

Investigation

2.5: Differential Diagnosis

Now that you have taken a thorough medical history and examined your patient you are ready to start analyzing what you have learned in your investigation and start finding possible answers. You may have ordered one or more preliminary tests to assist you further, but mentally you have been formulating opinions on what might be causing the patient's symptoms.

Doctors try to determine all of the known conditions that are capable of causing the symptoms revealed by the patient and your examination. This list of possibilities is known in medical investigation as the “**Differential Diagnosis**”, or DDx. If there is any doubt about the most likely cause, the physician will start “**ruling out**” life threatening conditions first. One set of symptoms can cause you to develop a Differential Diagnosis having fifteen or more suspects. Just like a police lineup, you see if the symptoms match the suspect disease; if not, you might remove it from the list or give it a lower **priority** for further evaluation.

For example, here is a potential Differential Diagnosis for a complaint of “Chest Pain” according to the Cleveland Clinic¹, a very well respected medical center:

Cardiac causes of chest pain are: ischemia (due to blockages - including both stable and unstable angina and acute heart attack and coronary artery spasm), pericarditis (inflammation of the sack around the heart), myocarditis (inflammation of the heart), cardiomyopathy (heart failure) and rarer causes such as coronary artery dissection, acute rupture of the heart and valves and infections of the pericardium.

Pulmonary (lung) causes include: pneumonia, pulmonary embolus, pneumothorax, pleuritis and bleb rupture.

Other potential causes are: aortic dissection, back and spine problems and musculoskeletal (muscle strain, rib fracture, etc.).

Psychological causes of chest pain are: common and include panic attacks, anxiety, stress and mental duress.

Above is a list of over twenty possible causes of chest pain. So sometimes it can take a while for the physician to find the actual cause of the pain. Making a Differential Diagnosis requires serious thinking and often requires getting help from medical books and reputable internet sources, especially when analyzing problems you have not experienced treating before. There are also medical specialists, physicians with more experience evaluating or treating that particular set of symptoms, to which you can consult and refer your difficult to diagnose patients.

1. <http://my.clevelandclinic.org/services/heart/disorders/coronary-artery-disease/causes-chest-pains>