
Cases: Headache; Attention Deficit Disorder/Health Maintenance; Constipation

SP Characteristics: Case 1: Teenager; Case 2: School Age Child (with Parent); Case 3: Infant/Toddler (with Parent)

Pediatric Session: March 19-22, 2018

Expected Tasks:

The student teams should perform the following tasks during this session.

- ❖ Conduct a focused history for pediatric patients presenting with: 1. Headache; 2. Attention Deficit Disorder (ADD); and/or 3. Constipation
- ❖ Perform the relevant and age appropriate physical examination: 1. Focused cardiac and pulmonary exams 2. HENT exam (Head, Ears (NO otoscopy on infant/toddler), Nose, Mouth, cervical lymph nodes 3. Complete abdominal exam (NO abdominal exam on teen); 4. Upper and lower extremity exam (only on teen and school age child)
- ❖ Present the cases to the preceptor
- ❖ Receive feedback and discuss performance with their colleagues and preceptor and patients

CASE 1: Headache

Patient Chief Complaint : “Headache”

History Present Illness: Alex (teen/ any gender) is an otherwise healthy teen who has been having headaches that come and go. The headaches typically occur mid-day or at the end of the day. They began a few months ago and have been increasing in frequency and severity. They are now occurring nearly every day and they last for up to 2 to 3 hours. At the present time, you are feeling well and are not having a headache.

The headaches lately have been severe, and you would rate them an 8 on a scale of 1-10. When they occur you have to stop what you are doing, and either take an ibuprofen or take a rest. This has been impacting your ability to get homework done and participate in after school activities.

The headaches are associated with feeling sick and like having to throw up (with nausea). Loud noises and bright lights make them worse. Taking a nap, or resting in a quiet dark room makes them better. They respond well to the ibuprofen and you have not tried any other medications.

If you are asked about other symptoms, you don't have them. Everything else is normal. Energy level, activity level, appetite all normal when not having headache.

Habits and Home environment/activities/school: if asked, you drink a lot of caffeinated (coffee, soda, energy drinks). You do not smoke and are not interested in trying drugs or drinking alcohol.

Home environment is safe, and is not causing extra stress. You can state who is in your actual home (e.g. mom, dad and any brothers or sisters) but share that everyone gets along and you have good relationships with everyone.

Activities and school--- state the things you are interested in and do after school; if asked about school, say that it's going well and you are happy with your grades.

Past Medical History: Otherwise healthy, no chronic illness, no history of surgeries

Family History: Your mother gets migraine headaches, otherwise parents and brothers/sisters are all healthy

Medications: You take one Ibuprofen as noted above when you need it for a headache. Otherwise you are not taking any other medications and haven't tried anything else.

Allergies: No medication, food or environmental allergies

Physical Exam:

Check Blood Pressure, Heart Rate and Respiratory Rate

Check general appearance: SP will be comfortable, alert and participatory

Check Head, Ears, Nose, and Throat:

- 1) Inspect: Look for symmetry, moles, other lesions on scalp, hair, face.
- 2) Examine ears, nose, sinuses, mouth and posterior pharynx
- 3) Feel for lymph nodes
- 4) Students should not need to do a thyroid exam.
(Preceptors if you see them doing a thyroid exam, you can give them feedback about doing a focused and pertinent exam; thyroid disease would be unusual in a teen with these symptoms)

Perform a focused Lung Exam

- 1) Inspect, Observe effort of breathing
- 2) Auscultate the lungs

Perform a focused Heart exam: Listen to the Heart in the 4 areas of the heart valves:
Aortic/Pulmonic/Tricuspid/Mitral

- 1) Check pulse in the arm (radial pulse, not carotid, not neck)

Perform a focused Musculoskeletal exam: **MAY OMIT IF LACK OF TIME**

- 1) Inspect for deformity or injury
- 2) Assess passive range of motion and strength
- 3) Assess reflexes

A Neuro exam would be relevant, but the students have not learned this yet.

Discussion Points for Preceptors:

- A. Discuss the causes of headache and prioritize those that may present in a teenager; take them through a differential diagnosis using VINDICATE (vascular including migraine, inflammatory including infectious, neoplastic, degenerative, intoxication, congenital, autoimmune including vasculitis, traumatic, endocrine, etc...)
- B. Briefly discuss how a migraine headache is the most likely, and the most common triggers and treatments for migraines
- C. Briefly, discuss the physical exam for headache would normally also include an eye exam and neurologic exam, not yet introduced for Year 1 students

CASE 2: Health Maintenance of school age child

Patient Chief Complaint : “Trouble at school”

History Present Illness: Chris (grade school age child/any gender -- state real age if asked) is an otherwise healthy child who presents for health maintenance. Has not had any interval illness or fevers, has been healthy. Chris is without new concerns or questions but should act very “fidgety” during the visit in a curious and distracted way. Chris should answer questions helpfully when asked directly, and should follow instructions, but when medical student is talking to parent, Chris should be exploring the room in a safe but curious way (try out the sink; if there are cotton balls or tongue depressors, play with those--- have fun but be safe and don’t use anything sharp or metal or with glass).

Chris’ parent notes that teachers have been concerned about inattention at school. Chris has been disruptive in class, often interrupting his/her other classmates; is easily distracted during lessons (e.g. fiddling with pencils and other equipment, staring out window). Assignments are often incomplete. Chris’ parent notes similar behaviors in the home, interrupting parents during conversations and doesn’t “sit still” – is regularly fiddling with this and that throughout the home and sometimes accidentally breaking things.

Diet, Sleep, Activities, Habits, and Home Environment: as per child/family

School: grade as per child, teacher concerns as noted. Can state intelligence and performance is at grade level “academically”

If asked about any other symptoms, the child is doing well and has no other symptoms or concerns. Energy level, activity level, appetite all normal

Past Medical History: Chris is otherwise healthy, has no chronic illness, no history of surgeries

Family History: Note that one parent (you can choose which one -mom vs dad) has a history of ADHD when s/he was a child and needed a medication for this when they were in school.

Otherwise, all family members are healthy without chronic conditions.

Medications: None

Allergies: No medication, food or environmental allergies

Physical Exam: The students will do a focused physical exam including:

Check Blood Pressure, Heart Rate and Respiratory Rate

Check your general appearance: SP will look comfortable, alert and participatory

Check Head, Ears, Nose, and Throat:

- 1) Inspect: Look for symmetry, moles, other lesions on scalp, hair, face.
- 2) Examine ears, nose, sinuses, mouth and posterior pharynx
- 3) Feel for lymph nodes (little bumps, swollen glands).
- 4) Students should not need to do a thyroid exam. (Preceptors – if you see them doing a thyroid exam, you can give them feedback about doing a focused and pertinent exam; thyroid disease would be unusual in a child with these symptoms)

Perform a focused Lung Exam:

- 1) Inspect and observe effort of breathing
- 2) Auscultate in appropriate areas to check the lung sounds

Perform a focused Heart exam:

- 1) Listen to the Heart in the 4 areas of the heart valves:
Aortic/Pulmonic/Tricuspid/Mitral
- 2) Check pulse in the arm (radial pulse, not carotid, not neck)

Perform a focused Musculoskeletal exam:

- 1) Inspect for deformity or injury
- 2) Assess passive range of motion and strength
- 3) Assess reflexes

Perform a focused Abdominal exam:

- 1) Inspect for distension
- 2) Listen for bowel sounds in 1 quadrant
- 3) Feel lightly (Palpate) for tenderness in all quadrants (patient should not have any tenderness or discomfort);
- 4) Feel flanks for costa-vertebral angle tenderness (patient should be not have any tenderness or discomfort here)

Discussion Points for Preceptors:

- A. Discuss the causes of inattentiveness and distraction in a school-age child. Note that Attention Deficit Disorder is a common condition in children, but not the only condition that presents with a distracted/inattentive child. Consider hearing loss, near-sighted ness (need for glasses), other psychosocial stressors, and learning disabilities as possibilities, among others.
- B. Briefly discuss how a primary care provider might approach a school age child with inattentiveness, including assessing for learning disability and/or ADHD using standardized/validated questionnaires and/or neurocognitive testing, evaluating hearing and vision more deliberately, assessing for other psychosocial stressors.
- C. Discuss some of the differences in approach to the school age child exam compared to the adult health maintenance physical exam. Discuss strategies to performance of the exam, discuss pertinent negatives in adults that are not pertinent negatives in a healthy child (e.g. thyroid disease, peripheral vascular disease)

CASE 3:

Patient Chief Complaint : “Constipation”

History Present Illness: Aiden (infant/toddler) is an otherwise healthy infant or toddler who presents for decreased frequency of bowel movements. Aiden has otherwise been well, has good appetite and energy level. Generally seems comfortable except when trying to have a bowel movement----will grunt and work hard at it. Aiden used to make stool about once or twice per day, soft and mushy, and lately it's been once every third day. The consistency is larger and harder and sometimes comes out as firm balls. There is no blood in the stool. No vomiting.

Diet, Sleep, Activities, Habits, and Home History: as per child and family

Any other questions about symptoms: Child is feeling well and acting normally, no other concerns.

Past Medical History:

Aiden is otherwise healthy, no chronic illness, no history of surgeries, birth history normal spontaneous vaginal delivery and no complications, uneventful routine newborn nursery course

Growth and Developmental history are normal. (So if medical student asks about growth or development, just state that “growth has been appropriate” or “on the growth curve” and that “development has been appropriate” or that “s/he has reached all developmental milestones on target/at the correct timing/age”)

Family History:

No significant family history, parents and sibling(s) all healthy

Medications: None

Allergies: No medication, food or environmental allergies

Physical Exam: The students should do a focused physical exam including:

Check Vitals:

- 1) Heart Rate and Respiratory Rate, but *not* check a Blood Pressure
- 2) Normally at this type of visit a Height/Length and Weight would be obtained. We don't expect students to do this but Preceptor should note these would normally be “vitals” for an infant/toddler.

Check general appearance: Child SP should look comfortable, alert and participatory

Check Head, Ears, Nose, and Throat:

- 1) Inspect: Look for symmetry, moles, other lesions on scalp, hair, face.
- 2) Examine ears, nose, sinuses, mouth and posterior pharynx
 - a. Students should *not* do invasive exams – no shining light in ear or mouth; just have them inspect the head and ears and mouth externally
- 3) Feel for lymph nodes (little bumps, swollen glands). Students should not need to do a thyroid exam. (Preceptors – if you see them doing a thyroid exam, you can give them feedback about doing a focused and pertinent exam; thyroid disease would be unusual in a toddler/infant with these symptoms)

Perform a focused Lung Exam: The student will:

- 1) Inspect and observe effort of breathing, also should inspect spine especially lower spine (sacrum) for deformities (a sacral dimple would be an abnormal finding they'd want to exclude)
- 2) Auscultate in appropriate areas to check the lung sounds

Perform a focused Heart exam: The student will:

- 1) Listen to Heart in the 4 areas of the heart valves: Aortic/Pulmonic/Tricuspid/Mitral
- 2) Check pulse in the arm (brachial or radial pulse, not carotid, not neck)

Perform a focused Abdominal exam:

- 1) Inspect for distension
- 2) Listen for bowel sounds in 1 quadrant
- 3) Feel lightly (Palpate) for tenderness in all quadrants

Discussion Points for Preceptors:

- A. Discuss the causes of less frequent stool and define constipation as related to consistency rather than frequency of stooling

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- B. Briefly discuss the approach taken to the physical exam in the infant and toddler and compare the necessary strategies to that of an adult or older child
 - C. Briefly, discuss the management of constipation in an infant/toddler including dietary strategies and which medications are safe and effective in this young population