

Answer No: 01

Dental OPG :->

=> "Dental OPG is a panoramic view x-ray of the lower face, showing all the teeth of upper and lower jaw on a single film -

=> "It demonstrates the number, position and growth of all the teeth including those that have not yet surfaced".

Positioning :->

=> "Positioning refers to the way a body is placed for the imaging process -"

=> "There are two positions for imaging i.e one General body positioning and other is specific body part positioning".

Patient Positioning technique: →

⇒ In order to obtain diagnostically useful images, the patient must be positioned carefully with in the image layer or focal trough, which is a 3D curved zone:

⇒ "Structures found with in the image layer will be reasonably well-defined".

⇒ "The patient must be positioned correctly so, that the proper structures are aligned with in the image layer.

★ The most common patient positioning error occurs when the tongue is not placed close enough to the plate".

Mouth Position in OPG: →

⇒ "Patient needs to place maxillary or mandibular incisors correctly on bite block".

Tongue: →

⇒ "Instruct the patient to place their entire tongue on the hard plate

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and leave it there for whole the duration of exposure".

Lips:->

⇒ "Instruct the patient to place both the lips together during exposure".

Eye:->

⇒ "Eyes should be closed so, that the patient doesn't follow the movement of the tube ahead."

Answer NO: 02

Scanning of the patient:→

⇒ "A patient having lower back pain can be scanned in several ways as follows:→

① Anterior - Posterior:→

⇒ "The patient is in supine position."

⇒ "The ASIS should be equidistant from the tabletop".

⇒ "The knees and hips should be flexed".

⇒ "The central ray should be directed towards the midline at the level of the lower costal margin".

② Lateral:→

⇒ "The patient should lie on his/her side".

⇒ "Arms should be raised and resting on a pillow".

⇒ "Expiration should be arrested".

⇒ "The image should include T12 downward.

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③ Oblique :->

=> "The patient is in supine position and then rotated 45° left and right in turn".

=> "Hips and knees are flexed."

=> "Image receptor is placed at the lower costal margin."

★ Basic views for lumbar X-ray :->

① Anterior - Posterior

② Lateral

③ Oblique

Answer No: 03X-Ray of a Knee-Pain Patient:→

⇒ "There are several views for knee x-ray imaging i.e

i - Anterior - Posterior

ii - Lateral

iii - Horizontal Beam Lateral

iv - Tunnel / intercondylar notch

v - 'Skyline', Patella (Superio-Inferior)

★ Out of all these the most abundantly used views are Anterior - Posterior and Lateral."

i) Anterior - Posterior:→

⇒ "For CR 18x24 cm image receptor is used."

⇒ "Patient is either supine or seated on x-ray table"

⇒ "The affected limb is rotated to centralize the patella"

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⇒ "2.5 cm below the apex of the patella should be centered on X-ray Beam"

Answer No: 04

X-rays for skull:→

- ① Occipito-frontal
- ② Lateral - Erect
- ③ Fronto-occipital
- ④ Modified Half Axial (Supine/Trolley)
- ⑤ Lateral (Supine/Trolley)

⇒ "The above mentioned are the X-rays for skull imaging"

Answer No: 05 (A)

Importance of KVP & MAS: →

KVP: →

⇒ "Killo Volt Peak".

⇒ "Controls radiographic contrast".

⇒ "Controls quality of the X-ray beam".

⇒ "The higher the KVP, the lower the contrast".

⇒ "KVP determines the ability for the beam to penetrate the tissue".

⇒ "KVP has more effect than any other factor on image receptor exposure because it affects the beam quality".

MAS: →

⇒ "Milli amp Second".

⇒ "It controls the quantity or the amount of X-ray photons produced".

⇒ "It also controls the density on

the x-ray film"

⇒ "mAs is one way to measure electrostatic charge"

⇒ "It determines the total number of electrons"

⇒ "Photons quantity is only affected by changing mAs, therefore patient dose is a function of mAs"

Answer No: 05 (B)

⇒ Patient Positioning ⇒

⇒ "Patient is supine"

⇒ "Lower limbs are internally rotated 15° - 20° or 15° - 25° from the hip"

⇒ "If fracture is suspected then rotation of the limbs should be avoided"

Techniques :->

- ⇒ "Entirety of the bony pelvis is imaged from superior of the ~~at~~ iliac crest to the proximal shaft of the femur."
- ⇒ "Obturator foramina appear equal".
- ⇒ "Iliac wings has an equal concavity".
- ⇒ "Greater trochanters of the proximal femure are in profile".
- ⇒ "Internal rotation can be assisted with the use of sandbags over the lateral edges of the patient feet".