



# COMLEX Level 2 PE Exam

Evaluating an adult patient with  
**BACK PAIN**



# Patient Data Sheet

- **Patient Name:** Mrs. Hemmingway
- **Clinical Settings:** Medicine Office
- **CC:** A 73 years old white lady presents with terrible backache.

## **Vital Signs :**

- **Blood Pressure :** 130/ 74 mm Hg
- **Respirations :** 14 per minute
- **Temperature :** 98.2 °F
- **Pulse :** 80 bpm
- **Height :** 65 inches
- **Weight :** 126 lbs.
- **BMI :** 21 kg/m<sup>2</sup>





# Differential diagnoses

## Primarily Orthopedic causes

- Intervertebral disc prolapse
- Sprain
- Para vertebral muscle spasm
- Compression fracture / vertebral fracture
- Spondylolisthesis
- Spinal Stenosis





# Differential diagnoses

## Non-orthopedic causes

- Fibromyalgia
- Metastases to spine / vertebrae
- Referred pain e.g. UTI, abdominal abscess, para vertebral abscess, PID





# Opening Scenario

- An elderly white female sitting up in the chair, very stiff. Not moving much. Appears to be in pain.
- Patient often supports her back, with her hand, as if to avoid movement or anything that worsens her pain.





# Subjective

- **Good afternoon, Mrs. Hemmingway. My name is Dr. Perry. I am a physician in this hospital and I will take care of you this afternoon. So what brings you to the office today ?**
- *Hi doc, my back is killing me.*
- **I see that you are in a lot of pain. I will ask you some questions and then briefly examine you. Please bear with me, I will make it as quick as possible.**
- *Thanks doc.*

Contd...





## Subjective (Contd...)

- **So Mrs. Hemmingway, when did this start ?**
- *It started a couple of days ago, doc.*
- **I see. Where does it hurt, can you show me with your hand ?**
- *Right here doc (points to the lower thoracic upper lumbar area i.e. lower back).*
- **I see.**





## Subjective (Contd...)

- **How did this pain start, Mrs. Hemmingway ?**
- *Well doc, I was bending over to lift this turkey from the refrigerator that day. You know my daughters and grandchildren were coming over for thanksgiving dinner. So I wanted to make a family dinner for them.*
- **I see.**
- *I haven't been able to do much with my grandkids.*
- **I am sorry to hear. I will do my best to help you today.**



## Subjective (Contd...)

- *Thank you doc. Yes, I think I need your help. I tried to sleep it off and take a couple of Tylenols for 2 days. But this just wont go away.*
- **I understand ma'am. Let me finish asking you questions and then examine you. Then I will go over my impressions with you. We might need some tests to find out what it is. I will give you pain medications today, before you leave.**





## Subjective (Contd...)

- *Thanks doc.*
- **So getting back to the history, how bad is the pain on a scale of 1 to 10, with 10 being the worst ?**
- *It's a 4 or 5 doc.*
- **I see. Has it been the same since it started ?**
- *Well it was an 8 or 9 when it started. But the initial edge is off now. But it still constantly hurts.*



## Subjective (Contd...)

- **I see. Does the pain move anywhere else or is it just that one spot ?**
- *Its mostly that spot.*
- **Does it go down the back of your thigh or leg at all ?**
- *Not really doc.*
- **I see. What makes it worse ?**
- *Any kind of movement. I cant even roll over in bed. even coughing or sneezing makes it worse.*
- **I see. That must feel terrible.**



## Subjective (Contd...)

- **Does anything make it better ?**
- *Staying still does, doc. And Tylenols take the edge off and make it more bearable. But other than that nothing helps.*
- **I understand.**
- **Do you have any trouble walking or standing up ?**
- *Well doc, I haven't really done much since this pain started.*



## Subjective (Contd...)

- **I see. Is it mostly the fear that it will worsen your pain ?**
- *Yes doc, that's what it is.*
- **Do you have any trouble moving your bowels ?**
- *No doc.*
- **Any trouble with your bladder ?**
- *No doc.*
- **Well that is good to hear.**





# PAM HUGS FOSS

- **Okay Mrs. Hemmingway, now lets review your medical history and medication list. I would also ask some questions about your social habits and family's health in general. All information is confidential.**
- *Sure doc.*
- **So do you have any other medical problems ?**
- *Just high blood pressure, doc.*
- **I see. Are you on any medication for it ?**

Contd...





## PAM HUGS FOSS (Contd...)

- *Just a water pill doc.*
- **Do you take any other medication, including over the counters, vitamins, and herbal remedies ?**
- *I take a vitamin pill everyday, I take oscal as well. That's about it, doc.*
- **Sounds good. Are you allergic to any medication or substance ?**
- *None that I know of.*



## PAM HUGS FOSS (Contd...)

- **Have you been hospitalized in the past ?**
- *No doctor.*
- **Have you had any surgeries in the past ?**
- *No doc.*
- **Is there any history of medical problems in your family ?**
- *I believe my mother had high blood pressure too. I am not sure, my brother took care of my parents so I don't know all details.*



## PAM HUGS FOSS (Contd...)

- **I see. That's alright.**
- **Do you smoke ?**
  - *No doc , I have never smoked.*
- **Do you drink any alcohol ?**
  - *Not any more. I used to drink socially. But since becoming a grandmother I have given up.*
- **I see. Its good to do that.**



## PAM HUGS FOSS (Contd...)

- **What work did you do in the past ?**
- *I have always been a home maker, doc. I raised all of my 3 daughters with the best values.*
- **Very well, I am glad to hear that. I am sure they made you proud.**
- *Yes doctor.*
- **Very good, Mrs. Hemmingway.**
- **Thank you for all the information. Now let me wash my hands and examine you.**



# Physical Examination

- Wash your hands
- Drape the patient
- Do a thorough back exam including Straight Leg Raising (SLR) test on both sides.
- Look for Para-vertebral muscle spasm.
- Minimize painful maneuvers. Be supportive.
- Check for gait, if patient co-operates.
- Examine motor and sensory function and reflexes of lower extremities.
- Explains, offers and performs OMM if indicated





# Osteopathic Musculoskeletal Examination

- **Inspection:** any skin changes, swelling.
- **Range of Motions:** Range of motion and any limitation.
- **Palpation:**
  - i. Any tenderness, tissue texture changes.
  - ii. Chapman points, viscerosomatic reflexes.
  - iii. Somatic dysfunction.





# Closure: Assessment and Plan discussion

- **Thank you for your cooperation, Mrs. Hemmingway. Allow me to help you get back into a comfortable position.**
- **(When the patient is more settled start your discussion )**
- **So, now lets go over my impressions of your problem.**
- *Sure doc.*

Contd...





## Closure: Assessment and Plan discussion (Contd...)

- **So, Mrs. Hemmingway, let me summarize my understanding. You tried to lift a heavy turkey off the fridge shelf 2 days ago and that's when your back gave in. The pain was an 8 or 9 to begin with but its now a 4 or 5. Its located in your lower back, worsens with any movement and is affecting your normal activities. Tylenol took the edge off but you are still in pain.**
- *That is correct doc.*



## Closure: Assessment and Plan discussion (Contd...)

- **So the first thing that comes to my mind is a disc prolapse. There is a cushion-like disc between two vertebral bones. It acts like a shock absorber. When you tried to lift the heavy weight, it might have slipped out of its position. Its now impinging on your spinal nerves and that's what sends pain signals.**
- *I see doc. Is that serious ?*
- **Serious in the terms of the pain it causes. But there is a treatment for it.**



## Closure: Assessment and Plan discussion (Contd...)

- *That is good to hear, doctor.*
- **We need a couple of X-rays and MRIs to make sure there is no more damage.**
- *I see doc. Could it be anything else ?*
- **Well yes, I would like to be sure you didn't break any bones or tear any ligaments. That would show up on the X-ray and MRI as well.**
- *Thanks doc, that sounds good.*



## Closure: Assessment and Plan discussion (Contd...)

- **Another possibility that I have in mind is that your back muscles might have got into a spasm and failed to relax.**
- *I see. So what do we have to do about it ?*
- **Well, we just have to use medications to help relax your muscles. I would advise using heating pads or hot bottles to help with the pain. Even with a fracture or a disc slip, there is some degree of muscle spasm.**





## Closure: Assessment and Plan discussion (Contd...)

- *I have been using a hot bag doc, it does feel good.*
- **That is good to know, Mrs. Hemmingway. I would encourage you to continue to do that. I would also advise you to continue your daily activities as long as you can tolerate it. By that time we will have our labs and other results back. Then we will talk again.**



## Closure: Assessment and Plan discussion (Contd...)

- *Thanks doc, I will do that. Is there anything else I need to do ?*
- **Well for now I will give you medications to take care of the pain and any muscle spasm that might be there. Lets see what the X-ray and MRI show and take it from there. I will see you in a week to see how you are doing.**
- **Do you have any other questions or concerns at this time?**



## Closure: Assessment and Plan discussion (Contd...)

- *Would I need surgery for my bones if I broke something ?*
- **No Mrs. Hemmingway you wont need a surgery. Even in the rare case that it is a fracture, all we advise is a brace or supportive structure and we limit your activities. The body can heal itself. In most cases no surgery is needed. Besides from your exam it doesn't look like you have any major fracture.**





## Closure: Assessment and Plan discussion (Contd...)

- **Though I would be in a better position to say it for sure when we have the images back.**
- *I see doc, makes sense.*
- **Is there any other concern ?**
- *No doc, I think I m all set.*
- **Great. Thank you very much, I will get you rolling for the X-ray and MRI and we will talk soon.**
- *Thank you doctor.*



# Assessment and Plan

## **Assessment:**

1. Intervertebral disc prolapse
2. Para vertebral muscular spasm
3. Sprain
4. Compression fracture of vertebra
5. Spondylolisthesis

## **Plan:**

1. Ibuprofen 600 mg three times a day for 5 days.
2. OMM- Spinal stimulation if indicated (no HVLA).
3. CBC with differential, BMP, X-ray and MRI of thoraco-dorsal and lumbar spine—AP and lateral views.
4. Advised for early ambulation.
5. Follow up after a week.





Happy Reading