

Dento-Maxillofacial Radiologist interview questions

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What to expect

Interviews for a dento-maxillofacial radiologist are usually conducted by a panel that includes a senior radiologist or practice principal, and sometimes a practice manager. The panel wants to see how you think through imaging cases, how you apply radiation safety rules, and how well you communicate with referrers.

- **Technical interpretation:** Questions that ask you to walk through your reading of a specific scan or imaging modality, such as cone beam CT or panoramic radiography.
- **Process and protocol:** Questions about how you decide on imaging selection, dose optimisation, and day-to-day workflow.
- **Safety and compliance:** Questions on radiation safety, quality assurance, and regulatory requirements from the Dental Board of Australia and state radiation regulators.
- **Communication and reporting:** Questions about how you write reports and explain findings to referring dentists, oral surgeons, and other specialists.
- **Scenario and judgement:** Questions that put you in a difficult clinical or interpersonal situation to see how you prioritise patient safety and diagnostic accuracy.
- **Behavioural and teamwork:** Questions about your experience working in multidisciplinary teams and handling professional disagreement.

The interview often begins with an introduction to the practice and its referral base. The panel then moves to a structured case discussion where you might be shown a CBCT or panoramic image and asked to describe your findings. After that come questions on radiation safety, regulatory compliance, and reporting style. The interview usually ends with an opportunity for you to ask questions about the role, the equipment, and the practice's approach to quality assurance.

1. Walk me through how you approach interpreting a cone beam CT scan of the mandible for an implant planning referral.

Why they ask

This tests your systematic reading technique and your ability to extract the specific measurements a surgeon needs.

How to structure your answer

Use a systematic image review: state the modality and field of view, outline your search pattern from teeth to bone to nerves, describe findings, then give a differential and a clear recommendation.

Example answer

"When I receive a cone beam CT for implant planning, I start by checking the field of view and confirming that the area of interest is fully covered. I then review the images in a systematic order: first the teeth and alveolar process, then the buccal and lingual cortical plates, the mandibular canal, and the mental foramen. I measure bone height and width at the proposed implant sites, note any pathology or anatomic variants, and assess bone density. Finally, I write a report that states the key measurements, highlights any limitations, and gives a clear recommendation on implant feasibility. For example, on a recent referral for a lower molar site, I identified a lingual undercut that would have risked perforation, and I suggested a slightly more buccal position, which the surgeon adopted."

2. How do you decide between prescribing a panoramic radiograph and a cone beam CT for a patient?

Why they ask

This probes your understanding of imaging selection criteria and the as low as reasonably achievable principle.

How to structure your answer

Walk through your decision-making in order: clinical question, radiation history, diagnostic yield, and justification. Finish with how you document your choice.

Example answer

"When deciding between a panoramic radiograph and a cone beam CT, I consider the clinical question, the patient's radiation history, and the diagnostic yield needed. For a routine check of caries or periodontal bone loss, a panoramic view is often sufficient. For implant planning, suspected fracture, or assessment of an impacted third molar near the mandibular canal, I would choose cone beam CT because it gives three-dimensional information that a panoramic cannot. I also follow the principle of as low as reasonably achievable, so I do not order a CBCT if the answer can be obtained with a two-dimensional image. I document my reasoning in the referral or in a note to the referring dentist."

3. What steps do you take to optimise radiation dose while maintaining diagnostic image quality?

Why they ask

Radiation safety is central to this role, and the panel wants to see that you apply dose reduction in practice, not just in theory.

How to structure your answer

List your steps in a logical sequence: justification, smallest field of view, lowest exposure settings, patient positioning checks, and image rejection criteria. Explain why each step matters.

Example answer

"Radiation dose optimisation starts with justification: every examination must have a clear clinical indication. Once a scan is justified, I use the lowest exposure settings that will answer the question. That means selecting the smallest field of view that covers the region of interest, using child settings for smaller patients, and avoiding repeat scans by checking patient positioning before exposure. I also monitor image quality and reject images that are not diagnostic rather than accepting a scan that might need repeating later. I keep up with the latest guidance from the Australian Radiation Protection and Nuclear Safety Agency and apply it to our protocols."

4. How do you write a report for a referring oral surgeon who is planning a complex jaw resection?

Why they ask

This assesses your written communication and your ability to tailor a report to a surgical audience.

How to structure your answer

Describe your report structure from summary to impression, and explain how you prioritise the information a surgeon needs, such as margins and nerve proximity.

Example answer

"For an oral surgeon planning a jaw resection, I structure my report to answer the surgical questions directly. I begin with a summary of the indication and the imaging performed. Then I describe the lesion or abnormality in terms of size, location, and relationship to key structures such as the inferior alveolar nerve, the maxillary sinus, and the cortical bone. I use clear language and avoid jargon where possible, but I include precise measurements because the surgeon needs them for resection margins. I finish with an impression and a recommendation for further imaging if needed. I also mark the images with arrows or annotations so the surgeon can see the exact area I am describing."

5. A referring dentist sends a CBCT scan that is limited by patient movement. What do you do?

Why they ask

This scenario tests your judgement under pressure and your commitment to diagnostic accuracy over convenience.

How to structure your answer

Use a judgement-under-pressure structure: assess the images, decide if they are diagnostic, communicate with the referrer, recommend a repeat or alternative, and document your actions.

Example answer

"If a CBCT scan is limited by patient movement, I first assess whether the images are still diagnostic. If motion artefact obscures the region of interest, I do not issue a report that could mislead the referrer. I contact the referring dentist or their practice manager, explain the limitation, and recommend a repeat scan with improved positioning or a shorter exposure time. If the patient is anxious or has trouble staying still, I might suggest a different modality or a referral to a centre with a chairside monitor for real-time positioning. I document the communication and the advice given. The priority is patient safety and diagnostic accuracy, not just completing the scan."

6. Tell me about a time you had to explain a complex imaging finding to a colleague who disagreed with your interpretation.

Why they ask

This behavioural question looks at how you handle professional disagreement and whether you can bring someone around without friction.

How to structure your answer

Use STAR: describe the situation, the task, the action you took to explain your reasoning, and the result. Focus on collaboration and evidence.

Example answer

"I remember a case where I interpreted a CBCT scan as showing a periapical lesion on an upper molar, but the referring dentist thought it was a sinus infection. I asked to review the images together. I pointed out the loss of lamina dura and the pattern of bone loss around the apex, which are classic for apical periodontitis, and I showed how the sinus floor was intact. I also suggested a small field of view scan to confirm. The dentist agreed to a root canal treatment, and the follow-up radiograph showed healing. I learned that sitting down with the referrer and walking through the images step by step is more effective than just sending a written report."