

## PULMONOLOGY

CHOOSE THE NUMBERS OF CORRECT ANSWERS:

**1) COPD is characterized by:**

1. productive cough; \*
2. high level of eosinophils in blood;
3. dyspnea;\*
4. heart pain;
5. chest pain.

**2) COPD complications:**

1. pneumosclerosis;\*
2. pancreatitis;
3. myocarditis;
4. right heart failure. \*

CHOOSE THE NUMBER OF CORRECT ANSWER:

**3) Diagnosis of COPD need to be confirmed by:**

1. CT scanning;
2. Spirometry;\*
3. fibrobronchoscopy;
4. US scanning.

CHOOSE THE NUMBERS OF CORRECT ANSWERS:

**4) Mucolytics are:**

2. tetracycline;
3. berotec;
4. acetylcysteine;\*
5. bromhexine;\*
6. prednisolone.

**5) Management of COPD includes:**

1. Bronchosanation;\*
2. Expectorants;\*
3. cytostatics;
4. calcium channel blockers;
5. Bronchodilators.\*

**6) Bronchodilator medications include:**

1. Beta2-agonist;\*
2. Anticholinergic;\*
3. Methylxanthines; \*
4. cholin-agonists;
5. beta2 – blockers.

**7) COPD is needed to be differ with:**

1. asthma;
2. pneumonia;\*
3. acute bronchitis.\*

CHOOSE THE NUMBER OF CORRECT ANSWER:

**8) Test with bronchodilator is positive in the case of increasing of FEV1 more then:**

1. 10%;
2. 15%;\*
3. 20%;
4. 25%.

CHOOSE THE NUMBERS OF CORRECT ANSWERS:

**9) Symptoms of COPD**

1. cough; \*
2. chest pain;
3. dyspnea;\*
4. sputum.\*

**10) COPD is characterized by:**

1. irreversible airflow limitation; \*
2. reversible airflow limitation;
3. airflow limitation that is not fully reversible;\*
4. airflow limitation in COPD is based on;
5. bronchiolitis;\*
6. emphysema;\*
7. Smooth muscle contraction.

CHOOSE THE NUMBER OF CORRECT ANSWER:

**11) Gold standard for the diagnosis and assessment of COPD is**

1. Spirometry;\*
2. Chest X-ray;
3. CT scanning.

**12) The main inflammatory cells in the development of chronic airway inflammation in COPD are:**

1. Neutrophiles, macrophages, CD8 T lymphocytes;\*
2. Eosinophiles, CD4 T lymphocytes.

CHOOSE THE NUMBERS OF CORRECT ANSWERS:

**13) The definition of very severe COPD is based on:**

1.  $FEV1 / FVC < 70 \%$ ;\*
2.  $FEV1 \geq 80 \%$ ;
3.  $50 \% \leq FEV1 < 80 \%$ ;
4.  $30 \% < FEV1 < 50 \%$ ;
5.  $FEV1 \leq 30 \%$ . \*

**14) The definition of severe COPD is based on the levels:**

1.  $FEV1 / FVC < 70 \%$ ;\*
2.  $FEV1 \geq 80 \%$ ;
3.  $50 \% \leq FEV1 < 80 \%$ ;
4.  $30 \% < FEV1 < 50 \%$ ; \*

5.  $FEV1 \leq 30\%$ .

**15) The definition of moderate COPD is based on the levels**

1.  $FEV1 / FVC < 70\%$ ;\*;
2.  $FEV1 \geq 80\%$ ;
3.  $50\% \leq FEV1 < 80\%$ ; \*
4.  $30\% < FEV1 < 50\%$ ;
5.  $FEV1 \leq 30\%$ .

**16) The definition of mild COPD is based on the levels:**

1.  $FEV1 / FVC < 70\%$ ;\*;
2.  $FEV1 \geq 80\%$ ; \*
3.  $50\% \leq FEV1 < 80\%$ ;
4.  $30\% < FEV1 < 50\%$ .

**17) Atopic asthma is characterized by:**

1. high sputum production;
2. low sputum production; \*
3. allergy; \*
4. hypersensitivity to aspirin;\*
5. acute respiratory infections.

**18) The results of spirometry in asthma are characterised by:**

1. Decrease of VC;
2. decrease of  $FEV1$ ; \*
3. decrease of  $FEV1/FEV$ ;\*
4. negative test with bronchodilator;
5. positive test with bronchodilator. \*

**19) In the management of asthma attack are used:**

1. ephedrine; \*
2. nitroglycerine;
3. berotec;\*
4. beclomethasone;\*
5. prednisolone;\*
6. intal.\*

**20) What are drugs contraindicated to be used in asthma?**

1. Anaprilin;\*
2. Reserpin;\*
3. sustac;
4. isoptin;
5. nifedipin.

**21) What are drugs used in the prevention management of asthma?**

1. Long acting beta2 agonists;\*
2. Short acting beta2 agonists;

3. cromones;\*
4. inhaled glucocorticosteroids.\*

**22) Primary airway hyper reactivity is characterized by wheezing as a result of**

1. inhalation of cold; \*
2. respiratory viral infection; \*
3. dust.

**23) In the management of asthma attack usually used**

1. short acting beta 2 agonist;
2. Glucocorticosteroids;\*
3. Theophylline; \*
4. Cromonesl.

**24) The signs of "status asthmaticus" are:**

1. Viscous sputum;
2. dry cough;
3. haemoptisis;
4. no results of using inhaled beta2 agonists;\*
5. hypoxemia;\*
6. hypercapnia;\*
7. sputum eosinophilia.

**25) Mild intermimment asthma is characterised by:**

1. symptoms < 1 time a week;\*
2. night symptoms not more then 2 times a month; \*
3. FEV1 ore PEF < 80%;
4. PEF variability > 20%.

**26) Mild persistent asthma is characterised by**

1. symptoms > 1 time a week < 1 time a day;\*
2. attacks may affect activity;\*
3. night symptoms more then 1 time a month; \*
4. FEV1 ore PEF > 80%;
5. PEF variability < 20%.

**27) Moderate persistent asthma is characterised by**

1. night symptoms more then 1 time a month; \*
2. FEV1 ore PEF > 80%;
3. PEF variability < 20%;
4. daily symptoms;\*
5. attacks affect activity;\*
6. night symptoms more then 1 time a week;\*
7. FEV1 ore PEF 40%-60%;
8. PEF variability < 30%.

**28) Severe persistent asthma is characterised by**

1. daily symptoms;\*
2. frequent night symptoms; \*
3. limited physical activity;\*
4. FEV1 or PEF > 60%;
5. PEF variability < 30%.

**29) Complications of pneumonia are:**

1. acute respiratory failure; \*
2. chronic respiratory failure;
3. lung bleeding;
4. pulmonary embolism;
5. lung abscess.\*

**30) In pneumonia pathological process is localized in:**

1. major bronchi;
2. moderate bronchi;
3. small bronchi;\*
4. alveoli.\*

**31) Main symptoms in pneumonia are:**

1. productive cough;\*
2. fever, weakness;\*
3. heart pain;
4. Chest (pleuritic) pain.\*

**32) Risk factors of pneumonia:**

1. cold;\*
2. acute respiratory infection;\*
3. food intoxication;
4. Reducing of resistance of macroorganism (tiredness, stress...).\*

**33) Main physical signs in pneumonia are:**

1. tympanic sound;
2. dull sound; \*
3. small bubbling rales;\*
4. large bubbling rales.

**34) The management of asthma usually includes using of:**

1. Antibiotics;
2. Bronchodilators;\*
3. Antihistamine drugs;
4. Steroids;\*
5. Cromons. \*

**35) In the case of pulmonary atelectasis you need to carry out:**

1. antibiotic treatment;

2. expectorants;\*
3. fibrobronchoscopy.\*

**36) The primary etiology of community-acquired pneumonia:**

1. Streptococcus pneumoniae;\*
2. Mycoplasma pneumoniae;\*
3. Hemophilus influenzae; \*
4. Staphylococcus aureus;
5. Cytomegalovirus.

**37) The etiology of lung abscess is:**

1. Klebsiella;\*
2. Staphylococcus aureus;\*
3. Streptococcus pneumoniae;
4. Mycoplasma pneumoniae.

**38) Pharmacological asthma treatment includes using of:**

1. Tilade;\*
2. Intal;\*
3. Metoprolol;
4. Salbutamol.\*

**39) Main symptoms of COPD:**

1. cough;\*
2. sputu;\*
3. expiratory dyspnea;\*
4. chest pain;
5. hemoptysis.

**40) The presence of airflow obstruction in COPD is based on:**

1. chronic inflammation throughout the airways;\*
2. parenchymal destruction;\*
3. bronchoconstriction.

**41) Pleural fluid characteristics in the case of pneumonia:**

- a) Total protein >30g/l;\*
- b) PH >7,2;\*
- c) Total protein <30g/l;
- d) Atypical cells;
- e) PH < 7,2.

**42)  $\beta_2$  agonists using in asthma treatment are**

1. Salbutamol;\*
2. Fenoterol;\*
3. Metoprolol;
4. Formoterol.\*

**43) Common etiology agents in AIDS pneumonia:**

1. Streptococcus pneumoniae;
2. Mycoplasma pneumoniae;
3. Pneumocyst;\*
4. fungous.\*

**44) Main asthma symptoms are:**

1. cyanosis;
2. weezing;\*
3. cough;\*
4. purulent sputum.

CHOOSE THE NUMBER OF CORRECT ANSWER:

**45) Management of asthma attack includes using of:**

1. dibasol;
2. promedol;
3. euphilline;\*
4. mezatol.

**46) Chest pain in pneumonia is due to:**

1. bronchitis;
2. a local pleuritic reaction;\*
3. affection of alveoli;
4. affection of respiratory muscles.

**47) In the case of viscous sputum usually use**

1. expectorants;\*
2. codein;
3. libexin;
4. beta-blockers.

**48) Main symptom in asthma is:**

1. Chest pain;
2. cough with purulent sputum;
3. weezing;\*
4. haemoptisis.

**49) Expiratory dyspnea is characterized by difficulty in :**

1. inspiration;
2. expiration;\*
3. inspiration + expiration.

**50) Auscultation in asthma attack can reveal**

1. crepitation;
2. dry rales;\*
3. moist rales;
4. pleural rubs.

**51) In patient with lung abscess in the morning there was an expectoration of large volume of purulent sputum. What do suspect after that in his condition:**

1. worsening;
2. any changes;
3. improvement. \*

**52) Bronchiectasis** are usual characterised by:

1. evening cough without sputum;
2. morning cough with sputum;\*
3. morning nonproductive cough;
4. viscous sputum in any time.

**53) Affect of crepitating during auscultation is common in the case of:**

1. bronchitis;
2. asthma;
3. pneumonia;\*
4. pleural effusion.

**54) Diagnosis of pneumonia should be confirmed by:**

1. Sputum culture;
2. Blood test;
3. Chest X-ray;\*
4. Thoracocentesis.

**55) Pleural rubs is noticed:**

1. during an inhalation; \*
2. during an exhalation;
3. the whole breath;
4. in stopping breathing.

**56) The character of sputum in bronchiectasis is:**

1. "rusty";
2. viscous;
3. purulent;\*
4. pink.

**57) Management of asthma includes:**

1. Avoid exposure of risk factors;
2. Assess and monitor asthma severity;
3. Establish individual medication plans for long term management ;
4. a stepwise approach to pharmacologic treatment
5. all together\*

CHOOSE THE NUMBERS OF CORRECT ANSWERS:

**58) Symptoms of pneumothorax:**

1. Dyspnea\*



2. cyanosis \*
3. cough \*
4. hypertension

CHOOSE THE NUMBER OF CORRECT ANSWER:

**62) Weight loss, haemoptysis, chest pain are more common for**

1. acute bronchitis
2. asthma
3. pneumonia
4. lung cancer\*

**60) Management of mild intermittent asthma includes:**

1.  $\beta_2$  agonists as needed; \*
2. inhaled glucocorticosteroid 200 - 500  $\mu\text{g}$  /day;
3. cromones before physical activity or possible contact with allergen;
4. glucocorticosteroid per os;
5. theophylline .

CHOOSE THE NUMBERS OF CORRECT ANSWERS:

**61) Status asthmaticus is characterized by: :**

1. severe cough;
2. hypotension;
3. severe dyspnea;\*
4. hypercapnia;\*
5. hypoxemia.\*

**62) Risk factors of COPD:**

1. cold;
2. smoking;\*
3. airway pollution;\*
4.  $\alpha$ -1antitrypsin deficiency.\*

**63) COPD complications are:**

1. right heart failure; \*
2. respiratory failure; \*
3. status asthmaticus;
4. pneumonia.

CHOOSE THE NUMBER OF CORRECT ANSWER:

**64) The data of spirometry is analyzed according to:**

1. predicted values;\*
2. normal values;
3. absolute values.

**65) Emphysema is :**

1. abnormal permanent enlargement of the airspaces distal to the terminal bronchioles, accompanied by destruction of their walls and without obvious fibrosis; \*

2. abnormal permanent enlargement of the airspaces proximal to the terminal bronchioles, accompanied by destruction of their walls and without obvious fibrosis.

**66) Age of patient suffered with COPD is usual:**

1. <30;
2. > 40;\*
3. 20-30.

**67) The results of spirometry in asthma are usual in remission**

1. Differ from each other;
2. May be normal.\*

CHOOSE THE NUMBERS OF CORRECT ANSWERS:

**68) “Blue bloaters” as a type of COPD are characterised by:**

1. central cyanosis at rest or on mild exertion; \*
2. large sputum volume;\*
3. small sputum volume.

**69) “Pink puffers” as a type of COPD are characterized by:**

1. central cyanosis at rest or on mild exertion
2. large sputum volume
3. small sputum volume\*
4. emphysema on CT scan\*

CHOOSE THE NUMBER OF CORRECT ANSWER:

**70) How many subtypes of pulmonary muscarinic receptors are known?**

1. 2;
2. 3;\*
3. 4.

**71) Function of pulmonary neuronal M<sub>1</sub> muscarinic receptors :**

1. To provide the conduction of acetylcholine\*
2. to provide a negative feedback mechanism whereby acetylcholine released from the vagus nerve stimulates the muscarinic receptors and inhibits further release of acetylcholine.
3. to provide the dominant innervation of the airway smooth muscle and cause its contraction

**72) Function of pulmonary neuronal M<sub>2</sub> muscarinic receptors**

1. to provide a negative feedback mechanism whereby acetylcholine released from the vagus nerve stimulates the muscarinic receptors and inhibits further release of acetylcholine\*
2. to provide the dominant innervation of the airway smooth muscle and cause its contraction

**73) Function of pulmonary neuronal M<sub>3</sub> muscarinic receptors**

1. to provide the dominant innervation of the airway smooth muscle and cause its contraction \*
2. to provide a negative feedback mechanism whereby acetylcholine released from the vagus nerve stimulates the muscarinic receptors and inhibits further release of acetylcholine

**74) Protein concentrations in pleural fluid <20 g/l is a sign of :**

1. Transudate
2. exudates\*

CHOOSE THE NUMBERS OF CORRECT ANSWERS:

**75) Characteristics of parapneumonic pleural effusions:**

1. pH >7.2 \*
2. LDH <1000 IU/l \*
3. Glucose >2.2 mmol/l \*
4. pH <7.2
5. Glucose <2.2 mmol/l \*

**76) Causes of transudative pleural effusions:**

1. malignancy\*
2. pneumonia
3. Hypotireoidism\*
4. Congestive heart failure\*
5. Pulmonary embolism\*

CHOOSE THE NUMBER OF CORRECT ANSWER:

**77) Causes of exudative pleural effusions:**

1. malignancy
2. pneumonia\*
3. hypotireoidism
4. congestive heart failure
5. pulmonary embolism

**78) Chest pain which is intensified by deep breathing indicates about:**

1. involvement of the parietal pleura and/or the accompanying fascia is inflamed or infiltrated\*.
2. involvement of the visceral pleura

CHOOSE THE NUMBERS OF CORRECT ANSWERS:

**79) Main symptom of pleural effusion:**

1. Dyspnea\*
2. weezing
3. cough\*

**80) Pleural effusion leads to:**

1. Decrease of VC\*
2. Increase of VC
3. Increase of FEV1/VC\*
4. Decrease of FEV1/VC

**81) Diagnosis of smaller pleural effusion should be performed by:**

1. Ultrasound scan\*
2. Chest X-ray

3. CT scan

**82) Respiratory symptoms in pleural disease:**

1. Chest (pleuritic) pain\*
2. Cough\*
3. hemoptisis
4. dyspnoea\*

CHOOSE THE NUMBER OF CORRECT ANSWER

**83) Pleural fluid glucose level < 2,22 mmol/l indicates:**

1. high risk of empyema
2. low risk of empyema \*

**84) Severe pneumonia is**

1. двух или многодолевое поражение\*
2. плевральный выпот
3. лейкоцитоз

CHOOSE THE NUMBERS OF CORRECT ANSWERS

**85) The syndrome of bronchitis is defined in case of :**

1. Productive cough;\*
2. Harsh breathing; \*
3. Rales : moist, fine-bubbling, crackling, sonorous\*
4. Weakness breathing

**86) The syndrome of pulmonary consolidation is defined in case of**

1. Bronchial respiration, \*
2. Crepitation (initial, recurrent)\*
3. Patchy or lobar infiltrates on chest x-ray\*
4. Productive cough;
5. Harsh breathing;
6. Rales : moist, fine-bubbling, crackling, sonorous

**87) The diagnosis of pulmonary atelectasis is possible in:**

1. Large sputum volume
2. changes in auscultation picture\*
3. характерная рентгенологическая картина\*
4. small sputum volume\*

**88) The antibiotic management of pneumonia includes using of what generation of fluoroquinolones**

1. 1 generation
2. 2 generation
3. 3 generation \*
4. 4 generation \*

**89) Symptoms of bronchoectasis:**

1. Cough\*
2. Purulent sputum\*
3. Dyspnea\*
4. Haemoptisis\*
5. weezing

CHOOSE THE NUMBER OF CORRECT ANSWER

**90) Is allergy common a symptom of COPD:**

1. yes
2. no\*

**91) COPD is characterized by:**

1. Acute onset
2. Progressive onset\*

CHOOSE THE NUMBERS OF CORRECT ANSWERS:

**92) Physical examination in pleural effusion reveals:**

1. A dull sound in percussion\*
2. Harsh breathing;
3. Rales : moist, fine-bubbling, crackling, sonorous
4. pleural rubs \*

**93) Chest –x ray reveals in the case of pleural effusion:**

1. An oblique level of the shadow\*
2. Displaced of mediastinal shadow towards the affected side
3. A horizontal level of the shadow
4. Displaced of mediastinal shadow towards the unaffected side\*

CHOOSE THE NUMBER OF CORRECT ANSWER:

**94) The sings of empiema**

1. Low level of glucose\*
2. High level of glucose
3. High level of LDG\*
4. Low level of LDG

**Please choose a correct answer**

**95) Test with bronchodilator is positive in the case of increasing the level of FEV1 more:**

1. 200 ml.\*
2. 100 ml.
3. 150 ml
4. 300 ml.

**96) To carry out the test with bronchodilator usually used**

1. Short acting b2-agonist \*
2. Long acting b2-agonist
3. cholinblockers
4. Methylxanthines

CHOOSE THE NUMBERS OF CORRECT ANSWERS:

**97) Препараты, используемые для контроля за бронхиальной астмой:**

1. Budesonid\*;
2. Intal\*;
3. Salbutamol;
4. Formoterol\*

**98) Management of status asthmaticus includes using of:**

1. short acting beta 2 agonist
2. Glucocorticosteroids\*
3. Theophylline \*
4. Cromonesl

**99) Mucolitics are:**

1. acetylcystein; \*
2. ambrohexal; \*
3. амоксициллин;
4. Ventolin;
5. budesonid.

**100) The etiology of lung abscess in pneumonia is:**

1. Klebsiella\*
2. Legionella;
3. Mycoplasma pneumoniae ;
4. Staphylococcus aureus\*
5. Streptococcus pneumoniae

**101) Diagnosis of bronchoectatic deases should be confirmed by:**

1. bronchography \*
2. CT scan; \*
3. Blood test;
4. spyrometry;

**102) Etiology of community acquired pneumonia:**

1. Streptococcus pneumoniae\*
2. Mycoplasma pneumoniae-\*
3. Hemophilus influenzae \*
4. P.aureginosa

**103) Etiology of acute right heart failure**

1. valvular pneumothorax\*
2. pneumomediastinum\*
3. asthma attack\*
4. pneumonia
5. pulmonary embolism\*

**104) Etiology of chronic right heart failure**

1. primary pulmonary hypertension\*
2. recurring pulmonary embolism
3. COPD
4. kyphoscoliosis\*
5. obesity, alveolar hypoventilation\*

**105) Main symptoms in pulmonary embolism:**

1. respiratory failure\*
2. pulmonary infarction\*
3. pleural effusion\*
4. acute right heart failure\*
5. hypertension

**106) Patient complaints in pulmonary embolism**

1. Acute sudden dyspnea\*
2. chest pain \*
3. haemoptysis\*
4. hypotension\*
5. hypertension

**107) Physical examination in pulmonary embolism reveals:**

1. paleness, cyanosis\*
2. weakening breathing, small bubbling] rales, pleural rubs\*.
3. tachycardia\*
4. aortic accent of the second sound
5. hypotension\*
6. pulmonic accent of the second sound\*.
7. jugular venous distention \*

**108) Diagnosis of pulmonary embolism should be confirmed by:**

1. angiography ; \*
2. ventilation-perfusion scintigraphy\*
3. Chest ultrasound scan
4. CT scan\*

**109) Diagnosis of cor pulmonale should be confirmed by :**

1. angiography ; \*
2. ventilation-perfusion scintigraphy\*
3. Chest ultrasound scan
4. CT scan\*
5. cardiac ultrasound\*

**110) Classification by Votchal divides possible types of cor pulmonale :**

1. vascular \*
2. chest-diaphragmatic\*

3. pulmonary\*
4. vascular-bronchial

**111) Acute cor pulmonale may be**

1. vascular\*
2. chest-diaphragmatic
3. pulmonary\*
4. vascular-bronchial

**112) Chronic cor pulmonale may be:**

1. vascular
2. chest-diaphragmatic\*
3. pulmonary\*
4. vascular-bronchial

**113) ADD:**

**Pulmonary vasoconstriction as a result of hypoventilation is a reflex named by \_\_\_\_\_ (Euler, Liljestrand)**

CHOOSE THE NUMBERS OF CORRECT ANSWERS:

**114) The management of chronic cor pulmonale includes using of:**

1. calcium channel blockers \*
2. antibiotics
3. diuretics \*
4. ACE-inhibitor\*
5. oxygen supplement \*
6. heparin \*

**115) The management of acute cor pulmonale includes using of:**

1. Calcium channel blockers \*
2. Antibiotics
3. diuretics \*
4. ACE-inhibitor\*
5. oxygen supplement \*
6. heparin \*



## CORRECT ANSWERS

1	1,3	39	1,2,3	77	2
2	1,4	40	1,2	78	1
3	2	41	1,2	79	1,3
4	4,5	42	1,2,4	80	1
5	1,2,5	43	1,2,3,4	81	1
6	1,2,3	44	2,3	82	1,2,4
7	2,3	45	3	83	2
8	2	46	2	84	1
9	1,3,4	47	1	85	1,2,3
10	1,3,5,6	48	3	86	1,2,3
11	1	49	2	87	2,3,4
12	1	50	2	88	3,4
13	1,5	51	3	89	1,3,4
14	1,4	52	2	90	2
15	1,3	53	3	91	2
16	1,2	54	3	92	1,4
17	1,3,4	55	1	93	1,4
18	2,3,5	56	3	94	3
19	1,3,4,5,6	57	5	95	1
20	1,2	58	1,2,3	96	1
21	1,3,4	59	4	97	1,2,4
22	1,2	60	1	98	2,3
23	2,3	61	3,4,5	99	1,2
24	4,5,6	62	2,3,4	100	1,4
25	1,2	63	1,2	101	2
26	1,2,3	64	1	102	1,2,3
27	1,4,5,6	65	1	103	1,2,3,5
28	1,2,3	66	2	104	1,4,5
29	1,5	67	2	105	1,2,3,4
30	3,4	68	1,2	106	1,2,3,4
31	1,2,4	69	3,4	107	1,2,3,5,7
32	1,2,4	70	2	108	1,2,4
33	2,3	71	1	109	1,2,3,5
34	2,4,5	72	1	110	1,2,3
35	2,3	73	1	111	1,3
36	1,2,3	74	2	112	2,3
37	1,2	75	1,2,3,5	113	Euler Lilystrand
38	1,2,4	76	1,3,4,5	114	1,3,4,5,6
				115	1,3,4,5,6