"The Orenburg state medical University"

**METHODICAL DEVELOPMENT**

**FOR THE TEACHER TO CONDUCT PRACTICAL LESSON 9**

Theme " Immunoprophylaxis of infectious diseases (Part 2) "

**DISCIPLINE "EPIDEMIOLOGY"**

**WITH STUDENTS OF THE 5TH COURSE
OF THE FACULTY OF FOREIGN**

Methodical recommendations are developed

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**Module 2. Epidemiological control**

# 1. The competence generated:

|  |  |  |
| --- | --- | --- |
| Cipher competence  | № competence | Elements of competence |
| Cultural competence | СС-1 | ability for abstract thinking, analysis, synthesis; |
| General professional competence | GPC-1 | willingness to solve standard tasks of professional activity with the use ofinformation, bibliographic resources, biomedical terminology, information and communication technologies and taking into account the basic requirements of information security; |
| Professional competence  | PC-3 | ability and willingness to undertake anti-epidemic measures, organisation of protectionthe population in the foci of particularly dangerous infections, the deterioration of the radiation situation, natural disasters andother emergencies |

## Practical lesson № 9

# 2. Subject:

Immunoprophylaxis of infectious diseases (part 2)

# 3. Objective:

To acquire knowledge of modern methods of immunoprophylaxis of infectious diseases.

# 4. Tasks:

***Training:***

* To study the features of the formation of artificial immunity.
* To study the peculiarities of the formation of collective immunity.
* To study modern preparations for immunoprophylaxis.
* Examine contraindications for immunoprophylaxis.
* Examine сonditions after vaccination
* To know the features of the national immunization calendar

***Educational:***

* Have an idea of modern methods of immunoprophylaxis

***Raising:***

* To possess knowledge of the application of methods of immunization in practice.
* To have knowledge of the use of the national immunization calendar in practice

# 5. Questions for consideration:

* Organization of immunization
* National schedule of immunization

# 6. Basic concepts of the theme

* The schedule of immunization
* National schedule of immunization
* Postexposure immunization
* Precautional immunization

# 7. Recommended reading:

1. Main literature:

* Methodical recommendations «Modern epidemiological methods in medical practice» of the Department of Epidemiology and Infectious Diseases
* Rothman, Kenneth J.; Greenland, Sander; Lash, Timothy L. Modern epidemiological. 3rd edition. 2008 Lippincott Williams & Wilkins. 1581 p.

2. Additional literature:

* O.V. Kovalishena, V.V. Shkarin, N.V. Saperkin, M.M. Khramtsov. Epidemiology of inflectional disease. Учебник. Издательство: «Смоленская городская типография», 2016. 284 с.

# 8. Activity and time of lesson

|  |  |  |  |
| --- | --- | --- | --- |
| № | The stages and content of the classes | The methods used | time |
| 1  | The organizational part. The announcement of the theme, the objectives of the class.Readiness assessment of the classroom, equipment and students.Brief description of the stages and content of work of students in the class. |  | 5 minutes |
| 2 | Incoming control of knowledge, abilities and skills of students.The terminological dictation | HandoutA written answer to the question | 5 minutes |
| 3 | Updating of theoretical knowledge  | Analysis of theme elements and the construction of logical graphs on the board. | 1 hour 15 minutes |
| 4 | The development of practical skills. Case solving. | Cases | 30 minutes |
| 5 | Quality control of the formed competence /elements of competence (knowledge and skills) students on lessons Output control | Written test | 15 minutes |
| 6 | The final part of the class:Summarizing, the findings on the topic.Homework | - | 10 minutes  |

# 9. Form of organization class

instructional workshop (workshop)

# 10. Learning tools:

- logistics (multimedia projector)

## Incoming control

|  |  |
| --- | --- |
| **Task**  | **Answer** |
| The schedule of immunization |  |
| Active immunity |  |
| Passive immunity |  |
| Postexposure immunization |  |
| Precautional immunization |  |

## Output control

Choose some correct answers.

1. Examples of the inactivated vaccines among listed below:

1) against poliomyelitis

2) against rabies

3) against hepatitis В

4) against mumps

1. Artificial immunity occurs when:

1) individuals are immunized with vaccines

2) individuals suffered from an infectious disease

3) individuals are immunized with immunoglobulins

4) individuals are immunized with serum

1. Natural immunity occurs when:

1) a person is immunized with toxoids

2) a person is immunized with live vaccines

3) a person is immunized by minimal dose of infective agent

4) a person is exposed to biologic agents as he/ she suffers from infection

1. The contraindications for immunization w ith opv are the following:

1) patients with immunodeficiency

2) people with evolving neurologic disorders

3) household contacts of immunodeficient patients

4) mild respiratory diseases without fever

1. The contraindications for immunization with mmr are:

1) pregnancy

2) history of anaphylactic reactions to neomicines

3) postexposure prophylaxis

4) respiratory diseases with fever

1. Phases of immune response to vaccination include:

1) plateau phase

2) lag phase

3) log phase

4) decline phase

1. Appropriate schemes of immunization for hepatitis в (according to Russian schedule) are:

1) 0, 1, 3

2) 0, 1, 6

3) 0, 1, 2, 12

4) 0, 1, 2, 24

1. Infections, which are accessible for the schedule child immunoprophylaxis in Russia:

1) rotaviral infection

2) diphtheria

3) mumps

4) scarlet fever

1. Match the heterologous preparations with the material:

a) serum (plasma) of the blood donors;

b) serum (plasma) of hyper-immunized horses’ blood;

c) serum of hyper-immunized animals;

d) placental blood (of women recently confined).

1. Match the homologous preparations with the material:

a) serum (plasma) of the blood donors;

b) serum (plasma) of hyper-immunized horses’ blood;

c) serum of hyper-immunized animals;

d) placental blood (of women recently confined).

1. Match the active natural type of immunity with the way of immunity acquisition:

a) convalescents;

b) subclinical form of infection;

c) usage of live vaccine;

d) usage of inactivated vaccine.

1. Match the active artificial type of immunity with the way of immunity acquisition:

a) convalescents;

b) subclinical form of infection;

c) usage of live vaccine;

d) usage of inactivated vaccine.

1. Match the passive artificial of immunity with the way of immunity acquisition:

a) injection of heterologous immunoglobulin;

b) transmission of antibodies from mother to infant;

c) injection of homologous immunoglobulin;

d) injection of heterologous serum.

Pick a word.

1. The complex of measures for prevention and restriction of the spread of the infectious diseases, eradication some of diseases by conducting prophylactic immunization is … (immunoprophylaxis).
2. The proportion of certain aged children, who was vaccinated, to common amount of children of a given age, being expressed in percentage, is called … (immunization coverage).
3. The share oi persons, with specific im to a certain infection in the estimated group, is … (herd immunity).

**Answers**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1.1,2,3 | 11.a,b |  |  |  |  |  |  |
| 2.1,3,4 | 12.c,d |  |  |  |  |  |  |
| 3.3,4 | 13.a,c,d |  |  |  |  |  |  |
| 4.1,3 |  |  |  |  |  |  |  |
| 5.1,2 |  |  |  |  |  |  |  |
| 6.2,3,4 |  |  |  |  |  |  |  |
| 7.2,3 |  |  |  |  |  |  |  |
| 8.2,3 |  |  |  |  |  |  |  |
| 9.b,c |  |  |  |  |  |  |  |
| 10.a,d |  |  |  |  |  |  |  |