

Paediatric NAI

Preeti Ramaswamy

The question

A mother brings her 10 month old infant, SAM to ED for a check-up after her 2 yr old toddler jumped on the infant's chest.

His vital signs include HR 140, BP 90/45, sats 97% RA, temperature 37C. An xray was organised at triage and is shown below.



My thoughts

What this question was about:

- Recognition of NAI
- Recognition of normal vital signs in a 10 month old
- What would you do if this patient came into your dept

What this question was not about:

- Massive chest trauma

1 Describe the chest radiograph (2 point)

Radio-opaque abnormalities on 6th and 7th rib on left side in keeping with old rib fractures.

No obvious pneumothorax or contusions.

2 List 5 differences in chest injuries in children compared with adults. (In specific please focus on differences in anatomy and injury patterns) (5 points)

Significant chest injuries are rare in paediatric trauma

Pulmonary contusions can occur in the absence of any chest wall injury and are the most common injury

Rib fractures occur uncommonly in children

A major difference between adults and children is the compliance of the chest wall, due to the greater elasticity of the ribs. This allows greater deformation of the chest wall before the ribs fracture.

A common response to injury in children is aerophagia, which is often associated with a reflex ileus. This can lead to acute gastric dilatation, which may further compromise respiratory function

(directly taken from chest trauma CPG)

The nurse looking after Sam is concerned that he weighs 6kg. Further history reveals Sam has nappy rash and has not passed urine in 12 hours. List your further management. (4 points)

Rehydration of SAM

Make a DHS notifications

Risk assessment for harm to mother, Sam, 2yr old Sibling.

Admission for NAI and further investigations.