Oral Medicine/Oral Pathology, Oral Radiology

National Dental Examining Board of Canada (NDEB) Virtual OSCE and Assessment of Fundamental Knowledge (AFK)

About 15% of the AFK · 5 topics · 2026 blueprint

Oral Medicine, Oral Pathology and Oral Radiology covers mucosal disease, jaw lesions, oral cancer, the oral signs of systemic disease, and the physics, technique, safety and interpretation of dental imaging. It is about 15% of the AFK in NDEB's 2026 blueprint. Its questions test building a differential diagnosis from clinical and radiographic features and choosing the right next step.

You should be able to: A patient has bilateral lacy white striae on the buccal mucosa and a painful erosion. Why is follow-up important even after diagnosis?

Every topic: the key point and the trap

MP-1 White, red and ulcerative mucosal lesions

Leukoplakia is a clinical term for a white patch that cannot be rubbed off and cannot be diagnosed as another condition; it needs biopsy because some show dysplasia or carcinoma.

Trap: Prescribing an antifungal and reviewing in a month for a high-risk red and white lesion, which delays diagnosis of possible cancer.

MP-2 Jaw cysts, tumours and bone lesions

The radicular (periapical) cyst is the most common odontogenic cyst and is always associated with a nonvital tooth.

Trap: Doing root canal treatment on vital teeth because of a periapical radiolucency.

MP-3 Oral signs of systemic disease and salivary disorders

Xerostomia is commonly caused by medications (anticholinergics, antidepressants, antihypertensives), head and neck radiation, and Sjogren disease; it raises caries and candidiasis risk.

Trap: Expecting all salivary stones to show on a radiograph; poorly calcified stones can be missed.

MP-4 Radiation physics, safety and technique

Radiation dose is reported in SI units: absorbed dose in gray (Gy) and effective dose in sievert (Sv); intraoral dental doses are measured in microsieverts.

Trap: Thinking doubling the distance halves the exposure; it quarters it.

MP-5 Radiographic interpretation

Describe every lesion by location, size, shape, borders, internal structure (radiolucent, radiopaque, mixed) and effect on surrounding structures before naming it.

Trap: Reversing the rule and calling an object that moves with the tube buccal.

Key terms

Leukoplakia: White patch that cannot be rubbed off or diagnosed as another condition; a clinical term, not a diagnosis.

Erythroplakia: Red patch not attributable to another condition, with a high risk of dysplasia or carcinoma.

Nikolsky sign: Separation of epithelium with lateral pressure, typical of pemphigus vulgaris.

Acantholysis: Loss of attachment between epithelial cells, the hallmark of pemphigus.

Odontogenic keratocyst: Aggressive odontogenic cyst with high recurrence, linked to Gorlin syndrome when multiple.

Periapical cemento-osseous dysplasia: Benign fibro-osseous change at the apices of vital mandibular anterior teeth, needing no treatment.

Stafne defect: Depression in the lingual mandible below the canal, containing salivary gland tissue.

Sievert: SI unit of effective dose, accounting for radiation type and tissue sensitivity.

Inverse square law: Beam intensity varies inversely with the square of the distance from the source.

Rectangular collimation: Beam restriction to the size of the receptor, reducing patient dose compared with round collimation.

SLOB rule: Buccal object rule: same lingual, opposite buccal, used to locate objects with two images.

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