

Station 1

Lady suffering from pain in the right upper arm 6 months after radical mastectomy. The pain is lancinating associated with swelling of the hand, limited ability to move the arm, and weakness in holding goods, and unbearable pain on exposure to cold air winds.

The pain clinician decided to do an intervention under C-Arm to help with his medications.

1- What is the type of pain described and how can we explain its presence ?

.....
..... 1

2- What are the best possible recent pharmacological group of drugs given in such condition and name one of these drugs

..... 1

3- What is the view seen by the C-Arm in figure 1 and in which level is the needle inserted.

..... 1

.....
What is the name of this procedure? 0.5

.....

4- What is the view seen in the C-Arm in figure 2 ? 0.5

.....

5- What is the view seen in the C-Arm in figure 3 ? 0.5

.....

Describe the required proper picture delineated by the dye on injection.

..... 0.5

Total points /5

Station 2

A 15-year old girl undergone spine surgery to fix a thoracolumbar congenital scoliosis. One year later she broke her ankle and a cast for Potts fracture was done; but her capacity to walk and to resume her active movements have been handicapped later by her leg pain.

The leg pain now is spontaneous, shooting, hyperalgesic associated with weakness and oedema of the ankle. Patient is relieved by hot fomentations.

A radiological intervention was decided with an antidepressant medication. Patient lied prone on the operating table:

In figure 1:

- 1- what is the position of the C-Arm ?
(anteropost., lateral, oblique?)

.....

- 2- What is the lumbar level of the needle inserted?

.....

- 3- What is the name given to the used long needle? 1.5

In figure 2:

- 1- What is the view of the C-Arm?

.....

- 2- Where does the dye run in relation to the lumbar vertebra? 1

.....

In figure 3: 1

- 1- What is the view of the C-Arm?

.....

- 2- What are the level of both needles?

.....

The dye in the lower needle runs laterally. Which structure does it delineate? 0.5

How can you adjust this lower needle to reach the proper target? 1

Total points /5

Station 3

A young lady fell on her buttock by a slippery banana. She developed mainly discrete back pain not associated with leg pain.

Pain comes on start of movement, on prolonged sitting, relieved by bending forward, and increased on trunk extension.

On examination tender left lower back mainly on posterior superior iliac spine. Pain comes on rotation of the back while standing. An intervention was decided after NSAID's failed to help.

In figure 1:

1- How did the patient lie on the operating table ? 0.5

.....

2- What is the target site in the upper X-ray? 1

.....

3- What does the dye delineate? 1

.....

4- What is the name given to this block? 1

In figure 2:

1- What is the view of the C-Arm ? 0.5

.....

2- What is the level of the needle inserted in relation to the sacrum?

.....

1

Total points /5

Station 4

A young patient suffers from pain in his back and right leg. The pain comes on walking and is relieved by rest. It shoots to the lateral site of the right leg and occasionally reached the right big toe.

On examination, there is weakness and limited and limited right leg raising (while knee is extended).

What does this test mean? 1

There is decreased sensation along the lateral surface of the right leg in comparison to the medial side.

What is the name given to this type of pain?

How can you explain its cause? 1

An intervention under C-Arm was done (figure enclosed).

What is the level of this block? 0.5

What is the anatomical site of this epidural? 1

What is the name given to this block? 0.5

How can you avoid in this approach a spinal tap? 1

Total points /5

Station 5

A middle age man undergone laminectomy for a disc compressing the right fourth lumbar nerve. After 2 years patient starts to develop pain on walking in the leg. Repeated epidural and selective nerve root blocks failed to improve his symptoms. A senior pain clinician re-examined the patient and performed another intervention.

1- How can you elicit the pain generator to diagnose such intervention present in this X-ray?

..... 1

2- How can you explain this developing pathophysiology?

..... 1

3- Why in this intervention the needle is close to the greater trochanter?

..... 0.5

4- How could you confirm radiographically the proper position of your dye? (lower 2 figures in the attached X-ray)

..... 0.5

5- What is the exercise you request the patient to perform after the intervention?

..... 1

6- What is the group of drugs specific to help in such condition?

..... 1

Total points /5

Station 6

A 77-years old obese stunded patient is suffering from back and leg pain short from reaching the knee. She has intolerance to sit for a long time and develops pain mainly on extension of her spine.

Figures I, II:

- | | |
|---|---|
| 1- What is the view in the C-Arm?
& What is the needle blocking? | 1 |
|---|---|

.....

.....

- | | |
|---|---|
| 2- Explain the picture revealed by the dye. | 1 |
|---|---|

.....

Figure III:	1
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- | | |
|---|--|
| 1- What is the view in the C-Arm?
& What is the needle blocking? | |
|---|--|

Figures IV & V:

- | | |
|---------------------------------|---|
| 1- What is the needle blocking? | 1 |
|---------------------------------|---|

.....

- | | |
|--|---|
| 2- Enumerate the nerve supply of such a block. | 1 |
|--|---|

Total points /5

Station 7

A male patient aged 70 years is suffering from severe back and epigastric pain.

He has generalized malaise associated with anorexia, nausea, and constipation.

His pain is worse on lying supine and is relieved by sitting and leaning forward .

Enclosed a CT of the patient ...

Which structure is affected ? 1

By-pass surgery was finally done and later on an intervention - after a trial of pharmacotherapy - was performed to improve the quality of pain relief.

1. What is the level of the block in figure II?

which type of needle is involved? 1

2. Where is tip of the needle in figure III,

and why? 1

3. What does the dye demonstrate in figure IV?

and what is the name of this block? 1

4. What are the nerve roots involved in such a block? 1

Total points

.../ 5

Station 8

Fig 1:

What does it show?

0.5

Fig 2:

What is the type of radiological investigation?

What is the level & site of disc protrusion ?

1

Fig 3:

What is the intervention performed?

0.5

Fig 4:

What does the picture show?

What is the value of such appearance?

1

Fig 5:

A test block was done prior to permanent block.

What is the target site of both needles?

What is the expected pathology?

What is the name given to such syndrome?

2

Total points /5

Station 9

1-Where is the source of radiation in the C-arm ?
Is it 1) or 2) **0.5**

or

0.5

2-What is the dermatomal highlighted region in the picture provided corresponding to ?

0.5

Which reflex can be affected in such level ?

0.5

What does it denote a diminished reflex ?
----- **1**

1

3-Mention the name of the structure stained in red in the lumbar vertebra provided?

_____ 0.5

0.5

& mention which structure travel along the inner upper part of the transverse process of the lumbar vertebra ?

----- of ----- **1**

1

4-What is the name given to a needle with a 5mm active tip ?
----- 1

1

& what could a 10cm needle length be used for [with 5mm active tip] in pain practice ?

Total points /5

Station 10

1- What is the name of the apparatus used to cauterize the nerves ? 0.5

2- What is the name of the graduated 15 cm needle provided in one ?

What is its gauge ? 1

3- What is a sprotte spinal needle ?

How does it differ from the provided needle in two ? 1

4- What is the function of this 10cm needle in three ?

Mention a particular block used for ?

What is the name of the apparatus required ? 1.5

5- What is this needle used for in four ?

Can it be used for thoracic level ? 1

Total points /5