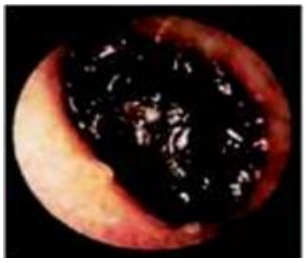
PRIMARY HEALTH CARE FOR EAR NOSE THROAT

1. Ear problems	2. Nose problems	3. Throat problems
Wax	Bleeding from the nose	Aphthous ulcers/Mouth ulcers
Furuncle/ boil	Foreign bodies in the nose	Acute tonsillitis/and pharyngitis
Foreign body in ear	Common cold -viral	Facial Paralysis
	Common cold - allergic	
Outer ear infection	Atrophic rhinitis	
Fungus in ear	Acute sinusitis	
Acute suppurative otitis media (Asom)		
Chronic suppurative otitis media safe/unsafe type		
Congenital hearing loss		
Traumatic perforation		

The Primary Health Centre should have ear speculum, nasal speculum, otoscope, tongue depressor and torch.

EAR PROBLEMS

1. WAX



- Dark brown mass seen in ear canal.
- Decreased hearing, blocking of ear with pain in ear.
- Wax is a normal secretion and provides protection to the ear drum and should be removed only if it causes symptoms.
- Cleaning the ear with buds to be avoided as it can push the wax to the deeper canal.

Treatment

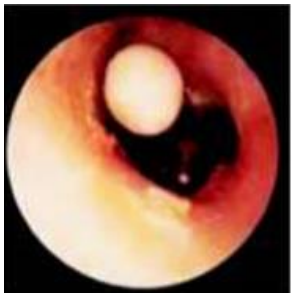
Wax softener (turpentine oil 15%, benzocaine 2.7%, Chlorbutol 5%, paradichlorobenzene 2%) 3-4 drops, 3-4 times daily for 3-4 days before cleaning the ear when the wax is hard.
Later cleaning syringing of ear locally after 3- 5 days.

(**Caution :** If there is previous history of ear discharge or perforated drum, then instrumental manipulation with ring probe, hook or forceps and suction cleaning is advisable.)

2. FURUNCLE/ BOIL

- In the ear canal a small boil can be very painful.
- Pressing of tragus causes pain
- If not resoling referral for I & D
- Pulling ear causes pain
- Bursting may lead to pus discharge
- Cap Amoxicillin 500 mg thrice daily for 5 days
- Tab Ibuprofen 400 mg thrice daily for 5 days
- Local ointment pack (Antibiotics ointmenFusadin/muprocin) prefer against staphylococcus)
- Recurrent furncle advised for blood sugar> F, P

3. FOREIGN BODY IN EAR



This is the most common site for foreign bodies in young children, who not only insert objects in their ears but also into the ears of their siblings. Foreign body usually lodges just lateral to the bony-cartilaginous junction of external auditory canal, but can also get lodged in the isthmus of the canal, or may penetrate through the drum into the middle ear cavity. Common foreign bodies are pebble, bead, popcorn kernel, cotton wool, paper etc.

Usually foreign bodies are asymptomatic but some cause secondary otitis externa, bloody purulent discharge and insects are the most troublesome obstructed foreign body may cause decrease hearing.

History of foreign body insertion / Mild pain present / Blocking sensation in ear.

- Diagnosis is usually straight forward with either the child complaining of otalgia or the parents being aware of foreign body insertion, bringing the patient to the ENT surgeon.
- If foreign body is obvious & easily removed it may be attempted using Jobson Horne probe.
- Syringing with water at body temperature in cooperative children.

Else refer to ENT surgeon in DistrictHospital/Medical College Hospital.

4. Outer Ear Infection

Otitis externa is a condition that causes inflammation (redness and swelling) of the external ear canal, which is the tube between the outer ear meatus and eardrum. Otitis externa is often referred to as "swimmer's ear" because repeated exposure to water can make the ear canal more vulnerable to inflammation.

- Severe pain in ear on movement of pinna
- Itchiness in the ear canal, a discharge of liquid or pus from the ear some degree of temporary hearing loss
- Diffuse inflammation of ear canal with crusts and discharge from ear.
- Ear is to be kept dry; entry of water into the ear should be prevented.

Treatment

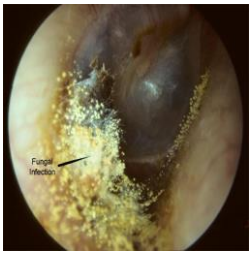
1. Clean ear with cotton wick.
2. Local antibiotics ointment pack for 24 hrs followed by application of antibiotic ointment/eardrop.
3. Cap Amoxicillin 500 mg thrice daily for 5 days.
4. Tab NSAIDS thrice daily for 3 days.

If not responding or skin over ear canal thickened to cause obstruction.

Refer to ENT surgeon at District Hospital or at Medical College Hospital.

5. **Fungus in Ear**

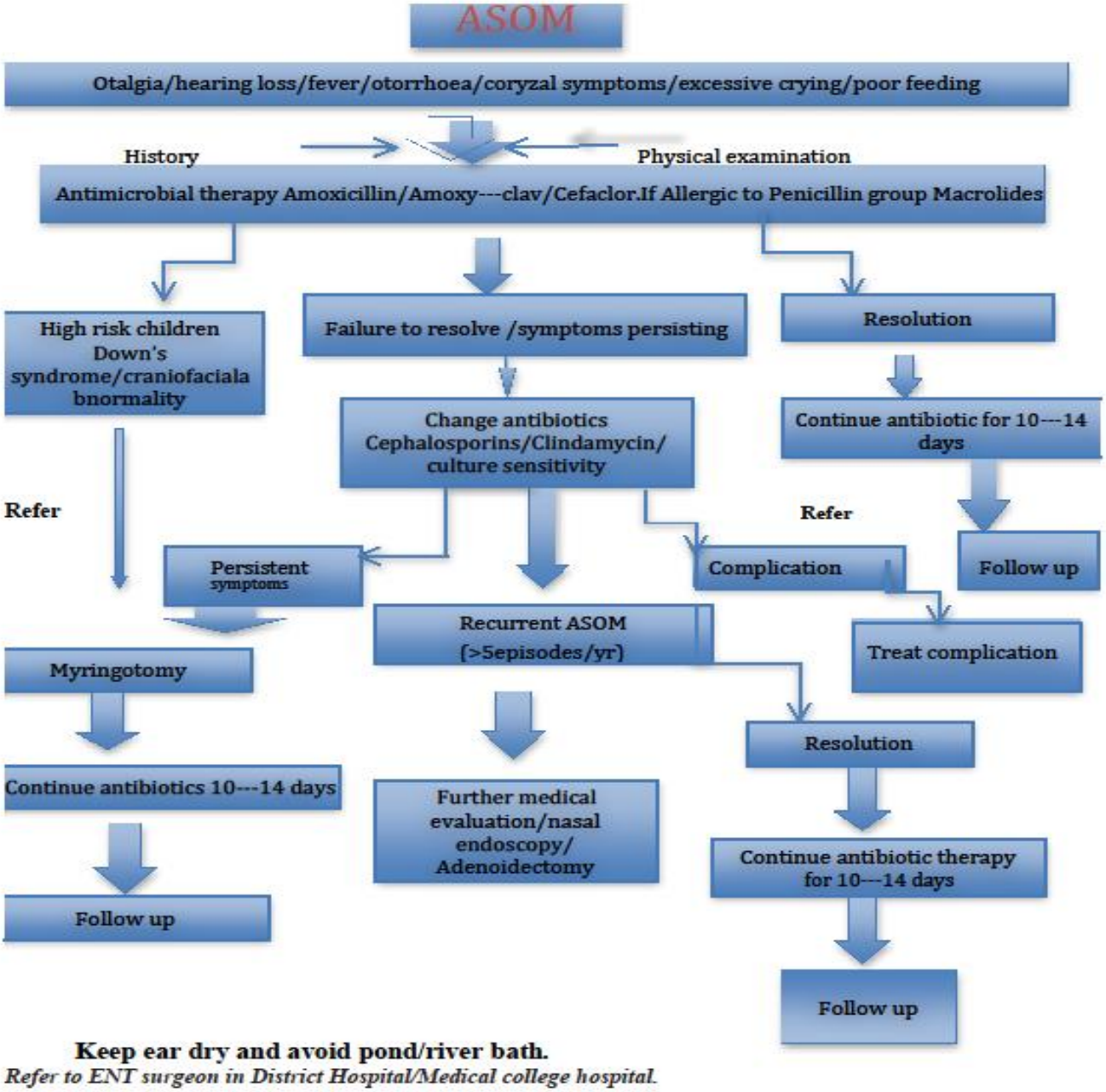
The fungi commonly found are *Aspergillusniger and Candidiaalbicans.*



- Itching with or without pain, grayish, white fungal debris with or without black specks and ear blockage/ear discharge.
- White filter paper like debris or blackish debris in ear canal.
- Ear is to be kept dry; entry of water into the ear should be prevented.
- Cleaning of fungal debris followed by local pack with (cotrimazole 1%) antifungal ointment for 24 hours has followed by antifungal ointment for can drops three time daily * a week.
- Dry mopping of ear with sterile cotton wick keep ear dry.
- Tab. NSAID 2-3 times/day.
- Avoid dip in pond/river.

If not responding Refer to District Hospital.

6. ACUTE SUPPURATIVE OTITIS MEDIA (ASOM)



Keep ear dry and avoid pond/river bath.

Refer to ENT surgeon in District Hospital/Medical college hospital.

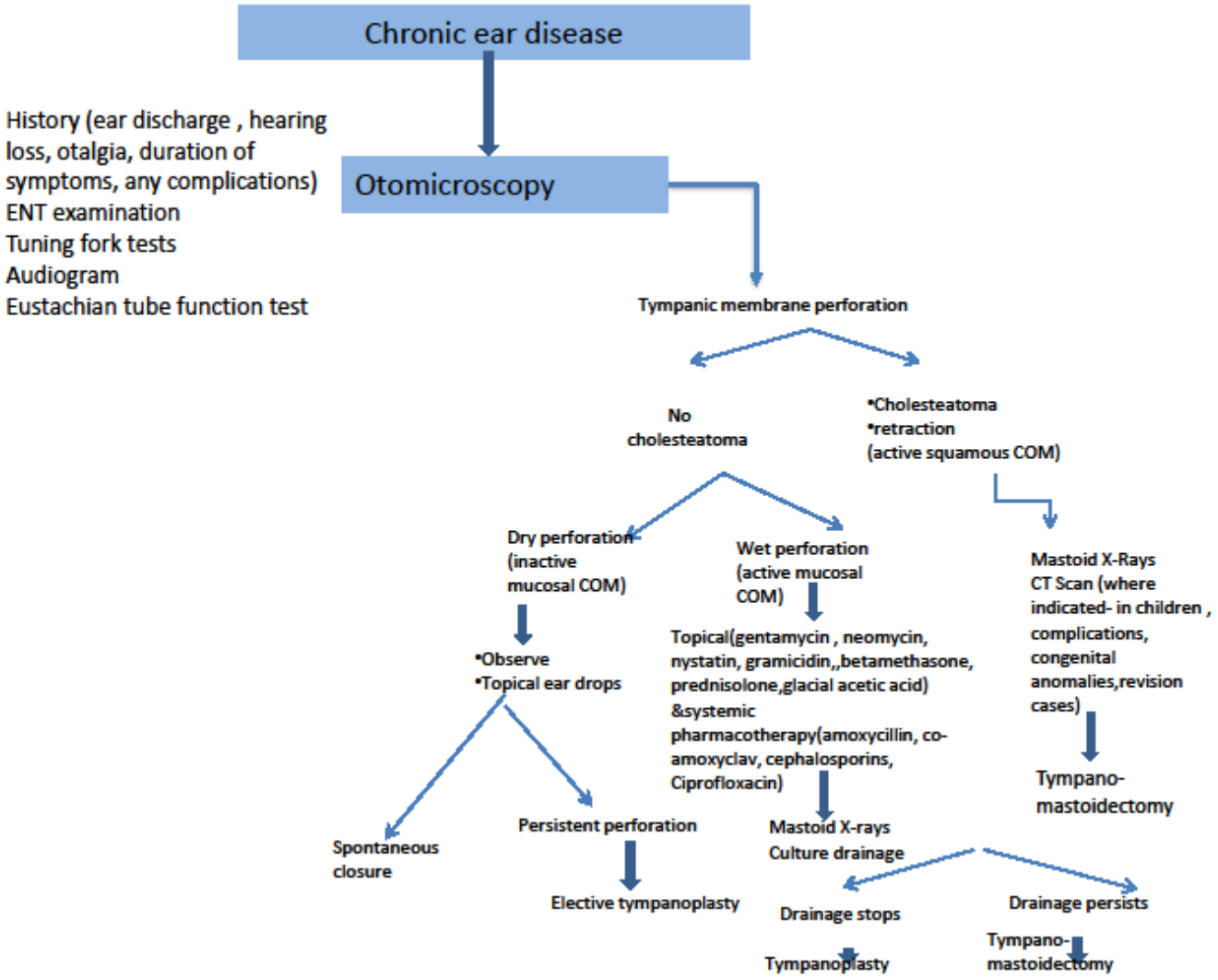
Treatment

- Syrup Amoxicillin 30-50 ml/kg in three divided doses.
- Syp/Tab. Paracetamol -15 mg/dose.
- Antihistamin +Decongestant (Levoatrizived + Phenycephrintsyp)
- Xylomet/oximeter nose drop (paed-0.05% or 0.1%)
- Treatment should be given for 10-14 days.

Keep ear dry and avoid pond/river bath.

If not responding Refer to ENT surgeon in District Hospital.

7. **CHRONIC SUPPURATIVE OTITIS MEDIA - SAFE /UNSAFE TYPE**
Chronic Ear Discharge >14 Days



- Keep ear dry and avoid pond/river bath.
- Treat associated infections of pharynx/nose/sinuses.

If not responding: Refer ***to ENT surgeon in District Hospital/Medical college hospital.***

8. CONGENITAL HEARING LOSS

Features

- Screening of all new born for hearing assessment using OAE before discharge from hospital
- All high risk babies (ICU admission syndromic children etc.) should be screen for hearing loss
- All patient with referred OAE or suspected hearing loss should undergo hearing assessment using BERA (***Refer to District Hospital)***
- All diagnosed patient of congenital hearing loss should be referred to medical college.

9. Traumatic Perforation

- **Avoid** ear drops /oil/water
- Keep ear dry
- If URI (upper respiratory infections) Treat URI

NOSE PROBLEMS

1. **BLEEDING FROM THE NOSE**

Anterior epistaxis is more common in children and young adults while posterior nasal bleed is mostly seen in older patients with arteriosclerosis or high blood pressure.
Epistaxis is more common during hot dry climates with low humidity.
The most important causes of childhood epistaxis include: Picking of the nose, especially when there is an upper respiratory tract infection.
Other causes Injury, Tumours, Hypertension, Bleeding disorders and Atrophic rhinitis, and maggots.

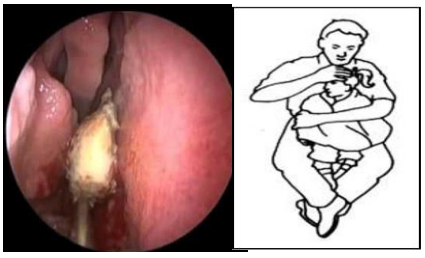
- Bleeding from the nose and mouth.
- Shock due to excessive loss of blood.

Epistaxis can be prevented by keeping the nasal mucosa moist in dry climates, applying creams and saline nasal sprays. Most epistaxis are mild and can be dealt effectively at home. The soft parts of nose are pinched tightly for 10-20 minutes. The head is bent forward and kept above the level of heart. Any blood flowing in to throat should be spit into a bowl. Ice can be applied locally. After the bleeding is controlled, patient is advised not to blow nose, keep the nasal mucosa moist and blood pressure under control.

For all resuscitate the patient, established the site of bleed, stop the bleed and treat the cause.

- For all- Monitor B.P. and pulse
- Bed rest with head elevation is advised
- In patients where anterior nasal bleed has not stopped and in all posterior nasal bleeds - anterior and posterior nasal packing should be done and patient admitted, I/V line maintained and given supplement oxygen
- High risk patient (elderly, debilitated, alcoholics with liver disease) and unstable patient need constant monitoring
- Broad spectrum antibiotics with adequate fluids orally
- Complete blood count and management of hypertension
- Hematologist, Physician consultation sought as well as referral to higher centre if needed.

2. FOREIGN BODIES IN THE NOSE:-



Picture: How to hold a child/Foreign body in the nose

Common vegetable foreign bodies are peas, beans, dried pulses, nuts, cotton wool, pencil pieces etc. Mineral matter may be parts from metal and plastic toys, pebbles, beads etc. Button batteries may also be inserted in the nose. Animate foreign bodies are the screw worms and their larvae, maggots and roundworms.

- Foreign bodiesleads to inflammation and infection of the mucosa, leading to purulent, unilateral foul-smelling discharge often tinged with the dark blood.
- With inanimate foreign bodies the suspicion usually arises because of unilateral, foul smelling, pus in nasal discharge.

- In children these symptoms must be regarded as due to a foreign body until proved otherwise.
- Anterior rhinoscopy after suction and application of vasoconstrictors nasal drops. Includes removal of the foreign body under controlled, traumatic conditions in co-operative or anaesthetized patient. Usually done in higher centre, so referral is advised.
- Infestation with maggots and screw worms are treated by instilling 25% chloroform solution or turpentine oil nasal drops which suffocate the larvae fallowed by manual removal under local anaesthesia or general anaesthesia at higher centre.
- If infected broad spectrum antibiotics with adequate hydration after removal foreign bodies**.**

3. **COMMON COLD (Viral)**
    - Watery nasal discharge
    - Watering from eyes
    - Nasal stuffiness, Malaise, fever and headache
    - Antihistaminic and nasal decongestant
    - Tab. Paracetamol 500 mg as required.
    - Steam inhalation.
    - Hot fluids warm saline gargles

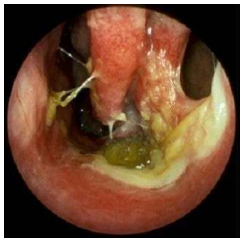
4. **ALLERGIC COLD**

Sneezing, itching, watery nasal discharge and a feeling of nasal obstruction. Maybe associated with allergic conjunctivitis and bronchial asthma.

- Avoid allergens.
- Tab. Cetirizine 10 mg in a single daily dose (HS) for 7 days.
- In Children dose depending on the age. The duration of treatment may need to be extended depending upon the response.
- If nasal obstruction and rhinorrhoea- Oxymetazoline/Xylometazoline nasal drops 1-2 drops in each nostril 2 times daily. In case of no response to the treatment outlined above, refer the patient to higher centers.
- Antibiotics to prevent secondary infections

5. ATROPHIC RHINITIS

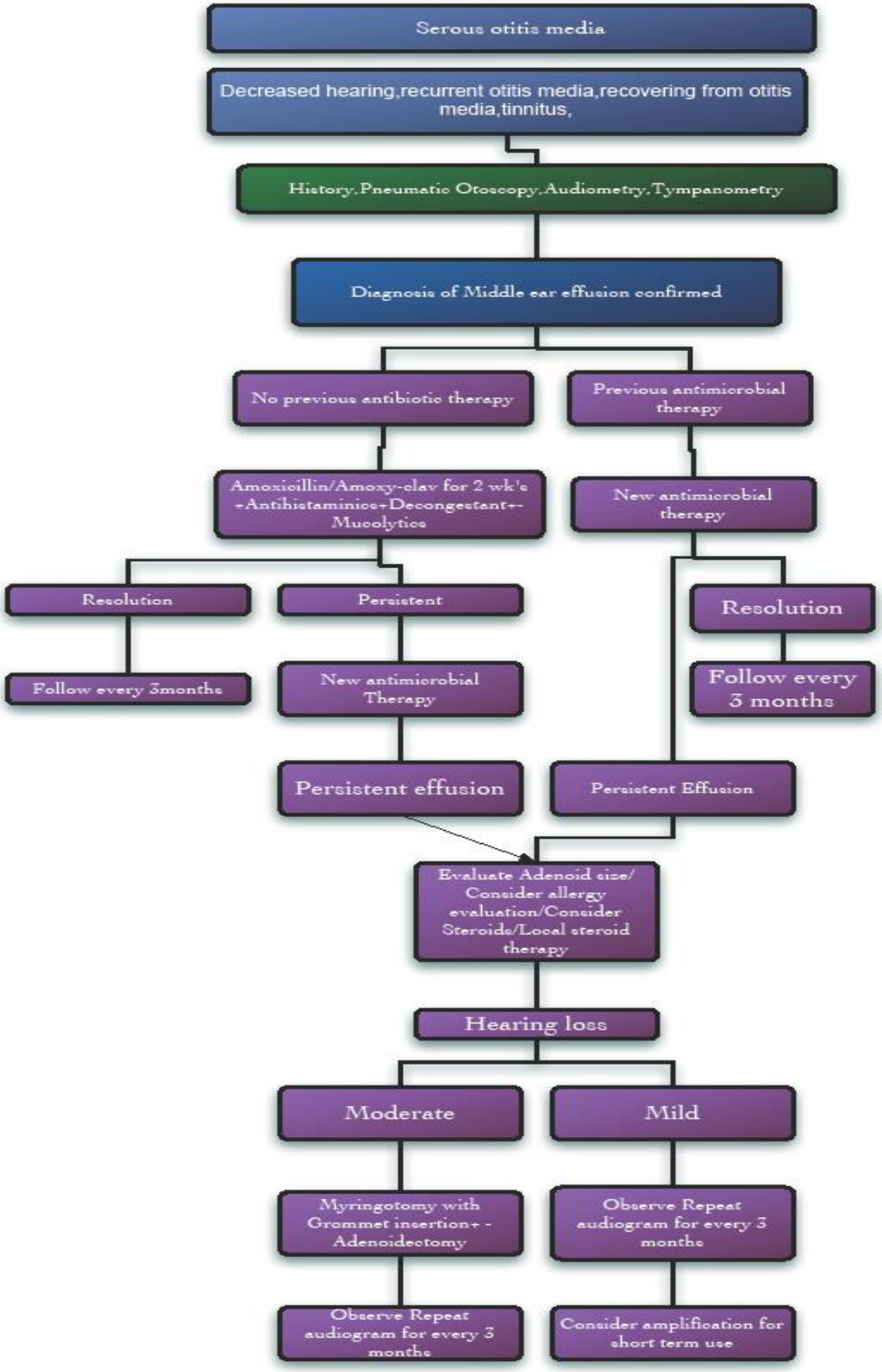
Greenish crusts present in nasal cavity. Foul smell from nose and patient not aware of it. Nasal blockage, roomy nasal cavity, nasal deformity, history of maggots. Pressure in the face and head, Frontal headaches, Postnasal drip Yellow or green thick nasal discharge, which may be foul smelling, Pain and tenderness, Halitosis, Persistent fever, Pain above and below the eyes, when patient bends over or when these areas are tapped lightly.



- Nasal douching with sodium bicarbonate solution (1 tsf. in 250 ml. distilled water)and removal of nasal crust manually or biasuction
- Solution of 25% glucose in glycerine (glucose 25 grm. distil water 35 ml glycerine 100 ml.) 2 – 3 times/ day
- Multivitamins, Vita-B Complex Vita- C and Vitamin A etc.

- Drink a lot of water, Steam inhalation may be effective in promoting drainage of the blocked sinus. **If not responding refer to District Hospital.**

6. Serous otitis media (SOM)

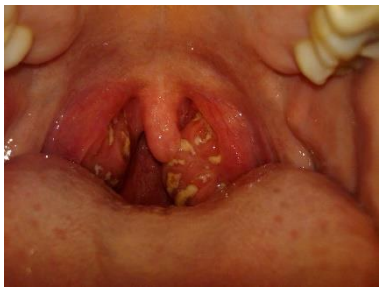

Serous otitis media
Decreased hearing,recurrent otitis media,recovering from otitis media,tinnitus,
History,Pneumatic Otoscopy,Audiometry,Tympanometry
Diagnosis of Middle ear effusion confirmed
No previous antibiotic therapy
Previous antimicrobial therapy
Amoxicillin/Amoxy-clav for 2 wk's +Antihistaminics+Decongestant+-Mucolytics
New antimicrobial therapy
Resolution
Persistent
Resolution
Follow every 3months
New antimicrobial Therapy
Follow every 3 months
Persistent effusion
Persistent Effusion
Evaluate Adenoid size/ Consider allergy evaluation/Consider Steroids/Local steroid therapy
Hearing loss
Moderate
Mild
Myringotomy with Grommet insertion+ -Adenoidectomy
Observe Repeat audiogram for every 3 months
Observe Repeat audiogram for every 3 months
Consider amplification for short term use

THROAT PROBLEMS

1. **MOUTH ULCERS (**Aphthous mouth)
   Aphthous mouth ulcers are a common on the mucous membranes, in the oral cavity (mouth).
   - Avoid mucosal irritants like beetle nut/tobacco /lime chewing. Usually self-limiting. No treatment needed
   - Tab vitamin B complex 1 tab once daily for a week.
   - Tab Lactobacillus 1 tab bd
   - Chlorhexidine mouth wash 2-3 times a day for a week or
   - Local application of lignocaine/Triamcinolone acetonide 0.1%(kenacort) gel or paste.

2. **ACUTE TONSILLITIS/ PHARYNGITIS**
   Acute pharyngitis and tonsillitis occur when the pharynx and tonsils become infected with a virus or bacteria. They are common ailments that cause sore throat and the tonsils to become swollen and painful.
   - Pain in throat
   - Pyrexia, difficulty in swallowing
   - Inflamed and swollen tonsils/pharynx/tonsillarpillar.

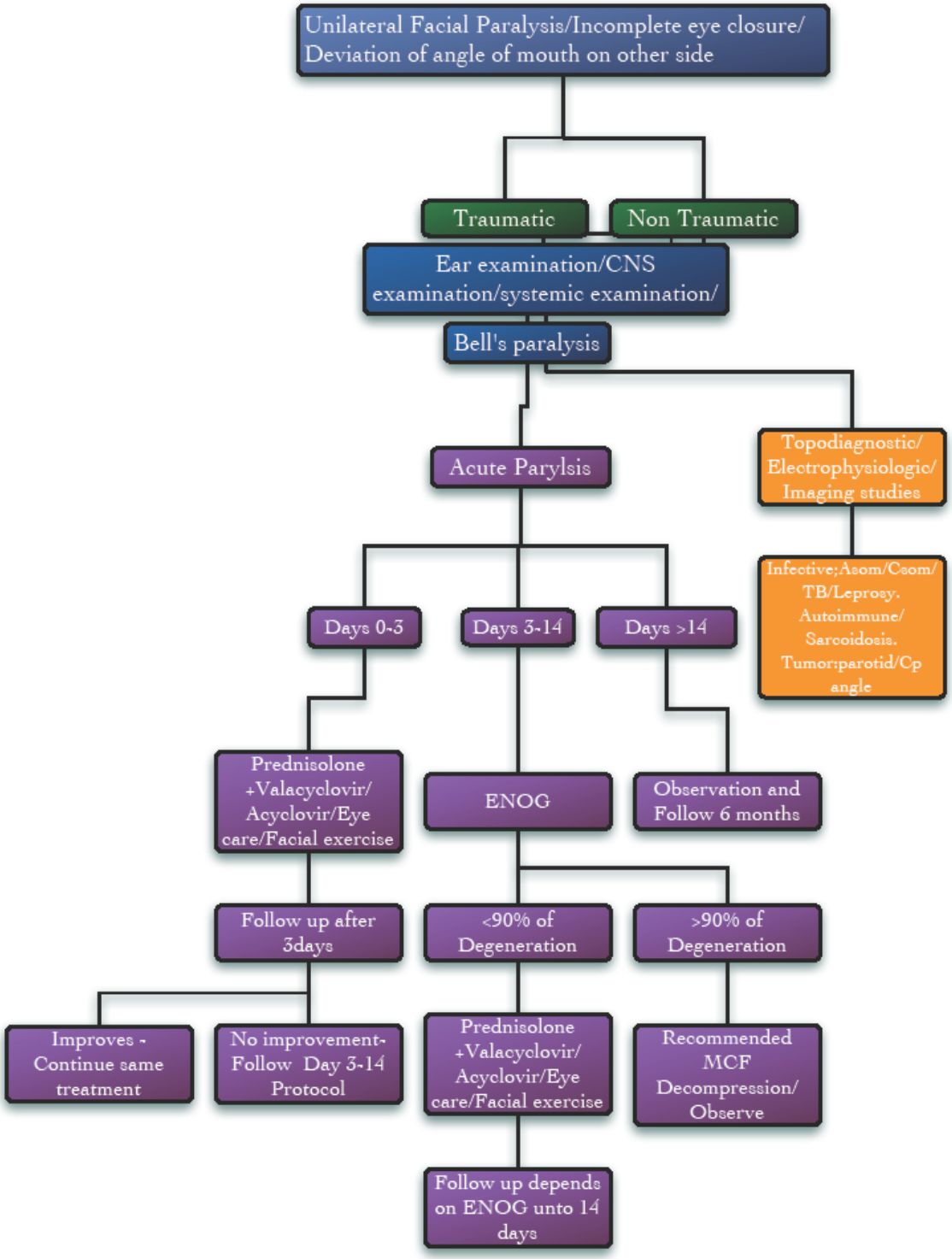
   Treatment



   - Cap Amoxycillin 500 mg/Amoxycillin-Clavunic acid 625 mg TDS x 5 days
   - Macrolide/cephlosporins (2nd line)
   - Povidone Iodine (Betadine) /Chlorhexidine mouth wash 2-3 times a day
   - Paracetamol±/NSAD
   - Plenty of fluids
   - Antihistaminic and Decongested
   - Warm saline/Betadine/Chlorhexidine gargle.

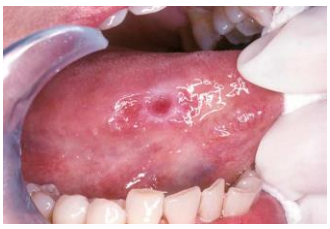
   If not responding/recurrent episodes Refer to District Hospital

3.Facial Paralysis Non-traumatic



Prednisolone = 1 mg/kg 14 days
Valacyclovir=500 mg tds 10 days
Acyclovir=800mg 5 times a day for 10 days
MCF-Middle cranial fossa
ENOG- Electoneurongraphy

Refer to District Hospital for the following possible signs of malignancy: (Oral Cancer)



- Swelling of face/ cheek/ neck for more than 1 week.
- Ulcer in oral cavity/ neck for than 1 week.
- Change in voice for more than 2 weeks.
- Progressive stridor and noisy breathing in children.
- Progressive difficulty in swallowing for more than 2 weeks.

Refer immediately to ENT Surgeon District Hospital/ Medical College Hospital

- History of foreign body ingestion/ inhalation followed by respiratory distress/dysphagia/ vomiting.
- History of foreign body in ear or nose.
- Ear discharge with fever/ giddiness/ headache/ vomiting/ blurring of vision/loss of consciousness.
- Watery discharge from nose following trauma which increases on bending down or coughing (To rule out CSF leak)
- Inability to open mouth.