

eScholarship@UMassChan

Common Emergencies in Pediatrics

Item Type	Presentation
Authors	Bryant, Mikey
DOI	10.13028/d1fm-dm09
Rights	Copyright 2022 The Author(s)
Download date	2026-05-08 08:14:04
Link to Item	https://hdl.handle.net/20.500.14038/36391

Common emergencies in Pediatrics

13-04-22

Mikey Bryant

Introduction

- Understanding how to manage a range of common emergencies in pediatrics can lead to much improved outcomes.
- Thinking through a range of possible scenarios is vital in planning management.
- Being prepared is essential in all circumstances.
- Teamworking is everything, being ready to work with the nurses and PAs can help.

Example 1:

- 2 month old baby presents with 2 day history of vomiting after feeding.
- Vomiting is mostly filled with food contents and breastmilk.
- Mum states the baby has been losing weight for 2 weeks, but is always hungry.
- The child is not dehydrated, there are no signs of respiratory distress and the temperature is 38.3.
- Blood sugar is 92mg/dl.

Questions to ask?

- What could be some differential diagnoses?
- What are the next steps in management?

Some labs:

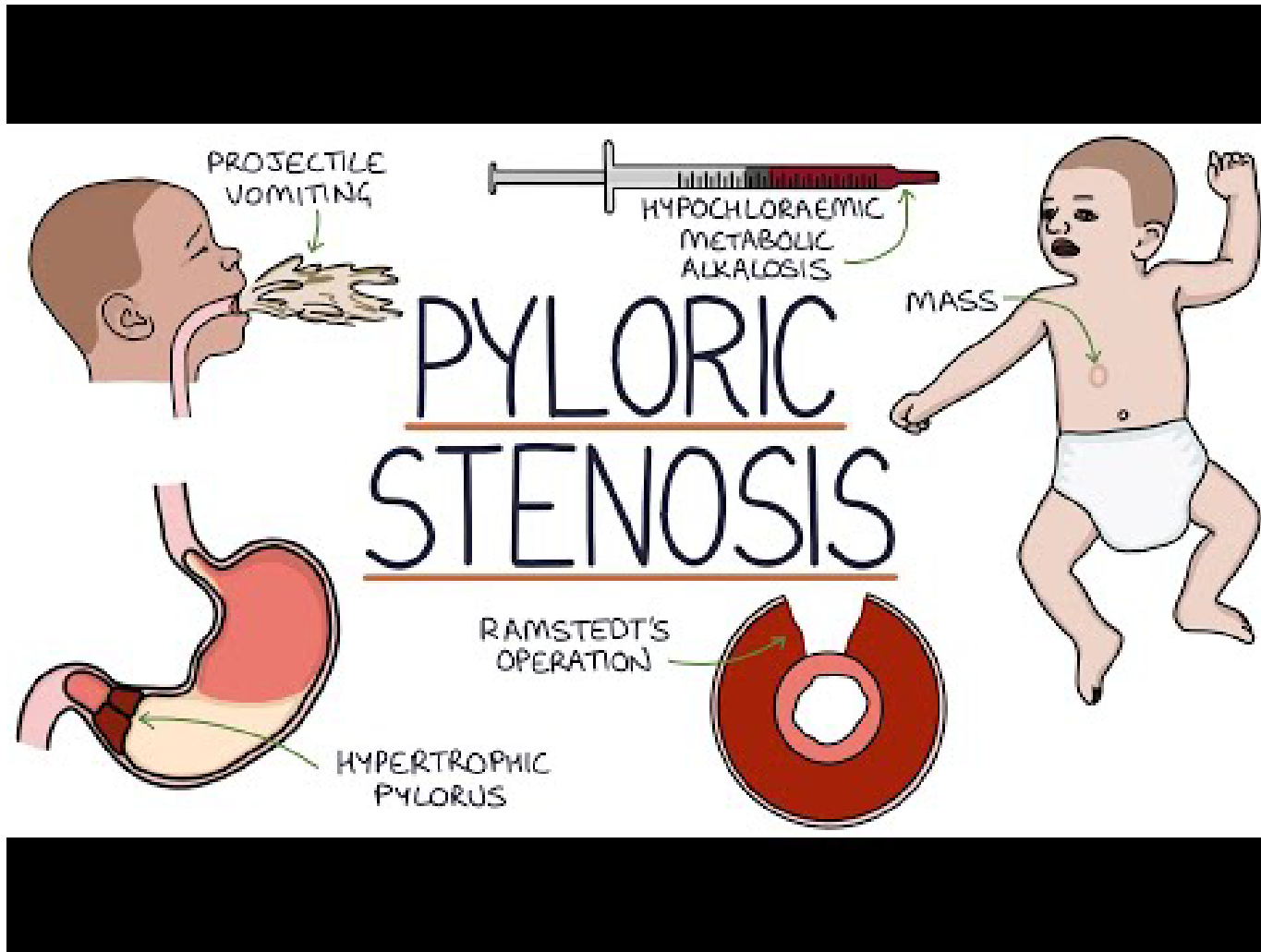
- MPS: 3+
- HB 6.4
- Spot non-reactive.
- Na: 138
- K: 2.4

Problem list?

Problem list:

- Severe Malaria.
 - Hypokalaemia.
 - Risk of dehydration with poor oral intake.
 - Moderate anaemia.
-
- Actions:
 - Admit, IV maintenance fluids, treat the malaria.
 - Surgical consultation and USS abdomen.

Possible?



Example 2:

- 8 month old with a 2 month history of weight loss presents to the emergency room.
- The mother also gives a 3 week history of diarrhoea and vomiting with reduced ability to drink fluids.
- On examination you notice:
 - Resps 68
 - spO2 88
 - Pulse 178, weak and thready. CRT 4 seconds, cold peripheries, reduced skin turgor.
 - MUAC 108.

Problem list?

- Next steps?

Problem list?

- Next steps?
- Thinking it through:
 - A) Airway issue?
 - B) Sats low and fast resp rate – initiate O₂.
 - C) Signs of shock present, so initiate fluids (remember child malnourished). ?? HB??
 - D) Dehydrated – need to correct fluid deficit.
 - E) Begin nutritional support.

Next steps:

- Oxygen,
- 10mls/kg bolus DNS over 1 hour (monitor pulse and sats, recheck for signs of shock).
- Insert NG and start resomal
- Check RBS: 84

- What next?

Next steps:

- Broad spectrum antibiotics.
- Check Hb, electrolytes and malaria test.
- 5mls/kg resomal via NG tube.
- Ensure baby warm.
- Initiate feeding at 2 hourly intervals (F75 via ng tube).

Example 3:

- 1 year old presents to outpatients with worsening dyspnoea in addition to fevers.
- Long history of recurrent chest infections.
- Also several week history of weight loss and fever.
- Mother complains breastfeeding interrupted.

- SpO₂ 86% in air.
- Becomes more distressed lying flat.
- No wheeze, crackles throughout the chest.
- Pulse 153, hands a little cold, crt = 1s.

- Differential diagnosis?

Problem list:

- 1. Hypoxia with respiratory distress.
- 2. Impaired circulation.
- 3. Febrile illness.
- 4. Recurrent “infections” and weight loss.

Next steps?

Next steps?

- Oxygen, IV access, initiate antibiotics.
- MPS, Hb.
- Arrange echocardiography – why?.
- Consider nutritional support.
- Consider Tb diagnosis.
- Diuresis if overloaded and cardiac condition confirmed.

Different images:



Example 4:

- 2 year-old presents to OPD with a history of a seizure 48 hours ago.
- Presented with pallor worsening pallor.
- During consultation: further seizure.

- What is the immediate next step?

Emergency Labs:

- MPS: 1+
- Glucose 39.
- Hb 5.5.
- No signs of shock.

What now?

Remember to treat causes?

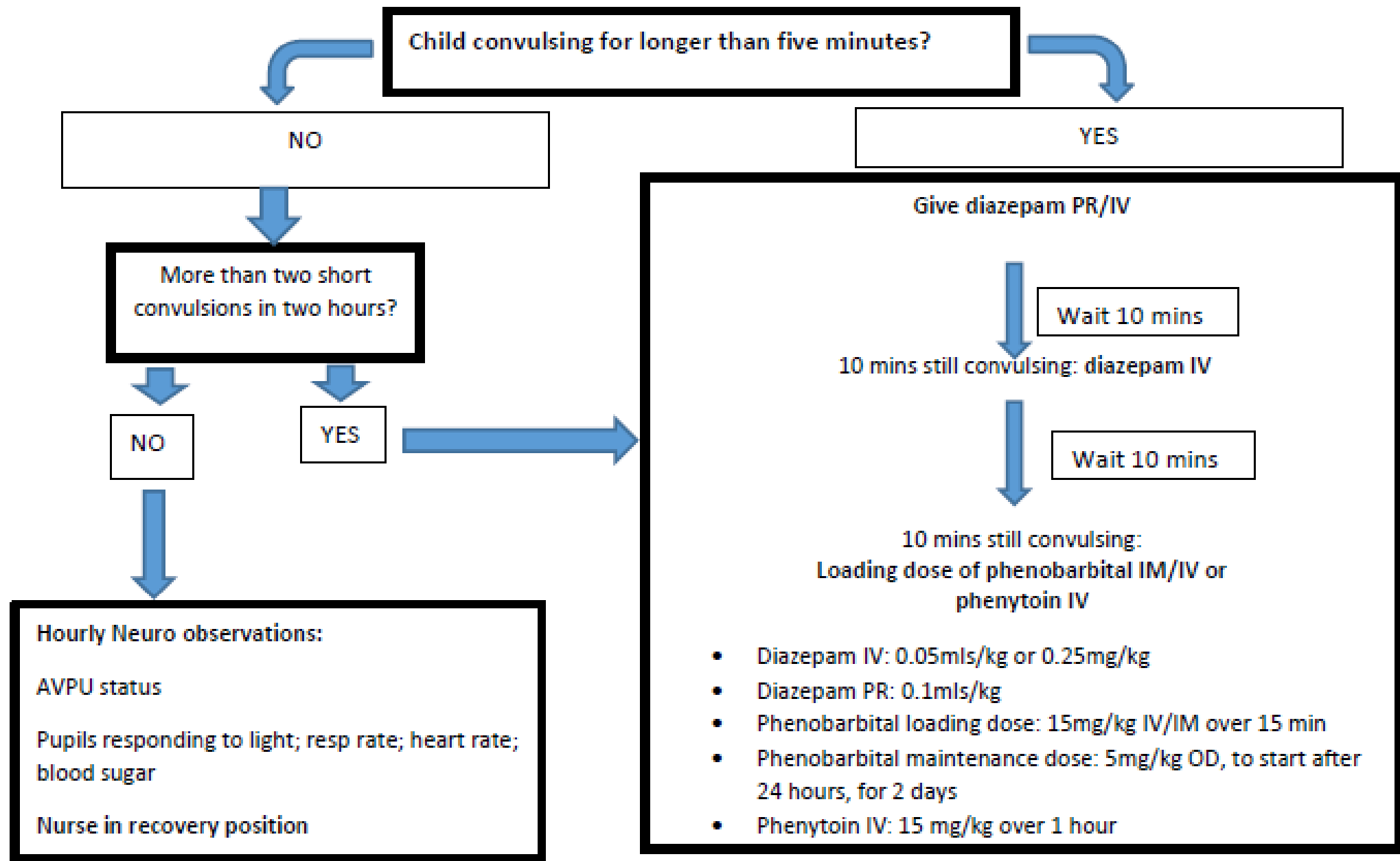
- Hypoglycaemia?
- Anaemia?
- What about other causes?

1. Open and maintain airway
2. Check the time
3. Check SpO₂, PR, RR, temperature: if fever undress child
4. Give oxygen
5. Check blood sugar level
6. Site IV access if not already available
7. Give antibiotics and antimalarials if not already given
8. Recovery position
9. Site NG tube to decompress stomach
10. Consider taking blood for Hb, WCC, malaria, electrolytes

RBS: <70mg/dl

Give IV 10% glucose 5mls/kg or PO if no IV access. Reassess in 30mins and repeat

If not already given in last 24 hours: ceftriaxone (100mg/kg) and artesunate (<20kg: 3mg/kg; >20kg: 2.4mg/kg)



Example 5:

- 3 year-old attends clinic with a history of delay in learning to speak.
- Also a unusual facial features noted.
- Mother comments that she becomes more breathless than normal when running around.
- On examination, you notice low set ears, single palmar crease and reduced head control.
- What could this be?

What other conditions could present?

- Leukaemia
- Dementia.
- Cardiac murmurs.
- Cataracts.
- Hypothyroidism.
- Duodenal Atresia.
- Hip dislocation.
- Sleep apnoea.



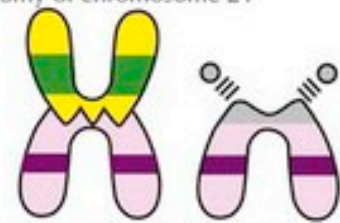
Typical facies, with epicanthal folds and slanted palpebral fissures



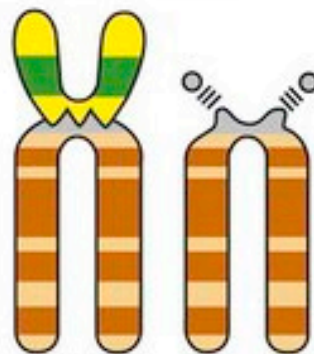
F. Netter M.D.
JOHN A. CRAIG M.D.



Trisomy of chromosome 21



21/22 translocation



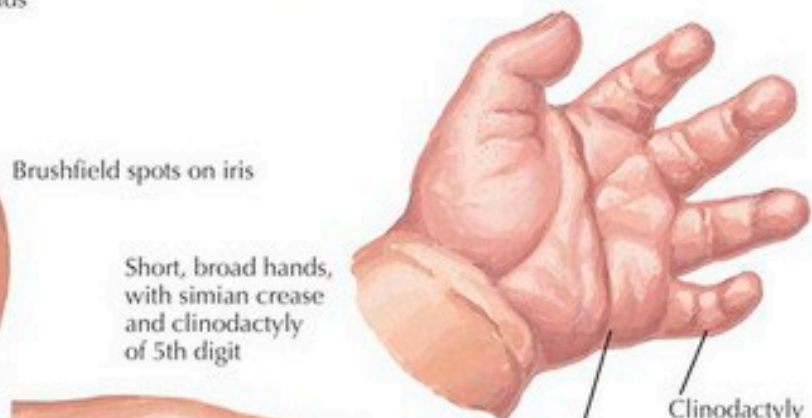
12/21 translocation



Brushfield spots on iris

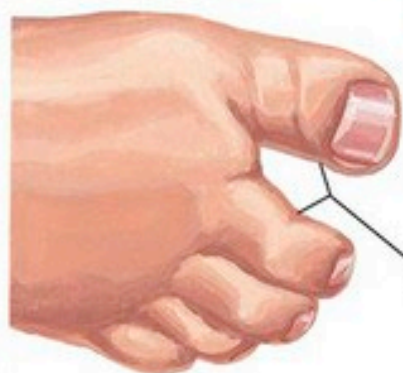


Small, hypoplastic ears

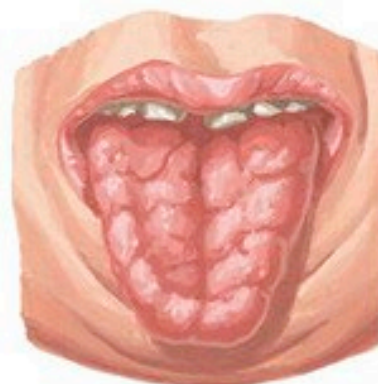


Short, broad hands, with simian crease and clinodactyly of 5th digit

Clinodactyly
Single palmar crease



Wide gap between first and second toes



Fissured tongue in adults

Practice!