but tongue swelling
- B: Moderate ↑WoB, bilateral exp wheeze, O2 sats 88% on RA
- C: HR↑ CRT < 2secs
- D: Avpu, BSL 5
- E: Widespread urticarial rash, apyrexial

Management

- Calm, reassuring approach
- A: ? Adrenaline neb
- B: O2 via nasal cannulae or mask, aim for sats > 92%, bronchodilator (route?)
- C: IM adrenaline (0.01ml/kg of 1:1000, max 0.5ml)
- D: No intervention
- E: RCH guidelines for anaphylaxis



Case 5



Case 5: 3 yo girl with abdominal pain

Assessment

- Eyeball: Quiet, pale, lying still, legs drawn up
- A: No stridor
- B: RR ↑, grunting noted but otherwise no ↑WoB, sats 95%
- C: HR ↑, CRT 3 secs
- D: Avpu, BSL 4.7
- E: Generally tender abdo with percussion tenderness, BS not heard, temp 38

Management

- Calm, reassuring manner
- A: No Rx required
- B: O2 only if sats < 92%
- C: Needs IVA and 10-20 ml/kg fluid bolus
- D: No Rx required
- E: Analgesia, early ED/Surgical referral, IVABs if significant delay

The other benefit of your structured assessment and management:



Who you are, where you are



“The Hook” ...



A to E assessment



Interventions



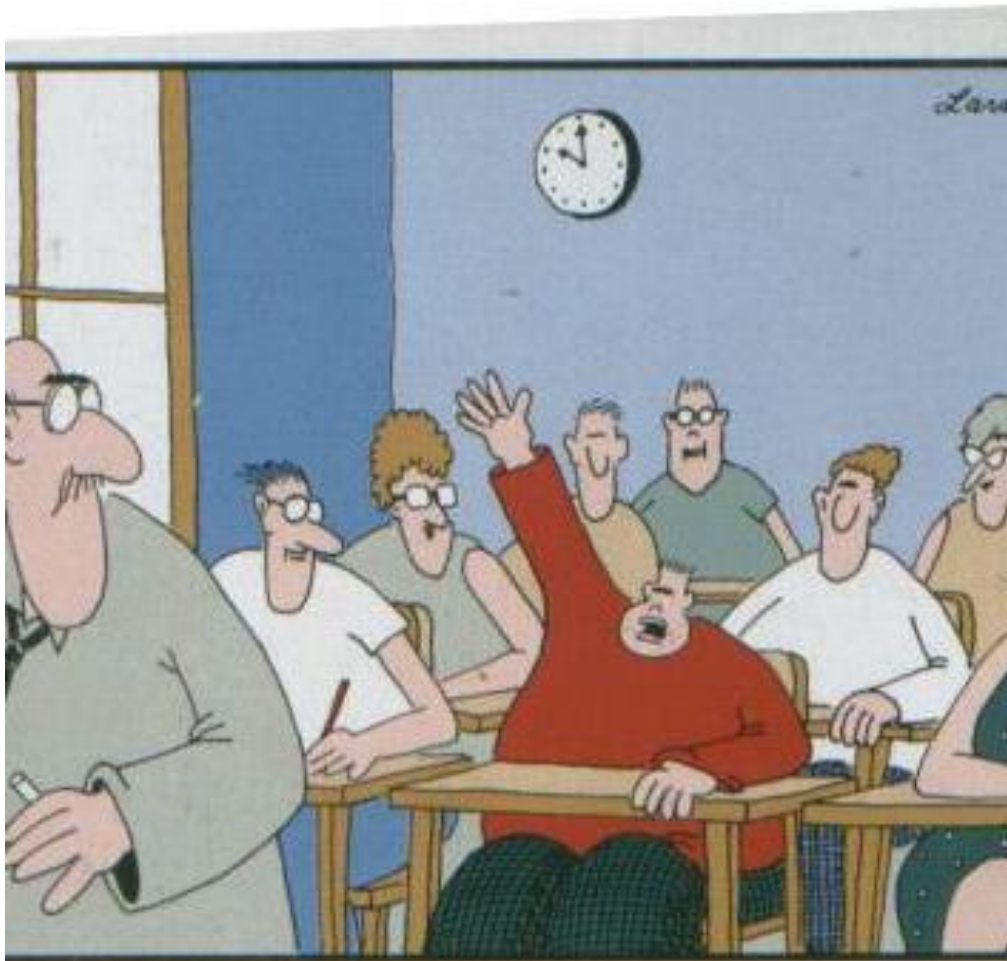
What you're asking for

Between team members

Between you and the referral hospital ED or specialist

- Hello this is the RN/GP calling from...
- I'm calling about an **unwell** 3 year old girl we have here who I **think has appendicitis**
- On arrival she was quiet, lying still with her legs drawn up, A was fine, she's grunting but there's no other ↑work of breathing, she's tachycardic with ↑CRT, D's fine but she's pyrexial and has generalised percussion tenderness of her abdomen
- So far we've given paracetamol and IN fentanyl for analgesia, we've put EMLA on to insert a cannula for a fluid bolus
- I'd like to arrange transfer to you urgently – do you want us to give IVABs?

- Who you are, where you are
- “The Hook” ...
- A to E assessment
- Interventions
- What you're asking for

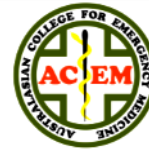


**"Mr. Osborne, may I be excused?
My brain is full."**

Any questions?



Summary



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- Spotting the sick child – recap
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 - systematic approach
- Communication: tips on how to be effective when you're stressed