

**Case 17 (June 9 2005):** [N Engl J Med 2005;352:2425-34](#)

**Demographic:** Female, 22 yrs, Not pregnant, America North, General speciality

**Clinical features extracted from the case and entered into the query box:**

anemia  
severe pain in back, thighs and knees  
hypoxemia  
tachycardia  
bilateral rales  
tachypnea  
urge to cough  
arterial oxygen desaturation

**Synonyms used by Isabel for the above query:**

Anemia  
Hypoxemia  
tachypnea

**STOP !**

**Before you read further you might want to construct your own:**

- Complete differential diagnosis
- Final diagnosis

**In the following section you will find:**

- The differential diagnosis constructed by the MGH panel
- The final diagnosis of the case
- Which of the MGH panel differential diagnoses did Isabel contain
- Did Isabel suggest the Final diagnosis

***Differential Diagnoses considered by the MGH panel:***

ARDS

Acute chest syndrome in Sickle cell anemia.

Pulmonary thromboembolism

***Final Diagnoses of the case according to NEJM:***

Sickle cell disease with the acute chest syndrome, caused by infarction of the bone marrow and embolization to the lungs.

***Differential Diagnoses of the case as given by Isabel:***

Sickle Cell Anemia – Isabel 1<sup>st</sup> page

ARDS – click on Respiratory system disorders

Pulmonary thromboembolism - click on Respiratory system disorders

***Was the final diagnosis given by Isabel:***

Yes, Isabel 1<sup>st</sup> page

***Entire presentation cut and pasted into the Isabel query box:***

None of the above

**Isabel differential:**

<p><b>HEMATOLOGY</b> &lt;&lt; Click here</p> <p>+ <a href="#">Sickle Cell Disease / Crisis</a> <b>RD</b></p>	<p><b>RESPIRATORY SYSTEM DISORDERS</b> &lt;&lt; Click here</p> <p>+ <a href="#">Aspiration Syndromes</a> <b>RD</b></p> <p>+ <a href="#">Central Hypoventilation</a> <b>RD</b></p> <p><a href="#">Sarcoidosis</a> <b>RD</b></p> <p>+ <a href="#">Atypical Pneumonia</a> <b>RD</b></p> <p><a href="#">ARDS</a> <b>RD</b></p> <p>+ <a href="#">Pulmonary Thromboembolism</a> <b>RD</b></p>
<p><b>INFECTIOUS DISEASES</b> &lt;&lt; Click here</p> <p><a href="#">Anthrax</a> <b>RD</b></p> <p><a href="#">Hantavirus Syndrome</a> <b>RD</b></p> <p><a href="#">Chlamydial Infections</a> <b>RD</b></p> <p>+ <a href="#">CMV Infections</a> <b>RD</b></p> <p><a href="#">Brucellosis</a> <b>RD</b></p> <p><a href="#">Lyme Disease</a> <b>RD</b></p>	<p><b>CARDIAC DISORDERS</b> &lt;&lt; Click here</p> <p><a href="#">Heart Failure / CHF</a> <b>RD</b></p> <p>+ <a href="#">Pericardial Effusion / Tamponade</a> <b>RD</b></p> <p>+ <a href="#">Cardiomyopathy</a> <b>RD</b></p>
<p><b>RHEUMATIC DISEASES</b> &lt;&lt; Click here</p> <p><a href="#">SLE</a> <b>RD</b></p>	<p><b>GASTROINTESTINAL DISORDERS</b> &lt;&lt; Click here</p> <p><a href="#">Acute Appendicitis</a> <b>RD</b></p> <p>+ <a href="#">Pancreatitis</a> <b>RD</b></p>
<p><b>NEOPLASTIC DISEASES</b> &lt;&lt; Click here</p>	<p><b>ALLERGIC DISORDERS</b> &lt;&lt; Click here</p> <p><a href="#">Anaphylaxis</a> <b>RD</b></p>
<p><b>SHOCK STATES</b> &lt;&lt; Click here</p>	<p><b>ENVIRONMENTAL HEALTH HAZARDS</b> &lt;&lt; Click here</p>
<p><b>NEPHROLOGY</b> &lt;&lt; Click here</p>	<p><b>TOXICOLOGY</b> &lt;&lt; Click here</p>