

Algorithms for the implementation of practical skills 2021-2022 academic year
OSCE EXAMINATION STATION - №3
Diagnostics, treatment of common diseases in children
(pediatrics, neonatology, childhood infectious diseases)

Diagnosis	Algorithm
<p>Arterial hypertension:</p> <ul style="list-style-type: none"> ▪ Primary ▪ secondary – – glomerulonephritis – congenital heart defects <p>The source of information: Guideline for Screening and Management of High Blood Pressure in children and Adolescents. Pediatrics. 2017: 140 (3); e20171904</p>	<p>Algorithm for examination and treatment of a child:</p> <ul style="list-style-type: none"> • Select a nomogram to assess the growth of the child, taking into account age and gender. • Assess the child's height using centile nomogram. • Highlight the result of the growth-for-age assessment. • Indicate which parameter corresponds to systolic pressure (SP) according to the table of correspondence of systolic pressure to age and height in centiles (pct). • Assess the clinical significance of the child's systolic pressure. • Indicate which parameter corresponds to diastolic pressure (DP) according to the table of correspondence of diastolic pressure to age and height in centiles (pct). • Assess the clinical significance of diastolic pressure in a child. • Formulate a diagnosis taking into account the clinical data of the scenario. • For example: Congenital heart disease (specify), secondary arterial hypertension (specify which) degree. • Determine further tactics for management of sick child
<p>Protein-energy deficiency:</p> <ul style="list-style-type: none"> ▪ congenital heart defects ▪ celiac disease ▪ lactase deficiency ▪ cystic fibrosis <p>The source of information: 1.WHO Guideline. Assessing and managing children at primary health-care facilities to prevent overweight and obesity in the context of the double burden of malnutrition Updates for the Integrated</p>	<p>Algorithm for examination and treatment of a child:</p> <ul style="list-style-type: none"> • Select the sigma nomograms for assessing the physical development in accordance with the age and gender of the child. • Find a point on the weight-for-age nomogram and highlight the result. • Assess the body weight for age. • Find a point on the length-for-age nomogram and underline the result. • Assess the body length for age. • Use the calculator to calculate your body mass index and record the result. • Find a point on the BMI-for-age nomogram and underline the result. Assess the body mass index for age. Make a conclusion regarding the physical development of the child according to the scenario.

<p>Management of Childhood Illness (IMCI)3 October 2017. – 88 2.Наказ МОЗ України № 149 від 20.03.2008 “Про затвердження Клінічного протоколу медичного догляду за здоровою дитиною віком до 3 років”;(чинний)</p>	<ul style="list-style-type: none"> • Substantiate the clinical diagnosis according to the scenario • Determine further tactics for management of sick child
<p>Obesity:</p> <ul style="list-style-type: none"> ▪ alimentary ▪ hypothalamic ▪ Cushing syndrome <p>The source of information: WHO Guideline. Assessing and managing children at primary health-care facilities to prevent overweight and obesity in the context of the double burden of malnutrition Updates for the Integrated Management of Childhood Illness (IMCI)3 October 2017. – 88</p>	<p>Algorithm for examination and treatment of a child:</p> <ul style="list-style-type: none"> • Select the sigma nomograms for assessing the physical development in accordance with the age and sex of the child. • Find a point on the height-for-age nomogram and highlight the result. • Assess the height for age. • Use the calculator to calculate your body mass index and record the result. • Find a point on the BMI-for-age nomogram and underline the result. • Assess the body mass index for age. • Make a conclusion regarding the physical development of the child according to the scenario. • Substantiate the clinical diagnosis according to the scenario. •Determine further tactics for managment of sick child.
<p>Growth retardation:</p> <ul style="list-style-type: none"> ▪ pituitary dwarfism ▪ Shereshevsky–Turner syndrome <p>The source of information: Наказ МОЗ України від 03.02.2009 N 55 «Про затвердження протоколів лікування дітей з ендокринними захворюваннями», (чинний).</p>	<p>Algorithm for examination and treatment of a child:</p> <ul style="list-style-type: none"> • Choose the sigma nomograms for assessing the physical development in accordance with the age and sex of the child/ • Find a point on the weight-for-age nomogram and highlight the result. • Assess the body weight for age/ • Find a point on the height-for-age nomogram and highlight the result. • Assess the height for age. • Use the calculator to calculate your body mass index and record the result. • Find a point on the BMI-for-age nomogram and underline the result. • Assess the body mass index for age. • Make a conclusion regarding the physical development of the child according to the scenario. • Substantiate the clinical diagnosis according to the scenario. •Determine further tactics for managment of sick child.

A patient

1. Feeding problems
2. Newborn jaundice
3. Local bacterial infection of the umbilical cord (ophalitis)

The source of information:

Наказ МОЗ України від 14.09.2021 № 1945 "Про затвердження Уніфікованого клінічного протоколу первинної медичної допомоги «Інтегроване ведення хвороб дитячого віку»"

Universal algorithm for assessment, classification and management of a SICK YOUNG INFANT UP TO 2 MONTHS when the primary care is provided based on the IMCI principles

The answers to the questions and the necessary information (at your request) are given by the teacher during the exam

1. Invitation and identification of the patient

- 1.1. Introduce yourself: full name, occupation
- 1.2. Ask the mother's or father's name
- 1.3. Ask the child's name
- 1.4. Ask how old the child is (days or months)
- 1.5. Explain that you will now examine and assess the child's condition
- 1.6. If this is not specified in the task, ask if this is an initial or follow-up visit for this problem

2. Check if infant is breathing, count the breathing rate in one minute:

- 2.1. If breathing rate is less than 20 per 1 min, start ventilation with a bag and mask.
- 2.2. If breathing rate is more than 60 per 1 min, repeat the count.

3. Check all young infants up to 2 month for VERY SEVERE DISEASE AND LOCAL BACTERIAL INFECTION:

- 3.1. Ask: Is the infant having difficult in feeding?
- 3.2. Ask: Has the infant had convulsions (fits)?
- 3.3. Look for severe chest indrawing.
- 3.4. Measure axillary temperature.
- 3.5. Look: Is the infant convulsing now?
- 3.6. Look at the umbilicus. Is it red or draining pus? Look for skin pustules. Are there many or severe pustules. Look for discharge from the eyes. Is there purulent or sticky discharge? Is there abundant pus? Are the eyelids swollen?
- 3.7. Look at the young infant's movements.
- 3.8. **Classify the illness:**
 - 3.8.1. **"VERY SEVERE DISEASE" (Pink)**, if any one of the following signs: Not feeding well / Convulsions / Fast breathing (60 breaths per minute or more) / Severe chest indrawing / Fever (37.5 °C or above) / Low body temperature (less than 35.5 °C) / Movement only when stimulated or no movement at all.
 - 3.8.2. **"LOCAL BACTERIAL INFECTION" (Yellow)**, if Umbilicus is red or draining pus / Skin pustules
 - 3.8.3. **"LOCAL BACTERIAL INFECTION: purulent discharge from eyes" (Yellow)**, if present signs of conjunctivitis.
 - 3.8.4. **"SEVERE DISEASE OR LOCAL INFECTION UNLIKELY" (Green)**, if none of the signs of very severe disease or local bacterial infection.

3.9. Identify treatment according the chosen classification – provide / prescribe treatment and / or counsel / teach the mother, if

necessary advise the mother when to return to health worker and when to come to follow-up visit:

3.9.1. "VERY SEVERE DISEASE" (Pink):

- Refer URGENTLY to the hospital
- Give intramuscular the first dose of Ampicillin (50 mg/kg) and Gentamicin (7.5 mg/kg);
- Treat to prevent low blood sugar
- Keep the child warm on the way
- Give diazepam if convulsing now (diazepam 10mg/2ml, per rectum 0,1 ml/kg (0.5 mg/kg))

3.9.2. "LOCAL BACTERIAL INFECTION" (Yellow):

- Give oral Amoxicillin (125 mg / 5ml) 2 times daily for 5 days: 2.5 ml to the child < 1month (< 4 kg) / 5 ml to the child of 1 to 2 month old (4-6 kg)
- Teach the mother to treat the local infection at home
- Advise mother to give home care for the young infant
- Advise mother when to return immediately
- Follow-up in 2 days

3.9.3. "LOCAL BACTERIAL INFECTION" (Yellow):

- Teach the mother to treat the local infection at home
- Advise mother to give home care for the young infant
- Advise mother when to return immediately
- Follow-up in 2 days

3.9.4. "SEVERE DISEASE OR LOCAL INFECTION UNLIKELY" (Green):

- Advise mother to give home care

Then ask about main symptoms:

4. Check all young infants for jaundice.

4.1. Ask: When did the jaundice appear first?

4.2. Look for jaundice (yellow eyes or skin)

4.2.1. Look at the young infant's palms and soles. Are they yellow?

If jaundice is present, evaluate its location using Cramer's scale.

4.3. *Classify the illness:*

4.3.1. "SEVERE JAUNDICE" (Pink), if any jaundice present in children aged less than 24 hours / yellow palms and soles at any age

4.3.2. "JAUNDICE" (Yellow), jaundice appearing after 24 hours of age **and** palms and soles **not** yellow

4.3.3. "NO JAUNDICE" (Green), if no jaundice

4.4. **Identify treatment** according the chosen classification – provide / prescribe treatment and / or counsel / teach the mother, if necessary advise the mother when to return to health worker and when to come to follow-up visit:

4.4.1. "SEVERE JAUNDICE" (Pink):

- Treat to prevent low blood sugar
- Refer URGENTLY to hospital
- Advise mother how to keep the infant warm on the way to the hospital

4.4.2. "JAUNDICE" (Yellow):

- Advise the mother to give home care for the young infant
- Advise mother to return immediately if palms and soles appear yellow.
- If the young infant is older than 14 days, refer to a hospital for assessment
- Follow-up in 1 day

4.4.3. **"NO JAUNDICE" (Green):**

- Advise the mother to give home care for the young infant

5. Then ask: Does the young infant have DIARRHOEA?

- If answer is "No" ask about the next symptom;

- If "Yes", follow the algorithm on corresponding page of the Chart Booklet

5.1. Look at the young infant's general condition (Infant's movements): Does the infant move on his/her own? Does the infant not move even when stimulated but then stops? / Does the infant not move at all? / Is the infant restless and irritable?

5.2. Look for sunken eyes.

5.3. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? / Slowly?

5.4. **Classify the illness:**

5.4.1. **"SEVERE DEHYDRATION" (Pink)**, if **two** of the following signs: Movements only when stimulated or no movements at all / Sunken eyes / Not able to drink or drinking poorly / Skin pinch goes back very slowly.

5.4.2. **"SOME DEHYDRATION" (Yellow)**, if two of the following signs: Restless, irritable; Sunken eyes; Skin pinch goes back slowly.

4.7.3. **"NO DEHYDRATION" (Green)**, if not enough (less than two or abs) signs to classify as some or severe dehydration

5.5. **Identify treatment** according the chosen classification – provide / prescribe treatment and / or counsel / teach the mother, if necessary advise the mother when to return to health worker and when to come to follow-up visit:

5.5.1. **"SEVERE DEHYDRATION" (Pink):**

- If child has no other severe classification: Give fluid for severe dehydration (**Plan C**)
- If child also has another severe classification: Refer **URGENTLY** to hospital with mother giving **frequent sips of ORS** on the way
- Advise the mother to continue breastfeeding

5.5.2. **"SOME DEHYDRATION" (Yellow):**

- Give fluid and breast milk for some dehydration (**Plan B**)
- If child also has a severe classification: Refer **URGENTLY** to hospital with mother giving **frequent sips of ORS** on the way
- Advise the mother to continue breastfeeding
- Advise mother when to return immediately
- Follow-up in 2 days if not improving

5.5.3. **"NO DEHYDRATION" (Green):**

- Give fluid to treat diarrhoea at home and continue breastfeeding (**Plan A**)

- Advise mother when to return immediately
- Follow-up in 2 days if not improving

6. Then Check for FEEDING PROBLEM OR LOW WEIGHT FOR AGE.

6.1. Ask: Is the infant breastfed?

6.1.1. If yes, how many times in 24 hours?

6.2. Does the infant usually receive any other foods or drinks?

6.2.1. If yes, how often? If yes, what do you use to feed the infant?

6.3. Determine weight for age.

6.4. Look for ulcers or white patches in the mouth (thrush).

6.5. If the infant is breastfed, assess (photo) the mother's and the infant's position during feeding.

6.6. If the infant is breastfed, assess (photo) the attachment to the breast.

6.7. Classify feeding:

6.7.1. **"FEEDING PROBLEM OR LOW WEIGHT" (Yellow)**, if Not well attached to breast / Not suckling effectively / Less than 8 breastfeeds in 24 hours / Receives other foods or drinks / Low weight for age ($<2\sigma$) / Thrush (ulcers or white patches in mouth).

6.7.2. **"NO FEEDING PROBLEM" (Green)**, if Not low weight for age and no other signs of inadequate feeding.

6.8. **Identify treatment** according the chosen classification – provide / prescribe treatment and / or counsel / teach the mother, if necessary advise the mother when to return to health worker and when to come to follow-up visit:

6.8.1. **"FEEDING PROBLEM OR LOW WEIGHT" (Yellow):**

- If not well attached or not suckling effectively, teach correct positioning and attachment
- If not able to attach well immediately, teach the mother to express breast milk and feed by a cup
- If breastfeeding less than 8 times in 24 hours, advise to increase frequency of feeding.
- Advise the mother to breastfeed as often and as long as the infant wants, day and night
- If receiving other foods or drinks, counsel the mother about breastfeeding more, reducing other foods or drinks, and using a cup
- If not breastfeeding at all: Refer for breastfeeding counselling and possible relactation
- Advise about correctly preparing breast-milk substitutes and using a cup
- Advise the mother how to feed and keep the low weight infant warm at home
- If thrush, teach the mother to treat thrush at home
- Advise mother to give home care for the young infant
- Follow-up any feeding problem or thrush in 2 days
- Follow-up low weight for age in 14 days

6.8.2. **"NO FEEDING PROBLEM" (Green):**

- Advise mother to give home care for the young infant
- Praise the mother for feeding the infant well

7. Then check the child's IMMUNIZATION status.

7.1. See which vaccinations the child has already received, and evaluate all vaccinations according to the Vaccination Calendar.

7.2. If all vaccinations are on the Vaccination Calendar, tell the caregiver when to come for the next vaccination.

7.3. Evaluate the BCG mark.

8. Check the Vitamin D supplementation status.

8.1. Ask if your child is getting vitamin D.

8.1.1. If so, in what dose?

8.2. Give recommendations for further intake of vitamin D.

9. Check for other problems.

10. Results and conclusions

13.1. Ask the mother or father if they have any questions.

13.2. Wish recovery (if necessary) and say goodbye.

Notes:

1. If you have already identified the "pink – code" classification, called the emergency medical team to transport the child to the hospital and performed all the actions from the right column of the "pink – code" of the relevant page of the IMCI Booklet Chartbook, continue the evaluation the algorithm until teacher do not stop you, then say the final 2 phrases of the algorithm.
2. Keep in mind that a child may have more than one complaint / main symptoms / problems. If you have already identified one classification of the "yellow – code" or "green – code", have already prescribed appropriate treatment and further recommendations of the mother on the detected condition, continue the evaluation of the algorithm, until the teacher stops you, then say the final 2 phrases of the algorithm.
3. If you find the classification "yellow – code" or "green – code" after the next scheduled visit, tell the mother that she should seek medical attention immediately if the child has any of these symptoms: - *All patients children*: if the child can not drink or breastfeed, the child becomes worse or the child has a fever; - *A child classified "diarrhea "*: when detected the child has blood in the stool, or the child does not drink well
4. If the task indicates that certain steps to assess the condition of the child according to the IMCI algorithm have already been performed, and named the identified classifications of conditions and performed / prescribed treatment, in this case after greetings and acquaintances (first 3 steps of the algorithm) say that now you will continue to assess the child's condition, and start the assessment from the next point of the algorithm (after those that have already been assessed under the terms of the task). Continue the assessment according to the algorithm, until the teacher stops you, then say the final 2 phrases of the algorithm.

<p>A patient</p> <p>1. Cough or difficulty breathing:</p> <ul style="list-style-type: none"> - pneumonia or serious illness (pneumonia, laryngotracheitis with stenosis) - probable pneumonia - cough or acute respiratory illness <p>2. Diarrhea:</p> <ul style="list-style-type: none"> - severe dehydration - mild dehydration - no dehydration - severe persistent diarrhea - persistent diarrhea - hemocolitis <p>3. Ear problems:</p> <ul style="list-style-type: none"> - mastoiditis - acute ear infection - chronic ear infection - no ear infection <p>4. Throat problems:</p> <ul style="list-style-type: none"> - abscess of the pharynx - acute tonsillopharyngitis - probably bacterial - acute pharyngitis - no throat problems <p>5. Fever:</p> <ul style="list-style-type: none"> - very severe febrile disease - possible bacterial infection - fever - fever, bacterial infection unlikely - prolonged complicated measles - complicated measles - measles 	<p style="text-align: center;">Universal algorithm for assessment, classification and management of a sick child from 2 months up to 5 years when the primary care is provided based on the IMCI principles</p> <p>The answers to the questions and the necessary information (at your request) are given by the teacher during the exam</p> <p>1. Invitation and identification of the patient</p> <ol style="list-style-type: none"> 1.1. Introduce yourself: full name, occupation 1.2. Ask the mother's or father's name 1.3. Ask the child's name 1.4. Ask how old the child is (months or years) 1.5. Explain that you will now examine and assess the child's condition 1.6. If this is not specified in the task, ask if this is an initial or follow-up visit for this problem <p>2. Check for GENERAL DANGER SIGNS:</p> <ol style="list-style-type: none"> 2.1. Ask: Is the child able to drink or breastfeed? 2.2. Ask: Does the child vomit everything? 2.3. Ask: Has the child had convulsions? 2.4. Look: See if the child is lethargic or unconscious? 2.5. Look: Is the child convulsing now? 2.6. If any danger sign is seen, classify like "Very severe disease" (pink index) <p>Identify treatment:</p> <ul style="list-style-type: none"> • Give diazepam if convulsing now (diazepam 10mg/2ml: i/m or i/v 0,05 ml/kg=0,25 mg/kg; per rectum 0,1 ml/kg) • Quickly complete the assessment • Give any pre-referral treatment immediately • Treat to prevent low blood sugar • Keep the child warm • Refer URGENTLY to the hospital <p><u>Then ask about main symptoms:</u></p> <p>3. Does the child have COUGH or DIFFICULT BREATHING?</p> <ul style="list-style-type: none"> - If answer is "No" ask about the next symptom; - If "Yes", follow the algorithm on corresponding page of the Chart Booklet <ol style="list-style-type: none"> 3.1. Ask: For how long? (How many days?) 3.2. Count the breaths in one minute. Assess if present fast breathing. 3.3. Look for chest indrawing. 3.4. Look and listen for stridor. 3.5. Look and listen for wheezing. 3.6. Classify the illness: <ol style="list-style-type: none"> 3.6.1. "Severe pneumonia or very severe disease" (Pink), if present any danger sign or chest indrawing, or stridor in calm child. <ol style="list-style-type: none"> 3.6.1.1. If pulse oximeter is available, determine oxygen saturation and refer if < 90% on air. 3.6.2. "Pneumonia" (Yellow), if fast breathing is present. 3.6.3. "Cough or cold" (Green), if no signs of pneumonia or very severe disease.
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<p>6. Eating Disorders: - Complicated severe malnutrition -uncomplicated severe malnutrition - moderate malnutrition - no malnutrition</p> <p>7. Anemia: - severe anemia - anemia - no anemia</p> <p>The source of information: Наказ МОЗ України від 14.09.2021 № 1945 "Про затвердження Уніфікованого клінічного протоколу первинної медичної допомоги «Інтегроване ведення хвороб дитячого віку»"</p>	<p>3.6.4. If wheezing with either fast breathing or chest indrawing: Give a trial of rapid acting inhaled bronchodilator (salbutamol, 100 µg/ puff, give 2 puffs for one time, use spacer) for up to three times 15-20 minutes apart. Reassess after each trial. Count the breaths and look for chest indrawing again after the last inhalation and then classify: if seen chest indrawing – "Severe pneumonia or very severe disease" (Pink), if seen fast breathing – "Pneumonia" (Yellow), if no chest indrawing and fast breathing – "Cough or cold" (green).</p> <p>3.7. Identify treatment according the chosen classification – provide / prescribe treatment and / or counsel / teach the mother, if necessary advise the mother when to return to health worker and when to come to follow-up visit:</p> <p>3.7.1 "Severe pneumonia or very severe disease" (Pink):</p> <ul style="list-style-type: none"> • Give intramuscular the first dose of Ampicillin (50 mg/kg) and Gentamicin (7.5 mg/kg); • If stridor is seen – give dexametozone (0,6 mg / kg) intramuscular; • Refer URGENTLY to the hospital <p>3.7.2. "Pneumonia" (Yellow):</p> <ul style="list-style-type: none"> • Give oral Amoxicillin (40 mg / kg × 2 times a day) for 5 days • If wheezing (or disappeared after three trials of rapidly acting bronchodilator) give an inhaled bronchodilator (salbutamol, 100 µg/ puff, give 2 puffs for one time, use spacer) × each 4-6 hours for 5 days; • Soothe the throat and relieve the cough with a safe remedy (warm drinks) • If coughing for more than 14 days or recurrent wheeze, refer for possible TB or asthma assessment • Advise mother when to return immediately • Follow-up in 2 days <p>3.7.3. "Cough or cold" (Green):</p> <ul style="list-style-type: none"> • If wheezing (or disappeared after three trials of rapidly acting bronchodilator) give an inhaled bronchodilator (salbutamol, 100 µg/ puff, give 2 puffs for one time, use spacer) × each 4-6 hours for 5 days; • Soothe the throat and relieve the cough with a safe remedy (warm drinks) • If coughing for more than 14 days or recurrent wheeze, refer for possible TB or asthma assessment • Advise mother when to return immediately • Follow-up in 5 days <p>4. Does the child have DIARRHOEA? - If answer is "No" ask about the next symptom; - If "Yes", follow the algorithm on corresponding page of the Chart Booklet</p> <p>4.1. ASK: For how long? 4.2. Is there blood in the stool? 4.3. LOOK at the child's general condition. Is the child: Lethargic or unconscious? / Restless and irritable?</p>
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	<p>4.4. Look for sunken eyes.</p> <p>4.5. Offer the child fluid. Is the child: Not able to drink or drinking poorly? / Drinking eagerly, thirsty?</p> <p>4.6. Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? /Slowly?</p> <p>4.7. Classify the illness:</p> <p>4.7.1. "Severe dehydration" (Pink), if two of the following signs: Lethargic or unconscious, Sunken eyes, Not able to drink or drinking poorly, Skin pinch goes back very slowly.</p> <p>4.7.2. "Some dehydration" (Yellow), if two of the following signs: Restless, irritable; Sunken eyes; Drinks eagerly, thirsty; Skin pinch goes back slowly.</p> <p>4.7.3. "No dehydration" (Green), if not enough (less than two or abs) signs to classify as some or severe dehydration</p> <p>4.7.4. "Severe persistent diarrhoea" (Pink), if diarrhoea lasts for 14 days or more and dehydration present.</p> <p>4.7.5. "Persistent diarrhea" (Yellow), if diarrhoea lasts for 14 days or more and no dehydration.</p> <p>4.7.6. "Hemocolitis" (Pink), if present blood in the stool.</p> <p>4.8. Identify treatment according the chosen classification – provide / prescribe treatment and / or counsel / teach the mother, if necessary advise the mother when to return to health worker and when to come to follow-up visit:</p> <p>4.8.1. "Severe dehydration" (Pink):</p> <ul style="list-style-type: none"> • If child has no other severe classification: Give fluid for severe dehydration (Plan C) • If child also has another severe classification: Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way • Advise the mother to continue breastfeeding <p>4.8.2. "Some dehydration" (Yellow):</p> <ul style="list-style-type: none"> • Give fluid, zinc supplements, and food for some dehydration (Plan B) • If child also has a severe classification: Refer URGENTLY to hospital with mother giving frequent sips of ORS on the way • Advise the mother to continue breastfeeding • Advise mother when to return immediately • Follow-up in 5 days if not improving <p>4.8.3. "No dehydration" (Green):</p> <ul style="list-style-type: none"> • Give fluid, zinc supplements, and food to treat diarrhoea at home (Plan A) • Advise mother when to return immediately • Follow-up in 3 days if not improving <p>4.8.4. "Severe persistent diarrhoea" (Pink):</p> <ul style="list-style-type: none"> • Treat dehydration before referral unless the child has another severe classification • Refer to hospital <p>4.8.5. "Persistent diarrhoea" (Yellow)</p> <ul style="list-style-type: none"> • Advise the mother on feeding a child who has persistent diarrhoea • Give multivitamins and minerals (including zinc) for 14 days
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- Advise mother when to return immediately
- Follow-up in 5 days

4.8.6. “Hemocolitis” (Pink)

- Give **ceftriaxone (50 mg / kg)** intramuscular
- Refer to hospital

5. Does the child have an EAR PROBLEM?

- If answer is "No" ask about the next symptom;

- If "Yes", follow the algorithm on corresponding page of the Chart Booklet

5.1. **Ask:** Is there ear pain?

5.2. Is there ear discharge? If yes, for how long?

5.3. **Look** for pus draining from the ear.

5.4. **Feel** for tender swelling behind the ear

5.5. **Classify the illness:**

5.5.1. “**Mastoiditis**” (Pink), if present tender swelling behind the ear.

5.5.2. “**Acute ear infection**” (Yellow), if pus is seen draining from the ear and discharge is reported for less than 14 days or ear pain.

5.5.3. “**Chronic ear infection**” (Yellow), if pus is seen draining from the ear and discharge is reported for longer than 14 days.

5.5.4. “**No ear infection**” (Green), if no ear pain and pus seen draining from the ear.

5.6. **Identify treatment** according the chosen classification – provide / prescribe treatment and / or counsel / teach the mother, if necessary advise the mother when to return to health worker and when to come to follow-up visit:

5.6.1. “**Mastoiditis**” (Pink):

- Give intramuscular the first dose of **Ampicillin (50 mg/kg)** and **Gentamicin (7.5 mg/kg)**
- Give first dose of **Paracetamol (15 mg / kg)** or **Ibuprofen (10 mg / kg)** for pain
- Refer **URGENTLY** to hospital

5.6.2. “**Acute ear infection**” (Yellow):

- Give oral **Amoxicillin (40 mg / kg × 2 times a day)** for 10 days
- Give first dose of **Paracetamol (15 mg / kg)** or **Ibuprofen (10 mg / kg)** for pain
- Dry the ear by wicking
- Refer for consultation to an otolaryngologist
- If present repeated episodes of acute ear infection, classify by HIV infection
- Follow-up in 2 days

5.6.3. “**Chronic ear infection**” (Yellow):

- Dry the ear by wicking
- Treat with topical ciprofloxacin eardrops for 14 days
- Advise mother when to return immediately
- Refer for consultation to an otolaryngologist
- If present repeated episodes of acute ear infection, classify by HIV infection
- Follow-up in 5 days

5.6.4. "No ear infection" (Green):

- No treatment

6. Does the child have a SORE THROAT? (If the child is three years old or older)

- If answer is "No" ask about the next symptom;

- If "Yes", follow the algorithm on corresponding page of the Chart Booklet

6.1. **Ask:** Does the child have sore throat?

6.2. Is the child able to drink and swallow?

6.3. **Look and feel:** Does the child have a Fever?

6.4. Does the child have throat plaque?

6.5. Does the child have pain in the anterior cervical lymph nodes?

6.6. Does the child have cough or runny nose?

6.7. **Classify the illness:**

6.7.1. "Pharyngeal abscess" (Pink), if cannot drink, swallow.

6.7.2. "Acute tonsillopharyngitis probably bacterial" (Yellow), if present: sore throat, and soreness of the anterior lymph nodes, and a child's body temperature of 37.5 ° C or higher, and no cough, runny nose.

6.7.3. "Acute pharyngitis" (Green), if present: sore throat or soreness of the anterior lymph nodes and the presence of cough / runny nose.

6.7.4. "No throat problems" (Green) if there is no plaque in the throat and no pain in the anterior lymph nodes.

6.8. **Identify treatment** according the chosen classification – provide / prescribe treatment and / or counsel / teach the mother, if necessary advise the mother when to return to health worker and when to come to follow-up visit:

6.8.1. "Pharyngeal abscess" (Pink):

- Give intramuscular the first dose of **Ampicillin (50 mg/kg)** and **Gentamicin (7.5 mg/kg)**
- Give first dose of **Paracetamol (15 mg / kg)** or **Ibuprofen (10 mg / kg)** for pain
- Refer URGENTLY to hospital

6.8.2. "Acute tonsillopharyngitis probably bacterial" (Yellow):

- Smear for diphtheria from the pharynx and nose
- If diphtheria is suspected – refer urgently to the hospital
- Give oral **Amoxicillin (25 mg / kg × 2 times a day)** for 10 days
- Give first dose of **Paracetamol (15 mg / kg)** or **Ibuprofen (10 mg / kg)** for pain
- Give a warm drink to soothe the throat
- Advise mother when to return immediately
- Follow-up in 2 days

6.8.3. "Acute pharyngitis" (Green)

- If plaque present – do smear for diphtheria from the pharynx and nose
- Give first dose of **Paracetamol (15 mg / kg)** or **Ibuprofen (10 mg / kg)** for pain

- Give a warm drink to soothe the throat
- Advise mother when to return immediately
- Follow-up in 5 days

6.8.4. **"No throat problems" (Green):** no treatment

7. **Does the child have FEVER?** (by history or feels hot or temperature $37,5^{\circ}\text{C}$ or above)

- If answer is "No" ask about the next symptom;

- If "Yes", follow the algorithm on corresponding page of the Chart Booklet

7.1. **Ask:** For how long?

7.2. **Look** or feel for stiff neck.

7.3. Look for petechial rash

7.4. Look for any bacterial cause of fever.

7.5. Look for signs of measles (generalized rash and one of these: cough, runny nose, or red eyes).

7.6. **Classify the illness:**

7.6.1. **"Very severe febrile disease" (Pink)**, if any general danger sign or stiff neck or petechial rash, or other severe classification.

7.6.2. **"Possible bacterial infection" (Yellow)**, if there is: "probably pneumonia", or "acute ear infection", or "acute tonsillopharyngitis, probably bacterial", or other obvious causes of fever, see if there is local pain, mouth ulcers; limitation of limb movements, swelling of the skin, hot to the touch, burns, in older children - pain in the lower abdomen or pain when urinating).

7.6.3. **"Fever for more than 5 days" (Yellow)**, if any: body temperature $\geq 37.5^{\circ}\text{C}$ lasts every day for more than 5 days for no apparent reason.

7.6.4. **"Fever. Bacterial infection is unlikely" (Green)**, if the fever lasts for up to 5 days for no apparent reason.

7.6.5. **"Severe complicated measles" (Pink)**, if any: any of the common signs of danger, or corneal opacity, or deep and multiple mouth ulcers.

7.6.6. **"Complicated measles" (Yellow)**, if any: purulent discharge from the eyes or mouth ulcers.

7.6.7. **"Measles" (Green)**, if there are signs of measles or the child has had measles in the last 3 months.

7.7. **Identify treatment** according the chosen classification – provide / prescribe treatment and / or counsel / teach the mother, if necessary advise the mother when to return to health worker and when to come to follow-up visit:

7.7.1. **"Very severe febrile disease" (Pink):**

- Give intramuscular the first dose of **Ampicillin (50 mg/kg)** and **Gentamicin (7.5 mg/kg)**
- If petechial rash is seen – give **ceftriaxone (50 mg / kg)** intramuscular or intravenous
- If fever is $\geq 38,5^{\circ}\text{C}$ – give first dose of **Paracetamol (15 mg / kg)** or **Ibuprofen (10 mg / kg)**
- Treat to prevent low blood sugar
- Keep the child warm
- Refer **URGENTLY** to hospital

7.7.2. **"Possible bacterial infection" (Yellow):**

- Treat according the classification of bacterial infections
- If fever is $\geq 38,5^{\circ}$ C – give first dose of **Paracetamol (15 mg / kg)** or **Ibuprofen (10 mg / kg)**
- Advise mother when to return immediately
- Follow-up in 2 days if fever persists

7.7.3. **"Fever for more than 5 days" (Yellow):**

- If fever is $\geq 38,5^{\circ}$ C – give first dose of **Paracetamol (15 mg / kg)** or **Ibuprofen (10 mg / kg)**
- Send for additional diagnostics
- Advise mother when to return immediately

7.7.4. **"Fever. Bacterial infection is unlikely" (Green):**

- If fever is $\geq 38,5^{\circ}$ C – give first dose of **Paracetamol (15 mg / kg)** or **Ibuprofen (10 mg / kg)**
- Advise mother when to return immediately
- Follow-up in 2 days if fever persists

7.7.5. **"Severe complicated measles" (Pink):**

- Give Vitamin A (50000 – 200000 MO according to age)
- Give intramuscular the first dose of **Ampicillin (50 mg/kg)** and **Gentamicin (7.5 mg/kg)**
- If clouding of the cornea or pus draining from the eye, treat eye infection with eye drops
- Refer URGENTLY to hospital

7.7.6. **"Complicated measles" (Yellow)**

- Give Vitamin A (50000 – 200000 MO according to age)
- If pus draining from the eye, treat eye infection with eye drops
- If mouth ulcers, treat with 1% water solution of gentian violet
- Follow-up in 3 days

7.7.7. **"Measles" (Green)**

- Give Vitamin A (50000 – 200000 MO according to age)
- Advise mother when to return immediately
- Counsel mother how to care for sick child

8. Then check for ACUTE MALNUTRITION.

Look for signs of acute malnutrition

8.1. Determine WFH/L* ___ z-score. (Weight-for-Height or Weight-for-Length determined by using the WHO growth standards charts)

8.1.1. If WFH/L less than -3 z-scores, then: Check for any medical complication present: Any general danger signs / Any severe classification / Pneumonia with chest indrawing.

8.1.2. If no medical complications present: Child is less than 6 months, assess breastfeeding: Does the child have a breastfeeding problem?

8.2. **Classify the nutritional status:**

8.2.1. **"Complicated severe acute malnutrition" (Pink)**, if WFH/L less than -3 zscores and any one of the following: Medical complication present / Any danger sign /Any severe disease (Pink) / Breastfeeding problem.

8.2.2. **"Uncomplicated severe acute malnutrition" (Yellow)**, if WFH/L less than -3 zscores.

8.2.3. **“Moderate acute malnutrition” (Yellow)**, if WFH/L between -3 and - 2 z-scores.

8.2.4. **“No acute malnutrition” (Green)**, if WFH/L - 2 z-scores or more.

8.3. **Identify treatment** according the chosen classification – provide / prescribe treatment and / or counsel / teach the mother, if necessary advise the mother when to return to health worker and when to come to follow-up visit:

8.3.1. **“Complicated severe acute malnutrition” (Pink):**

- Give first dose appropriate antibiotic (**Ampicillin (50 mg/kg)** and **Gentamicin (7.5 mg/kg)**)
- Treat the child to prevent low blood sugar
- Keep the child warm
- Refer **URGENTLY** to hospital

8.3.2. **“Uncomplicated severe acute malnutrition” (Yellow):**

- Give ready-to-use therapeutic food for a child aged 6 months or more
- Counsel the mother on how to feed the child.
- Assess for possible TB and HIV infection
- Advise mother when to return immediately
- Follow up in 7 days

8.3.3. **“Moderate acute malnutrition” (Yellow)**

- Assess the child's feeding and counsel the mother on the feeding recommendations
- If feeding problem, follow up in 14 days
- Assess for possible TB and HIV infection.
- Advise mother when to return immediately
- Counsel mother how to care for child development

8.3.4. **“No acute malnutrition” (Green):**

- If child is less than 2 years old, assess the child's feeding and counsel the mother on feeding according to the feeding recommendations
- If feeding problem, follow-up in 7 days
- Advise mother when to return immediately

8.3.5. To assess the child’s feeding practice ask:

1. Do you breastfeed your child? Yes ___ No ___
- 1.1. If yes, how many times in 24 hours? ___ times.
2. Do you breastfeed during the night? Yes ___ No ___
3. Does the child take any other foods or fluids? Yes ___ No ___
- 3.1. If Yes, what food or fluids?
- 3.2. How many times per day? ___ times.
4. What do you use to feed the child?
5. If moderate acute malnutrition:
 - 5.1. How large are servings?
 - 5.2. Does the child receive his own serving? ___
 - 5.3. Who feeds the child and how?
6. During this illness, has the child's feeding changed? Yes ___ No ___
- 6.1. If Yes, how?

8.3.6. Assess if present feeding problems. Give recommendations if necessary.

9. Then check for ANEMIA:

9.1. Look for palmar pallor.

9.1.1. Is it: Severe palmar pallor? / Some palmar pallor?

9.1.2. If present the CBC, assess the hemoglobin level.

9.2. **Classify anaemia:**

9.2.1. “**Severe anemia**” (Pink), if present Severe palmar pallor.

9.2.2. “**Anaemia**” (Yellow), if present Some palmar pallor

9.2.3. “**No anaemia**” (Green), if No palmar pallor

9.3. **Identify treatment** according the chosen classification – provide / prescribe treatment and / or counsel / teach the mother, if necessary advise the mother when to return to health worker and when to come to follow-up visit:

9.3.1. “**Severe anemia**” (Pink):

- Refer URGENTLY to hospital

9.3.2. “**Anaemia**” (Yellow):

- determine the level of hemoglobin;
- at the level of hemoglobin <70 g / l – urgently refer to the hospital;
- at the level of hemoglobin <110 g / l – give iron supplements (daily dose 5 mg / kg) and folic acid (daily dose 25-75 mcg depending on age);
- evaluate feeding and advise the mother on issues of feeding and care for development in accordance with the recommendations for the prevention of anemia (see the Booklet Chartbook);
- If feeding problem, follow up in 7 days
- Advise mother when to return immediately
- Follow-up in 14 days, check the hemoglobin level

9.3.3. “**No anaemia**” (Green):

- If child is less than 2 years old, assess the child's feeding and counsel the mother on feeding according to the feeding recommendations
- If feeding problem, follow-up in 7 days
- Advise mother when to return immediately

10. Then check the child's IMMUNIZATION status.

10.1. See which vaccinations the child has already received, and evaluate all vaccinations according to the Vaccination Calendar.

10.2. If all vaccinations are on the Vaccination Calendar, tell the caregiver when to come for the next vaccination.

10.3. Evaluate the BCG mark.

10.4. If the vaccination schedule is violated, clarify the cause of the violation.

10.4.1. If there are medical contraindications to vaccinations – specify their cause (specify the status of the mother for HIV infection), for how long the vaccinations are postponed, or observed in specialists.

10.4.2. If the period of medical contraindications to vaccinations has expired – recommend consultation with a specialist.

10.4.3. In the absence of medical contraindications to vaccinations – advise parents on the need for vaccination.

	<p>10.5. It is recommended to return again after the child recovers for vaccinations.</p> <p>11. Check the Vitamin D supplementation status.</p> <p>11.1. Ask if your child is getting vitamin D.</p> <p>11.1.1. If so, in what dose?</p> <p>11.2. Give recommendations for further intake of vitamin D.</p> <p>12. Check for other problems.</p> <p>13. Results and conclusions</p> <p>13.1. Ask the mother or father if they have any questions.</p> <p>13.2. Wish recovery (if necessary) and say goodbye.</p> <p><i>Notes:</i></p> <ol style="list-style-type: none"> 1. If you have already identified the "pink – code" classification, called the emergency medical team to transport the child to the hospital and performed all the actions from the right column of the "pink – code" of the relevant page of the IMCI Booklet Chartbook, continue the evaluation the algorithm until teacher do not stop you, then say the final 2 phrases of the algorithm. 2. Keep in mind that a child may have more than one complaint / main symptoms / problems. If you have already identified one classification of the "yellow – code" or "green – code", have already prescribed appropriate treatment and further recommendations of the mother on the detected condition, continue the evaluation of the algorithm, until the teacher stops you, then say the final 2 phrases of the algorithm. 3. If you find the classification "yellow – code" or "green – code" after the next scheduled visit, tell the mother that she should seek medical attention immediately if the child has any of these symptoms: - <i>All patients children</i>: if the child can not drink or breastfeed, the child becomes worse or the child has a fever; - <i>A child classified "cough or cold"</i>: the child has fast or shortness of breathing; - <i>A child classified "diarrhea "</i>: when detected the child has blood in the stool, or the child does not drink well 4. If the task indicates that certain steps to assess the condition of the child according to the IMCI algorithm have already been performed, and named the identified classifications of conditions and performed / prescribed treatment, in this case after greetings and acquaintances (first 3 steps of the algorithm) say that now you will continue to assess the child's condition, and start the assessment from the next point of the algorithm (after those that have already been assessed under the terms of the task). Continue the assessment according to the algorithm, until the teacher stops you, then say the final 2 phrases of the algorithm.
<p>A patient</p> <p>1. Foreign body of the respiratory tract</p>	<p>Algorithm for communication and additional examination for the differential diagnosis of the causes of prolonged (lasting more than 2 weeks) or chronic cough (lasting more than 8 weeks) and the choice of management tactics.</p>

2. Cystic fibrosis
3. Lymphogranulomatosis

The source of information:

1. Chang A.B., Marchant J.M. Approach to chronic cough in children. - Literature review: Nov 18, 2020. – UpToDate: https://www.uptodate.com/contents/approach-to-chronic-cough-in-children?search=chronic%20cough%20in%20children&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1

2. Наказ Міністерства охорони здоров'я України 15.07.2016 № 723 Уніфікований клінічний протокол первинної, вторинної (спеціалізованої) та третинної (високоспеціалізованої) медичної допомоги муковісцидоз), чинний.

1. Patient greeting and identification:

1. Give your name and patronymic, position.
 2. Ask the mother's name.
 3. Ask the child's name.
 4. Ask how old or months the child is.
 5. Say that you will now conduct a survey and examination of the child to determine the causes of a prolonged cough.
- 2. Ask:**
6. Did your child cough every day during this episode?
 7. Mostly at what time was the cough: in the morning, at night, during the day or all day?
 8. What is the nature of the cough?
 9. What provokes a cough that stops a cough, can a child be distracted to stop a cough?
 10. Does the child have a fever, if so, when did it appear?
 11. Did the cough start after the choking/choking episode?
 12. Was the baby born prematurely?
 13. Did the child have pneumonia at an early age? If yes, how many times?
 14. Has the child been vaccinated against whooping cough?
 15. Did the closest relatives have atopic dermatitis (eczema), food allergies, bronchial asthma, chronic respiratory diseases or atopic sensitization?
 16. Do they smoke in the house where the child lives?
 17. What medications was/is the child taking and what was the result: antibiotics, fast-acting bronchodilator, ACE inhibitor, immunosuppressive drugs?
- 3. Objective study (ask the teacher, if possible, evaluate on a mannequin or additional materials):**
18. Does the child have a delay in physical development?
 19. Does the child have dysembryogenesis stigmas/developmental defects, signs of chronic hypoxia (fingers - "drumsticks", nails - "watch glasses")?
 20. Does the child have allergic/atopic diseases?
 21. Does the child have any chronic diseases: rhinosinusitis, otitis media, diseases of the cardiovascular system, neurological or neuromuscular diseases, autoimmune diseases or immunodeficiencies or suspicion of them?
 22. Does the child have rapid breathing?
 23. Does the child have: shortness of breath (inhale, or exhale, or inhale and exhale), retraction/bloating of the chest, asymmetry/deformation of the chest?
 24. Are the following detected during auscultation: weakening of breathing, asymmetry of breathing; rales (stridor, wheezing, moist rales), crepitus; if yes, where is their localization, connection with the phases of respiration, how they change after coughing.
- 4. Additional research (ask the teacher, evaluate additional materials):**
25. Pulse oximetry.
 26. General clinical analysis of blood.
 27. X-ray of the chest organs.

5. Based on the results of the survey, the data of an objective study, the results of laboratory and instrumental studies,

	<p>establish a preliminary or clinical diagnosis, which is the cause of a prolonged cough, and determine the management tactics:</p> <p>Possible pulmonary causes of cough:</p> <ol style="list-style-type: none"> 1. Aspiration of a foreign body. Shown bronchoscopy. 2. Cystic fibrosis. It is necessary to study sweat chlorides, X-ray of the chest organs. 3. Bronchial asthma, asthma with cough dominance. In children from 5 years old - spirometry; trial treatment for asthma. 4. Protracted post-infectious cough (viral infections, whooping cough, a couple of whooping cough). If necessary, PCR, serological studies. 5. Enlarged intrathoracic lymph nodes (tuberculosis, Hodgkin's disease; prescribe a phthisiatrician's consultation, a puncture of the lymph nodes for histological examination and chest x-ray). <p>Possible options for extrapulmonary causes of prolonged or chronic cough:</p> <ol style="list-style-type: none"> 1. Small volume repeated aspiration: eg gastroesophageal reflux, esophageal achalasia. 24-hour pH-metry, esophagogastroscopy are required. 2. Postnasal inflow. Consultation of an otolaryngologist specialist). <p>6. Results and completion</p> <ol style="list-style-type: none"> 1. Ask the mother if she has any questions. <ol style="list-style-type: none"> 1. 2. Wish you get well (if needed) and say goodbye
<p>A patient</p> <ol style="list-style-type: none"> 1. Thrombocytopenia 2. Hemophilia 3. Hemorrhagic vasculitis 4. Acute leukemia <p>The source of information: O'Brien S. Approach to the child with bleeding symptoms: Literature review. - UpToDate: Sep 19, 2019. - https://www.uptodate.com/contents/approach-to-the-child-with-bleeding-symptoms?search=Approach%20to%20the%20child%20with%20bleeding%20symptoms&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1</p>	<p>Algorithm for the differential diagnosis of hemorrhagic diseases in children1.</p> <ol style="list-style-type: none"> 1. Say hello, introduce yourself. 2. Ask what is the name of the child's mother? 3. Ask what is the name of the child? 4. Specify the age and gender of the child. 5. Ask: did the bleeding symptoms occur for the first time or are they repeated? 6. Determine what kind of hemorrhagic manifestations are present: <ul style="list-style-type: none"> - petechiae, ecchymosis (bruises); - bleeding (from the mucous membranes of the mouth, nose, gastrointestinal tract, urinary tract, uterine, etc.); - hematomas (joints, muscles, or soft tissues)? 7. Where are hemorrhagic elements localized (throughout the body, on the extremities, mainly around the joints)? 8. Did the signs of bleeding occur spontaneously or after trauma? 9. Was hemorrhagic manifestations preceded or accompanied by an infection or disease manifested by fever? 10. Are there any complaints of abdominal pain? 11. Assess the family history: have other family members had bleeding symptoms? <ol style="list-style-type: none"> 11.1. For bruising or bleeding after injuries in boys, ask if brothers or maternal uncles or grandfathers have bleeding symptoms. 12. Has the child taken medications such as aspirin, other non-steroidal anti-inflammatory drugs, warfarin, or herbs such as ginger, feverfew (Tanacetum parthenium), ginkgo biloba? 13. Does the child have signs of a systemic inflammatory response, or enlarged lymph nodes, or hepato-splenomegaly, or signs of systemic vasculitis, or severe liver disease?

	<p>14. Ask for the results of the initial screening tests and evaluate:</p> <p>14.1. Complete blood count with peripheral blood smear examination, including platelet count and size;</p> <p>14.2. Prothrombin ratio /international normalized ratio (PR/INR, PR/INR);</p> <p>14.3. Activated partial thromboplastin time (APTT, aPTT).</p> <p>15. The presence of a mucocutaneous rash (petechiae, ecchymosis) in a child, depending on the number and size of platelets in peripheral smears with a high probability of morbidity:</p> <ul style="list-style-type: none"> - When thrombocytopenia with increased platelets is detected, this is immune (idiopathic) thrombocytopenic purpura. - If thrombocytopenia with normal platelet sizes is detected, it is aplastic anemia (thrombocytopenia characteristic anemia and leukopenia - pancytopenia), or thrombocytopenia (characteristic anemia, hyperleukocytosis-splenomegaly), or vascular coagulation syndrome / sepsis (clinical lesions of systemic leukemia) fever, tachycardia , tachypnea, leukocytosis with neutrophilia and a shift of the leukocyte formula to the left). - If the platelet count is normal, the detected palpable purpura is localized around the joints (possibly with abdominal pain and hematuria) - this is hemorrhagic vasculitis. - If the platelet count is normal, the detected tumor in the form of polymorphic, polychromic, asymmetrically associated ecchymosis (bruises) is probably thrombocytopathy. <p>16. The presence of a child with hematoma / bleeding (from the mouth, nose, gastrointestinal tract, urinary tract, uterine, after surgical interventions, etc.) according to the results of screening coagulogram parameters with a certain probability in children:</p> <ul style="list-style-type: none"> - If the child develops diseases such as PR/INR (PR/INR) and APTT (aPTT) - this is disseminated intravascular coagulation (DIC)/sepsis, or severe liver failure, or severe vitamin K deficiency, or anticoagulant poisoning (for example: warfarin). - If PR/INR (PR/INR) is normal and APTT (aPTT) is prolonged, this is a deficiency of coagulation disease VIII (hemophilia A) or other coagulation factors (eg, IX, XI, XII). <ul style="list-style-type: none"> <input type="checkbox"/> PR/INR (PT/INR) is prolonged, and APTT (aPTT) is normal - this is a hereditary or acquired deficiency VII If clotting or poisoning with anticoagulants occurs. <input type="checkbox"/> If PT/INR (PT/INR) and APTT (aPTT) are normal, it is platelet dysfunction (including thrombocytopenia and thrombocytopathy), or hemorrhagic vasculitis, or deficiency of XIII clotting events.
<p>A patient</p> <p>Risk of developing bronchial asthma:</p> <ul style="list-style-type: none"> - unlikely - high - bronchial asthma <p>The source of information: Діагностика та лікування</p>	<p>11.41.4 Algorithm of communication for assessing the bronchial asthma risk in children in the first 5 years of life and the choice of management tactics</p> <p>1. Invitation and identification of the patient</p> <ol style="list-style-type: none"> 1.1. Introduce yourself: full name, occupation 1.2. Ask the mother's or father's name 1.3. Ask the child's name 1.4. Ask how old the child is (months or years) 1.5. Explain that you will now examine and assess the child's risk to have bronchial asthma. <p>2. Questioning:</p> <ol style="list-style-type: none"> 2.1. Ask: Does your child have wheezing (asthmatic breathing)?

бронхіальної астми у дітей віком 5 років і молодше: Global Initiative for Asthma – GINA, перегляд 2019

- 2.2. Explain to the mother that wheezing is a high-pitched noise which comes from the chest and not the throat.
- 2.2.1. If the mother is sure that the child has wheezing, go to the next question.
- 2.2.2. If the mother cannot say for sure if the child has episodes of wheezing, ask her to record an episode on a smartphone (if available), it can help to confirm the presence of wheeze and differentiate from upper airway abnormalities.
- 2.3. How many times a year your child has episodes of cough with wheeze / heavy breathing: 2-3 episodes OR >3 episodes per year?
- 2.4. For how long did the symptoms (cough, wheeze, heavy breathing) last during upper respiratory tract infections (URTI): < 10 days OR ≥10 days?
- 2.5. Does your child wake up at night because of cough, wheeze, "heavy breathing" or "difficult breathing", or "breathlessness" between URTI episodes?
- 2.6. Does your child have to stop running, or play less hard, because of coughing, wheezing, heavy breathing or shortness of breath?
- 2.7. Does your child cough, wheeze or get "difficult breathing", "heavy breathing", or "shortness of breath" when laughing, crying, playing with animals, or when exposed to strong smells or smoke?
- 2.8. Has your child ever had eczema, or been diagnosed with allergy to foods?
- 2.9. Has anyone in your family had asthma, hay fever, food allergy, eczema, or any other disease with breathing problems?

3. Based on the results of the survey, assess the risk of bronchial asthma in a child and determine the tactics of further management of the child:

3.1. Tell to the mother:

AS:

1. During URTI symptoms (cough, wheeze, heavy breathing) lasted less than 10 days;
2. The episodes of cough with wheeze were seen 2-3 times per year;
3. No symptoms between episodes

- The bronchial asthma is not suggested in your child, in this case few children have asthma.

- Let's continue the standard observing plan for your child.

OR

3.2. Tell to the mother:

AS:

1. During URTI symptoms (cough, wheeze, heavy breathing) lasted longer than 10 days;
2. The episodes of cough with wheeze >3 times per year, or severe episodes and / or night worsening ;
3. Between episodes child had occasional cough, wheeze or heavy breathing.

- The risk of bronchial asthma is present in your child, in this case some children have asthma.

	<p><i>- Let's continue to carefully assess your child's respiratory illness and cough episodes between respiratory illnesses.</i></p> <p>OR</p> <p>3.3. Tell to the mother:</p> <p>AS:</p> <ol style="list-style-type: none"> 1. During URTI symptoms (cough, wheeze, heavy breathing) lasted longer than 10 days; 2. The episodes of cough with wheeze >3 times per year, or severe episodes and / or night worsening; 3. Between episodes of URTI the child had occasional cough, wheeze or heavy breathing during play or when laughing. 4. Allergic sensitization, atopic dermatitis, food allergy, or family history of asthma is seen. <p>- The bronchial asthma is suggested in your child, in this case most children have asthma.</p> <p>- I refer your child to a specialist to confirm the bronchial asthma diagnosis.</p> <p>4. Results and conclusions</p> <ol style="list-style-type: none"> 4.1. Ask the mother or father if they have any questions. 4.2. Wish recovery (if necessary) and say goodbye
<p>A patient</p> <p>Rickets</p> <p>- "Nutritional rickets - as a result of reduced intake of vitamin D and minerals in the diet and lack of vitamin D prophylaxis (most common).</p> <p>-Secondary rickets as a result of impaired absorption of vitamin D and minerals in malabsorption syndrome with impaired absorption of fats (cystic fibrosis, celiac disease) or severe liver damage with cholestasis (atresia of the bile ducts).</p> <p>- "Renal osteodystrophy" in chronic kidney disease with chronic renal failure.</p>	<p>Algorithm for assessment, differential diagnosis and medical management of rickets in children under 3 years</p> <p>1. Invitation and identification of the patient</p> <ol style="list-style-type: none"> 1.1. Introduce yourself: full name, occupation 1.2. Ask the mother's and child's name <p>2. Assess the risk factors for rickets in young children. Ask:</p> <ol style="list-style-type: none"> 2.1. Has the baby been on exclusive breastfeeding for the first six months or longer? 2.2. Is the baby born preterm? 2.3. Has the child received a prophylactic dose of vitamin D during his life? 2.4. Did the child receive enough foods rich in vitamin D (fatty fish, eggs, vegetable oil) at an early age? 2.5. Did the child receive enough calcium-rich foods at an early age (0.5 liters or more of dairy products per day)? 2.6. Was the child diagnosed with chronic diseases: <ol style="list-style-type: none"> 2.6.1. Diseases manifested by malabsorption syndrome with signs of impaired fat absorption? 2.6.2. Liver disease with signs of cholestasis? 2.6.3. Kidney disease with signs of kidney dysfunction? 2.7. Has the child been taking anticonvulsants, or diuretics, or corticosteroids, or anti-TB drugs, or antifungal drugs for a long time? <p>3. Ask about the results of additional research (list the necessary tests):</p> <ol style="list-style-type: none"> 1. Serum Parathyroid hormone (Normative values: 15–65 pg/ml).. 2. Serum Inorganic phosphorus (Normative values: 1–12 month.: 1,15–2,15 mmol/l; 1–3 роки: 1,0–1,95 mmol/l). 3. Serum Ionized calcium (Normative values: 1,16 – 1,32 mmol/l). 4. Serum 25-hydroxyvitamin D (25OH-D) (40–60 нг/мл – optimal level; 30–40 нг/мл – latent preclinical

- Rickets due to medication

The source of information:

1. Настанова 00642. Рахіт. Версія цього документу для друку: <http://guidelines.moz.gov.ua/documents/2918?id=ebm00642&format=pdf>
2. Квашніна Л.В. Вітамін D у різні періоди дитинства: що знаємо, що треба пам'ятати і що забули. 25.12.2017. Режим доступу: <https://health-ua.com/article/32672-vtamn-D-urzn-perodi-ditinstva-sho-znamo-sho-treba-pamyatati--sho-zabuli>

hypovitaminosis D; 20–30 нг/мл – insufficiency; <20 нг/мл – deficiency).

5. Serum Alkaline phosphatase (Normative values: < 1 року: 150–507 IU/l; 1–12 років: 0–500 IU/l)/

4. Based on the evaluation of the results of the concentration of serum parathyroid hormone, inorganic phosphorus and calcium, determine whether it is calcipenic or phosphopenic rickets:

4.1. *Calcipenic rickets*, if the concentration of parathyroid hormone is significantly increased, inorganic phosphorus is normal or reduced, ionized calcium is reduced or normal.

OR

4.2. *Phosphopenic rickets*, if the concentration of parathyroid hormone is normal or reduced, calcium is normal, and phosphorus is moderately or significantly reduced.

5. Based on the concentration of 25-hydroxyvitamin D (25OH-D), determine vitamin D-deficient rickets or vitamin D-independent or resistant rickets:

5.1. *Vitamin D deficiency rickets*, if there is a deficiency or deficiency of 25-hydroxyvitamin D (25OH-D); in the vast majority of cases it is calcipenic rickets).

5.1.1. Determine the cause of vitamin D deficiency rickets:

- "Nutritional" rickets - as a result of reduced intake of vitamin D and minerals with food and lack of prevention of vitamin D (the most common).

OR

-Secondary rickets as a result of malabsorption of vitamin D and minerals in malabsorption syndrome with impaired fat absorption (cystic fibrosis, celiac disease) or severe liver damage with cholestasis (bile duct atresia).

OR

- "Renal osteodystrophy" in chronic kidney disease with chronic renal failure.

OR

- Rickets due to medication.

5.2. *Vitamin D-independent rickets*, if the level of 25-hydroxyvitamin D (25OHD) is optimal; in the vast majority of cases it is phosphopenic rickets - hereditary "renal" rickets.

6. Determine the activity of rickets according to the evaluation of alkaline phosphatase:

6.1. Significantly increased (≥ 800 IU / l, often up to 2000 IU / l) during the period of extensive clinical manifestations in "Nutritional" or secondary rickets (in chronic diseases) or when taking medication.

6.2. Moderately elevated (500-800 IU / l) in hereditary forms of phosphopenic rickets.

7. Choose tactics of medical management:

7.1. At calcipenic vitamin D-deficient rickets appoint treatment or prevention:

7.1.1. *Assign vitamin D (cholecalciferol):*

7.1.1.1. If vitamin D deficiency is detected <20 ng / ml, prescribe cholecalciferol 3000 IU per day for 1 month.

7.1.1.2. If vitamin D deficiency is found to be 20-30 ng / ml, prescribe cholecalciferol 2000 IU per day for 1 month.

	<p>7.1.1.3. Cholecalciferol 4000 IU per day for 1 month for children with chronic diseases and children receiving medications that disrupt vitamin D metabolism.</p> <p>7.1.1.4. Children who have latent preclinical hypovitaminosis D and no significant activity of the rickets in the level of alkaline phosphatase, appoint a constant prophylactic intake of cholecalciferol 1000 IU per day.</p> <p>7.1.2. Prescribe oral calcium 50 mg / kg per day (divided into 4 doses) for 2 weeks if calcium intake is insufficient or low.</p> <p>7.1.3. It is recommended to give the child 0.5 liters or more of dairy products per day.</p> <p>7.2. In phosphopenic rickets, say that the manifestations of rickets are due to loss of phosphate by the kidneys due to hereditary tubulopathies (hereditary "renal" rickets).</p> <p>7.2.1. Refer the child to a pediatric nephrologist to clarify the diagnosis.</p> <p>8. Follow-up in 1 month.</p> <p>9. Results and conclusions.</p> <p>9.1. Ask your mother if she has any questions.</p> <p>9.2. Wish recovery (if necessary) and say goodbye.</p>
<p>Children's infectious diseases Diagnosis and treatment of chickenpox without complications</p> <p>The source of information: (ВІТРЯНА ВІСПА. КЛІНІЧНА НАСТАНОВА, ЗАСНОВАНА НА ДОКАЗАХ. - Державний експертний Центр МОЗ України, 2016р.)</p>	<p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and anamnesis data (features of the history, the presence of contacts with a patient with chickenpox, the peculiarities of the onset of the disease, the duration of the disease) 2. Evaluate the results of the child's examination (state of consciousness, signs of danger - hyperthermia, convulsions, refusal to eat, shortness of breath, difficulty breathing with the accessory muscles of the chest; symptoms of intoxication, body temperature, skin condition, generalized rash on the skin of the torso, face, limbs, scalp, itchy skin, mouth ulcers, purulent discharge from the eyes) 3. Formulate a diagnosis, presents of the complications 4. Give one dose of paracetamol (single dose of 15 mg / kg) 5. Inject Cefotaxime 50 mg / kg intramuscularly in case of bacterial complications 6. Give acyclovir at a dose of 10 mg / kg per day intravenously in severe chickenpox for immunocompromised patients 7. Lubricate the vesicles with lotion a Calamine 8. Give Fenistil 10 drops 3 times a day 9. Rinse your mouth after each meal with a solution of furacillin 10. Direct the child to the boxed ward of the hospital 11. Prescribe a bed rest for the period of fever 12. Encourage additional fluid intake to avoid dehydration 13. Isolate the child for 5 days from the appearance of the last elements of the rash.
<p>Children's infectious diseases Diagnosis and treatment of diphtheria</p> <p>The source of information: (Дифтерія. Клінічна настанова. —</p>	<p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and anamnesis data (features of epidemiological history, presence of contacts with a patient with diphtheria or sore throat, features of disease onset, diphtheria vaccination) 2. Evaluate the results of the child's examination (state of consciousness, signs of danger - hyperthermia, convulsions, refusal to eat, shortness of breath, difficulty breathing with the accessory muscles of the chest; symptoms of intoxication, body temperature,

<p>Державний експертний Центр МОЗ України, 2018р.)</p>	<p>cough, runny nose, skin condition, enlargement and soreness of lymph nodes, the presence of plaque on the tonsils and their prevalence, redness of the mucous membrane of the oropharynx, it's swelling, tachycardia)</p> <ol style="list-style-type: none"> 3. Formulate a diagnosis. 4. Inject intramuscular diphtheria antitoxin at a dose of 50,000 IU after a negative reaction during the test 5. Give one dose of Ibuprofen, a single dose of 10 mg / kg 6. Give ceftriaxone at a dose of 100 mg / kg per day intravenously 7. Intravenously administer prednisolone at a dose of 2 mg / kg in moderate form 8. Rinse the child's throat with a solution of furacillin 9. Intravenously inject a solution of 0.9% sodium chloride 10 ml / kg / day in severe intoxication 10. Intravenously inject 5% glucose solution at a dose of 10 ml / kg / day in severe intoxication 11. Direct the child to the boxed department of the infectious disease hospital urgently 12. Take a swab from the throat and nose in the presence of plaque on the tonsils
<p>Children's infectious diseases:</p> <p>Diagnosis and treatment of scarlet fever without complications</p> <p>The source of information: (Настанови на засадах доказової медицини Створені DUODECIM Medical Publications Ltd. - Настанова 00610 Фарингіти і тонзиліти у дітей, 2016) (СТРЕПТОКОКОВА ІНФЕКЦІЯ)</p>	<p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and anamnesis data (features of the history, the presence of contacts with a patient with streptococcal infection, features of the onset of the disease, the duration of the disease) 2. Evaluate the results of the child's examination (state of consciousness, signs of danger - hyperthermia, convulsions, refusal to eat, shortness of breath, difficulty breathing with the accessory muscles of the chest; symptoms of intoxication, body temperature, skin condition, enlargement and soreness of lymph nodes, generalized skin rash, sore throat, limited hyperemia of the soft palate (burning throat), white dermographism, tachycardia, increased blood pressure) 3. Formulate a diagnosis. 4. Give one dose of Ibuprofen, a single dose of 10 mg / kg 5. Give amoxicillin at a dose of 50 mg / kg per day (per os) 6. Rinse the child's throat with a solution of furacillin 7. Inform the mother of conditions that require immediate re-treatment 8. In the absence of severe signs of the disease to carry out treatment at home. Bed rest during the acute period. 9. Take a swab from the throat and nose in the presence of plaque on the tonsils 10. Prescribe an express test for group A streptococcus antigen 11. Encourage adequate fluid intake to avoid dehydration 12. Re-examination in 2 days.
<p>Children's infectious diseases:</p> <p>Diagnosis and treatment of rubella</p> <p>The source of information:</p>	<p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and history (features of the history, the presence of contact with a patient with rubella, the peculiarities of the onset of the disease, the duration of the disease, the presence of vaccination in a child)

<p>(Настанови на засадах доказової медицини Створені DUODECIM Medical Publications, Ltd. - Настанова 01014 Кіпр, епідемічний паротит і краснуха 2018)</p>	<ol style="list-style-type: none"> 2. Evaluate the results of the child's examination (state of consciousness, signs of danger - hyperthermia, convulsions, refusal to eat, shortness of breath, difficulty breathing with the accessory muscles of the chest; symptoms of intoxication, body temperature, presence of catarrhal symptoms, presence of rash on the skin, enlargement of lymph nodes, the presence of enanthema) 3. Formulate a diagnosis 4. Give one dose of paracetamol (single dose of 15 mg / kg) 5. Soften the child's throat with a warm drink 6. Send the child's blood to determine Ig M to the pathogen by ELISA and preformed PCR. 7. Inform the mother of conditions that require immediate re-treatment 8. In the absence of severe signs of the disease to carry out treatment at home. Bed rest during the acute period. 9. Encourage adequate fluid intake to avoid dehydration 10. Re-examination in 2 days.
<p>Children's infectious diseases:</p> <p>Diagnosis and treatment of whooping cough without complications</p> <p>The source of information: (Настанови на засадах доказової медицини. Створені DUODECIM Medical Publications, Ltd. - Настанова 00618. Кашлюк, 2016)</p>	<p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and anamnesis data (features of the epidemiological anamnesis, the presence of vaccination, contacts with whooping cough patients, features of the onset of the disease, the duration of the disease) 2. Evaluate the results of the examination of the child (state of consciousness, the presence of danger symptoms - hyperthermia, convulsions, refusal to eat and drink, shortness of breath, shortness of breath with the participation of auxiliary muscles; symptoms of intoxication, temperature, the presence of skin rash, the presence of catarrhal symptoms, cough, character of cough, the presence of reprises, vomiting after a coughing attack, apnea. The auscultation data of the respiratory and cardiovascular system) 3. Make a diagnosis. Presents of the complications. 4. Give one dose of Ibuprofen (single dose 10 mg / kg) 5. Give Azithromycin 10 mg / kg per os. 6. Take a swab from nasopharyngeal mucus for B. pertussis by PCR 7. Direct the child's blood for the determination of Ig M to the pathogen by the ELISA method. 8. Direct the child to the boxed ward of the infectious diseases hospital. 9. Assign mode-maintenance of optimal air regime (frequent airing, wet cleaning). 10. Treat the mucous membrane of the oral cavity with (erosion) 1% aqueous solution of methylene blue in the presence of ulcers 11. Isolate the child for 5 days from the start of antibiotic therapy
<p>Children's infectious diseases:</p>	<p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and anamnesis data (features of the epidemiological anamnesis, the presence of vaccination, contacts

<p>Diagnosis and treatment of parotitis infection</p> <p>The source of information: (Настанови на засадах доказової медицини Створені DUODECIM Medical Publications Ltd. - Настанова 01014 Кір, епідемічний паротит і краснуха 2018)</p>	<p>with parotitis infection patients, features of the onset of the disease, the duration of the disease)</p> <ol style="list-style-type: none"> 2. Evaluate the results of the examination of the child (state of consciousness, the presence of signs of danger - hyperthermia, convulsions, refusal to eat, shortness of breath, shortness of breath with the participation of auxiliary muscles; symptoms of intoxication, body temperature, skin rash, enlarged and painful lymph nodes, swelling of the parotid salivary glands, their characteristic, sequential attachment of damage to other glands, the appearance of symptoms of pancreatitis, orchitis, meningitis) 3. Make a diagnosis. 4. Give one dose of Ibuprofen (single dose 10 mg / kg) 5. Send the child to the boxed department of the infectious diseases hospital 6. Direct urine analysis for amylase 7. Send the child's blood for the determination of Ig M to the pathogen by the IFA method 8. Intravenously inject a solution of 0.9% sodium chloride at a dose of 10 ml / kg per day 9. Intravenous administration of mannitol solution at a dose of 1 g / kg per day 10. Prescribe a bed rest in the acute period. 11. Dry heat on the parotid salivary glands. 12. Rinse the mouth with 5% boric acid solution 13. Isolate the child for 9 days from the start of the disease
<p>Children's infectious diseases:</p> <p>Diagnosis and treatment of infectious mononucleosis</p> <p>The source of information: (Настанови на засадах доказової медицини Створені DUODECIM Medical Publications Ltd. - Настанова 00014 Мононуклеоз, 2017)</p>	<p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and anamnesis data (features of the history, the presence of contact with a patient with infectious mononucleosis, the peculiarities of the onset of the disease, the duration of the disease, the presence of vaccination in a child) 2. Evaluate the results of the child's examination (state of consciousness, the presence of symptoms of intoxication, the presence of seizures, body temperature, skin condition, the presence of rash, nasal breathing difficulties, puffiness of the face, tissue turgor, large temples, mucous membranes, layers on the tonsils, the presence of signs of CNS damage, enlargement and soreness of the lymph nodes, the presence of symptoms of damage to the respiratory and cardiovascular systems, the state of the gastrointestinal tract, the presence of symptoms of liver and spleen, urinary system, the number and nature of bowel movements) 3. Formulate a diagnosis. 4. Send a blood test to detect virocytes 5. Send the child's blood for determination of VCA IgM, EA IgM to the pathogen EBV by ELISA 6. Send the child's blood for determination of EBV antigen by PCR 7. Give Ceftriaxone 100 mg / kg daily intramuscularly 8. Give one dose of Ibuprofen, a single dose of 10 mg / kg 9. Intravenously prednisolone at a dose of 2 mg / kg per day 10. Intravenously inject a solution of 0.9% sodium chloride at a dose of 10 ml / kg per day 11. Rinsing the mouth with a solution of furacillin 12. To direct the child to the boxed department of the hospital of the infectious hospital, to limit physical activity

<p>Children's infectious diseases:</p> <p>Diagnosis and treatment of influenza without complications</p> <p>The source of information: (Наказ Міністерства охорони здоров'я України 16.07.2014 №499 УНІФІКОВАНИЙ КЛІНІЧНИЙ ПРОТОКОЛ первинної, вторинної (спеціалізованої) медичної допомоги дорослим та дітям "Грип")</p>	<p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and anamnesis data (features of the history, the presence of contact with a patient with measles, the peculiarities of the onset of the disease, the duration of the disease, the presence of vaccination in a child) 2. Evaluate the results of the child's examination (state of consciousness, the presence of signs of danger - hyperthermia, convulsions, refusal to eat, shortness of breath, difficulty breathing with the accessory muscles of the chest; symptoms of intoxication, body temperature, skin rash, mucous membranes, the presence of layers on the tonsils, the presence of signs of CNS damage, enlargement and soreness of lymph nodes, the presence of symptoms of damage to the respiratory and cardiovascular systems, the state of the gastrointestinal tract, the presence of symptoms of liver and spleen, urinary system, number and nature of stools) 3. Formulate a diagnosis, presents of the complications 4. Direct nasopharyngeal lavage to detect virus antigen by PCR. 5. Send blood for antibodies to the virus 6. Give one dose of Ibuprofen, a single dose of 10 mg/kg 7. To direct the child to the boxed department of the hospital of the infectious disease hospital 8. Assign bed rest and drink plenty of fluids 9. Give Glaucine 10 mg 2 times/day 10. Assign 0.025% oxymetazoline for 1 injection 2 times/day
<p>Children's infectious diseases:</p> <p>Diagnosis and treatment of complicated influenza</p> <p>The source of information: (Наказ Міністерства охорони здоров'я України 16.07.2014 №499 УНІФІКОВАНИЙ КЛІНІЧНИЙ ПРОТОКОЛ первинної, вторинної (спеціалізованої) медичної допомоги дорослим та дітям "Грип")</p>	<p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and anamnesis data (features of the epidemiological anamnesis, the presence of contacts with a patient suffering from influenza or ARVI, features of the onset of the disease, the duration of the disease, the timing of the onset of complications) 2. Evaluate the results of the child's examination (state of consciousness, the presence of signs of danger - hyperthermia, convulsions, refusal to eat, shortness of breath, difficulty breathing with the accessory muscles of the chest; symptoms of intoxication, body temperature, skin rash, mucous membranes, the presence of layers on the tonsils, the presence of signs of CNS damage, enlargement and soreness of lymph nodes, the presence of symptoms of damage to the respiratory and cardiovascular systems, the state of the gastrointestinal tract, the presence of symptoms of liver and spleen, urinary system, number and nature of stools) 3. Formulate a diagnosis, presents of the complications 4. Direct nasopharyngeal lavages to viral antigen detection by PCR. 5. Direct blood to detect antibodies to the virus 6. Order a chest x-ray 7. Give one dose of Ibuprofen, single dose 10mg / kg 8. Give Oseltamivir 1 capsule 75 mg 2 times a day 9. Give Ceftriaxone at a dose of 100 mg / kg per day intramuscularly 10. Send the child to the boxed ward of the infectious diseases hospital 11. Assign bed rest and intake of large amounts of fluids 12. Give Ambroxol hydrochloride 2.5 ml of syrup 3 times a day.

<p>Children's infectious diseases: Diagnosis and treatment of measles with complications</p> <p>The source of information: (Настанови на засадах доказової медицини Створені DUODECIM Medical Publications Ltd. - Настанова 01014 Кіп, епідемічний паротит і краснуха 2018)</p>	<p>13. Prescribe 0.025% oxymetazoline 1 injection 2 times/day</p> <p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and anamnesis data (features of the history, the presence of contact with a patient with measles, the peculiarities of the onset of the disease, the duration of the disease, the presence of vaccination in a child) 2. Evaluate the results of the child's examination (state of consciousness, signs of danger - hyperthermia, convulsions, refusal to eat, shortness of breath, difficulty breathing with the help of auxiliary muscles of the chest; symptoms of intoxication, body temperature, skin condition, generalized rash and one of the following signs: cough, runny nose or redness of the eyes, mouth ulcers, purulent discharge from the eyes, corneal opacity) 3. Formulate a diagnosis, presents of the complications 4. Give one dose of paracetamol (single dose of 15 mg / kg) 5. Inject Cefotaxime 50 mg / kg intramuscularly in the presence of pneumonia 6. Give vitamin A 200 thousand IU at a time 7. In case of purulent discharge from the eyes, remove the pus with gauze and boiled water. Instill 0.02% solution of decamethoxine 2 drops in both eyes 4-6 times a day 8. For mouth ulcers, treat the oral mucosa with a 1% aqueous solution of methylene blue 9. Assign a blood test for antibodies to the measles virus and PCR testing. 10. Inform the mother of conditions that require immediate re-treatment 11. Re-examination in 3 days
<p>Children's infectious diseases: Diagnosis and treatment of enterovirus infection</p> <p>The source of information: (Настанови на засадах доказової медицини Створені DUODECIM Medical Publications Ltd. - Настанова 01026 Ентеровірусні інфекції, 2018)</p>	<p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and history (features of the history, the presence of contact with a patient with enterovirus infection, the peculiarities of the onset of the disease, the duration of the disease, the presence of vaccination in children) 2. Evaluate the results of the child's examination (state of consciousness, signs of danger - hyperthermia, convulsions, refusal to eat, shortness of breath, difficulty breathing with the auxiliary muscles of the chest; symptoms of intoxication, body temperature, skin condition, generalized rash, catarrhal syndrome, tissue turgor, large temporal lobe condition, mucosal condition, signs of CNS damage, enlargement of lymph node, symptoms of respiratory and cardiovascular lesions, gastrointestinal condition, liver and spleen, urinary tract symptoms, number and nature of bowel movements) 3. Formulate a diagnosis, name the clinical form of the diseases 4. Send the child's blood for IgM to enterovirus by ELISA 5. Direct the child's blood to determine the enterovirus antigen by PCR 6. Give one dose of Ibuprofen, single dose of 10 mg / kg 7. Inject solution of 0.9% sodium chloride at a dose of 10 ml / kg intravenously 8. Direct the child to the boxed department of the infectious disease hospital

<p>Children's infectious diseases</p> <p>Diagnosis and treatment of acute non-bacterial tonsillopharyngitis</p> <p>The source of information:</p> <p>Наказ МОЗ України від 14.09.2021 № 1945 "Про затвердження Уніфікованого клінічного протоколу первинної медичної допомоги «Інтегроване ведення хвороб дитячого віку»":</p>	<p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and anamnesis data (features of epidemiological history, presence of contacts with a patient with streptococcal infection or ARVI, features of disease onset, duration of the disease) 2. Evaluate the results of the child's examination (state of consciousness, signs of danger - hyperthermia, convulsions, refusal to eat, shortness of breath, difficulty breathing with the accessory chest muscles; symptoms of intoxication, body temperature, runny nose, cough, soreness of the anterior lymph nodes, condition of the skin, presence of rash on the skin, bright redness of the mucous membrane of the oral pharynx, the presence of plaque on the tonsils) 3. Formulate a diagnosis. 4. Urgently direct the child to an infectious hospital if diphtheria is suspected 5. Take a swab from the throat and nose in the presence of plaque on the tonsils 6. Give one dose of Ibuprofen, a single dose of 10 mg / kg 7. Relieve a sore throat with a warm drink 8. Inform the mother of conditions that require immediate re-treatment 9. In the absence of severe signs of the disease to carry out treatment at home. Bed rest during the acute period. 10. Encourage adequate fluid intake to avoid dehydration 11. Re-examination in 2 days.
<p>Children's infectious diseases</p> <p>Diagnosis and treatment of hemocolitis with moderate dehydration</p> <p>The source of information:</p> <p>Наказ МОЗ України від 14.09.2021 № 1945 "Про затвердження Уніфікованого клінічного протоколу первинної медичної допомоги «Інтегроване ведення хвороб дитячого віку»"</p>	<p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and anamnesis data (peculiarities of epidemiological history, presence of contacts with a patient with intestinal infection, peculiarities of disease onset, duration of disease) 2. Evaluate the results of the child's examination (state of consciousness, signs of danger - hyperthermia, convulsions, refusal to eat, shortness of breath, difficulty breathing with the accessory muscles of the chest, dehydration; symptoms of intoxication, body temperature, skin condition, tissue turgor, condition of the big fontanelle, "inflamed" eyes, condition of mucous membranes, presence of signs of CNS damage, enlargement of lymph nodes, presence of symptoms of respiratory and cardiovascular system damage, condition of gastrointestinal tract, urinary system, number and character of stools, presence of blood in the stool) 3. Formulate a diagnosis. 4. Continue breastfeeding as needed 5. Give ORS 450 - 800 ml for 4 hours, then continue to give fluid in addition to the disappearance of symptoms (with moderate dehydration) 6. Teach mother how to give ORS: small sips from a cup or spoon 7. Give one dose of ibuprofen (single dose of 10 mg / kg) 8. Inject Ceftriaxone 50 mg / kg intramuscularly in the presence of blood admixture in the stool 9. Direct the child to the boxed department of the hospital urgently
<p>Children's infectious diseases</p>	<p>Algorithm of doctor's actions</p> <ol style="list-style-type: none"> 1. Evaluate complaints and anamnesis data (peculiarities of epidemiological history, presence of contacts with a patient with

<p>Diagnosis and treatment of secretory diarrhea</p> <p>The source of information:</p> <p>Наказ МОЗ України від 14.09.2021 № 1945 "Про затвердження Уніфікованого клінічного протоколу первинної медичної допомоги «Інтегроване ведення хвороб дитячого віку»"</p>	<p>intestinal infection, peculiarities of disease onset, duration of disease)</p> <ol style="list-style-type: none"> 2. Evaluate the results of the child's examination (state of consciousness, signs of danger - hyperthermia, convulsions, refusal to eat, shortness of breath, difficulty breathing with the accessory muscles of the chest, dehydration; symptoms of intoxication, body temperature, skin condition, tissue turgor, condition of the big fontanelle, "inflamed" eyes, condition of mucous membranes, presence of signs of CNS damage, enlargement of lymph nodes, presence of symptoms of respiratory and cardiovascular system damage, condition of gastrointestinal tract, urinary system, number and character of stools, presence of blood in the stool) 3. Formulate a diagnosis. 4. Continue breastfeeding as needed 5. Give ORS 450 - 800 ml for 4 hours, then continue to give fluids in addition to the disappearance of symptoms (with moderate dehydration) due to plan B 6. Teach mother how to give ORS: small sips from a cup or spoon 7. Give one dose of ibuprofen (single dose of 10 mg / kg) 8. Give zinc 20 mg 1 time per day 9. Inform the mother of conditions that require immediate re-treatment: the child drinks badly, the child cannot drink or breastfeed, the child is getting worse, the child has fewer, the appearance of blood in feces. 10.If there are no other severe manifestations, treat at home.
<p>Children's infectious diseases</p> <p>Hybrid patient</p> <p>Diagnosis and medical care for acute stenosis</p> <p>Laryngotracheitis</p> <p>The source of information:</p> <p>Наказ МОЗ України від 14.09.2021 № 1945 "Про затвердження Уніфікованого клінічного протоколу первинної медичної допомоги «Інтегроване ведення хвороб дитячого віку»"</p>	<p>Algorithm of doctor's actions</p> <p>Say hello and give your first and last name.</p> <p>Ask the mother's name.</p> <p>Ask the child's name and age or months.</p> <p>Say that you will be examining and assessing your child's condition now.</p> <p>Ask (check the signs of dangerous):</p> <p>Can a baby drink or breastfeed?</p> <p>Does the child vomit after each meal or drink?</p> <p>Did the child have seizures during this disease?</p> <p>Look:</p> <p>Is a child not lethargic, is he conscious?</p> <p>Does the child have seizures at the moment?</p> <p>Ask:</p> <p>Does the child have a cough or difficulty breathing?</p> <p>If yes, ask: How long, how many days lasting cough? When did shortness of breath occur?</p> <p>Calculate the frequency of breaths per minute Evaluate: rapid breathing?</p> <p>See if there is a chest retraction</p> <p>Look and listen to see if there is a stridor</p> <p>Look and listen for asthma breathing (after auscultation, say aloud if there is astmoid breathing)</p> <p>Classify the child's condition based on the identified symptoms</p> <p>Choose management tactics and prescribe treatment according to the chosen classification</p> <p>Call an ambulance to transport the child to the hospital</p>

	<p>Ask: Does the child have frequent loose stools? Does the child have ear problems? Does the child have a throat problem? Does the child have a fever? If so, ask: How long, to what numbers did the temperature rise? What is the temperature now? Check: Is there stiffness in the occipital muscles.. Look whether there is a rash on the skin. See if there are other obvious causes of fever? Make a preliminary conclusion about a possible diagnosis Recommend to the mother feed the baby breast milk or formula before the ambulance arrives. Say aloud: The ambulance is called, I direct you with the child to a hospital. Wish recovery and say goodbye.</p>
<p>Children's infectious diseases</p> <p>Diagnosis and medical care for acute secretory Diarrhea</p> <p>The source of information:</p> <p>Наказ МОЗ України від 14.09.2021 № 1945 "Про затвердження Уніфікованого клінічного протоколу первинної медичної допомоги «Інтегроване ведення хвороб дитячого віку»"</p>	<p>Algorithm of doctor's actions</p> <p>Say hello and give your first and last name. Ask the mother's name. Ask the child's name and age or months. Say that you will be examining and assessing your child's condition now.</p> <p>Ask (check the signs of dangerous): Can a baby drink or breastfeed? Does the child vomit after each meal or drink? Did the child have seizures during this disease?</p> <p>Look: Is a child not lethargic, is he conscious? Does the child have seizures at the moment?</p> <p>Ask: Does the child have a cough or difficulty breathing? Does the child have liquid stool? If yes, ask: How long, how many days lasting diarrhea? If there blood admixtures in the stool?</p> <p>Evaluate the child's condition: Is the child lethargic or unconscious? Restless and irritable? (Information provided by the teacher) Are the eyes sunken? (Information provided by the teacher) Offer the child fluids: the child cannot drink or refuses to drink? Drink actively, greedily?</p> <p>Check the skin folds on the abdomen. Evaluate how fast the fold straightens: very slow (more than 2 s), slow? (Information provided by the teacher)</p> <p>Classify the child's condition based on the identified signs: "severe dehydration" (pink row), "moderate dehydration" (yellow row), "no dehydration" (green row), "severe prolonged diarrhea" (pink row), "prolonged diarrhea" (yellow row), "hemocolitis" (pink row)</p> <p>Prescribe treatment and consult the mother according to the chosen classification</p> <p>Ask: Does the child have ear problems?</p>

	<p>Does the child have a throat problem?</p> <p>Does the child have a fever?</p> <p>If so, ask: How long, to what numbers did the temperature rise? What is the temperature now? (Information provided by the teacher during exam)</p> <p>Check: Is there stiffness in the occipital muscles?</p> <p>Look whether there is a rash on the skin.</p> <p>See if there are other obvious causes of fever?</p> <p>Make a preliminary conclusion about a possible diagnosis, which causes diarrhea and fever?</p> <p>Informed the mother about conditions when she should emergency re-appeal.</p> <p>Wish recovery and say goodbye.</p>
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