

Section B: Head and neck

Clinical/Diagnostic Problem	Investigation	Recommendation (Grade)	Dose	Comment
B01. Sinus disease (For children see L11 – L14)	CT sinus	Indicated only in specific circumstances [B]	⊕	Acute sinusitis can be diagnosed clinically. If the symptoms persist for more than 10 days on appropriate treatment, low dose CT of the sinuses may be required. CT is also indicated if there are orbital signs or symptoms or if the patient is immunocompromised.
	XR sinus	Indicated only in specific circumstances [B]	⊕⊕	Low dose CT is the examination of choice in acute sinusitis, but XR is a reasonable option if CT is unavailable.
B02. Orbital lesions	MRI	Specialized investigation [A]	⊕⊕	MRI is the modality of choice for investigating problems such as proptosis.
	CT	Specialized investigation [A]	⊕⊕	CT may be used if MRI is unavailable and may complement MRI in the characterization of lesions, e.g. calcification.
	US	Specialized investigation [C]	0	US can be used for intraocular lesions.
	XR	Not indicated [A]	⊕	X-ray is not a sufficiently sensitive modality to justify its use for this condition.
B03. Orbital lesions: trauma	CT	Indicated [A]	⊕⊕	CT is indicated when an orbital fracture is suspected.
B04. Orbital lesions: suspected foreign body	XR orbits	Indicated [A]	⊕	XR is the only imaging required to exclude a metallic foreign body.
	CT	Specialized investigation [A]	⊕⊕	Indicated when XR does not show a foreign body but one, which may not be metallic, is strongly suspected, when multiple foreign bodies are present, or when it is not certain whether a foreign body is intraocular.
	US	Indicated [C]	0	US can also be used for radiolucent foreign bodies or where XR is difficult.
B05. Thyroid nodules	US	Indicated only in specific circumstances [B]	0	In patients with a palpable thyroid nodule and a normal or high serum TSH US should be performed to confirm the presence of a nodule and to determine if there are multiple nodules.
	NM	Indicated only in specific circumstances [C]	⊕	Thyroid scanning is indicated in patients with a palpable nodule and a low serum TSH. Cold nodules should be assessed with US.
	US-guided Fine-needle aspiration biopsy	Indicated [B]	0/0	Indicated in all nodules >1-1.5 cm. following US assessment, unless they have a typically benign appearance.

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B06. Thyrotoxicosis	NM	Indicated [B]	⊕	A thyroid uptake and scan is often required to determine the underlying cause of hyperthyroidism and to guide treatment decisions.
B07. Ectopic thyroid tissue (e.g. lingual thyroid)	NM	Indicated [C]	⊕	A thyroid scan is effective for locating ectopic thyroid tissue.
B08. Hyperparathyroidism	US	Specialized investigation [C]	0	The imaging modality used is dependent on local experience and expertise.
	NM	Specialized investigation [C]	⊕⊕	A parathyroid scan can help distinguish between parathyroid adenoma and hyperplasia in patients with a high clinical suspicion of hyperfunctioning parathyroid tissue.
	CT	Specialized investigation [C]	⊕⊕	CT may be useful where the parathyroid scan is negative and to improve localization of parathyroid adenoma.
	MRI	Specialized investigation [C]	0	MR may be useful where the parathyroid scan is negative and to improve localization of parathyroid adenoma.
B09. Asymptomatic carotid bruit	US carotids	Indicated only in specific circumstances [B]	0	Although US can detect carotid stenosis, it is not usually indicated because surgery is not recommended for asymptomatic carotid stenosis.
B10. Swallowed or inhaled foreign body (See also J27 – J29) (For children see L46, L47, L58)	Lateral XR soft tissues of neck	Indicated only in specific circumstances [B]	⊕	Only indicated if a radio-opaque foreign body is suspected. If the clinical history and findings suggest the presence of a foreign body, direct examination of the oropharynx, laryngoscopy, and endoscopy are the investigations of choice.
B11. Neck mass of unknown origin	US	Indicated [C]	0	US is the best initial imaging modality for assessing a neck mass. It can be combined with FNAC.
	CT	Indicated only in specific circumstances [C]	⊕⊕	CT could be used to determine the full extent of large lesions not fully visualized by US.
	MRI	Indicated only in specific circumstances [C]	0	MRI could be to determine the full extent of large lesions is not fully visualized by US.

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B12. Salivary obstruction	US / Sialogram/MRI	Indicated [C]	0/⊕/0	Imaging is indicated to assess possible salivary obstruction in patients with intermittent, food-related swelling. The choice of imaging depends on local experience and expertise.
	XR	Indicated only in specific circumstances [C]	⊕	XR can be used to rule out a salivary duct calculus in the floor of the mouth.
B13. Salivary mass	US	Indicated [B]	0	US is the best initial imaging modality for a suspected salivary mass; it can be combined with FNAC, if necessary.
	MRI / CT	Specialized investigation [B]	0/⊕/⊕	If extension into deep spaces of the neck is suspected, MRI or CT should be carried out.
B14. Dry mouth: connective tissue disease	NM	Specialized investigation [C]	⊕	Radionuclide sialoscintigraphy is a useful test to document the function of the major salivary glands
B15. Temporomandibular joint dysfunction	MRI	Specialized investigation [B]	0	MRI is the best imaging modality to show internal derangement of the temporomandibular joint, but it should only be ordered by a specialist or after consultation with a radiologist.
	XR	Not Indicated	⊕	XR is not usually helpful because it shows only late bony changes not the internal derangement which causes the symptoms.