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Emma Ryan V4 PC -K (Basic DDx)

History Physical Exam Assessment Tests Diagnosis Plan Summary

Expert Feedback

Questions Asked: (click here to show detailed list of questions you asked)

You asked 50 questions. 10 (20%) were key questions suggested by the expert case author. You asked an additional 40 questions (80%).

Missing

Oops. You didn't ask all important questions suggested by the expert author for this case. You missed asking 5 of the 15 key questions. (Note: Sometimes there is more than one way to get similar information from your patient. Eliciting information in more than one way when interviewing a patient can be useful.)

Missing questions are:

Associated Sx/Sx Characteristics:

- ▶ Have you noticed your child pulling on her ear? (Mother)
- ▶ Does she have a rash? (Mother)
- ▶ Does she have discharge or bleeding from her ears? (Mother)

Risk Factors:

PMH:

- ▶ Any new or recent change in medications? (Mother)

Other:

- ▶ How many wet diapers does your child make per day? (Mother)

Reminder:

Show Clinical Feedback Next Step: Perform Physical Exam

MSAP: Persistent, intermittent Fever yesterday. Home 101. Tylenol. Given right before they came

Related: 2 day Runny nose. Nasal congestion.

Related: Not been eating well. 18 OZ milk. Decreased appetite

Related: Consistent Moderate Cough waken at night x 2 days

Unknown: Second hand smoke, dog at home.

Lisa Ryan Mother

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Emma Ryan V4 PC -K (Basic DDx)

Expert Feedback

Vitals Documentation:

- Pulse: Good, all correct. (FYI actual rate: 85)
- Respiration: Good, all correct.
- BP: Good, all correct. (FYI actual BP: 95/60)
- ✗ Mental Status: Incorrect mental status, correct is Verbal.

Exam Documentation:

- Lung Auscultation: Good, all correct.
- Cardiac Auscultation: Good, all correct.

Exams Performed:

- Correct

Good, you performed 9 key exams for this case:

1. Vitals: Skin
2. Vitals: Temperature
3. Vitals: Respiration
4. Vitals: Pulse
5. Chest Wall & Lungs: auscultate lungs
6. Heart: auscultate heart
7. Skin, Hair, Nails: inspect skin overall
8. HEENT: look in ears with otoscope
9. HEENT: inspect mouth/pharynx

Show Clinical Feedback Next Step: Develop Assessment

MSAP: Persistent, intermittent Fever yesterday. Home 101. Tylenol. Given right before they came

Related: 2 day Runny nose. Nasal congestion.

Related: Not been eating well. 18 OZ milk. Decreased appetite

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Emma Ryan V4 PC -K (Basic DDx)

Show Patient Record

Key Findings

DDx

Evaluated

MSAP: Persistent, intermittent Fever yesterday. Home 101. Tylenol. Given right before they came

Related: 2 day Runny nose. Nasal congestion.

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Unknown: Second hand smoke, dog at home.

Expert Feedback

You also performed additional exams that were not required, but are never inappropriate.

1. Vitals: SpO2
2. Vitals: SpCO
3. Vitals: eTCO2
4. Vitals: BP

Missing

Oops. You missed 3 key exams. They are:

1. HEENT: inspect ears  
Any child with non-specific symptoms such as fever and upper respiratory symptoms must have a thorough examination of the lungs, ears, nose, and throat. These are the components that are a part of the respiratory system.
2. HEENT: inspect eyes  
Any child with non-specific symptoms such as fever and upper respiratory symptoms must have a thorough examination of the eyes to rule out conjunctivitis as it can frequently accompany upper respiratory infections.
3. Chest Wall & Lungs: visual inspection - anterior & posterior chest  
Any child with non-specific symptoms such as fever and upper respiratory symptoms must have a thorough examination of the lungs, ears, nose, throat and eyes. These are the components that are a part of the respiratory system.

Since this child has had a cough for a few days, we must inspect the chest wall for signs of labored breathing which includes the use of accessory muscles or abnormal chest wall retractions.

Incorrect

You performed 7 exams not required by expert.

Show Clinical Feedback

Next Step: Develop Assessment

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Emma Ryan V4 PC -K (Basic DDx)

Show Patient Record

Key Findings

DDx

Evaluated

MSAP: Persistent, intermittent Fever yesterday. Home 101. Tylenol. Given right before they came

Related: 2 day Runny nose. Nasal congestion.

Related: Not been eating well. 18 OZ milk. Decreased appetite

Related: Consistent Moderate Cough waken at night x 2 days

Unknown: Second hand smoke, dog at home.

Expert Feedback

chest wall retractions.

Incorrect

You performed 7 exams not required by expert.

1. Vitals: Mental Status
2. Abdomen: auscultate abdomen
3. HEENT: look in eyes with ophthalmoscope
4. HEENT: inspect nose
5. HEENT: look up nostrils
6. Neck: palpate neck
7. Lymphatic: palpate all lymph nodes

Exam Performance:

Incorrect

You made 2 errors performing some exams:

1. Did not count at least 2 beats on a required location - missing locations: 1 radial.
2. Did not auscultate the anterior in the correct order.

Reminder:

Be sure to fill out appropriate portions of the Patient Record before proceeding.

Show Clinical Feedback

Next Step: Develop Assessment

**Emma Ryan V4 PC -K (Basic DDx)**

History   Physical Exam   **Assessment**   Tests   Diagnosis   Plan   Summary

**Show Patient Record**

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**Key Findings**   **DDx**

**Evaluated**

- MSAP: Persistent, intermittent Fever yesterday. Home 101. Tylenol. Given right before they came
- Related: 2 day Runny nose. Nasal congestion.
- Related: Not been eating well. 18 OZ milk. Decreased appetite
- Related: Consistent Moderate Cough waken at night x 2 days
- Unknown: Second hand smoke, dog at home.



**Organize Key Findings**

---

**Write Problem Statement**

Select Problem Categories

---

Select Differential Diagnoses

---

Rank Differential Diagnoses

---

Select Tests

Write your problem statement in the space below.  
You have used 72 of a maximum of 120 allowed for this case

Patient presents with persistent intermediate fever for one day, highest temp 101. Alleviated by Tylenol. Running nose and nasal congestion for 2 days. decreased solid food appetite. Consistent moderate cough for 2 days, wakening patient up at night. Did not receive flu vaccine. Erythema in bulging of bilateral tympanic membranes. Erythema of pharynx. Rhinorrhea. Patient goes to daycare where there are other sick children. Exposed to secondhand smoke and dog at home.

**Expert Feedback**

E.R. is a 2 year old otherwise healthy female on day 3 of runny nose and cough, and day 2 of fever. She is drinking liquids well, has a reduced appetite but normal number of wet diapers and normal stools. Physical exam is notable for tympanic temperature of 101.1 F, bilateral severe bulging of her tympanic membranes and erythema and exudates of her pharynx. Risks include lack of flu vaccine this season, exposure to other sick children at daycare and second hand smoke at home.

**Next Step: Select Problem Categories**

Emma Ryan V4 PC -K (Basic DDx)

History Physical Exam **Assessment** Tests Diagnosis Plan Summary

Organize Key Findings Write Problem Statement Select Problem Categories Select Differential Diagnoses Rank Differential Diagnoses Select Tests

Select the body system(s) that are most likely to be the source of the patient's primary pathology.

**Expert Problem Statement**

E.R. is a 2 year old otherwise healthy female on day 3 of runny nose and cough, and day 2 of fever. She is drinking liquids well, has a reduced appetite but normal number of wet diapers and normal stools. Physical exam is notable for tympanic temperature of 101.1 F, bilateral severe bulging of her tympanic membranes and erythema and exudates of her pharynx. Risks include lack of flu vaccine this season, exposure to other sick children at daycare and second hand smoke at home.

- Cardiovascular
- Endocrine
- Gastrointestinal
- Genitourinary/Renal
- Hematologic
- ☒ Immune
- Integumentary
- Lymphatic
- Musculoskeletal
- Neurological
- Psychologic
- ☒ Respiratory
- Sexual/Reproductive

**Expert Feedback**

**Selected Problem Categories**

☒ Correct

- Respiratory

☒ Incorrect

- Immune

**Discussion:**

Respiratory: the presence of cough and rhinorrhea, erythema of the oropharynx and bulging tympanic membranes falls in the respiratory system category.

Next Step: Select Differential Diagnoses

Emma Ryan V4 PC -K (Basic DDx)

History Physical Exam **Assessment** Tests Diagnosis Plan Summary

Organize Key Findings Write Problem Statement Select Problem Categories Select Differential Diagnoses Rank Differential Diagnoses Select Tests

Complete your differential diagnosis selection. Select diagnoses from categories below and add to differential on right.

**Student Differential Diagnoses**

- ☒ bronchiolitis
- ☒ respiratory syncytial virus (RSV)
- ☒ common cold
- ☒ influenza
- ☒ pharyngitis
- ☒ otitis media
- ☒ upper respiratory infection (URI)

**Expert Feedback**

☒ Missing

You were missing 4 diseases that were specified by the case author:

- influenza**  
This differential diagnosis should be included because:  
The symptoms of fever, rhinorrhea, cough and fussiness along with the fact that the child has not gotten the flu vaccine, puts this diagnosis on our list.
- pharyngitis**  
This differential diagnosis should be included because:  
The child had erythema and exudates of the pharynx on physical exam. Viral pharyngitis is a common cause of sore throat in children. The physical exam can be notable for inflammation of the oral mucosa and pharynx and sometimes vesicles seen in the posterior pharynx.
- otitis media**  
This differential diagnosis should be included because:  
The presence of bilateral severe bulging tympanic membranes makes this diagnosis important to consider.
- upper respiratory infection (URI)**  
This differential diagnosis should be included because:

Next Step: Rank Differential Diagnoses

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### Emma Ryan V4 PC -K (Basic DDx)

History Physical Exam **Assessment** Tests Diagnosis Plan Summary

**Show Patient Record**

**Key Findings** **DDx**

**Evaluated**

MSAP: Persistent, intermittent Fever yesterday. Home 101. Tylenol. Given right before they came

Related: 2 day Runny nose. Nasal congestion.

Related: Not been eating well. 18 OZ milk. Decreased appetite

Related: Consistent Moderate Cough waken at night x 2 days

Unknown: Second hand smoke, dog at home.

**Organize Key Findings**

**Write Problem Statement**

**Select Problem Categories**

**Select Differential Diagnoses**

**Rank Differential Diagnoses**

**Select Tests**

Complete your differential diagnosis selection. Select diagnoses from categories below and add to differential on right.

#### Student Differential Diagnoses

- ☒ bronchiolitis
- ☒ respiratory syncytial virus (RSV)
- ☒ common cold
- ☐ influenza
- ☐ pharyngitis
- ☐ otitis media
- ☐ upper respiratory infection (URI)

#### Expert Feedback

4. upper respiratory infection (URI)

This differential diagnosis should be included because: The child has fever, cough and rhinorrhea. An upper respiratory infection should be on our list of diagnoses as a URI presents with non-specific symptoms and fever.

**Incorrect**

- respiratory syncytial virus (RSV)
- common cold
- bronchiolitis

**Discussion:**

**Other diagnoses:**

Croup is a respiratory illness that is characterized by a barking cough, inspiratory stridor and hoarseness. It usually occurs in children six months to three years of age and viral croup can start with a mild cough, fever or runny nose. Emma has not been noted to have a barking cough, inspiratory stridor or hoarseness therefore this diagnosis is *not* included on the differential at this time.

Pertussis, also known as 'whooping cough' is a highly contagious

**Next Step: Rank Differential Diagnoses**

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### Emma Ryan V4 PC -K (Basic DDx)

History Physical Exam **Assessment** Tests Diagnosis Plan Summary

**Show Patient Record**

**Key Findings** **DDx**

**Evaluated**

MSAP: Persistent, intermittent Fever yesterday. Home 101. Tylenol. Given right before they came

Related: 2 day Runny nose. Nasal congestion.

Related: Not been eating well. 18 OZ milk. Decreased appetite

Related: Consistent Moderate Cough waken at night x 2 days

Unknown: Second hand smoke, dog at home.

**Organize Key Findings**

**Write Problem Statement**

**Select Problem Categories**

**Select Differential Diagnoses**

**Rank Differential Diagnoses**

**Select Tests**

Complete your differential diagnosis selection. Select diagnoses from categories below and add to differential on right.

#### Student Differential Diagnoses

- ☒ bronchiolitis
- ☒ respiratory syncytial virus (RSV)
- ☒ common cold
- ☐ influenza
- ☐ pharyngitis
- ☐ otitis media
- ☐ upper respiratory infection (URI)

#### Expert Feedback

- bronchiolitis

**Discussion:**

**Other diagnoses:**

Croup is a respiratory illness that is characterized by a barking cough, inspiratory stridor and hoarseness. It usually occurs in children six months to three years of age and viral croup can start with a mild cough, fever or runny nose. Emma has not been noted to have a barking cough, inspiratory stridor or hoarseness therefore this diagnosis is *not* included on the differential at this time.

Pertussis, also known as 'whooping cough' is a highly contagious respiratory illness caused by Bordetella pertussis. It manifests as a prolonged cough illness along with an inspiratory 'whoop', paroxysmal cough and posttussive emesis. Early in the disease process, it can start with cold like symptoms such as a mild cough, runny nose and fever. Due to vaccination, the incidence of pertussis had decreased but with more parents declining vaccinations for their children, the incidence of pertussis has started increasing again. Pertussis infection in infants and young children can be severe with increased rates of hospitalizations and complications. However, Emma is up to date on her vaccines per her mother and the duration of her cough is only two days so we are *not* including it on the differential at this time.

**Next Step: Rank Differential Diagnoses**

Emma Ryan V4 PC -K (Basic DDx)

History Physical Exam **Assessment** Tests Diagnosis Plan Summary

Organize Key Findings Write Problem Statement Select Problem Categories Select Differential Diagnoses Rank Differential Diagnoses Select Tests

Finalize the ranking of your corrected DDx. Rank the differential diagnoses: Indicate *leading* (Lead) or *alternative* (Alt). Then indicate if the differential diagnosis represents a *must-not-miss* (MnM) diagnosis or condition.

Sort By Rank

Differential Diagnosis	Lead or Alt	MnM
influenza	•	•
pharyngitis	•	•
otitis media	•	•
upper respiratory infection (URI)	•	•

Expert Feedback

Diagnosis Ranking:

Correct

- influenza
- pharyngitis
- otitis media

Incorrect

- upper respiratory infection (URI)

Diagnosis Must-not-Miss:

Correct

Below are differential diagnoses that ARE 'must-not-miss' and you correctly noted as such.

- influenza

Incorrect

- otitis media
- upper respiratory infection (URI)

Next Step: Select Tests

Emma Ryan V4 PC -K (Basic DDx)

History Physical Exam **Assessment** Tests Diagnosis Plan Summary

Organize Key Findings Write Problem Statement Select Problem Categories Select Differential Diagnoses Rank Differential Diagnoses Select Tests

Select tests that will help rule in or rule out each of the differential diagnoses for this case. A test may be associated with more than one diagnosis. First select the test, then select the associated diagnosis, then click the add button (+). Repeat this step for all appropriate differential diagnoses.

Test/Diagnosis Association

Association of test with diagnosis:  
 Correct Incorrect Missing

Other Tests

Test	Association
influenza	influenza PCR (nasal swab) rapid influenza diagnostic test (RIDT)
pharyngitis	
otitis media	complete blood count (CBC)
upper respiratory infection (URI)	complete blood count (CBC)

Expert Feedback

Tests Ordered

Correct

- influenza PCR (nasal swab)

Missing

- rapid influenza diagnostic test (RIDT)

Incorrect

- complete blood count (CBC)

Test Associations:

Please note some tests may be correct to order, but may not be associated with all and only the correct differential diagnoses.

For more details, look at the symbols next to the test under each differential diagnosis in the test ordering list. The symbol will indicate

Next Step: Review Test Results

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### Emma Ryan V4 PC -K (Basic DDx)

Human patients ?

History Physical Exam Assessment **Tests** Diagnosis Plan Summary

Show Patient Record

Key Findings DDx

**Evaluated**

Correct Incorrect Missing

- influenza
  - Lead Alt MnM
- pharyngitis
  - Lead Alt MnM
- otitis media
  - Lead Alt MnM
- upper respiratory infection

Results

Name	Result
Influenza PCR (nasal swab)	Negative

Next Step: Make Diagnosis

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### Emma Ryan V4 PC -K (Basic DDx)

Human patients ?

History Physical Exam Assessment Tests **Diagnosis** Plan Summary

Show Patient Record

Key Findings DDx

**Evaluated**

Correct Incorrect Missing

- influenza
  - Lead Alt MnM
- pharyngitis
  - Lead Alt MnM
- otitis media
  - Lead Alt MnM
- upper respiratory infection

What is the correct diagnosis for this patient? (Choose all that could apply.)

- influenza
- otitis media
- pharyngitis
- upper respiratory infection (URI)

Scoring: Your score will be scaled downward for incorrect selections you make.

**Incorrect**

Score: 67%. (100% of correct items selected - deductions made for 1 incorrect selection.)

**Details:**

**Correct**

- otitis media
- upper respiratory infection (URI)

**Incorrect**

- pharyngitis

**Discussion:**

The correct diagnosis would be otitis media due to the severe bilateral bulging tympanic membranes seen on physical exam. More specifically, the child has bilateral otitis media.

The pathogenesis of acute otitis media usually involves the child having a viral upper respiratory infection which results in edema and obstruction of the eustachian tube. This leads to viruses and bacteria entering the ...

Next Step: Write Plan



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Emma Ryan V4 PC -K (Basic DDx)

HistoryPhysical ExamAssessmentTestsDiagnosisPlanSummary

Plan

Show Patient Record

Key FindingsDDx

Evaluated

CorrectIncorrectMissing

influenza

LeadAltMnM

pharyngitis

LeadAltMnM

otitis media

LeadAltMnM

upper respiratory infection



Please enter your assessment/management plan or SOAP note below.

2-year-old female brought in by mother presents with complaints of 3 days of runny nose and cough, and day 2 of fever. She is drinking liquids well, has a reduced appetite but normal number of wet diapers and normal stools. Physical exam is notable for tympanic temperature of 101.1 F, bilateral severe bulging of her tympanic membranes and erythema and exudates of her pharynx. Risks include lack of flu vaccine this season, exposure to other sick children at daycare and second-hand smoke at home. My differential diagnosis in acute otitis media based on visual examination of her tympanic membrane erythema and exudate of her pharynx. Prescribe 80 mg/kg/day orally given in divided doses every 12 hours. Treat pain with acetaminophen. Child may return to day care once fever is gone and child is feeling better. If symptoms do not improve with in 2 to 3 days patient to return to office.

Expert's Plan

The American Academy of Pediatrics recommends high-dose amoxicillin (80-90 mg/kg/day in 2 divided doses) for 5-10 days as the treatment of choice in children. For those with severe symptoms, a standard 10 day course is recommended.

Since Emma has severe bilateral otitis media, we would prescribe her high dose amoxicillin for a 10 day course. Her mother would also be advised to make sure that Emma keeps drinking plenty of fluids and she can give her Tylenol as needed for fevers up to every 4 hours. We would advise Emma's mother to bring Emma back to clinic if her fevers and symptoms persist for more than five days or if her child is not tolerating any liquids by mouth.

The American Academy of Pediatrics does not recommend over the counter cough and cold medicine for children under four years of age. Many of these medications have more than one ingredient increasing the chances of an accidental overdose if combined with another product. Furthermore, research has shown that these medications offer little benefit to young children.

We would advise Emma's mother that the best way to treat Emma's cough would be a cool mist vaporizer to help loosen congestion and a bulb syringe and saline nasal spray to help clear a stuffy nose.

Next Step: Submit and Review Case Summary

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