

Minimum criteria for the ENT exam
- essential ENT knowledge for a physician –

1. Symptoms and clinical features of diffuse otitis externa

- **Symptoms**
 - Earache;
 - The external part of the ear canal is painful (especially the tragus);
 - Discharge, itching;
 - Ear congestion, hearing loss;
 - Fever is uncommon.
- **Clinical findings**
 - Swelling and hyperemia of the skin of the ear canal;
 - Serous or purulent discharge;
 - Accumulation of debris in the ear canal;
 - Tympanic membrane appears to be normal.

2. Symptoms and clinical features of acute otitis media (AOM) – suppurative form

- **Symptoms**
 - Earache;
 - Hearing loss;
 - Nasal discharge and congestion;
 - Fever, malaise;
 - If perforation is present: otorrhea
- **Clinical findings**
 - Ear canal appears to be normal;
 - Hyperemia of tympanic membrane;
 - Later in the course of the disease: marked bulging of the tympanic membrane, subsequently spontaneous perforation can develop.

3. Causes of acute hearing loss

- **Conductive type:**
 - wax, foreign body;
 - acute tubal occlusion, otitis media (OME/AOM);
 - trauma (e.g. perforation of the tympanic membrane).
- **Sensorineural type:**
 - Noise (acute) induced hearing loss;
 - Viral infection;
 - Vascular causes;
 - Toxic damage (medication, chemicals);
 - Traumas.

4. What is to be done in case of acute sensorineural hearing loss?

In case of acute sensorineural hearing loss, immediate intravenous nootropic/vasodilating therapy or steroid bolus treatment is necessary with hospitalization; meanwhile detailed investigation is required to be carried out to clarify the etiology. The earlier the treatment is started, the better the outcome is.

5. Recognition of hearing loss in childhood

- **Signs of hearing loss in childhood:**
 - the newborn does not react to sounds;
 - tone of crying is unusual;
 - babbling period does not appear;
 - visual orientation is dominant;
 - speech development is delayed;
 - tone, pitch, intensity, melody and rhythm of the speech is pathologic;
 - articulation disorders;
 - worse reading and writing skills

6. Causes of ear pain

- Primary otalgia
 - Otitis;
 - Tumors of the ear;
- Referred ear pain
 - Tumors and inflammations of the larynx, pharynx, tonsils, base of the tongue;
 - Dental inflammations, temporomandibular joint syndrome, neuralgic pain.

7. Complications of acute otitis media (AOM)

- Extracranial
 - Intratemporal
 - Acute mastoiditis;
 - Zygomaticitis;
 - Petrositis;
 - Facial nerve palsy;
 - Labyrinthitis;
 - Extratemporal
 - Abscess: subperiosteal, preauricular, suboccipital, Bezold's abscess;
- Intracranial
 - Extradural abscess;
 - Sinus phlebitis - sinus thrombosis;
 - Subdural abscess;
 - Meningitis, encephalitis;
 - Brain abscess;
- General: sepsis.

8. Clinical features and symptoms of acute mastoiditis

- Associated with, or following acute otitis media;
- The pinna is pushed forward;
- Retroauricular pain, erythema;
- The posterior wall of the external ear canal is swollen, seems to be lowered;
- Pulsating, severe pain;
- Pulsating otorrhea.

9. Causes of unilateral otitis media with effusion (OME) in adults and childhood

Chronic dysfunction of the Eustachian tube (adenoid vegetation or nasopharyngeal tumor)

In adults, the possibility of a nasopharyngeal tumor must not be left out of consideration!

10. How to diagnose vertigo caused by vestibular disorders

- Patient history:
 - Type of vertigo (sensation of spinning or falling);
 - Vegetative symptoms, nausea, vomiting.
- Examination:
 - deviation, tilting;
 - spontaneous nystagmus and nystagmus provoked by head movements.

11. Causes of peripheral facial palsy (list)

- Bell's palsy;
- Herpes zoster oticus;
- Other viral or bacterial infections (HSV, EBV, Lyme);
- Acute and chronic middle ear diseases (acute and chronic middle ear infections, cholesteatoma, rarely tumors);
- Tumors of the pontocerebellar angle, vestibular schwannoma;
- Cranial traumas (pyramid bone fractures), extratemporal traumas;
- Malignant tumors of parotid gland.

12. Primary management of epistaxis/nosebleeding (at home/ambulance/by GP)

- The patient should lean forward with open mouth, firm digital pressure should be applied to both nasal alae for 10 minutes;
- Ephedrine/nasal drop/vasoconstrictor solution-imbibed cotton or spongostan should be applied in nasal cavity;
- Cold compress should be applied to the nape of the neck and to the nasal dorsum;
- Blood pressure-measurement, antihypertensive treatment if needed.

13. Management of epistaxis/nosebleeding (anterior, posterior) by ENT professionals

- Blood pressure-measurement, antihypertensive treatment - if needed;
- Visible bleeding source: chemical cauterization (trichloroacetate, silver nitrate) or coagulation (bipolar electrocoagulation);
- Anterior nasal bleeding: anterior nasal packing;
- Posterior nose bleeding: posterior nasal packing (Bellocq tamponade), balloon catheter.

14. Management and complications of nasal folliculitis and furuncles

- Circumscribed folliculitis: local therapy with antibiotic and steroid containing creams, vapor coverage;
- The patient should be told not to pick or squeeze the lesions;
- For furunculosis and/or phlegmonous reaction, parenteral antibiotics should be administered, along with vapor coverage;
- The infection is usually caused by Staphylococcus aureus;
- Possible complications: Facial phlegmone, angular vein thrombophlebitis, cavernous sinus thrombosis.

15. Types of rhinitis (list)

- Common infections: Simple acute rhinitis, purulent rhinitis;
- Specific forms of Rhinitis: TB, syphilis, sarcoidosis;
- Allergic rhinitis
- Atrophic rhinitis (oezena)
- Rhinitis sicca anterior.
- Other causes: idiopathic, vasomotoric, hormonal, drug-induced, *rhinitis medicamentosa*, occupational (caused by irritants) foodstuffs. (3 causes are required from the “other” group)

16. Clinical features and management of angioedema (Quincke-edema)

- Symptoms and clinical features:
 - urticaria, edema in the head and neck region;
 - dysphagia, globus feeling or visible swelling in the throat, choking;
 - in a severe form: anaphylaxis;
- Treatment: antihistamines, steroids, adrenaline, maintaining free airways: cricothyrotomy/tracheotomy – if needed.

17. Complications of paranasal sinus infections (list)

- **Extracranial complications**
 - Periorbital cellulitis;
 - Subperiosteal abscess;
 - Orbital phlegmone / abscess;
 - Osteomyelitis;
 - Sepsis;
- **Intracranial complications**
 - Meningitis;
 - Epi/subdural or brain abscess, encephalitis;
 - Cavernous sinus thrombosis.
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18. Where does the patient localize the pain in cases of frontal, maxillary, ethmoidal or sphenoidal sinusitis?

- Frontal sinusitis – forehead;
- Maxillary sinusitis – face;
- Ethmoidal sinusitis –periorbitally, between the eyes;
- Sphenoid sinusitis – crown of the head, referring to the occipital area;
- All forms of sinusitis can cause diffuse headache.

19. Causes of unilateral nasal obstruction and discharge in childhood and in adulthood

- **Childhood:**
 - foreign body;
 - sinusitis;
 - nasopharyngeal angiofibroma;
 - congenital malformation: choanal atresia, meningoencephalocele.
- **Adulthood:**
 - nasopharyngeal tumors;
 - deviation of the nasal septum;
 - hypertrophy of turbinates;
 - trauma and it’s late consequences;

- diseases causing nasal cavity obstruction (polyp, benign and malignant tumors);
- rhinosinusitis.

20. ENT diseases causing headache

- Viral infection of the upper airways;
- Inflammation of nasal sinuses: (acute and chronic);
- Benign and malignant tumors of nasal sinuses;
- Cervical: cervical vertebra disorders, spondylosis, myalgia;
- Complications of otitis and sinusitis: mastoiditis, meningitis, brain abscess, inflammation of the petrous pyramid;
- Neuralgias;
- Pain of temporomandibular joint.

21. Most frequent causes of dysphagia

- GERD;
- Globus feeling, psychogenic disorders;
- Inflammation in the mesopharyngeal, hypopharyngeal and laryngeal region;
- Tumors in the mesopharyngeal, hypopharyngeal and laryngeal region;
- Neuralgia (n. IX, n. X);
- Sensorial and motor innervation disorders: sensorial disorders in supraglottical region;
- Foreign bodies in the hypopharynx and oesophagus;
- Esophageal motility disorders, achalasia;
- Diverticulum (e.g. Zenker);
- Esophageal, hypopharyngeal stenoses;

22. Indications of tonsillectomy (absolute and relative)

- **Absolute indications:**
 - rheumatic fever;
 - peritonsillar abscess;
 - tonsillogenic sepsis.
- **Relative indications:**
 - chronic tonsillitis;
 - recurrent tonsillitis;
 - tonsillogenic or posttonsillitis focal symptoms;
 - marked hypertrophy of the tonsils causing mechanical obstruction;
 - if a tonsillar tumor is suspected;
 - obstructive sleep-apnea syndrome or other obstructive sleep-related breathing disorders;
 - severe orofacial / dental disorders causing narrow upper airways.

23. Clinical features and symptoms of peritonsillar abscess

- Throat pain, referred ear pain;
- Difficulty in swallowing;
- Trismus, the speech is thick and indistinct;
- Oral fetor;
- Fever, insomnia, loss of appetite;
- Swelling, redness and protrusion of the tonsil, faucial arch, palate and uvula; the uvula is pushed towards the healthy side.

24. Peritonsillar abscess – treatment

- Drainage of the abscess - puncture, incision, daily opening of the abscess cavity;
- Tonsillectomy:
 - abscess-tonsillectomy;
 - tonsillectomy 6 weeks after recovery;
- Antibiotics, decreasing edema, analgesics, administration of fluids.

25. Clinical features, symptoms and complications of para- and retropharyngeal abscesses

- Symptoms:
 - throat and neck pain, foreign-body sensation, fever, difficulty in swallowing, trismus, torticollis, swelling of the lateral or posterior pharyngeal wall, thick speech, laryngeal/oropharyngeal edema;
- Complications:
 - oropharyngeal and laryngeal edema, septicemia, mediastinitis, choking.

26. Pathogens of tonsillitis and pharyngitis, indication of antibiotic treatment

- Pathogens:
 - Viral (80-90%);
 - adenovirus, rhinovirus;
 - (EBV - infectious mononucleosis);
 - Bacterial:
 - Streptococcus pyogenes - follicular tonsillitis;
 - Group C and G Streptococci;
 - Mycoplasma, Chlamydia, Neisseria subspecies;
 - (Pneumococci);
 - (Haemophilus influenzae);
 - (Moraxella catarrhalis);
 - (Staphylococcus subspecies);
- Antibiotics: bacterial infection - physical findings, laboratory findings (blood count, CRP, ESR, rapid bacteriological test), acute or chronic infection, presence of immunosuppression.

27. Precancerous lesions of the oral cavity and oropharynx

- Erythroplakia,
- Leukoplakia,
- Lichen planus
- Naevus
- Spongiosus albus mucosae

28. Causes of chronic hoarseness (Why is it necessary to visit an ENT specialist after 3 weeks of hoarseness?)

- Acute and chronic inflammations of the larynx;
- Benign laryngeal lesions (cysts, granulation, Reinke edema, polyps, papillomatosis);
- Malignant laryngeal lesions;
- Recurrent laryngeal nerve paresis, (which can be caused by: hypopharyngeal, thyroid gland, esophageal, pulmonary, mediastinal cancer, intracranial diseases);
- GERD;

It is exceptionally important to diagnose a malignant lesion as soon as we can.

29. Symptoms of laryngeal and hypopharyngeal cancers

- Hoarseness;
- Dyspnea;
- Dysphagia;
- Referred ear pain;
- Globus feeling;
- Hemoptoe;
- Loss of body weight
- Neck lump.

30. Swollen neck lymph nodes – causes:

- Non-specific inflammations (e.g. upper respiratory tract infections);
- Specific inflammations:
 - Bacterial: TB, syphilis, cat scratch disease, tularemia,
 - Protozoal: toxoplasmosis,
 - Viral: HIV-infection,
 - Non-infectious: sarcoidosis;
- Lymphomas;
- Metastases of head and neck cancers.

31. Evaluation of neck lumps – diagnostic steps

1. Correct, accurate registration of patient history: e.g. duration of symptoms, upper respiratory tract infections, dysphagia, hoarseness;
2. Careful ENT examination – special attention should be paid to the examination of the neck: localization, consistency, sensibility of the lump, its relation to the surrounding structures;
3. Blood tests: inflammation markers, serology;
4. Imaging modalities: ultrasound, CT/MRI;
5. US guided Fine Needle Aspiration Biopsy;
6. For lymphadenomegaly, excision of the node is carried out only if the evaluation of the FNAB reveals lymphoma (or, if it is needed by the pathologist).

32. Causes of dyspnea in the upper respiratory tract

- Upper respiratory tract infections (tonsillitis, epiglottitis, laryngitis);
- Lumps in the upper respiratory tract: abscess, granulation tissue, malignancies;
- Non-specific reactions of the upper respiratory mucosa: allergy, Reinke edema, hereditary angioneurotic edema;
- Foreign body;
- Stenosis;
- Recurrent laryngeal nerve palsy.

33. Middle-aged, smoker patient presents with unilateral ear pain, but the examination of the ear does not reveal any disorders. What may be the cause, and what is obligatory to be examined?

Unilateral, referred ear pain is a typical finding in patients with hypopharyngeal (less commonly supraglottic and oropharyngeal) malignancies. This symptom and the tobacco use in the patient history make the examination of the oral cavity, oropharynx/hypopharynx, larynx and the neck obligatory.

34. Management of choking patients – if intubation cannot be carried out

1. **Cricothyrotomy** – in the lack of time and appropriate tools: we find the cricothyroid ligament above the cricoid cartilage (using fingers), and after carrying out a transversal incision on the skin, we pierce the ligament with any instrument at hand, and insert a holed tool (e.g. outer tube of a pen).
2. **Tracheotomy** – After incising the skin and the platysma, we find (and if necessary - ligate) the isthmus of the thyroid gland, and - at the 2nd or 3rd tracheal cartilage - we make an incision on the anterior wall of trachea (in childhood) or remove a part of the cartilage (in adults). We insert a tube/cannula in order to maintain the free airway.