BAY OF PLENTY DISTRICT HEALTH BOARD HAUORA A TOI

National Referral Guidelines
(Bay of Plenty Variation) May 2011

Specific Otolaryngology, Head and Neck Surgery Referral Letter Guidelines
- **Referrals can only be accepted from General / Medical Practitioners or Maxillo Facial surgeons**

Category Definitions: These are recommended guidelines for health professionals referring patients for assessments/treatment in the HHS.

1. Immediate — Refer to Emergency Department for initial assessment
2. Urgent — *Please refer to current waiting times published on our website*
3. Semi Urgent — *Please refer to current waiting times published on our website*
4. Routine — *Please refer to current waiting times published on our website*

As there is not an Otolaryngology (ENT) registrar, immediate cases must be discussed with the Emergency Department in order to get appropriate prioritisation and then a referral letter sent with the patient to the ED.

Note: These referral guidelines have been prepared to provide guidelines for referral to specialist otolaryngology services. They should be regarded as examples or guidelines for referring health professionals and are not an exhaustive list. They are not intended to preclude a referral where the diagnosis is unclear or a second opinion for management options is requested*. Not all conditions will be able to be seen unless found that there is sufficient clinical merit to the case. Routine and some semi urgent cases may be below the hospital threshold for acceptance because of the volume of referrals. Patients can be offered the alternative of a referral to a private specialist for an opinion. The hospital does not hold a contract for elective ACC referrals.

*(They contain some management options to assist the general practitioner. It should be noted it is a consensus document produced in the absence of hard evidence based guidelines.)

The referring health professional should ensure that in using these referral recommendations generally accepted clinical practice should be properly taken into account. If there is a conflict between the referral recommendations and generally accepted clinical practice, then generally accepted practice should prevail.

Bay of Plenty Referral Guidelines: ORL, HNS			
Diagnosis	**Evaluation**	**Treatment Options**	**Referral Guidelines**
PHARYNGEAL, TONSIL & ADENIOD			
Acute Tonsillitis	Throat pain & odynophagia + any of: 1. Fever 2. Tonsillar exudate 3. Cervical Lymphadenopathy 4. Positive Strept. test	1. Penicillin VK 25-50mg/kg/day for 10/7 2. Cephalosporin or macrolide if allergic to Penicillin or if initial treatment fails.	Acute referral to hospital Emergency Department if unable to orally hydrate. Documented episodes: • 7 or more in the proceeding 12 months • 5 per year in proceeding 2 years • 3 per year in proceeding 3 years Persistent Strep. Carrier state with or without acute tonsillitis – *category 4*

Diagnosis	Evaluation	Treatment Options	Referral Guidelines
Peritonsillar Cellulitis/Quinsy	Abscesses take >4 days to develop: 1. Unilateral Tonsillar displacement 2. Trismus 3. Fever 4. Cervical Lymphadenopathy 5. Severe odynophagia	IM Penicillin (3 Megaunits for adults) and review in 24 hours	Acute referral to hospital Emergency Department with: • Abscess – *category 1* • Peritonsillar cellulitis if not resolving – *category 1* Elective tonsillectomy later in patients with receding/subsequent tonsillitis/quinsy – *category 4*
Chronic Tonsillitis	Frequent or chronic throat pain and odynophagia; may include: - Intermittent exudate - Adenopathy - Improvement with antibiotic	Augmentin 20 – 40mg/kg/day for 10/7 Clindamycin 10-25mg/kg/day for 10/7	Referral is indicated if problem recurs following adequate response to treatment – *category 4.*
Mononucleosis / Viral pharyngitis	Throat pain and odynophagia with: - Fatigue - Membranous tonsillitis - Posterior cervical lymphanopathy - CBC, Mono test	Supportive care Systemic steroids if severe dysphagia	Airways obstruction & Dehydration – *category 1* Consider medical assessment for continued symptoms for > two weeks.
Adenoiditis/Hypertrophy	1. Purulent rhinorrhoea 2. Nasal obstruction +/- snoring 3. Chronic cough 4. +/- Otitis media	At least two weeks of therapy with B-lactamase stable antibiotic: - Augmentin 20 – 40 mg/kg/day Q8H	1. Persisting symptoms and findings after two courses of antibiotics – *category 4* 2. Associated sleep apnoea – *category 3*
Upper Airways Obstruction from adenotonsillar hypertrophy (especially in children)	1. Mouth breathing 2. Nasal obstruction 3. Dysphonia 4. Severe snoring +/- sleep apnoea 5. Daytime fatigue 6. Dysphagia/eating difficulties 7. Weight +/- height below normal 8. Dental maldevelopment 9. Adenoid facies 10. Cor pulmonale	1. Optional lateral soft tissue X-ray of nasopharynx 2. Allergy evaluation where indicated	Referral indicated with any significant symptoms of upper airway obstruction especially sleep apnoea – *category 2.*
Croup & Epiglottitis in children	See Paediatric Guidelines		Refer to Paediatrician
Tonsillar Haemorrhage	1. Spontaneous bleeding from tonsil 2. Post-tonsillectomy (secondary haemorrhage usually occurs within 2 weeks post op).	Bed rest and treat secondary infection with Augmentin (or Ceclor).	Referral – *category 2.* Referral indicated if persists or recurs Immediate referral indicated if bleed persists, recurs or is **significant** – *category 2.*
Neoplasm	Progressive enlargement of mass or ulceration in the oral cavity or pharynx. Often painless initially but may be pain, odynophagia or Dysphagia. Association with smoking.	Biopsy if possible	Urgent referral indicated – *category 2.* Outpatient assessment.

Diagnosis	Evaluation	Treatment Options	Referral Guidelines
HOARSENESS			
Hoarseness: Associated with Upper Respiratory Tract Infection	1. Throat pain, may radiate to ear. 2. Dysphagia 3. Constitutional symptoms 4. Stridor/airways obstruction.	1. Humidification 2. Increase hydration 3. Voice rest, if possible 4. Antibiotics, when appropriate 5. Inhalant steroids sprays 6. ? tapering oral steroids	Otolaryngology referral indicates if: 1. Stridor or airway distress – *category 1.* 2. Associated with significant dysphagia – *category 2.* 3. Hoarseness present > 4 weeks – *category 2-3.*
Hoarseness: Associated with neck Trauma or Thyroid surgery	History of neck trauma preceding hoarseness. May or may not have: 1. Skin laceration 2. Ecchymosis 3. Tenderness 4. Subcutaneous emphysema 5. Stridor	Immediate treatment with: 1. Humidification, oxygen 2. Parenteral and or inhaled steroids / neb adrenaline	**Immediate** Referral indicated in all cases - *category 1*
Hoarseness: Associated with Respiratory Obstruction	Stridor	1. Immediate treatment with humidification; parenteral steroids / neb.adrenaline. 2. Soft tissue lateral of neck with neck hyperextended only if patient stable. 3. Blood cultures if patient febrile	**Immediate** Referral indicated in all cases - *category 1*
Hoarseness: Without Associated Symptoms or Obvious Aetiology	1. History of tobacco and alcohol use. 2. Evaluation when indicated for: - Hypothyroidism - Diabetes mellitus - Gastro-oesophageal reflux - Rheumatoid disease - Pharyngeal/oesophageal tumour - Lung neoplasm	1. Humidification 2. Increase fluid uptake 3. Voice rest, if possible 4. Antibiotics, where appropriate 5. Inhalant steroid sprays 6. Treat any medical illnesses diagnosed on evaluation. 7. Chest X-ray	Otolaryngology referral is indicated if recent onset continual hoarseness persists over four weeks despite medical therapy – especially in a smoker – *category 3.*
DYSPHAGIA			
	May include history or findings of: 1. Foreign body ingestion 2. Gastro-oesophageal reflux 3. Oesophageal motility disorder 4. Scleroderma 5. Neoplasm 6. Thyromegaly	Diagnostic studies may include: - Soft tissue studies of the neck including lateral XR - Chest X-ray - Barium swallow - Thyroid studies - Lab tests for autoimmune disease Management may include: - Antireflux management - Speech-language therapy assessment	Referral indicated if: 1. Hypopharyngeal foreign body. (Suspected oesophageal lesions and foreign bodies normally referred to Gastroenterology) – *category 1* 2. Dysphagia with hoarseness – *category 2.* 3. Progressive dysphagia or persistent dysphagia for three weeks – *gastroenterology referral*

Diagnosis	Evaluation	Treatment Options	Referral Guidelines
NECK MASS			
Inflammatory (ie painful)	Complete Head and neck examination indicated for site of infection. Consider FNA, if unsure of diagnosis. Optional investigations (if indicated): 1. CBC 2. Cultures when indicated 3. Intradermal TB test 4. Possible cat scratch disease 5. HIV testing if indicated 6. Toxoplasmosis titre if indicated 7. Lateral X-rays of next (hypertext) 8. Glandular fever monospot tests	1. Augmentin 20-40mg/kg/day 2. Clindamycin 10-25mg/kg/day	Otolaryngology referral indicated if mass persists for four weeks without improvement – *category 2*.
Non inflammatory (ie painless)	Complete Head and neck exam indicated, including skin. - Is there dyspnoea, hoarseness or dysphagia? FNA may assist with diagnosis	Trial of antibiotic therapy may be considered if an inflammatory mass is suspected. NB – 80% of all non-thyroid and non-inflammatory masses are malignant in adults.	Urgent referral if painless, progressive enlargement or if suspicion of metastatic carcinoma – *category 2*.
Thyroid Mass	Complete Head and Neck exam indicated - Is it a generalised or localised thyroid enlargement? - Are there symptoms of dyspnonea, hoarseness or dysphagia?		Generalised Thyroid enlargement with no Compression Symptoms can be referred to a Thyroid clinic – *category 3.* Thyroid masses usually referred to the surgical department – *category 2-3* Those with compressive symptoms or discrete swelling should be referred to General Surgery – *category 2.*
SALIVARY GLAND DISORDERS			
Sialadenitis/Sialolithiasis	1. Assess patient hydration. 2. Palpate floor of mouth for stones 3. Observe for purulent discharge from salivary duct when palpating gland. 4. Evaluate mass for swelling, tenderness and inflammation. 5. Occlusal view X-Ray of floor of mouth for calculi 6. Consider Ultrasound	1. Culture of purulent discharge in mouth. 2. Hydration 3. Anti-staphylococcal antibiotics: Augmentin, Erythromycin	Otolaryngology – referral indicated for: 1. Poor antibiotic response within one week of diagnosis – *category 1-2* *2.* Calculi suspected on exam, X-Ray or U/Sound – *category 4* 3. Abscess formation – *category 1* 4. Recurrent sialadenitis - *category 4* 5. Hard mass present – neoplasm? – *category 2*

Diagnosis	Evaluation	Treatment Options	Referral Guidelines
Salivary Gland Mass	1. Complete Head and Neck exam indicated. 2. Evaluate facial nerve function with parotid lesions. 3. Consider Ultrasound 4. Consider FNA but open Biopsy is contraindicated		*Note: 20% of adult parotid masses are malignant & 50% of submandibular gland masses are malignant.* Otolaryngology referral indicated in all cases of salivary gland tumours - category 2-3
NASAL & Sinus			
General problems include: - Nasal congestion, uni- or bilateral or alternating - Nasal discharge, uni or bilateral - Diminished sense of smell & taste - Facial pain - Postnasal drip	These general symptoms may include any and all of the general or specific problems noted. Thorough history and physical exam of the head and neck is required for determining the diagnosis, as below.	Specific treatments depend on the specific problem identified, as below.	1. If problems resolve in less than three episodes, referral not indicated. 2. If the symptoms recur a third time, resolve incompletely or persist, speciality referral is indicated – *category 4*, or earlier if severe.
Specific problems include: Epistaxis - Persistent or recurrent	1. Determine whether bleeding is unilateral or bilateral. 2. Determine whether bleeding is anterior or posterior. 3. Determine if any bleeding diathesis or hypertension is present.	Immediate control may occur with: 1. Pressure on the nostrils (> 5 mins). 2. If bleeder is visible in Little's area consider cautery with silver nitrate (after applying topical anaesthesia). 3. Intranasal packing coated with antibiotic ointment only if done by appropriate person with good equipment. Afterwards – steam or humidification, Vaseline or Bactroban for protective layer to prevent drying.	Referral to an Otolaryngologist is indicated if: 1. Bleeding is posterior – *category 2* 2. Bleeding persists – *category 1 to Emergency Department* 3. Bleeding recurs – *category 3*
Persistent Nasal Obstruction	1. Symptoms: Nasal obstruction (uni/bilateral, alternating), postnasal discharge, recurrent sinusitis. 2. Physical examination requires intranasal examination after decongestion: deviated septum, enlarged turbinate's, nasal polyps. 3. CT scan can establish if there is associated sinus disease.	Treat any associated allergy or sinusitis	Refer if simple measures fail – *category 4.* Otolaryngology referral is imperative if there is an offensive, bloody discharge – *category 2.* Note: in unilateral nasal obstruction with an offensive bloody discharge: - In a child – consider a foreign body - In an adult – consider a malignancy
Acute Viral Upper Respiratory Track Infection	1. Short duration, often sore throat at onset 2. Nasal congestion 3. Clear Nasal discharge 4. May be associated with systemic viral symptoms	1. Systemic decongestants, anti-pyretics, supportive therapy, NB Antihistamines thicken secretions with possible adverse effects. 2. Topical decongestant sprays may be used to a maximum of 5 days.	ENT referral not general indicated unless sinusitis develops, see section on "acute sinusitis" – *category 4*

Diagnosis	Evaluation	Treatment Options	Referral Guidelines
Acute Sinusitis	1. Unilateral or bilateral nasal congestion, usually evolving from a viral URTI. Signs of sinusitis include: a. Purulent discharge b. Facial, forehead or periorbital pain c. Dental pain d. Persisting URTI > 7 days 2. History and physical examination may be non contributory. 3. Sinus X-rays and CT scans rarely indicated	1. Initial treatment: a. Broad spectrum antibiotics, eg Amoxycillin, Rulide for 2 weeks. b. Systemic decongestants, antipyretics, supportive therapy. *Note: antihistamines may cause adverse effects* c. Topical decongestants sprays to a maximum of 5 days. 2. Secondary treatment: when primary treatment fails, try B-lactamase resistant antibiotics.	Otolaryngology referral indicated if: 1. Secondary antibiotic treatment fails, clinically – *category 3-4* 2. Complications occur: periorbital cellulitis, persistent frontal headache – *category 1* 3. Recurrent infections: over three episodes in a one year period – *category 4*
Chronic Sinusitis / Polyposis	1. Symptoms: a. Purulent discharge b. Postnasal discharge c. Epistaxis d. Recurrent acute sinusitis e. Anterior facial pain, migraine, and cluster headache. 2. Physical examination required intranasal examinations after decongestion. 3. CT scan	1. Antibiotics 2. Nasal decongestant sprays (5/7) 3. Topical steroid sprays 4. Consider short course of steroids. (eg 20mgs daily/1 week)	Consider Otolaryngology referral if symptoms persist. Persisting abnormal symptoms, abnormal findings and/or abnormal radiographs warrant referral – *category 4.* In some cases an earlier appointment may be required. *Note: In unilateral nasal obstruction with an offensive, bloody discharge:* - *In a child – consider a foreign body - category 2* - *In an adult – consider a malignancy - category 2*
Facial Pain	May be an isolated symptom or may be associated with significant nasal congestion or discharge. Potential relations to intranasal deformity, sinus pathology, dental pathology, TMJ dysfunction, altered V nerve function and skull base lesions. CT scan may assist with diagnosis.	If there is evidence of acute sinusitis treat with appropriate antibiotics	Referral indicated for persisting facial pain. May include dental, maxillofacial and otolaryngology opinions – *category 3*
Allergic Rhinitis / VMR	1. Symptoms – seasonal or perennial a. Congestion esp. alternating b. Watery discharge c. Sneezing fits d. Watery eyes e. Itchy eyes and/or throat 2. Physical Examination: a. Boggy, swollen, bluish turbinates b. Allergic shiners c. Allergic “salute”	1. Avoidance 2. Skin Tests with view to desensitisation 3. Topical steroid sprays 4. Antihistamines 5. Oral steroids up to 10/7 6. For acute cases consider 5 days nasal decongestants	Consider otolaryngology referral if symptoms do not respond to medical management – *category 4*

Diagnosis	Evaluation	Treatment Options	Referral Guidelines
Acute Nasal Fracture	1. Immediate changes: Oedema, ecchymoses, epistaxis. 2. Evaluate for septal fracture or septal haematoma. 3. Nasal X-rays unnecessary (except for medico legal reasons) 4. Check for malar/maxilla # 5. Facial bone X-rays if suspect facial #	1. Early treatment: cool compresses to reduce swelling. 2. Re-evaluate at 3 -4 days to ensure nose looks normal and if breathing is normal.	1. Immediate Otolaryngology referral if acute septal haematoma (usually significant nasal obstruction) – category 1 2. Otolaryngology referral initiated by GP if there is a new external nasal deformity. Covered under ACC in private. *Note: Nasal fractures should be seen by an Otolaryngologist at approximately 1 week as the fracture must be reduced <2 weeks after the date of injury for best results.*
Foreign Bodies	a. Acute: History alone or visible on examination. b. Chronic : Persistent, offensive, unilateral nasal discharge in a child	Don't attempt removal unless experienced and with good equipment.	1. Urgent referral for removal – *category 1.* 2. Immediate referral if battery (corrode). 3. Otolaryngology referral for removal – *category 2.* *Note: Foreign Bodies are not covered under ACC unless there is an associated injury.*
EAR – CHILDREN			
Acute Otitis Media	1. Symptoms: Otalgia hearing loss, aural discharge, fever. 2. Examination: Inflamed tympanic membrane (TM) bulging TM, desquamated epithelium on TM, middle ear effusion. *NB: a tender, swollen ear canal usually indicates Otitis externa rather than Otitis media.* 3. Audio : Tympanogram may show B or C pattern (not required if 1 & 2 present)	1. Initial treatment: (consider with-holding ABs) a. Broad spectrum antibiotic, Amoxycillin, Co-trimoxazole. b. Analgesia: Paracetamol c. Topical nasal decongestants and in adults, systemic decongestants. d. If there is associated allergy, topical nasal steroid sprays could be considered. 2. Secondary treatment: if primary treatment fails, try a B-Lactamase resistant antibiotic, eg Augmentin	1. Immediately if complications noted: Mastoiditis, facial weakness, vertigo, meningitis – *category 1.* 2. Secondary antibiotic treatment fails to control acute symptoms – *category 2*
Recurrent Acute Otitis Media With resolution between episodes	Recurring episodes of AOM which respond to medical management with clearance of the middle ear between episodes – A tympanograms.	Alternatives: 1. Antibiotic prophylaxis at the onset of each URTI: Amoxycillin or Co-trimoxazole. 2. 4 – 6 months antibiotic prophylaxis with Amoxycillin or Co-trimoxazole.	Consider Otolaryngology referral if: 1. Infections continue despite antibiotic prophylaxis (6+ per year_ - *category 3.* 2. Middle ear effusion occurs and persists (see below) – *category 3*.
Otitis Media with Effusion "Glue Ear"	May have few or no symptoms, pneumatic otoscopy/Tympanometry needed. 1. Symptoms: Otalgia, hearing loss, language delay. 2. Examination may include: TM discoloured, thinned or retracted Bubbles behind TM, TM sluggish/retracted on pneumatic otoscopy. 3. Tymp may show effusion (type B) or – ve pressure (type C). (All children) 4. Audio: Child > 4 years	Up to three courses of systemic antibiotics (10+/7 each) and at least one course of B-Lactamase resistant antibiotic: Augmentin. *Note: Therapy with decongestants, antihistamines and steroids have not been shown to be beneficial unless there are associated allergies).*	Otolaryngology referral with: *1.* Persistent hearing loss sufficient to interfere with development – *category 3.* 2. Effusion, TM retraction or – ve middle ear pressure persist more than 3 months – *category 3* 3. Significant language delay in presence of OME – *category 3.* 4. Unilateral effusion given lower priority – *category 4 if referred.*

Diagnosis	Evaluation	Treatment Options	Referral Guidelines
Infected Ventilation Tube	1. Symptoms: a. Aural discharge with possible Otalgia b. Associated hearing loss	Initial Treatment Treatment with topical antibiotic/steroid drops such as Sofradex. Consider systemic antibiotics such as Amoxycillin if the discharge is profuse and/or there is failure of response to topical antibiotic treatment alone. Treatment must be given for a least one week.	Failure of two weeks of antibiotic treatment, either topical and oral to resolve the discharge – *category 2.*
Blocked Ventilation Tube	Evaluation symptoms often asymptomatic and found at routine examination. There may be complaint of Otalgia or hearing loss or tinnitus in that ear. Examination – the ventilation tube can be seen in place of either with the lumen filled with either wax or solidified mucus.	Five drops of Sofradex to the affected ear repeated daily for up to two weeks. When drops are tasted in the mouth, the tube is unblocked.	Consider referral if there is recurrent middle ear effusion or the child is symptomatic with the blockage – *category 3.*
Postoperative Ventilation Tube Management	It is usual for there to be a single post operative check within an ENT Department following ventilation tube insertion. There is no need for regular assessment within the ENT Department if the child is progressing well and asymptomatic.	Referral to the ENT Department for post extrusion check if required to confirm that the tympanic membrane is in a satisfactory condition and that there has not been recurrence of middle ear effusion. Tympanograms will assist with the diagnosis.	Otolaryngology referral once ventilation tubes are seen to be extruded - if there are recurrent symptoms – *category 3.*
Foreign Bodies	Usually visible if acute.	Remove only if technically easy.	Otolaryngology referral especially children – *category 2*.
EAR – INFECTIONS			
Chronic Suppurative Otitis Media	1. Symptoms: Chronic discharge from the ear(s), hearing loss. 2. Examination: Perforation of drum (especially attic or postero-superiorly granulation tissue and/or bleeding). 3. Complications suggested by: Postauricular swelling/abscess, facial palsy, vertigo, headache – refer *Category 1*	1. Aural toilet (not syringing). 2. Culture directed antibiotic therapy: systemic and copious aural drops (Sofradex). 3. Protect ear from water exposure.	Otolaryngology referral indicated for persistent symptoms despite appropriate treatment – *category 3-4.* Associated symptoms suggest urgency needed – *category 2.*

Diagnosis	Evaluation	Treatment Options	Referral Guidelines
Acute Otitis Externa	1. Symptoms: Otalgia, significant ear tenderness, swollen external aud canal +/- hearing loss. 2. Examination: ear canal always tender, usually swollen. Often unable to see TM because of debris or canal oedema. 3. Swab for org./fungi *Note: Fungal Otitis Externa may have spores visible*	1. Topical treatment is optimal and systemic antibiotics alone are often insufficient. Systemic Antibiotics indicated when there is cellulitis around the canal. 2. Insertion of an expendable wick with topical antibacterial medication useful when the canal is narrowed. 3. In fungal OE, thorough cleaning of the canal is indicated, plus topical antifungal therapy. (Kenacomb, Locorten-Vioform).	Referral to an Otolaryngologist when: 1. Canal is swollen shut and wick cannot be inserted – *category 1*. 2. Cerumen impaction complicating OE – *category 3.* 3. Unresponsive to initial course of a wick and antibacterial drops – *category 2.* 4. Diabetics, immunosupressed and suspected malignancy on examination require urgent referral – *category 1.*
Otalgia without significant clinical findings in the ear canal or drum.	1. Symptoms: ear pain without tenderness or swelling. 2. Physical Examination: normal ear canal and TM. 3. Type A Tympanogram *Note: Mastoiditis in the presence of a normal drum and without previous infection is almost impossible.*	Possible aetiologies include: TMJ syndrome: Neck dysfunction; Referred pain from dental pathology, tonsil disease, sinus pathology and head and neck malignancy; particularly tonsil hypopharynx / larynx. A diagnosis is required to formulate appropriate treatment.	Referral to an Otolaryngologist indicated if pain persists and aetiology not identified – *category 3.*
Ear Infection con't/ … ***Note:*** - *The so called "light reflex" is not a valid indicator of ear disease* - *In a crying child there may be uniform injection of the drum without infection being present.* - *Otoscopy alone often is not capable of identifying a non-infected middle ear effusion or TM retraction. Pneumatic otoscopy is far superior.* - *Tympanometry is fairly reliable for identifying middle ear effusions and negative middle ear pressure, although it is not infallible. Tympanometry should only be performed on children over the development age of six months. It is very reliable in confirming normality. Ie type A would over-ride a clinical impression of abnormality.*			
HEARING LOSS			
Note: *DO NOT syringe an ear with a drum known to have perforated in the past or known to be abnormal.* *Use Sofradex drops afterwards X 1 "stat" after all syringing.*			
Neonatal	At risk register: - Family history of hereditary SNHL - In utero infection, eg CMV, Rubella - Craniofacial anomalies incl pinna - Birth weight <1500g - Hyperbilirubinaemia needing transfusion therapy. - Exposure to Ototixic drugs - Bacterial meningitis - Apgar <5 at 1 min; <7 at 5 min - Mechanical Ventilation > 4 days - Stigmata assoc. with hearing loss.	ABR by a trained Audiologist is the optimal investigation at present.	All hospitals should run a screening programme for at risk neonates and infants. Awareness of changes in approach to neonatal screening for hearing loss.

Diagnosis	Evaluation	Treatment Options	Referral Guidelines
Bilateral, Symmetrical, in Adults	1. Symptoms: Diminished hearing any associated symptoms eg tinnitus, discharge, vertigo, etc? 2. Examination: Cerumen, effusion or normal findings.	a. Cerumen dissolving drops and possible suction or irrigation. b. Oral decongestant, Valsalva manoeuvres and re-evaluate in three weeks. c. Required audiometry +/- referral.	Referral indicated if: Cerumen, and/or significant hearing loss persists – *category 4* Otolaryngology referral for acute bilateral loss – if onset less than 1 week - *category 2*
Unilateral Sensorineural Hearing Loss in Adults includes Sudden Hearing Loss	Normal drum with Weber to good ear. Type A Tympanogram.	Expectant treatment if >4 weeks. Audiometry if available. Consider high dose steroids (20mg bd for 1 week) if diagnosis confirmed on audiometry.	1. Immediate referral if onset less than 1 week – *category 1* 2. Semi-urgent referral if > 1 week with incomplete recovery – *category 2 – 3.* 3. Non urgent if complete recovery but for investigation – *category 4.*
Unilateral Conductive Hearing Loss in Adults	1. Associated Symptoms eg tinnitus, discharge, vertigo, nasal symptoms. 2. Examination – for discharge, unilateral effusion, cholesteatoma, Weber to affected ear 3. Tympanogram. A = otosclerosis; B low = Effusion; B high = Perforation	Effusion Oral decongestant Valsalva manoeuvres Re-evaluate in 3 weeks	Referral indicated if: Unilateral effusion persists greater than 4 weeks - Associated new nasal symptoms – *category 1* - Associated ear discharge and possible cholesteatoma – *category 2* - Perforation – *category 3-4*
Chronic	4. Symptoms: difficulty hearing esp. only in a crowded environment; difficulty localising sound. 5. Examination: a. Cerumen b. Abnormal tympanic membrane	Cerumen dissolving drops and possible suction or irrigation. Audiometry and tympanometry required for referral.	Otolaryngology referral if the ear has not been previously assessed by an otolaryngologist or the symptoms and/or clinical findings have changed – *category 4.* *Note: Unilateral effusions in adults. ?Sinus disease or Nasopharyngeal tumour (especially in Chinese).*
TINNITUS			
A. Chronic Bilateral	Any associated symptoms? Cerumen? Audio + Tymp	Clear Cerumen and check TM. If TMS clear, no treatment.	No referral indicated unless tinnitus is disabling, or associated with hearing loss, aural discharge or vertigo – *category 3 – 4 depending on symptoms.*
B. **Unilateral or recent onset**	Any associated symptoms? Cerumen? Audio + Tymp	Clear Cerumen and check TM. If symptoms persist, refer.	Referral indicated, especially if it is disabling, or associated with hearing loss, aural discharge or vertigo – *category 3 – 4.*
C. Pulsatile	TM normal or (vascular) mass behind drum. Audio + Tymp Auscultate carotid vessels	Referral	Referral is indicated in all cases – category 4. If there is a middle ear mass, there is a strong possibility of a glomus tumour – category 2

Diagnosis	Evaluation	Treatment Options	Referral Guidelines
DIZZINESS			
A. Sudden Onset Vertigo – Associated with Barotrauma	Acute onset of vertigo or disequilibrium associated with pressure change usually caused by air flight or driving. There may be associated hearing loss of tinnitus.	Possibility of a perilymph fistula between the inner ear and middle ear must be considered.	This condition requires immediate referral for specialist management – category 1 If trauma-related, consider private referral under ACC.
B. Orthostatic	Symptoms mild, brief and only on standing up (usually am). Review medications.	Evaluate cardiovascular system, reassurance.	No referral indicated unless atypical or associated with other symptoms and this should normally be Medical.
C. BPPV & Vestibular Neuronitis	Associated with an URTI, may be positional and/or persistent. Audiogram TM Joint examination ? spontaneous nystagmus	Self limiting over a few months. Symptomatic medication, eg Stemetil may help vomiting.	Referral with: Associated unilateral hearing loss, Increased severity, Persistence over 2 months – *category 3*
D. Chronic or Episodic	Significant true vertigo (not unbalanced/unsteadiness) May have associated hearing loss, tinnitus, aural fullness, nausea. History of previous ear surgery. Audio + Tymp	Symptomatic treatment acutely.	Otolaryngology referral is indicated if there are new otologic symptoms – *category 3-4, dependent on history*.
FACIAL PARALYSIS			
	Weakness or paralysis of movement of all (or some) of the face. May be associated with Otalgia, otorrhoea, vesicles, parotid mass or tympanic membrane abnormality.	Protection of the eye from a corneal abrasion is paramount. Lacrilube and taping the eye shut at night. Steroid therapy may be initiated if no associated clinical findings. Consider anti-viral treatment.	Urgent Otolaryngology referral is indicated if otologic cause suspected – *category 1.*