***Geriatric nursing***

***Bachelor of Nursing in Science***



**TRIBHUWAN UNIVERSITY**

**INSTITUTE OF MEDICINE**

**POKHARA NURSING CAMPUS**

**RAMGHAT -11, POKHARA**

**ACADEMIC YEAR (2079-2082)**

**Submitted to: Submitted by:**

Respected madam, Babita Shah

Lecturer Srijana Poudel Roll no.5

TU IOM PNC BNS 2nd year

* Lesson plan
* **Lesson Plan**

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| Name of student teacher: Babita shah |
| Subject: Geriatric Nursing |
| Unit: 4 |
| Topic: Physiological changes in respiratory system and lungs cancer |
| Date: 2080/09/14 |
| Venue: BNS 1st year |
| Time: |
| Duration: 1 hour |
| Number of participants: 36 |
| Level of participants: BNS 1st year |
| Language: English + Nepali |
| Teaching/ Learning method: Brainstorming, interactive lecture, Discussion |
| Teaching, Learning media: PowerPoint, Whiteboard, poster |
| Name of supervisor: Respected madam,  Lecturer Srijana Paudel |

General Objective:

At the end of session, BNS 1st year students will be able to explain about Physiological Changes In Respiratory System And Lungs Cancer

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| S,N | Specific objectives | content | time | Teaching  method | Teaching  media | evaluation |
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**PHYSIOLOGICAL CHANGES IN RESPIRATORY SYSTEM**

**1)Upper Respiratory Structures**:

* Structural changes in nose causes septal deviations that interfere with flow of air through the nasal cavity and thus contribute to mouth breathing during sleep,causing snoring and obstructive apnea.
* With aging , blood flow to the nose diminished and affects the sub-mucosal glands,causing decreased secretions.
* Decrease vocal cord elasticity lead to changes in voice pitch and quality.
* Nose,mucous membranes become drier as the fluid content of body tissuse decreases

**2)Chest wall and musculoskeletal structure**:

* The number of the cilia decreases which diminishes their ability to trap and remove debries ,which increased risk of infection.
* The calcification of the costal cartilage makes the trachea and rib cage more rigid.
* Increased the anterior posterior chest diameter often demonastrated by kyphosis.

**3)Lung structure:**

* Lungs became smaller and flabbier, and their weight diminishes by approximately 20% lead to decrease in lungs capacity.
* The alveoli progressively enlarge , and their walls become thinner.
* Decrease in alveoli elasticity and the number of capillaries surrounding the alveoli can interfere with gas exchanges leading to decrease of 02saturation
* The lungs exhale less effectively , thereby increasing the residual volume and decreasing the vital capacity.
* Decreased cough reflex.
* Respiration increase with aging.

**Common Respiratory disorders in elderly**

1.Chronic Obstructive Pulmonary Disease

2. Asthma

3. Lungs Cancer

4. Pulmonary Tuberculosis

5. Pneumonia

6. Pulmonary Embolism

**LUNGS CANCER**

**INTRODUCTION**

Lung cancer is [cancer](https://medlineplus.gov/cancer.html) that forms in tissues of the lung, usually in the cells that line the air passages. Lung’s cancer can arise in any part of lung, but 90% to 95% of the lung’s cancer are thought to arise from the epithelial cells, the cells lining the larger and the smaller airways (bronchi and bronchioles) for this reason lung cancer some time are called bronchogenic cancer or bronchogenic carcinomas. cancers also can arise from the pleura called mesothelioma or rarely from supporting tissue within lungs, for example blood vessels. Lung cancer is the most common cause of death due to cancer in both men and women throughout the world. It accounts for 13% of all new cancer cases and 19% of cancer related deaths in worldwide.

**CLASSIFICATION OF LUNGS CANCER**

* **Epithelial tumours**

A.Benign

*1*.*papilloma*

*2.adenoma*

B.Dysplasia and carcinpma in situ

C. Malignant

Bronchogenic carcinoma

1.Squamous cell carcinoma

2. Small cell carcinoma

* *oat cell carcinoma*
* *Intermidiate cell carcinoma*
* *Combined oat cell carcinoma*

3. Adenocarcinoma

* *Acinar adenocarcinoma*
* *Papillary adenocarcinoma*
* *Bronchiolo-alveolar carcinoma*
* *Solid carcinoma with mucus formation*

4. Large cell carcinoma

5.Adenosquamous carcinoma

* **Soft tissue tumor**

(fibroma , fibrosarcoma, leiomyoma,lieomyosarcoma, chondroma , haemangioma, lymphangioma,myoblastoma)

* **Pleural tumours**

*A.Benign mesothelioma*

*B.Malignant mesothelioma*

* **Miscellaneous tumors**

1.*Carcinosarcoma*

*2.Pulmonary blastoma*

*3.Malignant lymphoma*

*Secondary tumours*

**CAUSES AND RISK FACTORS**

1. Smoking
2. Passive smoking
3. Asbestos fibers
4. Radon gas
5. Familial predisposition
6. Lung diseases
7. Prior history of lung cancer
8. Air pollution

**Signs and symptoms**

* No symptoms
* Weight loss
* Cough
* Shortness of breathing
* Chest pain
* Hemoptysis

**STAGES OF LUNGS CANCER**

**1) STAGE 1:** cancer is found in the lungs but it has not spread outside the lungs.

**2) STAGE 2 :** Cancer is found in the lungs and spread nearby lymphnodes.

**3) STAGE 3:** cancer is in the lungs and lymph nodes in the middle of the chest.

**STAGE 3A:**  cancer is founds in lymph nodes ,but only on the same side of the chest where cancer first started growing.

**STAGE 3B:** cancer has spread to lymph nodes on the opposite side of the chest or to lymph nodes above the collarbone.

**STAGE 4:** cancer spread to both lungs, into the area around the lungs, or to distant organs

**DIAGNOSTIC INVESTIGATIONS**

* History taking and physical examination
* Chest x-ray
* CT-scan
* MRI
* Positron emission tomography(PET)
* Sputum cytology
* Bronchoscopy
* Needle biospy
* Thoracocentesis
* Blood test (sgot,sgpt,other cancer biomarker)

**TREATMENT**

* Surgical removal
* Chemotherapy
* Radiation therapy
* Photodynamic therapy
* Palliative and hospice care

**NURSING MANAGEMENT**

* Elevate the head of the bed to ease the work of breathing
* Teach breathing retraining exercises to increase diaphramatic excursion and reduce the work of breathing.
* Provide humidifier or vaporized to provide moisture to loosen screations.
* Allow the severly dyspneic patient to sleep in reclining chair.
* Encourage the patient to conserve energy by decreasing activities.
* Ensur adequate protine intake such as milk, egg, oral nutritional supplements, chicken – to promote healing and prevent edema.
* Advice patient to eat small amount of high calorie and high protine foods frequently, rather than three daily meals.
* Change the diet consistency to soft or liquid if patient has esophagitis from radiation therapy.
* Consider alternative pain control methods such as biofeedback and relaxation methods, to increase the patients sense of control.

**COMPLICATIONS**

* Shortness of breath
* Coughing up blood
* Pain
* Pleural effusion
* Metastasis

**PREVENTION**

* Don’t smoke
* Avoid second hand smoke
* Limit the intake of alcohol
* Eat a diet full of fruits and vegetables
* Exercise most day of the week
* Lower the exposure to radon gas
* Avoid the carcinogens at work