
New Pediatric Course
Last-Minute Flash Card Videos
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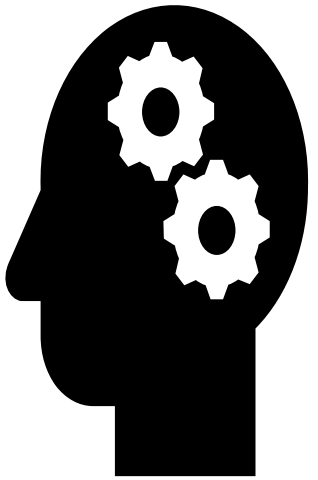
Last-Minute Flash Card Videos

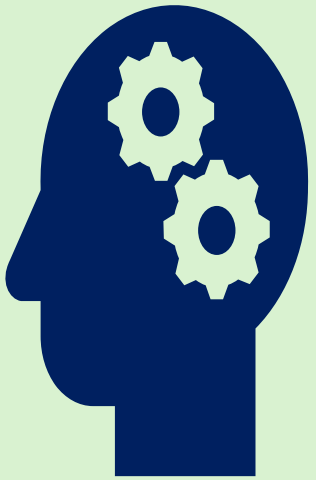
- Concise videos that present high-yield clinical case scenarios
- Prompt responses

- Addressing critical concepts pertinent to exam preparation in the days prior to the pediatric board exam.

We will present here a sample video from different specialties in pediatrics



Will start with sample cases from the neonatology section



Newborn infant has just been delivered. The infant is apneic and has a heart rate < 100.

What is the next best step?

Newborn infant has just been delivered. The infant is apneic and has a heart rate < 100.

What is the next best step?

Positive pressure ventilation (PPV) for 30 s → then reassess

In the previous example, the infant’s heart rate is < 60 bpm despite adequate ventilation for 30 s and MR SOPA.

What is the next step?

M - *M*ask adjustment
R - *R*eposition airway
S - *S*uction mouth and nose
O - *O*pen mouth
P - *P*ressure increase
A - *A*irway alternative

In the previous example, the infant's heart rate is < 60 bpm despite adequate ventilation for 30 s and MR SOPA.

What is the next step?

Chest compressions and PPV using 100% oxygen

Newborn with a round, hairless area, yellow, orange color, with velvety surface and slightly raised.

What is the most likely diagnosis?

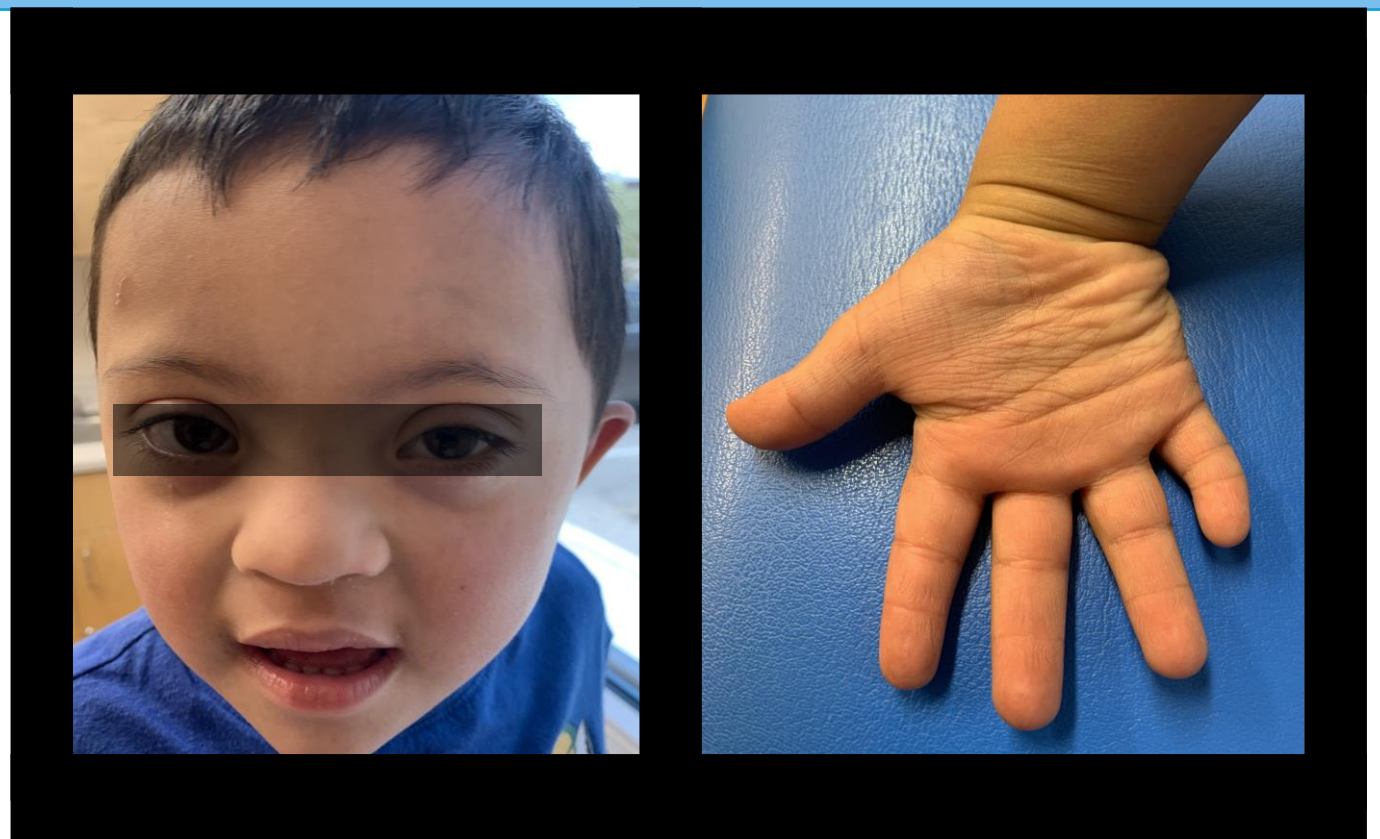
Newborn with a round, hairless area, yellow, orange color, with velvety surface and slightly raised.

What is the most likely diagnosis?

Nevus sebaceus

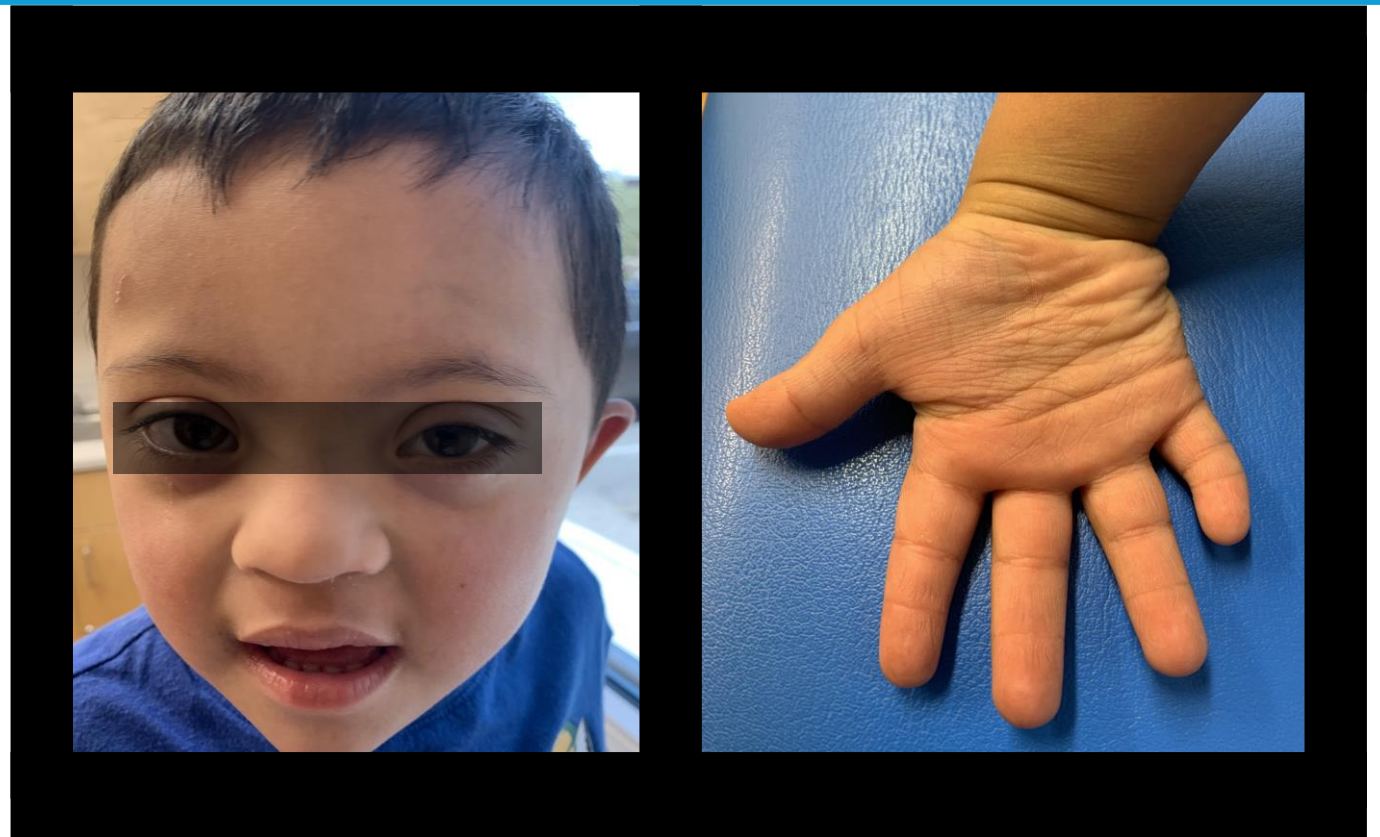
"Nevus sebaceus of Jadassohn"

Hypotonia, upslanted palpebral fissures, epicanthal folds, brushfield spots, systolic murmur, single transverse creases in hands, brachydactyly, short fifth finger, and clinodactyly. Broad space between the first and second toe



Hypotonia, upslanted palpebral fissures, epicanthal folds, brushfield spots, systolic murmur, single transverse creases in hands, brachydactyly, short fifth finger, and clinodactyly. Broad space between the first and second toe

Trisomy 21



Down syndrome

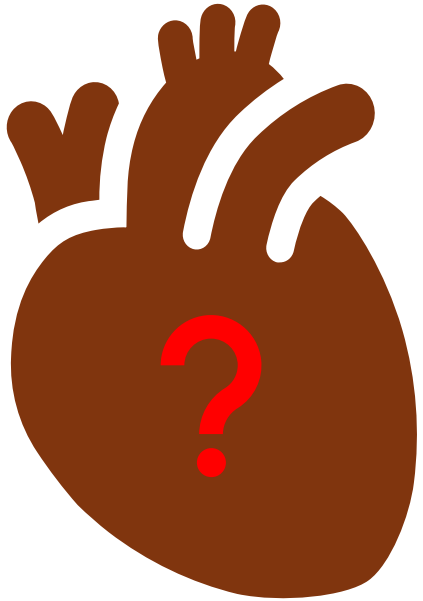
Screening for hypothyroidism in cases of Down syndrome is at what age?

Screening for hypothyroidism in cases of Down syndrome is at what age?

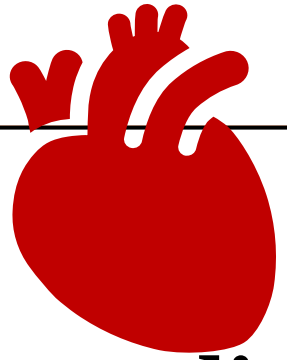
Newborn screening after birth, at 6 and 12 months, then annually if normal

Newborn with Down syndrome with no murmur on physical examination

Best next step?

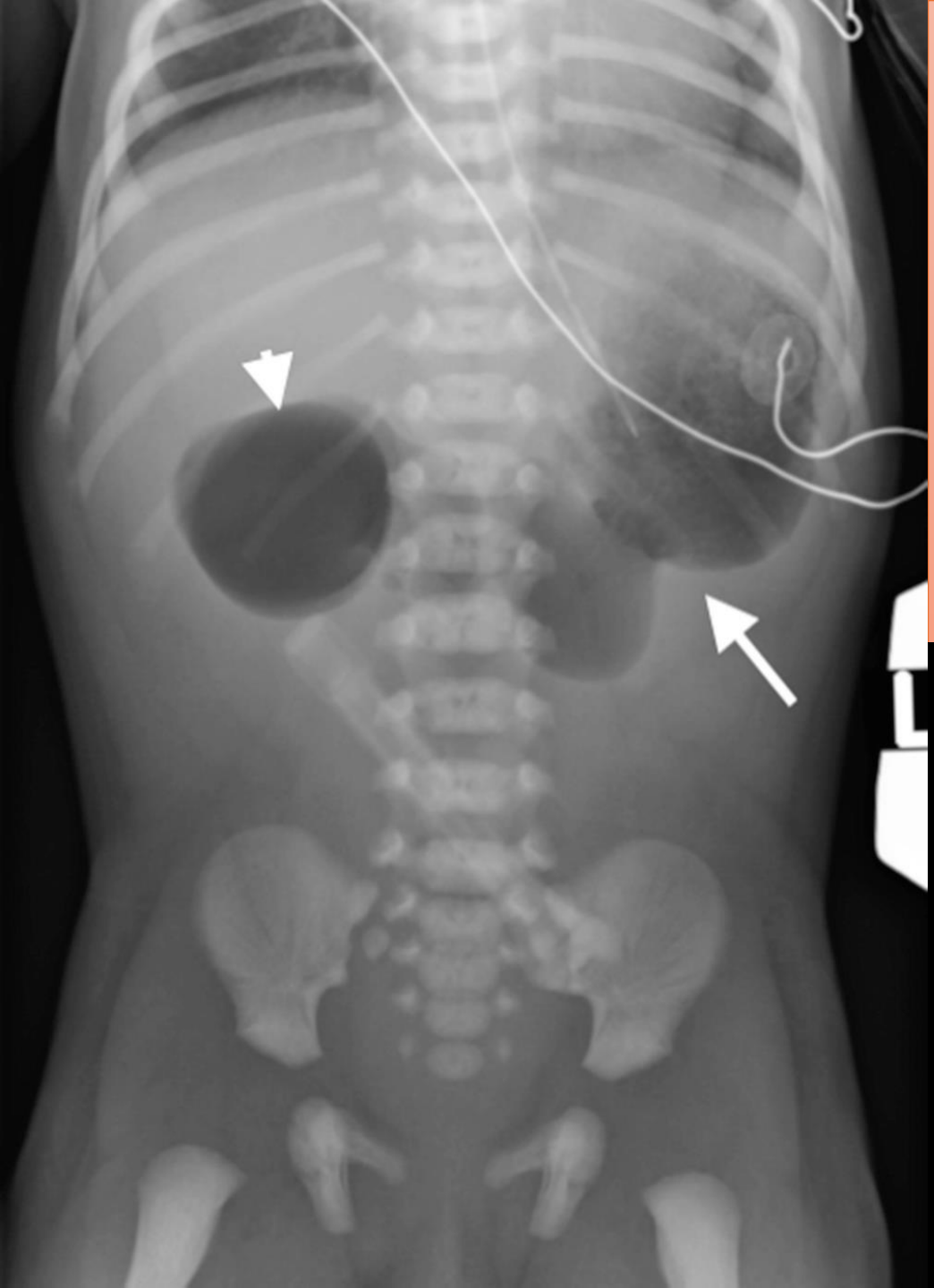


Newborn with Down syndrome with no murmur on physical examination



Echocardiography

50% of children with Down syndrome have a cardiac defect → AV canal defects, ventricular septal defect, atrial septal defect, and tetralogy of Fallot



The most common gastrointestinal defects associated with Down syndrome

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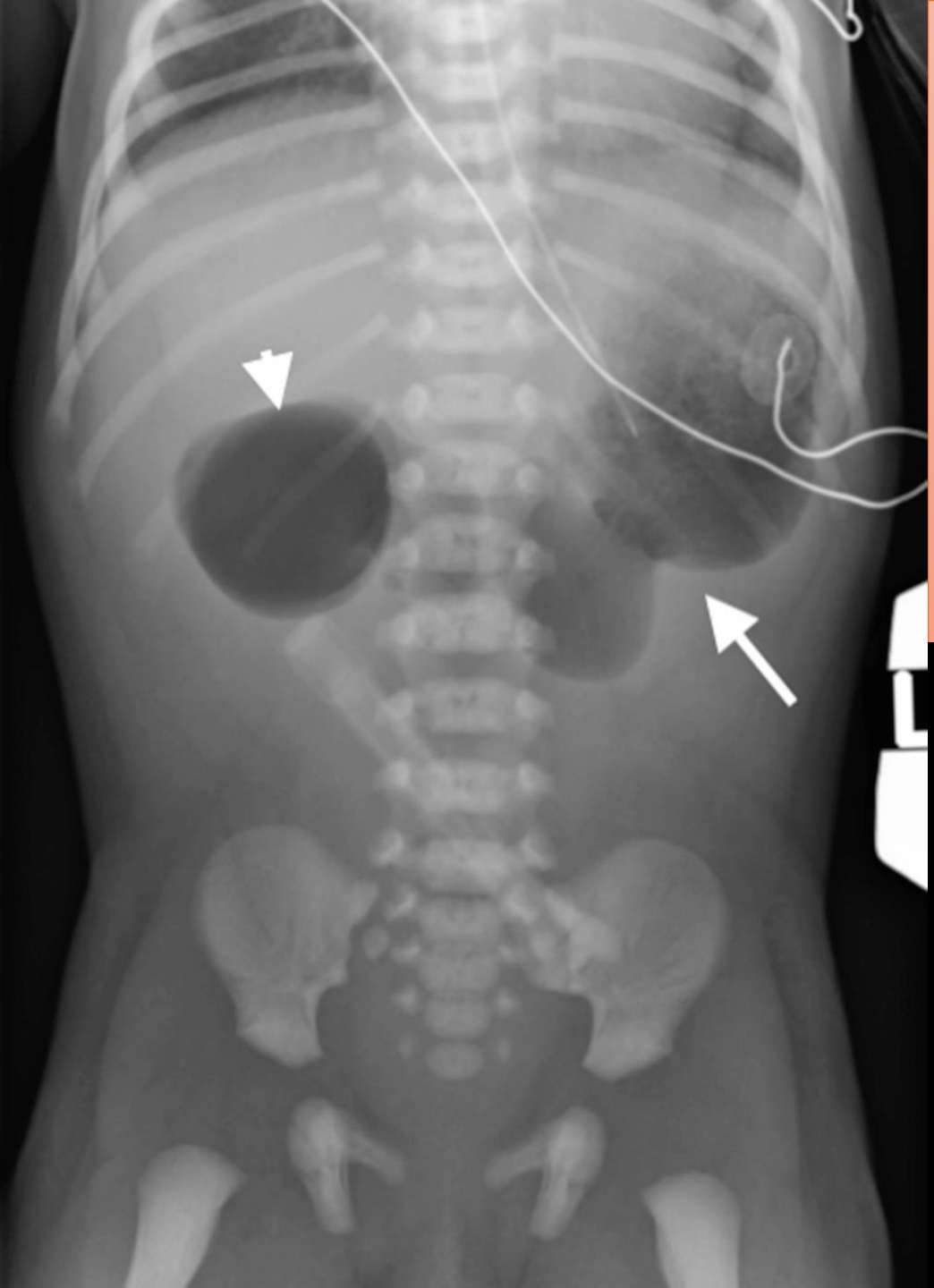

The most common gastrointestinal defects associated with Down syndrome

Duodenal atresia, Hirschsprung disease

A 3-year-old boy with **Down syndrome** has been complaining of recurrent **abdominal pain and diarrhea** for the last few weeks; he has lost 3 pounds since last month, and he looks pale. On Exam. **Pallor, abdominal distension**, no hepatosplenomegaly. His CBC is positive for **hypochromic microcytic anemia**.

What is the next best step?

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What is the next best step?

Celiac disease screening test

IgA and tissue transglutaminase IgA antibodies

Adolescent had influenza A infection, now is having a very high fever, looks toxic; tachypnea, respiratory distress, and tachycardia; chest radiograph is positive for infiltration, and cavities. Later on, developed pleural effusion positive for gram positive bacteria in clusters.

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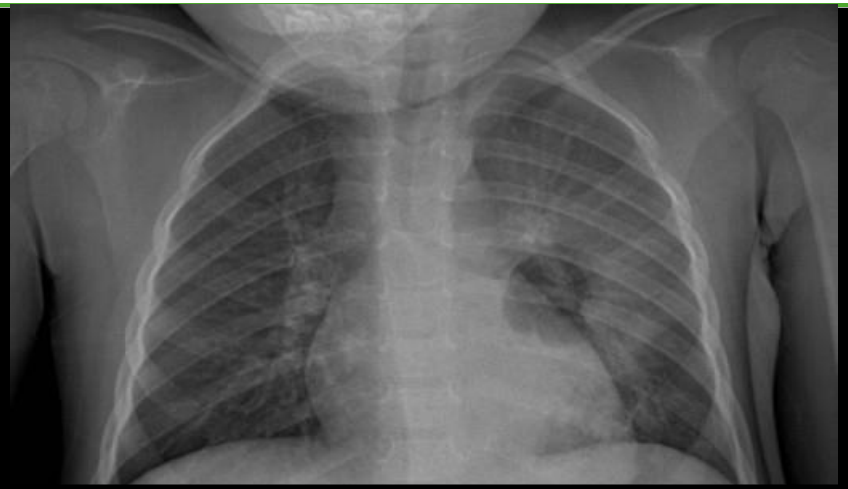
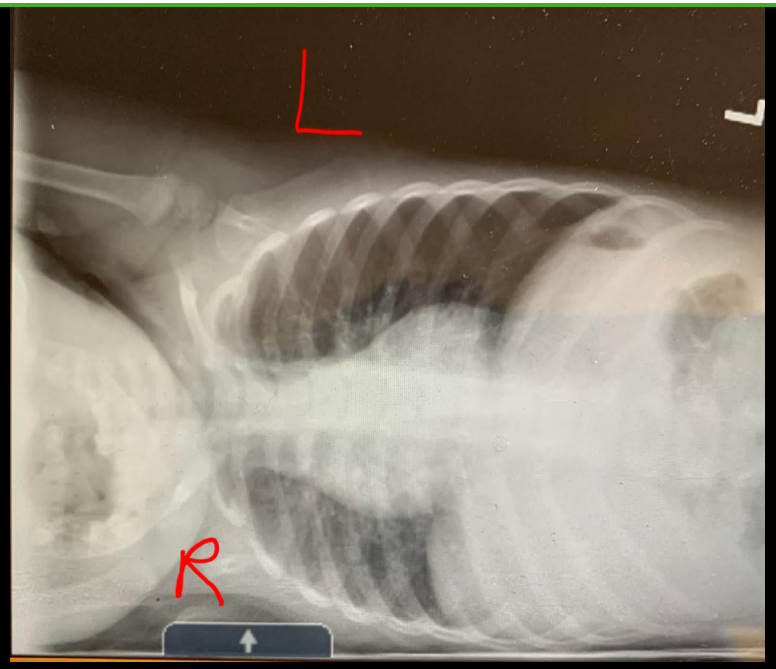
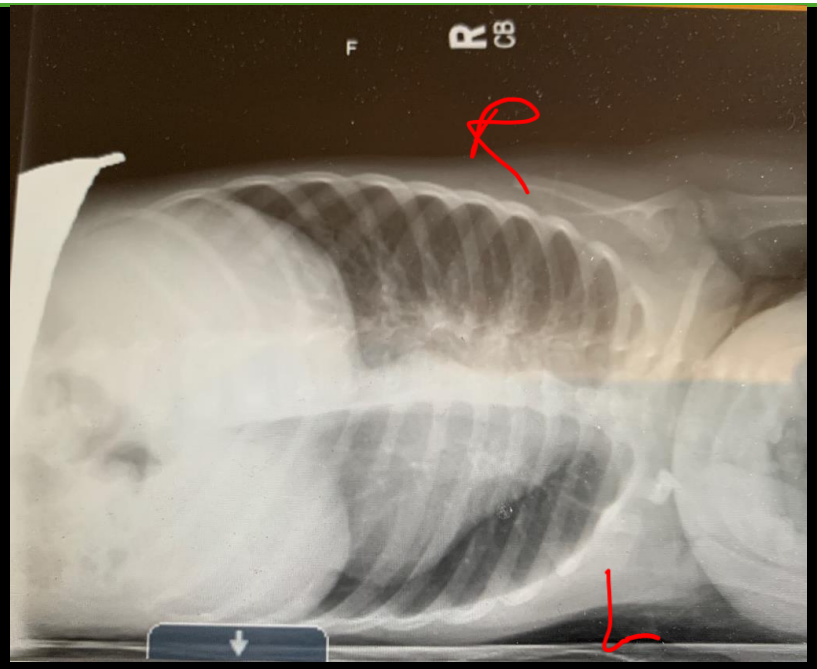


***Staphylococcus aureus* pneumonia**

Toddler with a history of choking 2 weeks ago; he has had a cough since then, wheezing, diminished breath sounds on the left; normal AP and lateral chest radiograph, positive bilateral decubitus X-ray





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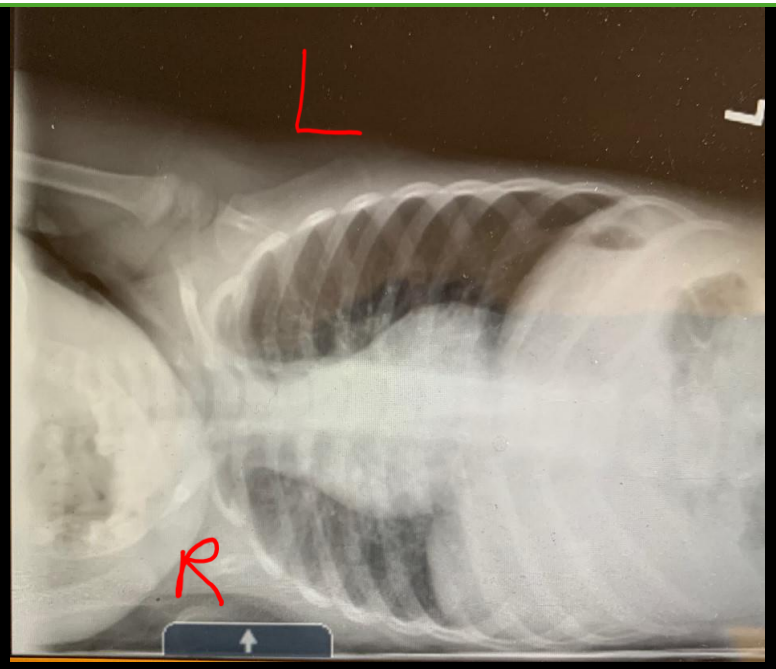

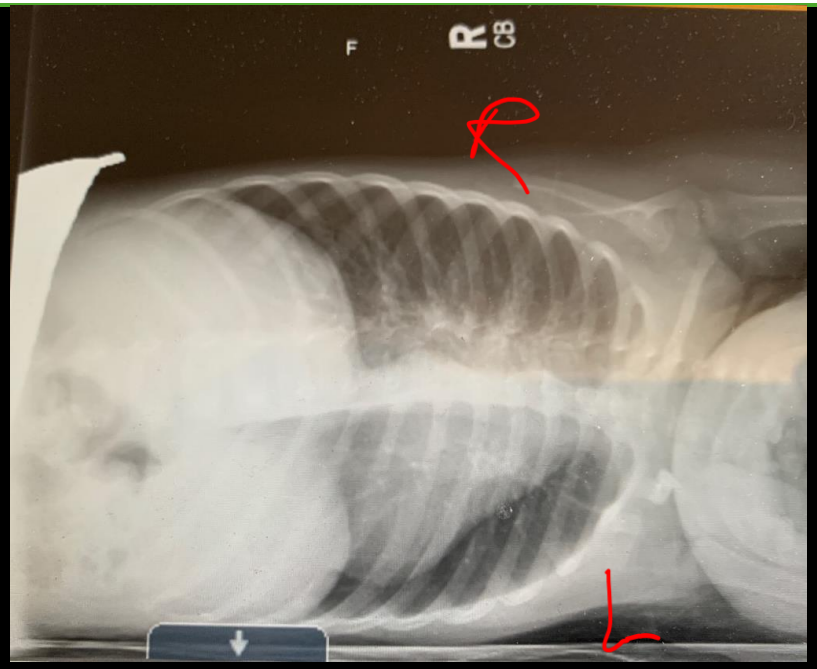

Toddler with a history of choking 2 weeks ago; he has had a cough since then, wheezing, diminished breath sounds on the right; normal AP and lateral chest radiograph, positive bilateral decubitus X-ray

Foreign body aspiration

Study of choice → Inspiratory and expiratory or bilateral decubitus views to see asymmetric hyperinflation on the side with foreign body due to ball-valve effect

A 3-year-old, swelling of the face and generalized **edema**, **normal blood pressure**, **4+ proteinuria**, **no hematuria**, **hyperlipidemia**, **hypoalbuminemia**, **normal C3 and C4, urine** is **negative** for protein after 3 weeks of **steroid therapy**

Nephrotic syndrome due to minimal change disease

Nephrotic syndrome not responding to treatment and progressing to chronic kidney disease → Focal segmental glomerulosclerosis

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Nephrotic syndrome due to minimal change disease

Nephrotic syndrome not responding to treatment and progressing to chronic kidney disease → Focal segmental glomerulosclerosis

A 5-year-old has blood in urine, urine is positive for hematuria, and RBC casts, renal function is normal, no hypertension, positive family history of hematuria with every generation affected

A 5-year-old has blood in urine, urine is **positive for hematuria**, RBC casts, renal function is normal, no hypertension, **positive family history of hematuria** with every generation affected

Familial thin basement membrane nephropathy (autosomal dominant)

Kicks ball without demonstration

Throws a ball overhead

Builds a tower of 6 blocks

Jumps with **2** feet

Two-word sentences

50% intelligible speech

2 years

Kicks ball without demonstration

Throws a ball overhead

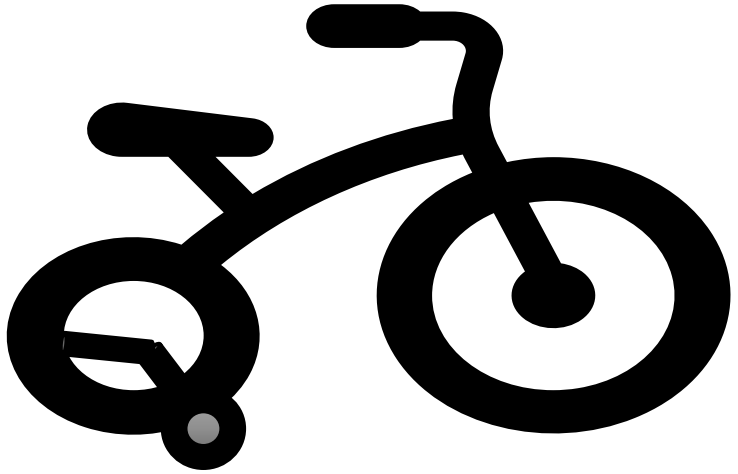
Builds a tower of 6 blocks

Jumps with **2** feet

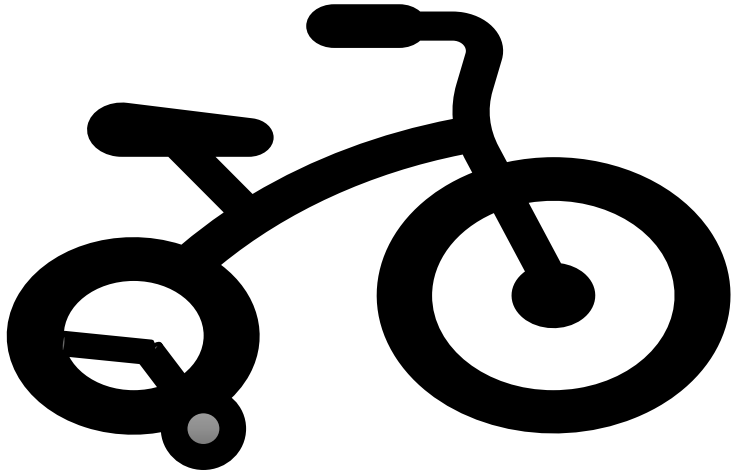
Two-word sentence

50% intelligible speech

Pedals tricycle
Copies circle
Three-word sentences
75% intelligible speech



Pedals tricycle
Copies circle
Three-word sentences
75% intelligible speech



Group play

Copies square

Follows three-step commands

100% intelligible speech

Group play

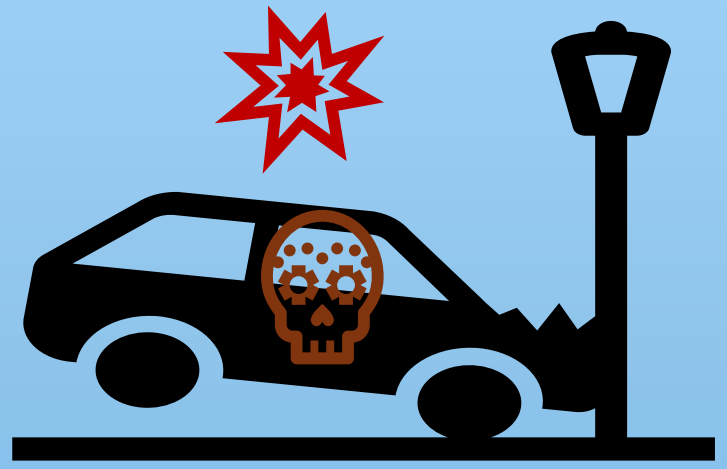
Copies square

Follows three-step commands

100% intelligible speech

4 years

A 7-year-old boy was exposed to a horrific car accident; father died in the accident. Boy has difficulty sleeping, a flashback of the event, recurrent distressing dreams for 3 weeks after the accident



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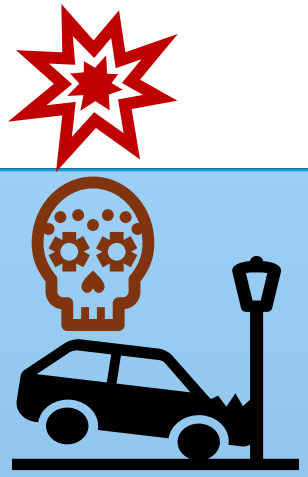

Acute stress disorder

Acute stress disorder → 3 days to 1 month after exposure
Post-traumatic stress disorder → 6 months after exposure

Two siblings are jealous of each other and are always fighting each other in front of their parents. “Sibling rivalry.”

What is the best approach?

Two siblings are jealous of each other and are always fighting each other in front of their parents. “Sibling rivalry.”

What is the best approach?

Focus on individual needs of each child, giving each the time and attention needed, to feel loved and secured

“They should be separated, and told violence is not allowed”

Child sustained blunt trauma to the abdomen, all vital signs are normal, and the abdominal ultrasound (US) is positive for splenic rupture.

What is the best management?

Child sustained blunt trauma to the abdomen, all vital signs are normal, and the abdominal ultrasound (US) is positive for splenic rupture.

What is the best management?

For hemodynamically stable grades I–III, conservative management with monitoring of vital signs, surgical consult, serial hemoglobin, and hematocrit measurements

Child sustained blunt trauma to the abdomen, low blood pressure, tachycardia, cold, clammy skin, and abdominal US is positive for splenic rupture.

What is the best management?

Child sustained blunt trauma to the abdomen, low blood pressure, tachycardia, cold, clammy skin, and abdominal US is positive for splenic rupture.

What is the best management?

Abdominal exploration

What are the best initial studies in cases of suspected iron-deficiency anemia?

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CBC, reticulocyte count, soluble transferrin receptor (sTfR) level, and ferritin level (the storage form of iron).

What are the expected lab results in cases of iron deficiency anemia?

What is the expected lab results in cases of iron deficiency anemia

Low hemoglobin, mean corpuscular volume (MCV), iron, reticulocyte count, and ferritin level

High soluble transferrin receptor (sTfR) level, red cell distribution width (RDW), total iron-binding capacity (TIBC), and Mentzer index (MCV/RBCs) > 13

Which allergy test is preferred in cases of dermatographism, generalized dermatitis, or a clinical history of severe anaphylactic reactions to a given food?

Radioallergosorbent test (RAST) (allergen-specific IgE antibody)

Both skin-prick testing and serum IgE levels have high positive rate

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Radioallergosorbent test (RAST) (allergen-specific IgE antibody)

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Child currently on diphenhydramine for allergies is scheduled for skin allergy testing.

When should diphenhydramine be stopped?

Child currently on diphenhydramine for allergies is scheduled for skin allergy testing.

When should diphenhydramine be stopped?

At least 5 days prior to testing

Cetirizine → At least 7 days prior to testing
Amitriptyline → At least 2 weeks prior to testing

Adolescent with amenorrhea, headaches, blurring of vision, galactorrhea

Adolescent with amenorrhea, headaches, blurring of vision, galactorrhea

Prolactinoma

Adolescent girl with irregular menstrual periods, body mass index at the 98th percentile, acne, acanthosis nigricans, hirsutism, male pattern baldness/alopecia, elevated total and free testosterone

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Polycystic ovary syndrome (PCOS)

Best initial labs → Total and free testosterone, dehydroepiandrosterone sulfate (DHEAs), and 17-hydroxyprogesterone levels

If only one choice → free testosterone level

A 3-year-old child from the Middle East, recurrent fever associated with abdominal pain, joint pain, erysipelas-like rash, during the episode (ESR, CRP, amyloid A protein, and fibrinogen are elevated) WBC 25,000

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Familial Mediterranean fever (FMF)

Diagnosis is a clinical diagnosis

Colchicine is so effective in preventing attacks of FMF

Child with fever for 3–5 days every month associated with mouth ulcers, throat pain, cervical lymphadenitis. The patient is well in- between episodes

Child with **fever for 3–5 days every month** associated with **mouth ulcers**, **throat pain**, **cervical lymphadenitis**. The patient is well in- between episodes

PFAPA

(**P**eriodic **f**ever, **A**phthous stomatitis, **P**haryngitis, and **c**ervical **A**denitis)

Single dose of prednisone (1-2mg/kg), can abolish a febrile attack within few hours

1 day old with history of maternal diabetes, cyanosis and tachypnea, high oxygen saturation in legs than arms, poor response to supplemental oxygen, loud single 2nd heart sound, no murmur, CXR shows narrow mediastinum with small heart tipped on side, increased pulmonary vascularity.

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Transposition of Great Arteries (TGA)

2 month old presents with cyanosis, poor feeding, and crying, palpable right ventricular impulse, single 2nd heart sound, a harsh systolic ejection murmur is heard over the pulmonic area on the left sternal border, EKG shows right axis deviation, right ventricular hypertrophy, CXR shows boot-shaped heart, and diminished pulmonary vascularity

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Tetralogy of Fallot


Osama Naga
Editor
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Thank you!