**King Saud University**

**Collage of Nursing**

**Medical-Surgical Nursing**

**Physical Examination techniques for head and neck**

1. Prepare patient and environment
2. Obtain health history
3. Prepare equipment needed as listed in the lecture

***Assessment technique***: **The Head**

|  |  |
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| **ABNORMAL FINDINGS** | **Objective Data NORMAL RANGE OF FINDINGS** |
| Deformities:  Microcephaly (abnormally small head)  Macrocephaly (abnormally large head)  acromegaly (Paget’s disease)  scalp  Crepitation, limited range of motion or tenderness.  Hostility or embarrassment. Tense, rigid muscles may indicate anxiety or pain; a flat affect may indicate depression; excessive smiling may be inappropriate.  Marked asymmetry with central brain lesion (brain attack) or with peripheral cranial nerve VII damage (Bell’s Palsy).  Edema in the face occurs first around the eyes (periorbital) and the cheeks where the subcutaneous tissue is relatively loose.  Exopthalamus – abnormal protrusion of the eyeball  Absent lateral third of brow with hypothyroidism.  Unequal or absent movement with nerve damage.  Scaling with seborrhea.  Unequal distribution of hair  Lid lag with hyperthyroidism  Incomplete closure of lids can cause damage to cornea  Ptosis – drooping of upper eye lid  Yellow sclera (Jaundice)  Pale palpebral conjunctiva (anemia)  Increased number of blood vessels (inflammation)  Exophthalmos (protruding eyes) and enophthalmos (sunken eyes)  resting adult 3mm-5mm  Changes in pupils can indicate central nervous system injury  Observe for cataracts  Absence of constriction or convergence.  Asymmetric response.  Hemianopia ( loss half of visual field)   * Blindness, Myopia (impaired distant vision)   Presbyopia (Impaired Near vision).  No reaction  Microtia – small ears  Macrotia – Larger than normal ears  Edema  Redness – indicates inflammation  Crusts over external area – eczema , contact dermatitis  Purulent otorrhea – otitis externa or media  Frank blood or clear watery drainage –especially after trauma - possible skull fracture  Foreign body – loss of hearing  Moveable with pain  Tenderness      Erythema and / or discharge from one side of the nares is suggestive of a foreign body    In light skinned people circumoral pallor occurs in shock and anemia  Cyanosis with hypoxemia and chilling  Cherry red lips with carbon monoxide poisoning, acidosis from aspirin poisoning or ketoacidosis  History helps to determine if oral lesions have infectious, traumatic, immunological, or malignant etiology  Dysphagia – occurs with many conditions, gastroesophageal reflux, pharyngitis, stroke, neurological diseases, esophageal cancer  White patch  Untreated strep throat may lead to the complication of rheumatic fever  Pigmentation-Thrush  on the palate.  Head tilt occurs with muscle spasm. Rigid head and neck occur with arthritis.  Note pain at any particular movement. Note limited movement due to cervical arthritis or inflammation of neck muscles.  Thyroid enlargement may be a unilateral lump, or it may be diffuse and look like a doughnut lying across the lower neck.  Distention Heart failure  Lympadenopathy is enlargement of the lymph nodes (› 1 cm) due to infection, allergy, or neoplasm.  The following criteria are common clues but are not definitive in all circumstances.  Acute infection – nodes are bilateral, enlarged, warm, tender, and firm but freely movable.  Chronic inflammation e.g., in tuberculosis the nodes are clumped.  Cancerous nodes are hard, unilateral, nontender, and fixed.  Nodes with HIV infection are enlarged, firm, nontender, and mobile. Occipital node enlargement is common with HIV infection.  Painless, rubbery, discrete nodes that gradually appear occur with Hodgkin’s lymphoma.  **Conditions of tracheal shift:**  The trachea is pushed to the unaffected (healthy) side with an aortic aneurysm, a tumor, unilateral thyroid lobe enlargement, and pneumothorax.  The trachea is pulled toward  the affected (diseased) side with large atelectasis, pleural adhesions, or fibrosis. | **Inspect and Palpate the Skull**  General size and shape  ***Size***  Note the general size and shape.  Normocephalic is the term that denotes a round symmetric skull that is appropriately related to body size.  ***Shape***  To assess shape, place your fingers in the person’s hair and palpate the scalp.  The scalp normally feels symmetric and smooth. There is no tenderness to palpation.  Use a gentile rotating motion with fingertips.Begin at the front and palpate down the midline.  Palpate each side of the head then occipital region for occipital lymph.  Palpate the joint as the person opens the mouth and note normally smooth movement with no limitation or tenderness.  **Inspect the Face**:  Note facial expression and its appropriateness to behavior or reported mood. Anxiety is common in the hospitalized or ill person.  Although shape of facial structures may vary among races, they should always be symmetric, eyebrows, palpebral fissures, nasolabial folds, and the creases extending from the nose to each corner of the mouth.  Note any abnormal facial structures (coarse facial features, exophthalmos, changes in skin color or pigmentation), or any abnormal swelling.  Note any involuntary movements (tics) in the facial muscles, normally none occur.  **Inspect External Ocular Structures (The Eye)**  Size, placement, alignment  All three should be symmetrical  **Eyebrows**  Normally eyebrows are present bilaterally, move symmetrically as the facial expression changes, and have no scaling or lesions.  **Inspect lashes** for hair distribution and growth  Short Evenly spaced upper lashes curl upward and lower lashes curve downward and away from eye  **Eyelids**  When eye is open the upper lid should fall between the upper iris and top portion of pupil.  The skin is intact without redness, swelling, discharge, or lesions.  **Sclera**  **Conjunctiva** and sclera should be white and free from nodules or swelling  **Eyeballs**  The eyeballs are aligned normally in their sockets with no protrusion or sunken appearance. Blacks normally may have a slight protrusion of the eyeball beyond the supraorbital ridge.  Eyeballs look moist and glossy.  Explain procedure to the patient then put on examination gloves and keep his eyes closed , gently palpate eyelids for tenderness, mass & swelling, Eye ball firm Feeling touch sensation  **Pupil**  Note size, shape and equality of pupils  Round, clear and equal  Test pupillary light reflex, darken the room and ask the person to gaze into the distance. (This dilates pupils)  **Test for accommodation** by asking the person to focus on a distant object. This process dilates the pupils.  Then have the person shift the gaze to near object, such as your finger held about 7-8 cm from the nose, a normal response is papillary constriction.  Record normal response to these maneuvers s PERRLA, or Pupils Equal, Round, React to Light and Accommodation.  **Testing visual field**  This test is used to evaluate the peripheral extent of visual field.  **Testing visual acuity**  Ask patient to sit or stand 4-6m from Sellen-chart and cover the left eye with opaque card .Ask patient to  read the letters on one line  of the chart and then to move  downward to increasingly smaller  lines until he can no longer discern  all of the letters Repeat the test with  the other eye.  **Testing corneal reflex**  By lightly touching the cornea with wisp of cotton. **Blinking is normal reaction**  **Testing eye ball movement**  Ask patient to follow the object with his eyes Without moving his head. Nurse moves the object to each of the six cardinal positions, returning to the midpoint after each movement  **Inspection of the Ear**  Location / Alignment hygiene  The top of the ear should be in a straight line with the corner of the eye  No swelling or thickening  **Discharge or odor**  May be caused by a perforated tympanic membrane, foreign body, exudates or wax  **Inspect ear canal** (external auditory canal &tympanic membrane) by using otoscope .The auricle is gently pulled upward and backward to straight the ear canal.  **Palpate auricle for** texture and pain sensation on movement. Moveable without pain. The auricle is firm in texture    **Palpate mastoid area** behind ear for tenderness. No tenderness  **Hearing acuity tests**  **Weber’s test:**  Uses to evaluate bone conduction.    **Rinnes Test:**  Uses to evaluate air conduction of the sound  **Inspection of the Nose**  Shape  Symmetry  Patency  Mucosal Integrity  Should be pink and moist  Septum should be straight  **Palpate frontal and maxillary**  **Sinus** for tenderness.  **\*Frontal**  Place your thumbs above the patient eyes just under the bony ridges of the upper orbits and place your fingertips on his forehead  **\* Maxillary**  Gently press your thumb on each side of the nose just below cheek bones  **Test Olfactory nerve**  Ask patient to close his eyes and block one nostril and inhale a familiar aromatic substance through the other nostril  **Inspect and Palpate the Mouth**  **Lips**  Integrity  Symmetry  Color  Moist, soft and pink  **Gum-** color ,lesion  **Teeth** – should be in good condition  **Mucous Membrane** – colour, texture, discharge, swelling  **Tongue** – size, colour, thickness, lesions, moisture, symmetry  Palpate the tongue and floor  of mouth with a gloved finger.  Pink ,free from ulcer, nodules  **Pharynx** – inflammation, exudates, masses . press a tongue blade firmly upon the-tongue-for visualization-of-the pharynx  **roof of mouth** for color  and architecture of [hard palate](http://www.meddean.luc.edu/lumen/MedEd/medicine/pulmonar/phydx/s15e.jpg)  **Inspect and palpate the NECK**  **Symmetry**  Head position is centered in the midline, and the accessory neck muscles should be symmetrical. The head should be held erect and still.  **Range of Motion**  Note any limitation of movement during active motion, ask the person to touch the chin to the chest, turn the head to the right and left, try to touch each ear to the shoulder (without elevating shoulders), and to extend the head backward. When the neck is supple, motion is smooth and controlled.  **Test muscle strength** and the status of cranial nerve XI by trying to resist the person’s movements with your hands, as the person shrugs the shoulders and turns the head to each side.  \***Inspect thyroid gland** for symmetry, visible mass.  You should stand in front of the client & Ask client to sip some water and swallow. Symmetrical, no mass.  Thyroid gland ascends normally during swallowing & not visible , Except in extremely thin person    **Palpate thyroid** by standing  behind the client. Put your hands  around his neck with your finger  tips on the lower half of the neck  over the-trachea.  **Inspect External jugular veins**  Observe with patient sitting and then lying at 30-45 angle.  **Normal finding:** Jugular veins should be flat, without sign of distention  **Lymph Nodes**  Using gentle circular motion of your finger pads, palpate the lymph nodes.  Use gentle pressure because strong pressure could push the nodes into the neck muscles.  If any nodes are palpable, note their location, size, shape, delimitation (discrete or matted together), mobility, consistency, and tenderness.   Cervical nodes are often palpable in healthy persons, although, this palpability decreases with age. Normal nodes feel movable, discrete, soft, and non tender.  **Preauricular** - In front of the ear  **Postauricular** - Behind the ear  **Occipital** - At the base of the skull  **Tonsillar** - At the angle of the jaw  **Submandibula**r - Under the jaw on the side  **Submental** - Under the jaw in the midline  **Superficial** (Anterior) Cervical over and in front of the sternomastoid muscle  **Supraclavicular** - In the angle of the sternomastoid and the clavicle  **Trachea**  Normally, trachea is midline, palpate for tracheal shift. The space should be symmetric on both sides. Note any deviation from the midline. |

**Quick Quiz**

**Test Your Knowledge!**

1. Ptosis is drooping of the lower eye lid

a. True

b. False

2. The top of the ear should be in line with the corner of the eye

a. True

b. False

3. Cyanosis can occur with shock.

a. True

b. False

4. A trachea pushed to the unaffected side results from a large atelectasis, pleural adhesions, fibrosis

a. True

b. False

5-Weber and Rinns tests are used to examine vision acuity

a. True

b. False

6- Blinking is the normal response for corneal reflex

a. True

b. False

**Nursing health assessment documentation format**

**Head &neck *(adapted from KFSH &RC)***

**Instructions:** Circle or fill in the blanks with actual physical assessment findings. WNL=Within Normal Limits for age. Mark items which require additional documentation with an asterisk (\*) and document in the Nurse’s Notes sections of the Daily Nurses Record.

**Pt. Identification data**

Name-------------- Age----- Sex----- occupation ----------- Marital status----------

Tel/Address---------------------- Known Allergies---------------------------------

**General Survey**

Physical appearance \_ WNL, abnormality----------------- Body structure \_WNL, abnormality----------

Mobility \_WNL, abnormality------------------------ Behavior \_ WNL, abnormality-------------------

**Present history**

**Chief complaint: P------------------------------------------------- P ----------------------------------------------**

**Q------------------------------------------------ R------------------------------------------- R-------------------------**

**S------------------------------------------------ T------------------------------------------- T--------------------------**

**T------------------------------------------------ Associated symptoms ---------------------------------------**

**Medication --------------------------------------------------------------------------------------------------------**

**Past history-----------------------------------------------------------------------------------------------------------**

**---------------------------------------------------------------------------------------------------------------------------**

**Family history-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------Physical examination**

**Head**

**Hair: - Equal in distribution Fine Coarse**

**Scalp: - Intact / Injury Dandruff Nits**

**Skull: - Intact / Injury Enlarged /smaller**

###### Eye and vision

**Sclera: - Clear Yellow Red**

**Pupil: - Equal /Unequal**

**Visual acuity: - WNL impaired distant /near vision**

**Ear and hearing**

**Auricle: - Firm Tenderness**

**Ear opening: -Discharge**

**Hearing field; - WNL Hearing problem**

**Nose**

**Mucous membrane; - Pink /Moist Red Swelling**

**Discharge**

**Mouth**

**Lips:- Pink/Moist Red Bleeding**

**Gums Pink/Moist Red Bleeding**

**Neck**

**Thyroid gland; Mass Visible**

**Lymph node: Normal Enlargement**

**COMMENTS:-**

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**Signature:-**

**Date:-**

King Saud University Application of Health Assessment  Collage of Nursing NURS 225

Medical-Surgical Nursing Performance checklist

Head &Neck

**The student nurse should be able to:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Performance criteria** | **Competency Level** | | | | | | | |
|  | **Competent** | | | **Not Competent** | | | **Comment** | |
|  | **Trial 1** | **Trial 2** | | **Trial 1** | | **Trial 2** |  | |
| -Collect appropriate objective data about head and neck related to general survey.  -Collect appropriate subjective data related to about head and neck. |  |  | |  | |  |  | |
| Physical examination |  |  | |  | |  |  | |
| HEAD |  |  | |  | |  |  | |
| Inspection |  |  | |  | |  |  | |
| 1-Inspect hair for quantity, distribution and texture.  2-Observe face for skin color, hair distribution. |  |  | |  | |  |  | |
| PALPATION |  |  | |  | |  |  | |
| 3-Palpate scalp for tenderness and mass  4-Palpate the skull for nodules or mass. |  |  | |  | |  |  | |
| EYE AND VISION |  |  | |  | |  |  | |
| Inspection |  |  | |  | |  |  | |
| 1-Inspect eyebrows and lashes for symmetry, distribution of hair.  2-Inspect lid margins for color, scaling, erythema.  3-Inspect sclera for color.  4--Inspect pupils for size, shape and symmetry  5-Test pupil for accommodation.  6-Test visual acuity  7- Corneal reflex  8- Pupil react to light  9- Eyeball movement  10- Peripheral field acuity |  |  | |  | |  |  | |
| PALPATION |  |  | |  | |  |  | |
| - Palpate eyeball for tender and feeling sensation. |  |  | |  | |  |  | |
| EAR AND HEARNING |  |  | |  | |  |  | |
| Inspection |  |  | |  | |  |  | |
| 1-Note auricle for **texture, lesion.**  2-Inspect opening of the ear canal for discharge, redness or odor.  3-Palpate auricle and mastoid area for pain sensation. |  |  | |  | |  |  | |
| 4-Hearing field tests  * Webers test * Rinnes test |  |  | |  | |  |  | |
| NOSE AND SINUSES |  |  | |  | |  |  | |
| 1-Inspect the nose for position, symmetry, and color, discharge deformity.  2-Inspect for nasal obstruction and air way patency |  |  | |  | |  |  | |
| *Palpation* |  |  | |  | |  |  | |
| 3-Palpate frontal and maxillary sinus for tenderness. |  |  | |  | |  |  | |
|  | | | | | | | |
|  | | | | | | | | |
| MOUTH |  | |  | |  |  | |  |
| Inspection |  |  | |  | |  |  | |
| 1-Inspect **lips and** [gums,](http://www.meddean.luc.edu/lumen/MedEd/medicine/pulmonar/phydx/s15b.jpg)for Color, swelling ,tenderness and ulcer.  2-Inspect the **teeth** for number and condition.  **3-Inspect** [tongue](http://www.meddean.luc.edu/lumen/MedEd/medicine/pulmonar/phydx/s15f.jpg)for size, color, surface and mid-line protrusion. |  |  | |  | |  |  | |
| **Palpation** |  |  | |  | |  |  | |
| **4-Palpate the tongue** and floor of mouth with a gloved finger for redness, ulceration, nodules, white. |  |  | |  | |  |  | |
| **Pharynx** |  |  | |  | |  |  | |
| Inspection |  |  | |  | |  |  | |
| 5-Inspect uvula and pharynx for color and moisture.  **6-Note tonsils for size, inflammation, swelling, discharge.** |  |  | |  | |  |  | |
| **NECK** |  |  | |  | |  |  | |
| Inspection |  |  | |  | |  |  | |
| 1-Inspect the neck for symmetry, scars, or other lesions  2-Inspect thyroid gland and lymph node for size and visible mass.  3-External juglar vein  4-Trachea shift  **Palpation of lymph nodes** |  |  | |  | |  |  | |
| Document findings following designated format |  |  | |  | |  |  | |

*Instructor’s signature*

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