



SELECTED QUESTIONS OF IMMUNIZATION

(preparation for “Krok-2” in 2018)

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ДЕРЖАВНА ОРГАНІЗАЦІЯ
«ЦЕНТР ТЕСТУВАННЯ ПРОФЕСІЙНОЇ КОМПЕТЕНТНОСТІ
ФАХІВЦІВ З ВИЩОЮ ОСВІТОЮ НАПРЯМІВ ПІДГОТОВКИ
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№ 242

Першим проректорам закладів вищої освіти, що здійснюють підготовку фахівців за спеціальністю «Медицина»

Про додаткову підготовку студентів з питань профілактики захворювань, вакцинації та імунізації

Шановні колеги!

Враховуючи те, що за результатами наради-тренінгу «Якість освіти з вакцинації: експертиза змісту ліцензійних іспитів та тестових завдань на відповідність міжнародним вимогам», проведеної Центром тестування спільно з Представництвом Дитячого фонду ООН (ЮНІСЕФ) 07.12.2018 для голів та заступників голів комітетів фахової експертизи ліцензійного іспиту «Крок 2. Загальна лікарська підготовка», до іспиту «Крок 2. Загальна лікарська підготовка» 2018 року у межах терапевтичного, хірургічного, педіатричного, акушерсько-гінекологічного профілів будуть включені питання, що фокусуються на пріоритетних актуальних питаннях профілактики захворювань, вакцинації та імунізації.

Наголошуємо, що структура змісту іспиту не змінилася і відповідає тій, що була у 2017 році.

У зв'язку з численними зверненнями студентів щодо підготовки до складання ліцензійного іспиту «Крок 2. Загальна лікарська підготовка» у 2018 році Центр тестування надсилає Вам додатковий перелік джерел, які рекомендовані експертами та авторами тестових завдань:

▪ Рекомендації ACIP (Advisory Committee on Immunization Practices) щодо вакцин порти групи: <https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/flu.html>;

▪ Рекомендації ACIP щодо вакцин АКДП (ацелюлярної) та двокомпонентної вакцини проти правця та дифтерії: <https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/tdap-td.html>

▪ Вакцинація проти кору, епідемічного паротиту, краснухи: <https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/mmr.html>

- *Вакцинація проти папілома вірусу людини:*
<https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/hpv.html>
- *Вакцинація проти пневмококової інфекції:*
<https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/pneumo.html>
- *Рекомендації Всесвітньої організації охорони здоров'я щодо профілактичних щеплень – довідкові таблиці*
http://www.who.int/immunization/policy/immunization_tables/en/.

Центр тестування рекомендує використовувати ці джерела у підготовці студентів до складання ліцензійного іспиту «Крок 2. Загальна лікарська підготовка».

Заступник директора



Л.П. Войтенко



INTERNET RESOURCES FOR PREPARING TO THE LICENSED EXAM “KROK-2”

- <https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/flu.html>
- <https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/tdap-td.html>
- <https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/c/mmr.html>
- <https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/hpv.html>
- <https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/c/pneumo.html>
- <http://www.who.int/immunization/policy/immunization> tab



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Step 2 CK

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Overview

Step 2 assesses whether you can apply medical knowledge, skills, and understanding of clinical science essential for the provision of patient care under supervision and includes emphasis on health promotion and disease prevention. Step 2 ensures that due attention is devoted to principles of clinical sciences and basic patient-centered skills that provide the foundation for the safe and competent practice of medicine under supervision.

Step 2 CK is constructed according to an integrated content outline that organizes clinical science material along two dimensions: physician task and disease category.

Step 2 CK is a **one-day** examination. It is divided into eight 60-minute blocks,

Step 2 CK Content Description

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Introduction to Vaccination

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History of Vaccination

3 questions

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Vaccine Components: Antigen, Carrier and Adjuvant

3 questions

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Types of Vaccines (1): Live Attenuated Vaccines and Inactivated Vaccines

3 questions

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Vaccination: Subunit Vaccines, Toxoid Vaccines, Look on Conjugate Vaccines

4 questions

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Future Needs for Vaccines: Influenza, Malaria, Tuberculosis, HIV

4 questions

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Support

Modern Immunization Concept by WHO

- Immunization is the most affordable and most economical way to reduce infant mortality and achieve active longevity in all social groups in developed and developing countries.
- Every child of any nationality and any social group has the right to be vaccinated. It's just right, like the human right to life

Table 1: Summary of WHO Position Papers – Recommendations for Routine Immunization

Antigen		Children (see Table 2 for details)	Adolescents	Adults	Considerations (see footnotes for details)
Recommendations for certain regions					
Japanese Encephalitis ¹¹		Inactivated Vero cell-derived vaccine: generally 2 doses Live attenuated vaccine: 1 dose Live recoMBinant vaccine: 1 dose			Vaccine options and manufacturer’s recommendations; Pregnancy; Immunocompromised
Yellow Fever ¹²		1 dose, with measles containing vaccine			
Tick-Borne Encephalitis ¹³		3 doses (> 1 yr FSME-Immun and Encepur; > 3 yrs TBE-Moscow and EnceVir) with at least 1 booster dose (every 3 years for TBE-Moscow and EnceVir)			Definition of high-risk Vaccine options; Timing of booster
Recommendations for some high-risk populations					
Typhoid ¹⁴		Typhoid conjugate vaccine (Typbar-TCV®): 1 dose; Vi polysaccharide(ViPS): 1 dose; Ty21a live oral vaccine: 3-4 doses (see footnote); Revaccination for ViPS & Ty21a; every 3-7 years			Definition of high-risk Vaccine options
Cholera ¹⁵		Dukoral (WC-rBS): 3 doses ≥ 2-5 yrs, booster every 6 months; 2 doses adults/children ≥ 6 yrs, booster every 2nd year; Shanchol, Euvchol & mORCVAX: 2 doses ≥1 yrs, booster dose after 2 yrs			Minimum age Definition of high-risk
Meningococcal ¹⁶	MenA conjugate	1 dose 9-18 months (5µg)			2 doses if < 9 months with 8 week interval
	MenC conjugate	2 doses (2-11 months) with booster 1 year after 1 dose (≥12 months)			Definition of high-risk; Vaccine options
	Quadrivalent conjugate	2 doses (9-23 months) 1 dose (≥2 years)			
Hepatitis A ¹⁷		At least 1 dose ≥ 1 year of age			Level of endemicity; Vaccine options; Definition of high risk groups
Rabies ¹⁸		2 doses			PrEP vs PEP; definition high risk; booster
Dengue (CYD-TDV) ¹⁹		3 doses 9-45 years of age			Seroprevalence; Pregnancy & lactation
Recommendations for immunization programmes with certain characteristics					
Mumps ²⁰		2 doses, with measles containing vaccine			Coverage criteria > 80% Combination vaccine
Seasonal influenza (inactivated tri- and qudri-valent) ²¹		First vaccine use: 2 doses Revaccinate annually: 1 dose only (see footnote)	Priority for pregnant women 1 dose ≥ 9 years of age Revaccinate annually		Priority risk groups Lower dosage for children 6-35 months
Varicella ²²		1 - 2 doses	2 doses		Achieve & sustain ≥ 80% coverage Pregnancy Co-admin with other live vaccines

Table 2: Summary of WHO Position Papers - Recommended Routine Immunizations for Children

Antigen		Age of 1st Dose	Doses in Primary Series	Interval Between Doses			Booster Dose	Considerations (see footnotes for details)
				1 st to 2 nd	2 nd to 3 rd	3 rd to 4 th		
Recommendations for all children								
BCG 1		As soon as possible after birth	1					Birth dose and HIV; Universal vs selective vaccination; Co administration; Vaccination of older age groups; Pregnancy
Hepatitis B 2	Option 1	As soon as possible after birth (<24h)	3	4 weeks (min) with DTPCV1	4 weeks (min) with DTPCV2			Premature and low birth weight Co-administration and combination vaccine High risk groups
	Option 2	As soon as possible after birth (<24h)	4	4 weeks (min) with DTPCV1	4 weeks (min) with DTPCV2	4 weeks (min),with DTPCV3		
Polio 3	bOPV + IPV	6 weeks (see footnote for birth dose)	4 (IPV dose to be given with bOPV dose from 14 weeks)	4 weeks (min) with DTPCV2	4 weeks (min) with DTPCV3			bOPV birth dose Transmission and importation risk criteria
	IPV / bOPV Sequential	8 weeks (IPV 1 st)	1-2 IPV 2 bOPV	4-8 weeks	4-8 weeks	4-8 weeks		
	IPV	8 weeks	3	4-8 weeks	4-8 weeks		(see footnote)	IPV booster needed for early schedule (i.e. first dose given <8 weeks)
DTP-containing vaccine 4		6 weeks (min)	3	4 weeks (min) - 8 weeks	4 weeks (min) - 8 weeks		3 Boosters 12-23 months (DTP-containing vaccine); 4-7 years (Td); and 9-15 yrs (Td)	Delayed/ interrupted schedule Combination vaccine; maternal immunization
Haemophilus influenzae type b 5	Option 1	6 weeks (min) 59 months (max)	3	4 weeks (min) with DTPCV2	4 weeks (min) with DTPCV3		(see footnote)	Single dose if >12 months of age Not recommended for children > 5 yrs Delayed/ interrupted schedule Co-administration and combination vaccine
	Option 2		2-3	8 weeks (min) if only 2 doses 4 weeks (min) if 3 doses	4 weeks (min) if 3 doses		At least 6 months (min) after last dose	
Pneumococcal (Conjugate) 6	Option 1	6 weeks (min)	3	4 weeks (min)	4 weeks		(see footnote)	Vaccine options Initiate before 6 months of age Co-administration HIV+ and preterm neonates booster
	Option 2	6 weeks (min)	2	8 weeks (min)			9-15 months	
Rotavirus 7	Rotarix	6 weeks (min) with DTP1	2	4 weeks (min) with DTPCV2				Vaccine options Not recommended if > 24 months old
	Rota Teq	6 weeks (min) with DTP1	3	4 weeks (min) - 10 weeks with DTPCV2	4 weeks (min) with DTPCV3			
Measles 8		9 or 12 months (6 months min, see footnote)	2	4 weeks (min) (see footnote)				Combination vaccine; HIV early vaccination; Pregnancy
Rubella 9		9 or 12 months with measles containing vaccine	1					Achieve and sustain 80% coverage Combination vaccine and Co-administration; Pregnancy
HPV 10		As soon as possible from 9 years of age (females only)	2	6 months (min 5 months)				Target 9-14 year old girls; Multi-age cohort vaccination; Pregnancy Older age ≥ 15 years 3 doses HIV and immunocompromised

Refer to <http://www.who.int/immunization/documents/positionpapers/> for table & position paper updates.

This table summarizes the WHO vaccination recommendations for children.The ages/intervals cited are for the development of country specific schedules and are not for health workers.

National schedules should be based on local epidemiologic, programmatic, resource & policy considerations. While vaccines are universally recommended, some children may have contraindications to particular vaccines.

ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES VACCINES FOR CHILDREN PROGRAM

VACCINES TO PREVENT INFLUENZA

Recommended Vaccination Schedule:

- 6 months through 8 years: 1 or 2 doses, as noted in the current ACIP recommendations
- 9 through 18 years: 1 dose
-

Brand Name	Presentation	Age Indication
Afluria (Trivalent)	0.5 mL pre-filled syringe	> = 5 years
Afluria (Trivalent)	5.0mL multidose vial	> = 5 years
Afluria (Quadrivalent)	0.5 mL pre-filled syringe	> = 5 years
Afluria (Quadrivalent)	5.0mL multidose vial	> = 5years
Fluarix (Quadrivalent)	0.5 mL pre-filled syringe	> = 6 months
Flucelvax (Quadrivalent)	0.5 mL pre-filled syringe	> = 4 years
Flulavan (Quadrivalent))	0.5 mL pre-filled syringe	> = 6 months
Flulavan (Quadrivalent)	5.0 mL multidose vial	> = 6 months
Fluvirin (Trivalent)	0.5 mL pre-filled syringe	> = 4 years
Fluvirin (Trivalent)	5.0 mL multidose vial	> = 4 years
Fluzone (Quadrivalent)	0.25 mL pre-filled syringe	> = 6 through 35 months
Fluzone (Quadrivalent)	0.5mL prefilled syringe/vial	> = 36 months
Fluzone (Quadrivalent)	5.0mL multidose vial	> = 6 months

**ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES VACCINES FOR CHILDREN
PROGRAM****VACCINES TO PREVENT HUMAN PAPILLOMAVIRUS****Eligible Groups :**

All children aged 9 through 18 years.

Recommended number of doses	Recommended dosing schedule	Population
2	0, 6–12 months	Persons initiating vaccination at age 9 through 14 years, except immunocompromised persons
3	0, 1–2, 6 months	Persons initiating vaccination at age 15 through 18 years, and immunocompromised persons ² initiating vaccination at 9 through 18 years

**ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES VACCINES FOR CHILDREN
PROGRAM**

VACCINES TO PREVENT DIPHTHERIA, TETANUS AND PERTUSSIS

Eligible Groups :

Children and adolescents aged 6 weeks through 18 years.

Dose	Age
Primary 1	2 months
Primary 2	4 months
Primary 3	6 months
First Booster (1)	15-18 months
Second Booster (2)	4-6 years
Tdap or Td Booster (3)	11-12 years

VACCINES TO PREVENT DIPHTHERIA, TETANUS AND PERTUSSIS (DTaP, DT, Tdap, and Td)

Dosage Intervals for Vaccination for Diphtheria, Tetanus, and Pertussis Containing Vaccines Vaccine	Minimum Age	Minimum interval between doses			
		Dose 1 to 2	Dose 2 to 3	Dose 3 to 4	Dose 4 to 5
DTaP	6 weeks	4 weeks	4 weeks	6 months	6 months (1)
DTaP-HepB-IPV(2)	6 weeks	4 weeks	4 weeks		
DTaP-Hib-IPV(3)	6 weeks	4 weeks	4 weeks	6 months	
DT	6 weeks	4 weeks	4 weeks	6 months	6 months (1)
DTaP-Hib(4)	15-18 months			6 months	
DTaP-IPV(5)	4 years				6 months (1)
Tdap/Td(6)	11 years				
Tdap/Td Catch –up schedule(7)	7 years	4 weeks	6 months	5 years	

**ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES VACCINES FOR CHILDREN
PROGRAM**

**VACCINES TO PREVENT MEASLES, MUMPS, RUBELLA, AND
VARICELLA**

A. VACCINES TO PREVENT MEASLES, MUMPS, RUBELLA

Eligible groups :

Children 12 months through 18 years of age (may be as young as 6 months of age in an outbreak or prior to international travel).

B. VACCINES TO PREVENT VARICELLA

Eligible groups :

Children at least 12 months through 18 years of age.

C. Combined Measles, Mumps, Rubella, and Varicella Vaccine

Eligible groups :

Children at least 12 months through 12 years of age.

VACCINES TO PREVENT PNEUMOCOCCAL INFECTIONS

- 6,10,14 weeks of life
- At coverage of vaccines at the level of the DTP – prevention of death 262 thousand children of 3-29 months aged
- At the coverage of vaccinations of all children - 407 thousand children(Lancet, 2007; 369:389-396)

Vaccines for children

Vaccine to Prevent Pneumococcal Disease

Eligible groups:

- All children at least **six weeks through 59 months of age and children 60 through 71 months** with certain underlying medical conditions listed in the table below.
- **Children 6 through 18 years of age** who are at increased risk for invasive pneumococcal disease because of anatomic or functional asplenia, including sickle cell disease, HIV-infection or other immunocompromising condition, cochlear implant, or cerebrospinal fluid leak.

Recommended Pneumococcal Conjugate Vaccine Schedule and Dosage Intervals

Age	Vaccination history: total number of PCV7 and/or PCV13 doses received previously	Recommended PCV13 Regimen ¹
2–6 mo	0 doses	3 doses, 8 weeks apart; fourth dose at age 12–15 mos
	1 dose	2 doses, 8 weeks apart; fourth dose at age 12–15 mos
	2 doses	1 dose, 8 weeks after the most recent dose; fourth dose at age 12–15 mos
7–11mo	0 doses	2 doses, 8 weeks apart; third dose at 12–15 mos
	1 or 2 doses before age 7 mo	1 dose at age 7–11 mos, with a second dose at 12–15 mos (≥ 8 weeks later)
12–23 mo	0 doses	2 doses, ≥ 8 weeks apart
	1 dose before age 12 mo	2 doses, ≥ 8 weeks apart
	1 dose at ≥ 12 mo	1 dose, ≥ 8 weeks after the most recent dose ²
	2 or 3 doses before age 12 mo	1 dose, ≥ 8 weeks after the most recent dose ²
	4 doses of PCV7 or other age-appropriate complete PCV7 schedule	1 supplemental dose, ≥ 8 weeks after the most recent dose*
24–59 mo		
Healthy children	Any incomplete schedule	weeks after the most recent dose
	4 doses of PCV7 or other age-appropriate complete PCV7 schedule	1 supplemental dose, ≥ 8 weeks after the most recent dose*
24–71 mo		
Children with underlying medical conditions as defined in Table 1 ³	Any incomplete schedule of ≤ 2 doses	2 doses, one ≥ 8 weeks after the
	Any incomplete schedule of 3 doses	1 dose, ≥ 8 weeks after the most recent dose
	4 doses of PCV7 or other age-appropriate complete PCV7 schedule	1 supplemental dose, ≥ 8 weeks after the most recent dose*
6–18 years		
Children who are at increased risk for invasive pneumococcal disease	Not previously vaccinated with PCV 13	1 dose

**Schedule for vaccination with PPSV23 after PCV13 for children
>2 years of age with underlying medical conditions**

Group	Schedule for PPSV23	Revaccination with PPSV23
Children who are immunocompromised,** have sickle cell disease, or functional or anatomic asplenia	1 dose of PPSV23 administered at age ≥ 2 yrs and ≥ 8 weeks after last indicated dose of PCV13	1 dose 5 years after the first dose of PPSV23
Immunocompetent** children with chronic illness	1 dose of PPSV23 administered at age ≥ 2 yrs and ≥ 8 weeks after last indicated dose of PCV13	Not recommended

Preventive Immunization

Obligatory

Scheduled

Mass

By age

Selective

On the endemic and
enzootic territories

Certain categories of
workers due to the
peculiarities of
production or work
performed by them

Vaccination of children with
a violation of the Calendar

Vaccination of HIV-
infected persons

For health reasons

Against viral hepatitis B
In people with
malignant neoplasms,
hemodialysis, who
receive multiple long-
term transfusions of
donor blood

Under epidemic indications

In case of threat of
transportation, skidding,
spread of infectious disease
to the territory

On leaving the territory,
dangerous for certain
infectious diseases

In the foci of infectious
diseases

Urgent prevention of
rabies and tetanus

In the event of the
emergence of a
extremaly dangerous
infectious disease or
mass spread of a
dangerous infectious
disease

Recommended

- by referring to the doctor
- professional groups
- on endemic territories
- athletes
- servicemen
- persons in closed collectives
- for health reasons
- asocial groups

LIST OF POSSIBLE ADVERSE EVENTS AFTER IMMUNIZATION

I. REACTIONS:

- ▣ Raising the temperature to 39° C;
- ▣ Raising the temperature more than 39 ° C (severe general reaction of the organism);
- ▣ Pain, swelling, soft tissue more than 50 mm, redness at the site of more than 80 mm, 20 mm more infiltration (tight spot);
- ▣ Lymphadenopathy;
- ▣ Headache;
- ▣ Irritability, sleep disturbances;
- ▣ Non-allergic rash genesis;
- ▣ Nausea, stomach pain, indigestion, diarrhea;
- ▣ Catarrhal symptoms;
- ▣ Myalgia, arthralgia;
- ▣ Transient thrombocytopenia.

II. COMPLICATIONS

- ▣ Post-injection abscess;
- ▣ Anaphylaxis and anaphylactoid reactions;
- ▣ Allergic reactions (angioedema, rash like hives, Stevens-Johnson syndrome, Lyell);
- ▣ Febrile seizures;
- ▣ Afebrile seizures;
- ▣ Subcutaneous cold abscess;
- ▣ Superficial ulcers > 10 mm;
- ▣ Regional (e) swelling (s);
- ▣ Keloid scar;
- ▣ Generalized BCG infection, osteomyelitis, osteitis

Vaccination of children with a violation of the Calendar

- ❑ Vaccination of children with a violation of Calendar should be carried out with observing of **minimum intervals**.
- ❑ You should not start a series of vaccinations initially if the dose was missed, regardless of how much time was passed. It is necessary to administrate the doses which are missing, according to the schedule, observing the minimum intervals.
- ❑ **The minimum interval** is the interval allowed for the introduction of a vaccine / toxoid against one and the same infection to persons in violation of this Calendar. The administration of the next dose of vaccine / toxoid at a lower than minimum interval is not counted.
- ❑ When choosing a vaccination scheme, you must follow the manufacturer's instructions for the use of the vaccine / toxoid.

For children from 2 months to 6 years 11 months 29 days

Vaccines, toxoids	Minimum interval between doses		
	1-2 doses	2-3 doses	3-4 doses
DTP, DTaP	1 month	1 months	6 months
DP	1 month	9 months	
Polio	1 month	1 month	6 months
Hepatitis B	1 month	1 month	
MMR	1 month		
Haemophilus influenza type B	1 month, the 2nd dose is not given if the 1st dose is given at the age from 12 months to 4 years 11 months 29 days	6 months, the 3rd dose is not given if the 2nd dose is administered at the age from 12 months to 4 years 11 months 29 days	

For children aged 7 to 17 years 11 months 29 days

Vaccines, toxoids	Minimum interval between doses		
	1-2 doses	2-3 doses	3-4 months
DTP	1 month	6 months	
MMR	1 month		
Hepatitis B	1 month	1 month	
Polio	1 month	1 month	6 months

THE SCHEME OF A CHOICE OF MEDICINE FOR THE REALIZATION OF URGENT SPECIFIC PROPHYLAXIS OF TETANUS

The previous vaccination against tetanus	The age group	Terms after the last administration	Used preparations		
			AT-toxoid (ml)	HATI (IU)	ATS (IU)
1. There is a documentary acknowledgement:					
1	2	3	4	5	6
Complete course of scheduled administration according to the age ³	Children and adolescents	Irrespective to the term	No administration ³	No administration	No administration
Course of scheduled administration without of last age revaccination	Children and adolescents	Irrespective to the term	0,5 ml	No administration	No administration
Complete course of immunization ⁴	Adults	no more than 5 years	No administration	No administration	No administration
		more than 5 years	0,5ml	No administration ⁶	No administration ⁶
Two administration ⁵	All age groups	no more than 5 years	0,5 ml	No administration ⁶	No administration ⁶
		More than 5 years	1,0 ml	250 IU	3000 IU ⁷
One administration	All age groups	no more than 2 years	0,5 ml	No administration ⁶	No administration ⁶
		More than 2 years	1,0 ml	250 IU	3000 IU ⁷
No vaccinated	Children up to 5 month	-	No administration	250 IU	3000 IU
	Other age groups	-	1,0 ml	250 IU	3000 IU ⁷
2. There is no documentary acknowledgement:					
There is no contraindication against vaccination in anamnesis	Children up to 5 month	-	No administration	250 IU	3000 IU
	Children from 5 months, adolescents, the military personnel, including retired ones	-	0,5 ml	No administration ⁶	No administration ⁶
Other contingents	All age groups	-	1,0ml	250 IU	3000 IU ⁷

SCHEME OF CURE-PREVENTIVE IMMUNIZATION BY CONCENTRATED PURIFIED CULTURE

RABIES VACCINE AND IMMUNOGLOBULIN

Category of damage	Character of contact	The data about the animal		Recommended treatment
		at the moment of contact	during 10-day's of observation	
1	2	3	4	5
1	No damage or indirect contact. Mucilaginized not damaged skin.	Healthy, sick with scabies		No prescribe
2	Mucilaginized damaged skin and intact mucous membranes. A single superficial bite shoulder or forearm, lower limbs or trunk caused pet	i) Healthy		No prescribe
		ii) Healthy	Became sick, died, disappeared	Begin treatment after occur of the symptoms of disease in animal or if animal is disappeared up 1.0 ml of vaccine on 0, 3, 7, 14, 30, and 90 days
		iii) Became sick, killed, disappeared, diagnosis is unknown		Begin treatment immediately up 1.0 ml of vaccine on 0, 3, 7, 14, 30, and 90 days
3a	Mucilaginized damaged mucous membranes, any bite the head or face, neck, fingers, hands, perineum, genitalia, wide or deep bite any location, multiple (2 or more) bites inflicted by pets	i) Healthy	Healthy	No prescribe
		ii) Healthy	Became sick, died, disappeared	Begin combined treatment after occur of the symptoms of disease in animal or if animal is disappeared. Antirabies immunoglobulin in 0 day + 1.0 ml of vaccine on 0, 3, 7, 14, 30, and 90 days.
		iii) Became sick, killed, disappeared, diagnosis is unknown		Begin combined treatment immediately. Antirabies immunoglobulin in 0 day + 1.0 ml of vaccine on 0, 3, 7, 14, 30, and 90 days.
3b	Any bite or mucilaginized any location , suffered by any wild carnivores or bats			Begin combined treatment immediately. Antirabies immunoglobulin in 0 day + 1.0 ml of vaccine on 0, 3, 7, 14, 30, and 90 days.

EXAMPLES OF TESTS

□ The obstetrician warns you that the woman is a carrier of hepatitis B surface antigen (HBsAg). What will be your first-time actions regarding the newborn?

0% Observation for a baby, do not prescribe anything, because maternal antibodies penetrating transplacental protect the baby from hepatitis B

0% Mother's screening for hepatitis B antigens

0% Isolation of the newborn to prevent the spread of infection

100% Early introduction of a child to hepatitis B vaccine

0% Baby screening on NBSAg

EXAMPLES OF TESTS

□ **How to protect from a tetanus a child who suffered a street accident, if there is no data about previous vaccination**

0% Introduce only antitetanus serum or antitetanus immunoglobulin

100% Introduce antitetanus toxoid and antitetanus immunoglobulin

0% Introduce only antitetanus toxoid

EXAMPLES OF TESTS

□ A 13-year-old schoolboy, skating on roller skates in the school yard, fell and scratched his skin in the area of the knee joint. The last vaccination by DTP child had in 6 years old. What immunization should be conducted?

100% Td toxoid

0% TD toxoid

0% Antitetanus toxoid

0% Immunization is not needed

0% Antitetanus toxoid and antitetanus immunoglobulin

EXAMPLES OF TESTS

□ **For whom the introduction of a pneumococcal vaccine is usually not recommended?**

20% For 3-year-old girl with heart disease

20% For 10-year-old boy with diabetes

100% For healthy boy of 1.5 years old

20% For a 5-year-old boy with recurrent pneumonitis

EXAMPLES OF TESTS

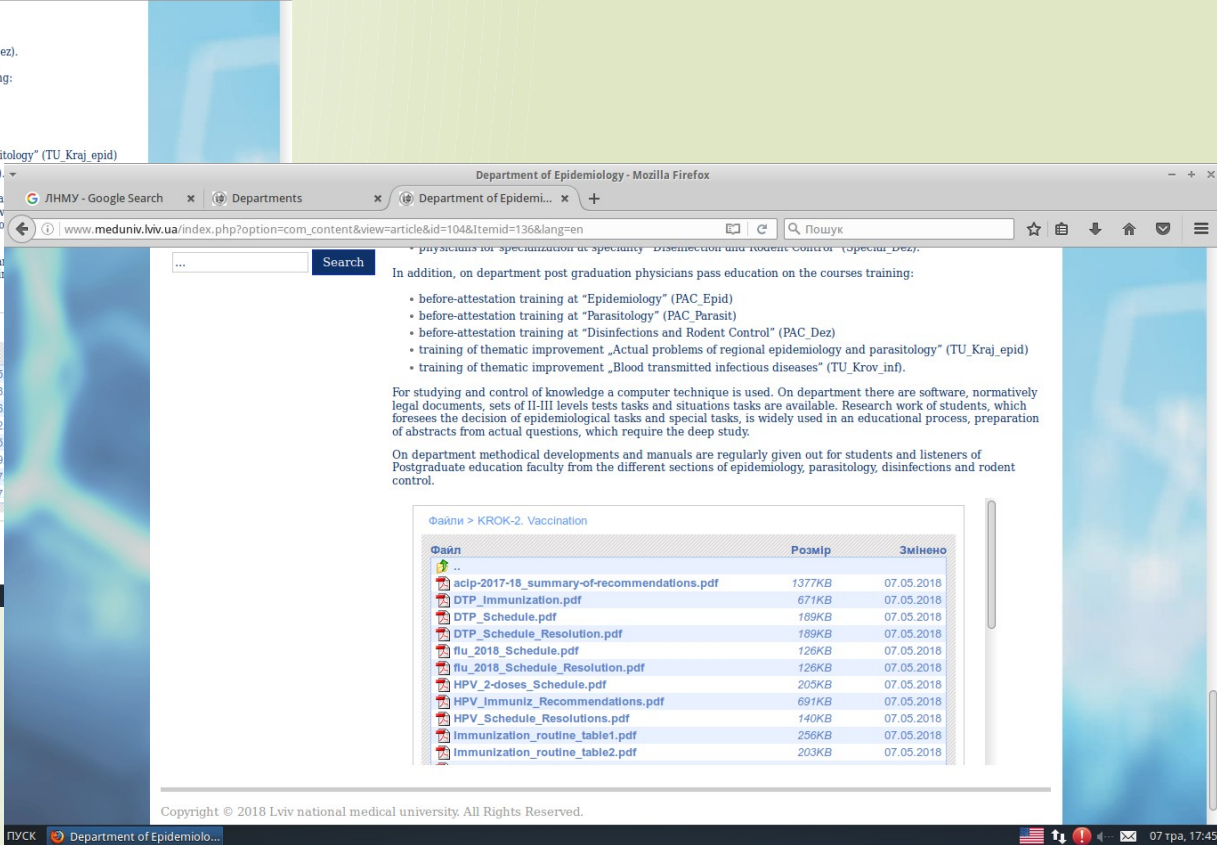
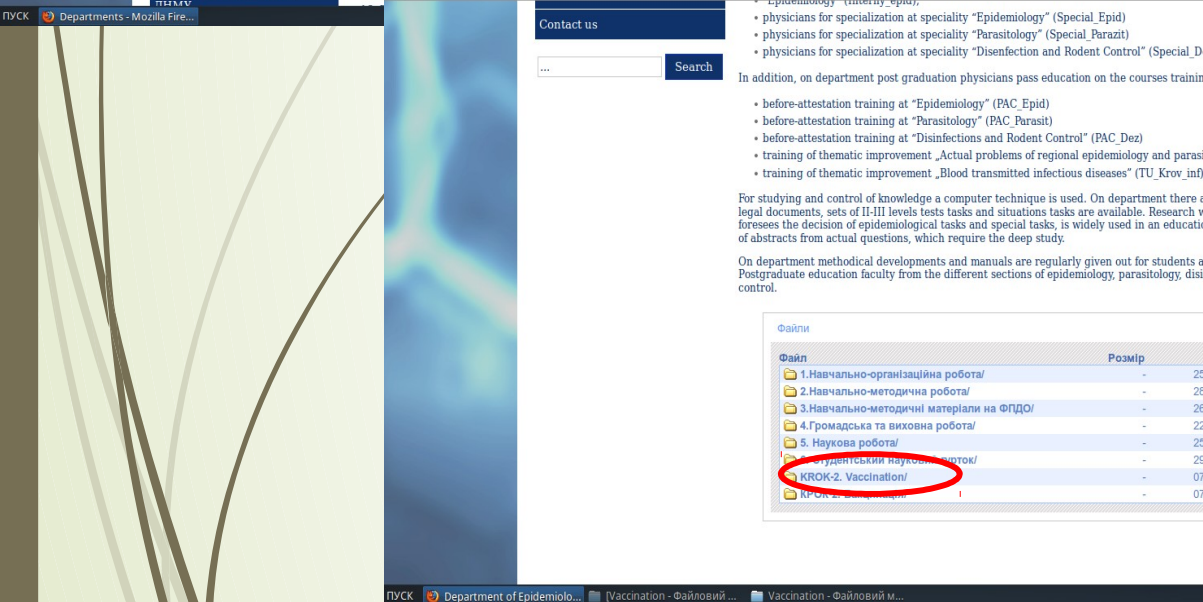
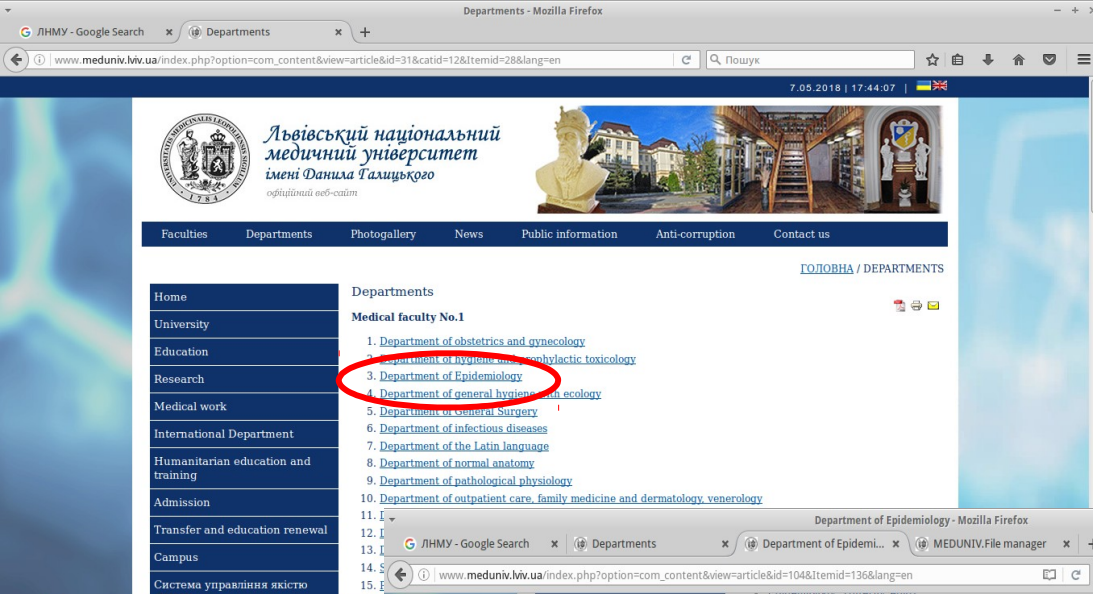
For a 6-year-old child with bronchial asthma and a selective immunoglobulin A deficiency, the following measures should be recommended during the planned inspection, except for

0% It is advisable to vaccinate against pneumococcal infection

100% Do not vaccinate, as the introduction of vaccines may worsen the course of the disease

0% Carry out a full vaccination by age against diphtheria, tetanus, poliomyelitis, measles

0% Every autumn the child is to be vaccinated with an inactivated split influenza vaccine





Good Luck!!!