Dr. Hur A. Salman - OdNMU

**KROK REVIEW**

- First of all
  I’d like to thank all the sources, sites, books, and persons that I used their material for this preparation, and I know it is wrong that I used a lot of pictures under copyright without permission, therefore; I’m asking apologize from all that resources and persons whom made that efforts for humanity
  please anyone (sites and persons) object on this, don’t hesitate to contact me, directly I will remove his work with pleasure and respecting his rights.
  Unfortunately I don’t have enough place and time to mention you all,
  Here I’m repeating my thanks and appreciation for serving medicine and health overall the world.

- DEDICATION:
  I dedicate this simple works for all humanity, asking to stop wars, destruction and killing people and living Lovely, Peacefully with happiness and as one human being, we are all same source, beginning and same end just differ in between, life like 2 brackets ( ) one begin other one end, so try to fill in-between these brackets with humanity, love, charity, saving the world.
- Thanks God, and all who supported me.

- How to prepare Krok test
  krok is MCQ based exam (200Q/4h) in clinical subjects (Internal, surgery, pediatrics, Gyne & OB) with other subjects like Hygiene & nutrition, psychiatry, social medicine, occupational disease, infectious disease, pediatrics surgery)
  this exam based on translated questions from Russian to English therefore; a lot of mistakes and non-usable English words, some non medical terms as well as printing mistakes.
  - If we ask any foreign students about this exam, he will answer better to cancel this exam from protocol of international faculty, because it’s never assess the student knowledge, the information that used in test old, non updated diseases and old protocols and based on SSRI period.
  - Unfortunately very old information make student confused with the international parameters, procedures and new guidelines and modalities.

- Another thing why it is just one attempt?? and you should repeat all the course again on account of some miserable questions??
  So the best solution for this problem is to the exam selective as before, obligatory for Ukrainian citizen and selective for foreign, because no benefit of this exam
  Or 2nd option to change the discipline to make real international not just on papers

- May be this information will not change anything, but that notes for next courses

- About IFOM exam, should not be applied unless they change the syllabus and remove all that old books, procedures, examination, and all protocols, old medical terms, and unusable words, as well as the combination Latin roots that they make it, as they want to make it formal exam, it is not like krok just keep without understand, it is hard exam and depend on updated information

- Actually students can Help to update books and protocols, especially the INTERNATIONAL
- So what student should do in this case, study the old questions and keep it without understanding unfortunately especially for Hygiene, non medical questions, why doctor should keep dimension of room or how to calculate air ventilation and which place should build hospital, this subject should be selective, doctor after graduate work with patient and need to learn examination diagnosis of disease and treatment better than learn numbers and old protocols
So I suggest on you to analyze the questions use the following steps:

1- for medical Q try to find signs or symptoms that related to the disease, whatever was diagnosis or treatment and tactic

2- for non-understandable Q try to use Excluding the options, because a lot of Q they used 4 options so far from the answer and the last one will the correct whatever it is right information or wrong.

3- use KEY way to match the Q with the answer, if clinical or other

Sometimes there is more than one right answer but you should choose the more specific one for ex give you information about extrauterine pregnancy and cervical pathology and they put in the answer – ectopic pregnancy and cervical pregnancy ,, both of them right logically but you should choose the cervical pregnancy it is more specific.

For Hygiene most Q not understandable, some of them keep it, others if you translate it you can understand, others you find the answer in the Q same words but not always, so I think just go ahead and do the easiest way you like.

Note: All information here based on Ukrainian information and protocols, so try to keep this information temporarily because it differ completely from your state exam or another country..

I advice you don’t use this information furthermore due to most of these information not based on clinical and practical measurement, most of it theoretical and hypothetical information.

Before Finally I wish all pass safely and wish all best of luck, hoping to see all best doctors and have a good futures, caring all people, saving the humanity, especially children and poor people and all who on need, repairing the world which destroyed by wars.

- Remember KROK doesn’t make you a DOCTOR!

And never assess you
Please Don’t hesitate to contact me for adding some information or correct anything.
If you feel some information not well explained or there is any comments, please I’m listening and I will correct it again and re share that information
I will be happy with your feedback

Finally if you find this file good and can help others, please share it

All answers is A with
Yellow color: the answers
Green color: key words of Q
Blue color: this is the most important words in Q (additional Keys)
Grey color: this is my note and additional info
Red color: this repeated Q or high-light
Violent color: critical notes

Yours
Dr. HUR A. SALMAN
OdNNU/Odessa
12/5/2018
E-mail: hur.amer@gmail.com
F/b: Hr Salman
Net: +964-790-489-6865
1- An 8 year old child has low-grade fever, arthritis, colicky abdominal pain and a purpuric rash localized on the lower extremities. Laboratory studies reveal a guaiac-positive stool, urinalysis with red blood cell (RBC) casts and mild proteinuria, and a normal platelet count. The most likely diagnosis is:

A. Henoch-Schönlein's vasculitis → called also Henoch–Scholein Purpura or vasculitis (HSP), or anaphylactoid purpura

B. Systemic lupus erythematosus (SLE) → butterfly rash

C. Rocky Mountain spotted fever → hemorrhagic fever/ Rickettsia rickettsii, rash appear in wrist and ankle then palms and soles then spread centrally to the trunk and face (mostly north and south America)

D. Idiopathic thrombocytopenic purpura → ↓ platelets

E. Poststreptococcal glomerulonephritis → no sign of previous infection here, like tonsillitis. As well as no glomerulonephritis

**Stool guaiac-positive** → this test to detect blood with stool

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2- A young man has painful indurations in the peripapillary regions of both mammary glands. The most reasonable action will be:

A. To leave these indurations untouched → *don’t touch my breast 😃*

induration: The hardening of a normally soft tissue or organ, especially the skin, due to inflammation, infiltration of a neoplasm, or accumulation of blood. maturity changes or one symptoms of breast malignization ??

B. To remove them

C. To cut and drain them

D. To take an aspirate for bacterial inoculation and cytology

E. To administer steroids locally

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3- A 9 year old girl with a history of intermittent wheezing for several years is brought to the pediatrician. The child has been taking no medications for some time. Physical examination reveals agitation and perioral cyanosis. Intercostal and suprasternal retractions are present. The breath sounds are quiet, and wheezing is audible bilaterally. The child is admitted to the hospital. Appropriate interventions might include all of the following EXCEPT:

A. Prescribe nebulized cromolyn sodium → Cromoglicic acid or cromoglicate) is a mast cell stabilizer, cromolyn sodium. This drug prevents the release of inflammatory chemicals such as histamine from mast cells.

It is not histamine antagonist / bronchodilator → therefore NOT used in ASTHMATIC ATTACK
B Prescribe intravenous aminophylline
C Administer supplemental oxygen
D Prescribe intravenous corticosteroids
E Prescribe nebulized metaproterenol \(\rightarrow\) Orciprenaline: \(\beta_2\) selective adrenergic agonist: bronchodilator used in tx of asthma.

**All other choices BCDE could be used in asthmatic attacks in emergency situation, while A not.**

4- Routine examination of a child with a history of bronchial asthma reveals AP of 140/90 mm Hg. The most likely cause of the hypertension is:
A Renal disease \(\rightarrow\) here as the pt. had bronchial asthma (hypersensitivity reaction type I) so the pt could have due that glomerulonephritis (which is also hypersensitivity reaction Type III), due to this may induce hypertension.
B Theophylline overdose \(\rightarrow\) cause HYPOTENSION, Tachycardia, \(\downarrow\)K\(^+\), \(\uparrow\)Ca\(^{2+}\).
C Chronic lung disease \(\rightarrow\) not direct effect.
D Coarctation of the aorta \(\rightarrow\) HTN differs between upper and lower extremities.
E Obesity \(\rightarrow\) no info in Q

5- Patient with thyreotoxicosis is in the 2 beds hospital ward of therapeutic department. The area of the ward is 18 m\(^2\), height 3 m, ventilation rate 2,5/hr. Air temperature \(-20^\circ\text{C}\), relative humidity \(-45\%\), air movement velocity \(-0,3\) m/s, light coefficient \(-1/5\), noise level \(-30\) dB. Do hygienic evaluation of the conditions meet the standards?
A Discomfortable microclimate \(\rightarrow\) local set of atmospheric conditions that differ from those in the surrounding areas, not suitable due to air T low.
B Non-effective ventilation
C Poor lighting
D High level of noise
E All conditions meet the requirements

This Q from Hygiene.

6- The child is 11 m.o. He suffers from nervous-arthritic diathesis. The increased synthesis of what acid is pathogenic at nervous-arthritic diathesis?
A Uric acid \(\rightarrow\) is an altered reactivity of the nervous system caused by the inheritance of the morphofunctional features of the organism that determine the breakdown of the breakdown and synthesis of purine nucleotides these people are sick with gout, obesity, nephritis, urolithiasis, diabetes, cholelithiasis, early atherosclerosis. Uric acid is responsible for this.
B Acetic acid
C Phosphoric acid
D Hydrochloric acid
E Sulfuric acid

**Diathesis (medical) a hereditary or constitutional predisposition to a disease or other disorder**

7- A 10-year-old child complains of fever (temperature is 39\(^{\circ}\text{C}\)), frequent painful urination [pollakiuria]. Urine test: proteinuria [0,066 g/L], leukocyturia [entirely within eyeshot], bacteriuria [105 colony forming units/mL]. What is the most probable diagnosis?
A Acute pyelonephritis \(\rightarrow\) there is symptoms of infection, so Bacteria & WBC in seen urine, in addition to that very mild proteinuria comparing with GN very high
B Acute glomerulonephritis \(\rightarrow\) mostly post streptococcal after URTI / tonsillitis
C Dysmetabolic nephropathy \(\rightarrow\) renal disease due metabolic disorder.
D Acute cystitis \(\rightarrow\) should tell site of pain in pubis area or lower abd. As well as Pasternatsky sign will be \(-\)ve, which is more specific for pyelonephritis.
8- A 8-year-old boy has suffered from tonsillitis. In 2 weeks he started complaining of migratory joint pain, edema of joints, restriction of movements, fever. On examination, an acute rheumatic heart disease, activity of the III-rd degree, primary rheumocarditis, polyarthritis; acute course of disease, cardiovascular failure IIA. What medication is to be prescribed?
A Prednisone → steroids here due to severe carditis and HF IIA
B Cefazolin → I class cephalosporine G+ve , +/- G-ve
C Delagil → anti malarial drug.
D Diprazinum → Promethazine = class I anti-Histamine
E Erythromycin → Macrolids antibiotics Group B streptococcal infection not in acute RF caused by Group A (ß-hemolytics)

9- The 10 y.o. boy has complains on headache, weakness, fever 40°C, vomiting, expressed dyspnea, pale skin with flush on right cheek, lag of right hemithorax respiratory movement, dullness on percussion over low lobe of right lung, weakness of vesicular respiration in this zone. The abdomen is painless and soft at palpation. Which disease lead to these symptoms and signs?
A Pneumonia croupousa → new name Lobar Pneumonia
B Intestinal infection
C Acute appendicitis
D Acute cholecystitis
E Flu
** Lag mean lateness , slow ( Rt. Half of chest breathing later or slower than Lt in movement )

10- A patient with acute respiratory viral infection (3rd day of disease) complains of pain in lumbar region, nausea, dysuria, oliguria. Urinalysis - hematuria (100-200 RBC in eyeshot spot), specific gravity - 1002. The blood creatinin level is 0,18 millimole/l, potassium level - 6,4 millimole/l. Make the diagnosis:
A Acute interstitial nephritis
B Acute renal failure
C Acute glomerylonephritis
D Acute cystitis
E Acute renal colic

11- A neonate was born from the 1st gestation on term. The jaundice was revealed on the 2nd day of life, then it became more acute. The adynamia, vomiting and hepatomegaly were observed. Indirect bilirubin level was 275 mu*mol/L, direct bilirubin level – 5 mu*mol/L, Hb- 150 g/l.
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Mother's blood group - 0(I), Rh+, child's blood group - A(II), Rh+. What is the most probable diagnosis?

A Hemolytic disease of the neonate (ABO incompatibility), icteric type → be careful here ABO not matched while Rh is matched both of them +ve, icterus type = mean Juandice (pre-hepatic) indirect bilirubin will increase (unconjugated)

B Jaundice due to conjugation disorder → need to know about the enzyme glucuronyltransferase

C Hemolytic disease of newborn (Rh - incompatibility) → do NOT CONFUSE...

Inheritance of ABO Groups

<table>
<thead>
<tr>
<th>Allele from the mother</th>
<th>Allele from the father</th>
<th>Genotype of offspring</th>
<th>Blood type of offspring</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>A</td>
<td>AA</td>
<td>A</td>
</tr>
<tr>
<td>A</td>
<td>B</td>
<td>AB</td>
<td>AB</td>
</tr>
<tr>
<td>A</td>
<td>O</td>
<td>AO</td>
<td>A</td>
</tr>
<tr>
<td>B</td>
<td>A</td>
<td>AB</td>
<td>AB</td>
</tr>
<tr>
<td>B</td>
<td>B</td>
<td>BB</td>
<td>B</td>
</tr>
<tr>
<td>B</td>
<td>O</td>
<td>BO</td>
<td>B</td>
</tr>
<tr>
<td>O</td>
<td>O</td>
<td>OO</td>
<td>O</td>
</tr>
</tbody>
</table>

12- same Q 11

12-A baby boy was born in time, it was his mother's 1st pregnancy. The jaundice was revealed on the 2nd day of life, then it progressed. The adynamia, vomiting and hepatomegaly were presented. The indirect bilirubin level was 275 mcG/L, the direct bilirubin level - 5 mcG/L, Hb- 150 g/L.

Mother's blood group - 0(I), Rh+, child's blood group - A(II), Rh+. Make a diagnosis.

A Hemolytic disease of newborn (ABO incompatibility), icteric type

B Jaundice due to conjugation disorder

C Hemolytic disease of newborn (Rh - incompatibility)

13-A 3 month old infant suffering from acute segmental pneumonia has dyspnea (respiration rate - 80 per minute), paradoxical breathing, tachycardia, total cyanosis. Respiration and pulse - ratio is 1:2. The heart dullness under normal size. Such signs characterise:
A Respiratory failure of III degree → RR 80/min
B Respiratory failure of I degree → RR 30/min
C Respiratory failure of II degree → RR 50/min
D Myocarditis
E Congenital heart malformation

14. The 7 m.o. infant is suffering from acute pneumonia which was complicated by cardiovascular insufficiency and respiratory failure of II degree. The accompanied diagnosis is malnutrition of II degree. Choose the best variant of therapy:
A Ampiox and Amicacin → ampiox (ampicillin + oxacillin), amicacin = aminoglycosides
B Macropen and Penicillin
C Penicillin and Ampiox
D Gentamycin and Macropen
E Ampiox and Polymixin → DON'T MIX

15. A 3 year old child has been suffering from fever, cough, coryza, conjunctivitis for 4 days. He has been taking sulfadimethoxine. Today it has fever up to 39°C and maculopapular rash on its face. Except of rash the child's skin has no changes. What is your diagnosis?
A Measles → maculopapular rash = raseola rash started at face and goes down = descending rash, in addition to Koplik's spot
B Allergic rash
C Rubella → maculopapular rash = raseola rash started at lower extremities and buttocks then goes up = Ascending rash With occipital lymph node
D Scarlet fever
E Pseudotuberculosis

16. A 2 year old girl has been ill for 3 days. Today she has low grade fever, severe catarrhal presentations, slight maculopapular rash on her buttocks and enlarged occipital lymph nodes. What is your diagnosis?
A Rubella → also called (German measles) ascending rash, occipital LN, Forchheimer spot in 20% of pt (palatine petechial rash), not specific for rubella also check Table down
B Scarlet fever → check ↓↓↓ Q 19 also check Table down
C Measles also check Table down
D Adenoviral infection
E Pseudotuberculosis also check Table down
**Differential diagnosis of meningococcemia**

<table>
<thead>
<tr>
<th>Signs</th>
<th>Measles</th>
<th>Rubella</th>
<th>Scarlet fever</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial symptoms</strong></td>
<td>catarrhal signs from upper airways, conjunctives during 2-4 days, intoxication</td>
<td>Increase of occipital lymph nodes, small catarrhal signs and intoxication</td>
<td>Acutely - intoxication, angina, regional lymphadenitis</td>
</tr>
<tr>
<td><strong>Time of the rashes' beginning</strong></td>
<td>on 4-5 days of the disease, with stages</td>
<td>1 day, seldom 2</td>
<td>1 day (in 20% - 2)</td>
</tr>
<tr>
<td><strong>Morphology</strong></td>
<td>maculopapulous</td>
<td>small-papulous,</td>
<td>small point-like</td>
</tr>
<tr>
<td><strong>Sizes of elements</strong></td>
<td>middle, large</td>
<td>small, middle</td>
<td>small</td>
</tr>
<tr>
<td><strong>Localization</strong></td>
<td>1 day - on the face 2 - on the face, trunk; 3 - on the face, trunk, limbs</td>
<td>on whole body, mainly on unbending surfaces of the limbs</td>
<td>mainly on bending surfaces of limbs, down the abdomen, lumbar region, face, lateral surfaces of the trunk, pale nose-labial triangle</td>
</tr>
<tr>
<td><strong>Brightness and color of elements</strong></td>
<td>bright red</td>
<td>pale-rose</td>
<td>bright</td>
</tr>
<tr>
<td><strong>Further rashes' development</strong></td>
<td>pigmentation, slight hulling</td>
<td>disappear on 3-4 days</td>
<td>gradually turn pale for 4-5 days, small, lamellar hulling</td>
</tr>
<tr>
<td><strong>Catarrhal phenomena</strong></td>
<td>expressed in first 5-6 days</td>
<td>small, short for 1-2 days</td>
<td>Not typical,</td>
</tr>
<tr>
<td><strong>Oral mucous membranes</strong></td>
<td>hyperemied, friable, enanthema, Koplick's spots</td>
<td>clear, sometimes single elements of enanthema</td>
<td>marked off, bright hyperemia, enanthema on palate, angina</td>
</tr>
<tr>
<td><strong>Intoxication</strong></td>
<td>significant, lasts 5-7 days</td>
<td>small or being absent</td>
<td>proportional to local signs, short for 1-3 days</td>
</tr>
<tr>
<td><strong>Other symptoms</strong></td>
<td>Complications (respiratory, digestive, nervous, urinary systems, eye, ears, skin)</td>
<td>increased and painful posterior neck and occipital lymph nodes</td>
<td>angina, changes on the tongue (raid, from 4-5 days &quot;strawberry&quot;), complications on 2-3 weeks</td>
</tr>
<tr>
<td><strong>Laboratory criteria</strong></td>
<td>leucopenia, lymphocytosis, aneosynophylia, serological reaction with measles antigen (+)</td>
<td>leucopenia, lymphocytosis, increase of the plasmatic cells' number, serological reactions with rubella antigen (+)</td>
<td>leucocytosis, shift to the left, neutrophyllosis, enlarged ESR, in pharyngeal, nasal swabs – streptococci</td>
</tr>
<tr>
<td>Signs</td>
<td>Pseudotuberculosis</td>
<td>Meningococcemia</td>
<td>Chickenpox</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Initial symptoms</strong></td>
<td>acutely with many symptoms (intoxication, intestinal changes, seldom - catarrhal signs)</td>
<td>intoxication, develops very acutely, initial measles-like rash</td>
<td>Acutely, observing catarrh, intoxication, rash</td>
</tr>
<tr>
<td><strong>Time of the rashes' beginning</strong></td>
<td>on 2-8 day</td>
<td>first hours of the disease</td>
<td>On 1-2 days, appear next 3-5 days as pushes</td>
</tr>
<tr>
<td><strong>Morphology</strong></td>
<td>puncture-like, small spots, erythema</td>
<td>hemorrhagic &quot;star-like&quot; with necrosis in the centre</td>
<td>Polymorphic (spots, papules, vesicles, crusts)</td>
</tr>
<tr>
<td><strong>Sizes of elements</strong></td>
<td>Small, middle, large</td>
<td>from small to significant</td>
<td>middle</td>
</tr>
<tr>
<td><strong>Localization</strong></td>
<td>&quot;hood&quot;, &quot;mitten&quot;, &quot;socks&quot; signs, in skin folds, bends, around joints</td>
<td>buttocks, lower limbs, less - on trunk, hands, face</td>
<td>On whole body, on hair part of the head, seldom - on palms and soles</td>
</tr>
<tr>
<td><strong>Brightness and color of elements</strong></td>
<td>bright</td>
<td>hemorrhagic, bright, sometimes cyanotic</td>
<td>Papules are pink, vesicles - on hyperemied base</td>
</tr>
<tr>
<td><strong>Further rashes' development</strong></td>
<td>gradually disappear for 2-5 days, small, lamellar shelling</td>
<td>Small, disappear gradually, significant, leave &quot;dry&quot; necrosis</td>
<td>After desquamation of the crusts - a slight pigmentation</td>
</tr>
<tr>
<td><strong>Catarrhal phenomena</strong></td>
<td>Not typical</td>
<td>are absent, in 30-40% on previous 2-3 days - nasopharyngitis</td>
<td>Moderate,</td>
</tr>
<tr>
<td><strong>Oral mucous membranes</strong></td>
<td>Possible hyperemia of the pharynx, tonsils,</td>
<td>hyperemia and groiness of back pharyngeal wall, hypertrophy of follicles</td>
<td>On pink background - polymorphic elements</td>
</tr>
<tr>
<td><strong>Intoxication</strong></td>
<td>expressed, long-lasting (2-3 weeks)</td>
<td>sharply expressed</td>
<td>Small or moderate</td>
</tr>
<tr>
<td><strong>Other symptoms</strong></td>
<td>arthritis, myocarditis, diarrhea, hepatitis, abdominal syndrome, lymphoproliferative symptom, kidneys, nervous system damage, pneumonia</td>
<td>meningitis, encephalitis, arthritis, iridocyclitis, endocarditis, aortitis, pneumonia, pleurisy</td>
<td>Seldom: generalized visceral forms, meningoencephalitis</td>
</tr>
<tr>
<td><strong>Laboratory criteria</strong></td>
<td>leucocytosis, shift to the left, high ESR. Indirect hemagglutination reaction with special diagnosticum (+), separation of Y. pseudotuberculosis from excrements</td>
<td>leucocytosis, shift to the left, neutrophyllosis, high ESR, in nasopharyngeal swab, thick drop of blood - meningococci</td>
<td>Leucopenia, lymphocytosis, serological: binding complement reaction with Chickenpox antigen (+)</td>
</tr>
</tbody>
</table>
17- A 3 year old boy fell ill abruptly: fever up to 39°C, weakness, vomiting. Haemorrhagic rash of various size appeared on his lower limbs within 5 hours. Meningococcemia with infective-toxic shock of the 1 degree was diagnosed. What medications should be administered?

A Chloramphenicol succinate and prednisone → nitrobenzene derivate and broad-spectrum antibiotic + steroid
B Penicillin and prednisone
C Penicillin and immunoglobulin
D Chloramphenicol succinate and interferon
E Ampicillin and immunoglobulin

18- A 7 year old girl has mild form of varicella. Headache, weakness, vertigo, tremor of her limbs, ataxia, then mental confusion appeared on the 5th day of illness. Meningeal signs are negative. Cerebrospinal fluid examination is normal. How can you explain these signs?

A Encephalitis → previous viral infection (Varicella) cause of chickenpox and herpes zoster, then appear neurological symptoms = mean the infection reach Brain, also meningeal signs -ve
B Meningitis
C Meningoencephalitis → same details above just add to it meningeal signs +ve
D Myelitis
E Neurotoxic syndrome

19- A 7 y.o. girl fell ill abruptly: fever, headache, severe sore throat, vomiting. Minute bright red rash appear in her reddened skin in 3 hours. It is more intensive in axillae and groin. Mucous membrane of oropharynx is hyperemic. Greyish patches is on the tonsils. Submaxillary lymph nodes are enlarged and painful. What is your diagnosis?

A Scarlet fever → with features above, strawberry tongue check Q 16
B Measles check Q 16
C Rubella
D Pseudotuberculosis
E Enteroviral infection

20- An 8-year-old boy fell ill acutely: he presents with fever, weakness, headache, abdominal pain, recurrent vomiting, then diarrhea and tenesmus. Stools occur 12 times daily, are scanty, contain a lot of mucus, pus, streaks of blood. His sigmoid gut is tender and hardened. What is your diagnosis?

A Dysentery → shigellosis / endo + exotoxin, no invasion of blood stream
B Salmonellosis → Typhoid fever / Endotoxin only / can invade blood stream.
C Cholera → rice watery stool, dehydration, Temp. normal
D Staphylococcal gastroenteritis → food borne intoxication, 2-8h after eating /enterotoxin of S. aureus
E Escherichiosis → acute intestinal infection caused by E.choli, usu affected 1 year old babies.
21- The child has complains of the "night" and "hungry" abdominal pains. At fibroscopy in area a bulbus of a duodenum the ulcerative defect of 4 mms diameter is found, the floor is obteced with a fibrin, (H.p +). Administer the optimum schemes of treatment:
A Omeprazole - Trichopolum - Claritromicin → complex of ulcer tx .
B De-nol
C Maalox - Ranitidin
D Vicalinum - Ranitidin
E Trichopolum

TRIPLE THERAPY

- The BEST among all the Triple therapy regimen=
  - Omeprazole / Lansoprazole - 20 / 30 mg BD
  - Clarithromycin - 500 mg BD
  - Amoxycillin - 1gm BD

Given for 14 days followed by P.P.I for 4 – 6 weeks

22- A woman delivered a child. It was her fifth pregnancy but the first delivery. Mother's blood group is A(II)Rh –, newborn's - A(II)Rh +. The level of indirect bilirubin in umbilical blood was 58 micromole/l, haemoglobin - 140 g/l, RBC - 3.8x10^{12}/l. In 2 hours the level of indirect bilirubin turned 82 micromole/l. The hemolytic disease of newborn (icteric-anemic type, Rh-incompatibility) was diagnosed. Choose the therapeutic tactics:
A Replacement blood transfusion (conservative therapy)
B Conservative therapy
C Blood transfusion (conservative therapy)
D Symptomatic therapy
E Antibiotics

** review Q 11 – 12

23- A mother with an infant visited the pediatrician for expertise advice. Her baby was born with body weight 3.2 kg and body length 50 cm. He is 1 year old now. How many teeth the baby should have?
A 8 → there is a formula (N-4) n=age in months ; 1 year =12 month (12-4)=8, if baby age 14month the answer will be 14-4=10, and so on ...
B 10
C 12
D 20
E 6

24- A mother consulted a pediatrician about her son. Her son was born with body mass of 3 kg and length of 48 cm. He's 1 year old now. What is the required normal mass?
A 10.5 kg → check down for new Q
B 9.0 kg
C 11.0 kg
D 12.0 kg
E 15.0 kg

** according to the chart baby should gain 7150 g by 1 year
May be this mistake not 3 kg may be 3.5kg according to 1 y old should be triple birth weight.
Or use this rule: in 1 year baby gain 3+1/2 times his original weight if 3 kg (3 x 3.5 = 10.5 kg). E.g. if 3.5 x 3.5 = 12.25 kg +/-.
So if add 3000 + 7150 will be 10150 ≠ 10.5 Kg!! any how keep it.

**General Trends in Weight and Height Gain During Infancy**

<table>
<thead>
<tr>
<th>Age</th>
<th>Weight gain (grams)</th>
<th>Height gain (cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Monthly</td>
<td>For the whole period</td>
</tr>
<tr>
<td>1.</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>2.</td>
<td>800</td>
<td>1400</td>
</tr>
<tr>
<td>3.</td>
<td>800</td>
<td>2200</td>
</tr>
<tr>
<td>4.</td>
<td>750</td>
<td>2950</td>
</tr>
<tr>
<td>5.</td>
<td>700</td>
<td>3650</td>
</tr>
<tr>
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<td>650</td>
<td>4300</td>
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<tr>
<td>7.</td>
<td>600</td>
<td>4900</td>
</tr>
<tr>
<td>8.</td>
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<td>5450</td>
</tr>
<tr>
<td>9.</td>
<td>500</td>
<td>5950</td>
</tr>
<tr>
<td>10.</td>
<td>450</td>
<td>6400</td>
</tr>
<tr>
<td>11.</td>
<td>400</td>
<td>6800</td>
</tr>
<tr>
<td>12.</td>
<td>350</td>
<td>7150</td>
</tr>
</tbody>
</table>

**25**. A 6-month-old infant was born with body's mass 3 kg and length 50 cm. He is given natural feeding. How many times per day the infant should be fed?

- **A** 5 → 6 m and above
- **B** 7 → first 2 months (1-2)
- **C** 6 → 3-5 m
- **D** 8 → shortly after birth
- **E** 4

Number of daily feedings:

- First 2 months of life: 7 feedings per day every 3 hours with night break in 6 hrs.
- 3-5 months of life: 6 feedings per day every 3.5 hours with night break in 6.5 hrs.
- After 6 months: 5 feedings per day every 4 hours with night break in 8 hrs.

**26**. Infant is 6.5 months now and is given natural feeding since birth. Body mass was 3.5 kg, with length 52 cm at birth. How many times per day the supplement (up feeding) should be given?

- **A** 2
- **B** 3
- **C** 1
- **D** 0
- **E** 4

**27**. A 2 month old healthy infant with good appetite is given artificial feeding since he turned 1 month old. When is it recommended to start the corrective feeding (fruit juice)?

- **A** 4.0 months
- **B** 1.5 months
- **C** 2.0 months
- **D** 3.0 months
- **E** 1.0 months

**I think this wrong Q, because artificial feed should start at 6 months and above, some books said from 4-6m. I hope they not use this Q, anyhow keep it.**
28-An infant was born with body mass 3 kg and body length 50 cm. Now he is 3 years old. His brother is 7 years old, suffers from Rheumatic fever. Mother asked the doctor for a cardiac check up of the 3-year-old son. Where is the left relative heart border located?
A 1 cm left from the left medioclavicular line → check Table ∨ ∨ 
B 1 cm right from the left medioclavicular line
C Along the left medioclavicular line
D 1 cm left from he left parasternal line
E 1 cm right from the left parasternal line

Border's of heart relative dullness

<table>
<thead>
<tr>
<th>Border</th>
<th>until 2 years</th>
<th>Border</th>
<th>2-7 years</th>
</tr>
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<tbody>
<tr>
<td>Right</td>
<td>• right parasternal line</td>
<td>Right</td>
<td>• right parasternal line</td>
</tr>
<tr>
<td>Upper</td>
<td>• the II rib</td>
<td>Upper</td>
<td>• the II intercostal space</td>
</tr>
<tr>
<td>Left</td>
<td>• 2 cm outward from left midclavicular line</td>
<td>Left</td>
<td>• 1 cm outward from left midclavicular line</td>
</tr>
<tr>
<td>Transversal size</td>
<td>• 6-9 cm</td>
<td>Transversal size</td>
<td>• 8-12 cm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Border</th>
<th>7-12 years</th>
<th>Border</th>
<th>older 12 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right</td>
<td>• Between the parasternal line and the right sternal line</td>
<td>Right</td>
<td>• the right sternal line</td>
</tr>
<tr>
<td>Upper</td>
<td>• the III rib</td>
<td>Upper</td>
<td>• the III intercostal space</td>
</tr>
<tr>
<td>Left</td>
<td>• 0.5 cm outward from left midclavicular line</td>
<td>Left</td>
<td>• 0.5 cm medially from left midclavicular line</td>
</tr>
<tr>
<td>Transversal size</td>
<td>• 9-14 cm</td>
<td>Transversal size</td>
<td>• 9-14 cm</td>
</tr>
</tbody>
</table>

29-A boy of 7 y.o. had an attack of asthma and distant whistling rales after playing with a dog. In the medical history: atopic dermatitis caused by eating eggs, chicken, beef. What group of allergens is the reason of the development of bronchial asthma attacks?
A Epidermal → contact
B Dust
C Pollen
D Itch mite
E Chemical

30-A 14-year-old boy has rheumatism. Over the last 2 years he has had 3 rheumatic attacks. What course of rheumatism does the patient have?
A Prolonged → due to exacerbations and remissions 3 times during last 2 years.
B Acute
C Subacute
D Latent
E Persistent-reccurent

31-The patient with aquired heart failure has diastolic pressure of 0 mm Hg. What heart failure does the child have?
A Aortal insufficiency → better without discuss !! even there is a relation.
B Mitral stenosis
C Aortal stenosis
D Mitral insufficiency
E Rheumatism

32-A 12 year old child has the ulcer disease of stomach. What is the etiology of this disease?
A Intestinal bacillus → hope not face this !!
B Helicobacter pylory → what’s about this ??
A nine year old child is at a hospital with acute glomerulonephritis. Clinical and laboratory examinations show acute condition. What nutrients must NOT be limited during the acute period of glomerulonephritis?

A Carbohydrates → McDonald, KFC, Dominos, SALO ...... Free 😃
B Salt
C Liquid
D Proteins
E Fats

An 18-month-old child was taken to a hospital on the 4-th day of the disease. The disease began acutely with temperature 39, weakness, cough, breathlessness. He is pale, cyanotic, has had febrile temperature for over 3 days. There are crepitative fine bubbling rales on auscultation. Percussion sound is shortened in the right infrascapular region. X-ray picture shows non-homogeneous segment infiltration 8-10 mm on the right, the intensification of lung pattern. Your diagnosis:

A Segmentary pneumonia → signs of focal pneumonia in one segment, therefore called segmentary
B Grippe → this mean influenza
C Bronchitis
D Bronchiolitis
E Interstitial pneumonia

A 9-year-old girl has attacks of abdominal pain after fried food. No fever. She has pain in Cera point. The liver is not enlarged. Portion B [duodenal probe] - 50 ml. What is your diagnosis?

A Biliary tracts dyskinesia, hypotonic type → decrease motility of biliary duct. check ↓↓
B Hepatocirrhosis
C Acute colitis
D Chronic duodenum
E Peptic ulcer

** Cera point they translated it from = Kehr's point / symptom is strengthening of pain at pressure on the area of gall-bladder, especially on deep inhalation.
** During palpation painfulness in the place of crossing of right costal arc with the external edge of direct muscle of stomach can be observed (the Kehr's point). By superficial and deep palpation of right hypochondrium, as a rule, painfulness, increased gall-bladder is exposed, that can be important as a symptom, and sometimes determining for the diagnosis.
36-A baby was born at 36 weeks of gestation. Delivery was normal, by natural way. The baby has a large cephalohematoma. The results of blood count are: Hb- 120 g/l, Er- 3.5x10¹²/l, total serum bilirubin - 123 mmol/l, direct bilirubin - 11 mmol/l, indirect - 112 mmol/l. What are causes of hyperbilirubinemia in this case?
A Erythrocyte hemolysis → total bilirubin ↑ indirect bilirubin ↑, RBC/Hb ↓ (causing pre-hepatic Jaundice).
B Intravascular hemolysis
C Disturbance of the conjugative function of liver
D Bile condensing
E Mechanical obstruction of the bile outflow → Direct bilirubin ↑

37-A 4-month-old girl with blond hair and blue eyes has "mousy" odor of sweat and urine, delayed psychomotoric development. The most typical laboratory data for this disorder is:
A Positive urine ferric chloride test → aminoaciduria like Phenylketonuria (usu. congenital)
B High level of oxyproline in urine
C High level of glycosaminoglycanes in urine
D High concentration of chlorides in sweat
E Low level of thyroid gland hormones in blood

38-A neonate is 5 days old. What vaccination dose of BCG vaccine (in mg) is necessary for vaccination of this child?
A 0.05 mg
B 0.025 mg
C 0.075 mg
D 0.1 mg
E 0.2 mg
39-7 y.o. boy with chronic sinusitis and recurrent pulmonary infections has chest X-ray demonstrating a right-sided cardiac silhouette. What is the most likely diagnosis?

A **Kartagener syndrome** → also called **Primary Ciliary Dyskinesia** !! attention.
B Cystic fibrosis (mucoviscidosis)
C Bronchiolitis obliterans
D Laryngotracheomalacia
E $\alpha$-antitrypsin deficiency

### DIAGNOSIS

- Patient presented with a triad of symptoms:
  - Bronchiectasis
  - Chronic Sinusitis
  - Situs Inversus Totalis

- In addition, her history strongly suggests infertility, which corroborates our diagnosis of Kartagener's syndrome

After investigations we can also conclude
- Moderate airway obstruction
- Respiratory failure Type 1 (Hypoxia without hypercapnia)

**note: in some Q did not write situs inversus totalis (all organs are in opposite to its natural location) but you see → Dextrocardia (only heart) become to the right.**

40-A 2.9-kg term male infant is born to a mother who developed polyhydramnios at 34 weeks' gestation. At birth, the Apgar scores were 9 and 9. The infant develops choking and cyanosis with the first feed. In addition, is unable to place a nasogastric tube. What is the most likely diagnosis?

A **Esophageal atresia** → congenital closing of esophagus.
B Choanal atresia  
C Laryngomalacia  
D Tracheal atresia  
E Respiratory distress syndrome

41- Full term newborn has developed **jaundice** at 10 hours of age. Hemolytic disease of newborn due to Rh-incompatibility was diagnosed. 2 hours later the infant has **indirect serum bilirubin level increasing** up to **14 mmol/L**. What is most appropriate for treatment of hyperbilirubinemia in this infant?  
A Exchange blood transfusion  
B Phototherapy  
C Phenobarbital  
D Intestinal sorbents  
E Infusion therapy

![Treatmen of Indirect Hyperbilirubinemia](image)

42- A 4 year old girl was **playing with her toys** and suddenly she got an **attack of cough, dyspnea**. Objectively: respiration rate - 45/min, heart rate - 130/min. Percussion revealed dullness of percutory sound on the right in the lower parts. Auscultation revealed diminished breath sounds with bronchial resonance on the right. X-ray picture showed shadowing of the lower part of lungs on the right. Blood analysis revealed no signs of inflammation. The child was diagnosed with **foreign body in the right bronchus**. What complication caused such clinical presentations?  
A Atelectasis → is the collapse or closure of a lung resulting in reduced or absent gas exchange. It may affect part or all of a lung.  
B Emphysema
43-A man, 42 years old, died in a road accident after the hemorrhage on the spot, because of acute hemorrhagic anemia. What minimum percent of the whole blood volume could result in death by acute hemorrhage?

A 25-30%
B 6-9%
C 10-14%
D 15-20%
E 35-50%

44-A 6 week old child is admitted because of tachypnea. Birth had been uneventful, although conjunctivitis developed on the third day of life and lasted for about 2 weeks. Physical examination reveals tachypnea, bilateral inspiratory crackles and single expiratory wheezing. Bilateral pneumonia is evident on chest X-ray. The child is afebrile and has no history of fever. White blood cell count is 15x10^9/l, with 28% of eosinophils. The most likely cause of this child’s symptoms is:

A Clamydia trachomanis → neonatal pneumonia, and neonatal conjunctivitis
B Pneumocystis carinii → opportunistic infection in person infected with HIV.
C Mycoplasma pneumoniae → walking pneumonia, leading pn in children → primary atypical pn. Related to Cold agglutinin disease is an autoimmune disease characterized by the presence of high concentrations of circulating antibodies, usually IgM, directed against red blood cells
D Visceral larva migrans → toxocara canis – Dog Ascaris
E Varicella → varicella-zoster virus (VZV) is one of 8 herpes viruses known to infect humans. It causes chickenpox (varicella), a disease most commonly affecting children, teens, and young adults, and herpes zoster (shingles) in older adults.

45-A 6 y.o. asthmatic child was taken to the emergency hospital because of severe coughing and wheezing for the last 24 hours. Physical examination reveals that the child is excitable, has intercostal and suprasternal retractions, expiratory wheezing throughout all lung fields, RR-60/min. Initial treatment may include the prescription of:

A Subcutaneous epinephrine → Emenfency/ status asthmaticus, α & β agonist: prevent airway obstruction → bronchodilator and resistance and cardiovascular collapse → ↑ face of Myocardial contraction, also if you saw Corticosteroid instead epinephrine in asthmaticus, click it
B Parenteral phenobarbital
C Intravenous fluids in the first 2 h to compensate water deficiency
D N-acetyl cysteine and cromolyn by inhalation
E Parenteral gentamycin
A full term infant was born after a normal pregnancy, delivery, however, was complicated by marginal placental detachment. At 12 hours of age the child, although appearing to be in good health, passes a bloody meconium stool. For determining the cause of the bleeding, which of the following diagnostic procedures should be performed first?

A Barium enema ➔ check down.
B An Apt test ➔ test used to differentiate fetal or neonatal blood from maternal blood found in a newborn’s stool or vomit, or from maternal vaginal blood
C Gastric lavage with normal saline
D An upper gastrointestinal series
E Platelet count, prothrombin time, and partial thromboplastin time

In the 43rd week of gestation a long, thin infant was delivered. He is apneic, limp, pale, and covered with "pea soup" amniotic fluid. The first step in the resuscitation of this infant at delivery should be:

A Suction of the trachea under direct vision ➔ there is meconium, be careful from ASPIRATED PNEUMONIA
B Artificial ventilation with bag and mask
C Artificial ventilation with endotracheal tube
D Administration of 100% oxygen by mask
E Catheterization of the umbilical vein
A newborn infant has mild cyanosis, diaphoresis, poor peripheral pulse, hepatomegaly and cardiomegaly. Respiratory rate is 60 breaths per minute, and heart rate is 230 beats per minute. The child most likely has congestive heart failure caused by:

A. Paroxysmal atrial tachycardia → Sudden increased HR at atrial level (in ECG you see HR 150-250/ min. P wave not seen, QRS normal without changes, non-specific ST and T wave changes).
B. A ventricular septal defect and transposition of the great vessels
C. Atrial flutter and partial atrioventricular block
D. Hypoplastic left heart syndrome
E. A large atrial septal defect and valvular pulmonary stenosis

A 6-year-old boy was brought to the emergency room with a 3-hour history of fever up to 39.5°C and sore throat. The child looks alert, anxious and has a mild inspiratory stridor. You should immediately:

A. Prepare to establish an airway → Emergency ABC, read down ↓↓
B. Obtain an arterial blood gas and start an IV line
C. Order a chest x-ray and lateral view of the neck
D. Examine the throat and obtain a culture
E. Admit the child and place him in a mist tent

Stridor → (creaking or grating noise) is a high-pitched breath sound resulting from turbulent airflow in the larynx or lower in the bronchial tree. Stridor is a physical sign which is caused by a narrowed or obstructed airway. It can be inspiratory, expiratory or biphasic, although it is usually heard during inspiration. Inspiratory stridor often occurs in children with croup. It may be indicative of serious airway obstruction from severe conditions such as epiglottitis, a foreign body lodged in the airway, or a laryngeal tumor. Stridor should always command attention to establish its cause. Visualization of the airway by medical experts equipped to control the airway may be needed.

A 7-day-old boy is admitted to the hospital for evaluation of vomiting and dehydration. Physical examination is otherwise normal except for minimal hyperpigmentation of the nipples. Serum sodium and potassium concentrations are 120 meq/L and 9 meq/L respectively. The most likely diagnosis is:

A. Congenital adrenal hyperplasia → take attention his age 7 days, mean congenital pathology, as well as other sx like hyper pigmentation, ↓ Na, ↑ K, check down ↓↓
B. Pyloric stenosis
C. Secondary hypothyroidism
D. Panhypopituitarism
E. Hyperaldosteronism
A 7 y.o. boy has crampy abdominal pain and a rash on the back of his legs and buttocks as well as on the extensor surfaces of his forearms. Laboratory analysis reveals proteinuria and microhematuria. He is most likely to be affected by:

A. Anaphylactoid purpura → also called Henoch Scholen purpura
B. Systemic lupus erythematosus
C. Poststreptococcal glomerulonephritis
D. Polyarteritis nodosa
E. Dermatomyositis

A 5-year-old boy was progressively getting worse compared to the previous 2 months. A chest x-ray has shown right middle lobe collapse. A tuberculin skin test was strongly positive. What is the most characteristic finding in primary tuberculosis?

A. Hilar or paratracheal lymph node enlargement
B. Atelectasis with obstructive pneumonia
C. Cavity formation
D. Miliary tuberculosis
E. Hematogenous dissemination leading to extrapulmonary tuberculosis

A girl is 12-year-old. Yesterday she was overcooled. Now she is complaining on pain in suprapubic area, frequent painful urination by small portions, temperature is 37.8°C. Pasternatsky symptom is negative. Urine analysis: protein - 0.033 g/L, WBC- 20-25 in f/vis, RBC- 1-2 in f/vis. What diagnosis is the most probable?

A. Acute cystitis
B. Dysmetabolic nephropathy
C. Acute glomerulonephritis
D. Acute pyelonephritis
E. Urolithiasis

The girl of 11 y.o. She is ill for 1 month. She has "butterfly"-type rash on face (spots and papules), pain and swelling of small joints on arms and legs, signs of stomatitis (small-sized ulcers in mouth). CBC: Hb- 80 g/L, RBC- 2.9x10^{12}/L, WBC- 15x10^9/L, ESR- 40 mm/hour. Urinalysis: protein- 0.33 g/L. What is the most probable diagnosis?

A. Systemic lupus erythematosus
B. Juvenile rheumatoid arthritis, systemic type
C. Periarteritis nodosa

Review Q 7
An infant aged 1 year on the third day of common cold at night developed inspiratory stridor, hoarse voice and barking cough. Physical examination revealed suprasternal and intercostal chest retractions. There is a bluish skin discoloration moistly seen over the upper lip. The respiratory rate is 52 per min and pulse- 122 bpm. The body temperature is 37.5°C. What disease does the infant have?

A. Acute infectious croup due to viral laryngotracheitis → para-inflaunza virus
B. Acute laryngitis
C. Bronchopneumonia without complications
D. Acute bronchiolitis with respiratory distress
E. Acute epiglottitis
56-A newborn aged 3 days with hyperbilirubinemia (428 mkmol/L) developed following isorders. From beginning there were severe jaundice with poor suckling, hypotonia and hypodynamia. Little bit later periodical excitation, neonatal convulsions and neonatal primitive reflexes loss are noted. Now physical examination reveals convergent squint, rotatory nystagmus and setting sun eye sign. How to explain this condition?

A Encephalopathy due to hyperbilirubinemia → Kernicterus
B Skull injury
C Brain tumour
D Hydrocephalus
E Spastic cerebral palsy

**KEY TERMS: INFANT JAUNDICE**

**Bilirubin**
When the liver breaks down old red blood cells, bilirubin is produced in the body. Without proper treatment, high bilirubin levels in newborns can cause permanent brain injury and disability.

**Hyperbilirubinemia**
An abnormally high level of bilirubin in the blood demonstrated by jaundice and lethargy, and associated with liver and hemolytic disease.

**Jaundice**
An excess of bilirubin in the blood, which causes yellow coloration of the eyes and skin. Medical staff must quickly diagnose and treat infant jaundice in order to avoid kernicterus and permanent brain injury.

**Kernicterus**
A severe condition that occurs when bilirubin levels are so high that they move from the blood and into brain tissues. Kernicterus can cause brain damage and permanent injury if not diagnosed and treated in a timely manner.

57
A child is 2 years old. The child complains of hoarse voice, dyspnea with obstructed inspiration. The disease started 3 days ago from dry cough and nose stuffiness. Objectively: general condition is unbalanced, stridor is present. The child's skin is pale. Body temperature is 37.7°C. The palatine arches are hyperemic. There is no deposit. Heart sounds are rhythmic. Auscultation of lungs reveals rough breathing sounds, crepitation is absent. Parainfluenza virus has been detected in nasopharynx lavage. What is the most likely diagnosis?

A Acute laryngotracheitis → croup, review Q 55
B Epiglottitis
C Foreign body
D Diphtheria
E Laryngospasm

58-A 3-year-old child has been admitted to a hospital because of ostealgia and body temperature rise up to 39°C. Objectively: the patient is in grave condition, unable to stand for ostealgia, there is apparent intoxication, lymph nodes are enlarged up to 1,5 cm. Liver can be palpated 3 cm below the costal margin, spleen - 2 cm below the costal margin. In blood: RBCs - 3,0x10¹²/l, Hb- 87 g/l, colour index - 0,9, thrombocytes – 190x10⁹/l, WBCs - 3,2x10⁹/l, eosinophils - 1, stab neutrophils - 1, segmented neutrophils - 0, lymphocytes - 87, monocytes - 2, ESR - 36
mm/h. What examination should be conducted in order to specify the diagnosis?

A Sternal puncture → this child might have Acute Lymphocytic Leukemia ALL
B Ultrasound
C Lymph node puncture
D Lymph node biopsy
E Computer tomography

59- Apgar test done on a newborn girl at 1st and 5th minute after birth gave the result of 7-8 cores. During the delivery there was a short-term difficulty with extraction of shoulder girdle. After birth the child had the proximal extremity dysfunction and the arm couldn’t be raised from the side. The shoulder was turned inwards, the elbow was flexed, there was also forearm pronation, obstetric palsy of brachial plexus. What is the clinical diagnosis?

A Duchenne-Erb palsy → involve C5-C6 nerve roots (proximal) or Upper part of brachial plexus
B Trauma of thoracic spine
C Right hand osteomyelitis
D Intracranial haemorrhage
E Trauma of right hand soft tissues

What is ERBS PALSY - ERB’S palsy is a type of paralysis within the arm which is caused by an accident to the brachial plexus. The word brachial plexus refers to the primary network associated with nerves operating from the disposal to the entire spine. ERB’S palsy might be a result of carelessness or medical negligence at the time of the birth to the impacted child.

60- Examination of a 9-month-old girl revealed skin pallor, cyanosis during excitement.
Percussion revealed transverse dilatation of cardiac borders. Auscultation revealed continuous systolic murmur to the left of the breastbone in the 3-4 intercostal space. This murmur is conducted above the whole cardiac region to the back. What congenital cardiac pathology can be suspected?

A Defect of interventricular septum \(\rightarrow\) VSD, whole cardiac murmur = pancardiac murmur

B Defect of interatrial septum

C Coarctation of aorta

D Fallot's tetrad

E Pulmonary artery stenosis

**2) VSD, Ventricular Septal Defect:**

• VSD It is an abnormal opening between the right and the left ventricles, resulting in a common ventricle.
• Its found that 20% of all VSDs close spontaneously during the first year of life.
• Pathophysiology: the blood turns from the left ventricle (higher pressure) to the right ventricle (lower pressure) causing left-to-right shunt, then to pulmonary Artery, which increases RV pressure causing RV hypertrophy and by time RV failure.
• S&S: congestive heart failure is common. Increase number of pulmonary Infarction, pulmonary hypertension
• Surgical treatment: complete repair.
• Non-surgical treatment: closure device is usually implanted during cardiac catheterization

**Small VSD**

<table>
<thead>
<tr>
<th>Clinical features:</th>
<th>Investigations:</th>
</tr>
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<tbody>
<tr>
<td>Symptoms:</td>
<td>• Chest X-ray: Normal</td>
</tr>
<tr>
<td>Asymptomatic</td>
<td>• ECG: Normal</td>
</tr>
<tr>
<td>Physical signs:</td>
<td>• Echocardiography: Show the defect - Doppler echocardiography to assess the hemodynamic effect</td>
</tr>
<tr>
<td>May have thrill at lower sternal edge</td>
<td></td>
</tr>
<tr>
<td>Loud pansystolic murmur at lower left sternal edge</td>
<td></td>
</tr>
</tbody>
</table>

**Management:**

Most of these lesions will close spontaneously by 3 years of age (confirmed by disappearance of murmur, normal ECG, normal echocardiogram)

• There is a strong pansystolic (holosystolic) murmur or thrill on the left parasternal region over the 3th,4th intercostal space (subarterial VSD on 2nd, 3th IC5),
• Apical diastolic murmur because of increased blood flow passing throughout th mitral valve.
• S2 is strong and splitted due to increased pulmonary flow.

**Eisenmenger’s**

<table>
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<tr>
<th>Cyanosis</th>
<th>ASD</th>
<th>VSD</th>
<th>PDA</th>
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<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JVP</td>
<td>May be raised</td>
<td>Not raised</td>
<td>Not raised</td>
</tr>
<tr>
<td>Suprasternal pulse</td>
<td>No</td>
<td>No</td>
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</tr>
<tr>
<td>Parasternal heave</td>
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<td>No</td>
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<tr>
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<td>Wide fixed</td>
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<tr>
<td>Ascending aorta</td>
<td>Normal</td>
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</tbody>
</table>

A worker was temporarily off work because of illness for 16 days, was under out-patient
treatment. The doctor in charge issued a sick-list first for 5 days, then prolonged it for 10 days. Who can further prolong the sick-list of this patient?

A The doctor in charge of the case together with the head of department → HYGIENE ☺ anyhow will explain it → Doctor usu can give 5 days and have the right to prolong it another 5 days (will be 10) together with head of department.

B Working ability expertise committee

C The doctor in charge of the case with the permission of the head of department → DON'T MIX.

D Deputy head physician on the working ability expertise

E The head of department

So funny hygiene pediatrics (don’t be surprised) they will do new department

62-A 13 y.o. patient was treated in dermatological hospital for atopic dermatitis exacerbation. He was discharged in the condition of clinical remission. What recommendations should the doctor give to prevent exacerbations?

A Use of neutral creams to protect skin

B Frequent skin washing with detergents

C Systematic use of local corticosteroids

D Systematic skin disinfection

E Avoidance of skin insolation

63-On the 21 day after appearance of vesiculous chickenpox rash a 7-year-old child developed ataxia, nystagmus, intention tremor, muscle hypotonia. Liquor analysis shows a low-grade lymphocytic pleocytosis, slightly increased protein rate. What complication is it?

A Encephalitis → connect it, hx. of viral inf. Then neurological sx. appeared

B Purulent meningitis → no meningeal irritation symptoms also purulent mean bacterial, should tell you previous bacterial inf. Or Neutrophilic pleocytosis.

C Pneumonitis

D Acute nephritis

E Postherpetic neuralgia

Liquor mean CSF cerebrospinal fluid.

Pleocytosis mean increased cell in CSF → if bacterial inf mean Neutrophil ↑ or called (PMN cell = polymorphonuclear cell) and → if viral or TB Lymphocyte ↑

64-An 8-year-old boy suffering from haemophilia was undergoing transfusion of packed red cells. Suddenly he felt pain behind the breastbone and in the lumbar area, dyspnea, cold sweat. Objectively: pale skin, heart rate - 100/min, AP - 60/40 mm Hg; oliguria, brown urine. For the treatment of this complication the following drug should be administered:

A Prednisolone → post transfusion hypersensitivity, give corticosteroid to prevent anaphylactic and eliminate hypersensitivity reaction

B Lasix

C Adrenaline

D Aminophylline

E Analgine

65-A 3-year-old child has been diagnosed with type I diabetes mellitus, hyperosmolar coma. The laboratory confirmed the diagnosis. Which laboratory findings are characteristic for such condition?

A High hyperglycemia without ketonemia → no Aceton smell

B Hyperglycemia and ketonemia

C Hyperglycemia and glucosuria
**66-A 3-year-old child was playing in a playpen** when he suddenly developed **paroxysmal cough** and **shortness of breath**. Objectively: dry cough, mixed dyspnea. Lung auscultation revealed some wheezes. Breathing sounds on the right are diminished. The child doesn't mix with other children. Immunization is age-appropriate. What pathological condition can be suspected?

A **Foreign body in the respiratory tracts**  
B **Pneumonia**  
C **Acute respiratory viral infection**  
D **Pertussis**  
E **Bronchial asthma**

**67-A 10-year-old child has been followed-up for the dilated cardiomyopathy**. The child presents with dyspnea, cardialgia. There are dense, nonmobile edemata on the lower extremities and sacrum. Ps- 120/min. The cardiac borders are extended transversely. Heart sounds are muffled, there is blowing systolic murmurs at the apex and over the xiphoid process. Liver is 3 cm enlarged, urine output is reduced. The blood total protein - 58.6 g/l. In urine: protein - 0.025 g/l, WBCs - 2-4 in the field of vision, RBCs - 2-3 in the field of vision. What is the main mechanism of edema syndrome development:

A **Venous congestion of greater circulation**  
B **Venous congestion of lesser circulation**  
C **Peripheral circulation disorder**  
D **Secondary nephropathy development**  
E **Hypoproteinemia**
68-After objective clinical examination a 12 year old child was diagnosed with **mitral valve prolapse**. What complementary instrumental method of examination should be applied for the diagnosis confirmation?

A **Echocardiography** \(\rightarrow\) one of best method for valve demonstration  
B Roentgenography of chest  
C Phonocardiography  
D ECG  
E Veloergometry

69-A full-term child survived antenatal and intranatal hypoxia, it was born in asphyxia (2-5 points on Apgar score). After birth the child has progressing excitability, there are also vomiting, nystagmus, spasms, strabismus, spontaneous Moro’s and Babinsky’s reflexes. What localization of **intracranial hemorrhage** is the most probable?

A **Subarachnoid hemorrhage** \(\rightarrow\) birth trauma  
B Small cerebral tissue hemorrhages  
C Subdural hemorrhage  
D Periventricular hemorrhages  
E Hemorrhages into the brain ventricles

70-A 15 y.o. boy was **twice attacked by bees**, as a result he had severe **anaphylactic shock**. What is the most effective prophylaxis method?

A **Desensibilisation by means of bee venom extract**  
B Prescription of corticosteroids for summer  
C Long-term prophylactic treatment with antihistamines
A 9-year-old boy has been suffering from bronchoectasis since he was 3. Exacerbations occur quite often, 3-4 times a year. Conservative therapy results in short periods of remission. The disease is progressing, the child has physical retardation. The child’s skin is pale, acrocyanotic, he has “watch glass” nail deformation. Bronchography revealed saccular bronchiectases of the lower lobe of his right lung. What is the further treatment tactics?

A Surgical treatment  
B Further conservative therapy  
C Physiotherapeutic treatment  
D Sanatorium-and-spa treatment  
E Tempering of the child’s organism

72-A child with tetralogy of Fallot is most likely to exhibit:  
A Increased pressure in the right ventricle  
B Increased pulmonary blood flow  
C Increased pulse pressure  
D Normal pressure gradient across the pulmonary valve  
E Normal oxygen tension (PaO₂) in the left ventricle

Exhibit = present
73-A 2-months-old child after preventive vaccination had a prolonged hemorrhage from the vaccination place and due to those an intramuscular hematoma. During examination of the child a considerable rise of prothrombin consumption and a significant prolongation of the activated partial thromboplastic time were found. What is the most probable diagnosis?

A Hemophilia = PTT, PT normal
B Werlhof’s disease → Immune thrombocytopenia (ITP) = PT, PTT normal
C Henoch-Schoenlein disease → HSP vasculitis.
D Hemorrhagic disease of the neonate
E Inborn afibrinogenemia → rare. A deficiency or absence of FIBRINOGEN in the blood

** Activated partial thromboplastic time : PTT

74-A 10 y.o. boy with hemophilia has signs of acute respiratory viral infection with fever. What of the mentioned antifebrile medications are contraindicated to this patient?

A Acetylsalicylic acid → APSIRIN .. is contraindicated / it may cause Reye Syndrom = rapidly progressive encephalopathy
B Analgin
C Pipolphen
D Paracetamol
E Panadol extra

75-A 7-year-old child is sick for 2 weeks with running nose, was taking nasal drops. The boy suffers with alimentary allergy. He applied to doctor due to suppurative and bloody discharges from nose, maceration of ala nasi and upper lip. Rhinoscopy results: there are whitish-greyish areas at nasal septum. Mucous membrane of oropharynx is not changed. What is the most probable disease?

A Diphtheria of the nose → info
B Adenovirus
C Rhinovirus
D Allergic rhinitis
E Sinusitis (maxillar sinus)
A 10-year-old boy underwent treatment in cardiological department for rheumatism, acute attack of rheumatic fever, active phase, II degree. The patient was discharged in satisfactory condition. Which drug should be chosen for prevention of rheumatism recurrence?

A) Bicillinum-5 → Benzylpenicillin benzathine
B) Bicillinum-1
C) Erythromycin
D) Ampicillin
E) Oxacillin

A child is 4 years old, has been ill for 5 days. There are complaints of cough, skin rash, temperature 38-38.2°C, face puffiness, photophobia, conjunctivitis. Objectively: there is bright, maculo-papulous, in some areas confluent rash on the face, neck, upper chest. The pharynx is hyperemic. There are seropurulent discharges from the nose. Auscultation revealed dry rales in lungs. What is the most likely diagnosis?

A) Measles → Descending rash = from up to down.
B) Adenoviral infection
C) Scarlet fever
D) Rubella
E) Enterovirus exanthema

Review Q 15 + 16

A 10 month old boy has been ill for 5 days after consumption of unboiled milk. Body temperature is 38-39°C, there is vomiting, liquid stool. The child is pale and inert. His tongue is covered with white deposition. Heart sounds are muffled. Abdomen is swollen, there is borborygmus in the region of umbilicus, liver is enlarged by 3 cm. Stool is liquid, dark-green, with admixtures of mucus. 5 times a day. What is the most probable diagnosis?

A) Salmonellosis → ** BE CAREFUL : most student see Liquid Stool, Dark green, going Directly to Shigellosis, Here because of milk the coosed Salmonella please read all Q attentively and accurately – check ↓↓
B) Staphylococcal enteric infection
C) Escherichiosis
D) Acute shigellosis → BE CAREFUL Q 147
E) Rotaviral infection

Borborygmus: intestinal rumbling caused by moving gas
A 3 year old child with weight deficiency suffers from permanent moist cough. In history there are some pneumonias with obstruction. On examination: distended chest, dullness on percussion over the lower parts of lungs. On auscultation: a great number of different rales. Level of sweat chloride is 80 millimol/l. What is the most probable diagnosis?

**A** Mucoviscidosis (cystic fibrosis) → sweat chloride test is a common and simple test used to evaluate a patient who is suspected of having cystic fibrosis (CF), the most common lethal genetic disease affecting Caucasians. CF is often clinically suspected when there is poor growth during infancy or recurrent serious intestinal or respiratory diseases in a toddler or young child. The genetic defect in cystic fibrosis affects the way chloride moves in and out of cells, and sweat contains chloride in the form of sodium chloride (salt). Measurement of the chloride in sweat has been the standard method for diagnosing CF for over 40 years. Because cystic fibrosis is so common, many states include testing for the CF gene as part of the Newborn Screen; however, sweat testing is still required to confirm the diagnosis.

**B** Bronchial asthma

**C** Recurrent bronchitis

**D** Bronchiectasis

**E** Pulmonary hypoplasia

** normal sweat chloride values are 10-35 milliequ/L.

** Cystic fibrosis usually have a sweat chloride value > 60 milliequ/L.
A 12 y.o. child with acute glomerulonephritis presented with hypertensive syndrome during first days of the disease. What is the role of angiotensin II in the pathogenesis?

A Intensifies production and secretion of aldosterone.
B Increases heart output
C Inhibits depressive action of prostaglandins
D Increases erythropoetin production
E Increases renin level

81- A full-term infant is 3 days old. On the different parts of skin there are erythemas, erosive spots, cracks, areas of epidermis peeling. The infant has scalded skin syndrome. Nikolsky's symptom is positive. General condition of the infant is grave. Anxiety, hyperesthesia, febrile
temperature are evident. What is the most probable diagnosis?

A Exfoliative dermatitis → peeling
B Phlegmon of newborn → abscesses of newborn
C Finger's pseudofurunculosis → 2 know this 1- GOD 2- who put this option.
D Impetigo neonatorum → review Q 177
E Mycotic erythema

82-District pediatrician examines a healthy carried 1-month-old child. The child is breast-fed. Prophylaxis of what disease will the doctor recommend to do first?
A Rachitis → Rickets = weak or soft bones in children. Symptoms include bowed legs, stunted growth, bone pain, large forehead, and trouble sleeping. Complications may include bone fractures, muscle spasms, an abnormally curved spine, or intellectual disability. The most common cause is vitamin D deficiency
B Anemia
C Hypotrophia
D Spasmophilia
E Parathropy

83-A 7-year-old boy has been managed for a month. Immediately after hospitalization there were apparent edemata, proteinuria 7,1 g/l, daily urine protein - 4.2 g. Biochemical blood test shows persistent hypoproteinemia (43,2 g/l), hypercholesterolemia (9,2 millimole/l). The patient is most likely have the following type of glomerulonephritis:
A Nephrotic → all criteria described in Q up
B Nephritic → Hematuria, Oligouria, Edema, HTN ..... 
C Isolated urinary
D Hematuric
E Combined

84-A 3 y.o. girl has had a temperature rise up to 38°C, rhinitis, dry superficial cough, flabbiness, appetite loss. Palpation didn't reveal any changes over her lungs. Percussion sound has a wooden resonance, auscultation revealed puerile breathing, no rales. In blood: leukopenia, lymphocytosis, increased ESR. What is the most probable diagnosis?
A Acute simple tracheitis → inflammation of the Trachea, around the age 3
B Acute obstructive bronchitis
C Recurrent bronchitis, acute condition
D Acute simple bronchitis
E Bilateral microfocal pneumonia

85-A 5-year-old girl with the transitory immunodeficiency according to T-system has a clinical picture of a right-sided pneumonia during 2 months. How pneumonia progress can be described?
A Delaying → due to immunodeficiency
B Recidivating → regression
C Chronic
D Wavelike
E Acute

86-Mother of a 10-month-old baby reports significant pallor, poor appetite, enlarged abdomen in the baby. As a neonate, the child underwent treatment in the in-patient hospital for jaundice and anemia. Objectively: the skin is pale and jaundiced, teeth are absent, abdomen is enlarged, spleen is palpable. Blood test results: Hb - 90 g/l, RBC - 3.0x10^12/l, color index - 0.9, microspherocytosis, reticulocytosis up to 20%, serum bilirubin - 37 mmol/l, unconjugated bilirubin - 28 mmol/l. What type of anemia has occurred in the patient?
A Hemolytic anemia → Q 11,22
B Iron-deficiency anemia
C Protein-deficiency anemia
D $B_{12}$-deficiency anemia
E Hereditary elliptocytosis

87-A 12 y.o. girl took 2 pills of aspirine and 4 hours later her body temperature raised up to 39-40°C. She complains of general indisposition, dizziness, sudden rash in form of red spots and blisters. Objectively: skin lesions resemble of second-degree burns, here and there with erosive surface or epidermis peeling. Nikolsky's symptom is positive. What is the most probable diagnosis?
A Acute epidermal necrosis → check
B Pemphigus vulgaris → rare chronic blistering skin disease and the most common form of pemphigus, age: middle + 50-60 y. (type II hypersensitivity).
C Polymorphous exudative erythema
D Bullous dermatitis → Bullous pemphigoid
E Duhring's disease → Dermatitis herpetiformis
88-A 5-year-old child had an attack of palpitation with nausea, dizziness, generalized fatigue. On ECG: tachycardia with heartbeat rate of 220/min. Ventricle complexes are deformed and widened. P wave is absent. What medication is to be prescribed to provide first aid?

A Lydocain → Lidocaine Anti-arrhythmic drug class IB [Na+ channel blocker]. This pt. had Vf (Ventricular fibrillation).

B Isoptin → verapamil=class IV anti-arrhythmic Ca+ channel blocker.

C Seduxen → diazepam = A benzodiazepine with anticonvulsant, anxiolytic, sedative, muscle relaxant, and amnesic properties and a long duration of action.

D Novocainamides → Procainamide, Anti-arrhythmic class IA (Na+) channel block (intermediate association/dissociation) and K+ channel blocking effect; affects QRS complex = tx. ventricular arrhythmias: ventricular ectopy and tachycardia and supraventricular arrhythmias: atrial fibrillation, and re-entrant and automatic supraventricular tachycardia.

E Strophantin → Strophanthin K = is a cardiac glycoside which works as an inhibitor of Na+ /K+-ATPase. This inhibition has an inotropic effect on the cardiac muscles increasing their force by approximately 100%.

89- Examination of a 4 month old child revealed some lemon-yellow squamae with fatty crusts on the scalp. What is the most probable diagnosis?

A Gneiss → Seborrheic dermatitis, is an inflammatory skin reaction to increased activity of oil glands of nurslings. Almost half of the newborn babies suffer from this disease. In ordinary parlance, people call this disease “cradle cap” or a milky crust. It usually occurs in first 3 months after the birth of a baby.

B Milk crust

C Strophulus

D Pseudofurunculosis

E Infantile eczema
90-A lumbar puncture was performed for a newborn suspected of having an intracranial birth injury. Bloody cerebrospinal fluid was obtained. What hemorrhage occurred in this case?

A Subarachnoid  
B Cephalohematoma  
C Epidural  
D Supratentorial  
E Subtentorial

<table>
<thead>
<tr>
<th>Head Injury</th>
<th>Location</th>
<th>CT Findings</th>
<th>Injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intracerebral Hematoma/Conusion</td>
<td>Brain</td>
<td>Multiple Microhemorrhages</td>
<td>Microhemorrhages</td>
</tr>
<tr>
<td>Subarachnoid Hemorrhage</td>
<td>Subarachnoid Space</td>
<td>Blood in Sulci and Fissures</td>
<td>Tear of Subarachnoid Vessels</td>
</tr>
<tr>
<td>Subdural Hemorrhage</td>
<td>Subdural Space</td>
<td>Glosem (Slime Gyre)</td>
<td>Tear of the Subdural Space</td>
</tr>
<tr>
<td>Epidural Hemorrhage</td>
<td>Epidural Space</td>
<td>Biconvex (Football Shaped)</td>
<td>Tear of the Meningeal Arteries</td>
</tr>
<tr>
<td>Diffuse Axonal Injury</td>
<td>Brain</td>
<td>No Abnormalities</td>
<td>Shearing of White Matter Tracts</td>
</tr>
</tbody>
</table>

Image from: www.anatomyandphysiologynotes.com/meringes.html

91-A neonate from gestation with severe gestosis of the second half was born on the 41st week with 2400 g birth weight and 50 cm long. On physical examination: skin is flaccid, subcutaneous fatty cellular tissue is thin, muscle hypotonia, new-born period reflexes are decreased. Internal organs are without pathological changes. How would you estimate this child?

A Term infant with pre-natal growth retardation → also called Intrauterine growth retardation (IUGR)

Term: mean births that happen after 37 weeks of pregnancy. Prenatal: mean before delivery, the baby got growth retardation/low birth weight (<2500 g)

B Premature infant → check table down ↓↓

C Immature infant → a term sometimes applied to an infant who weighs less than 1134 g and who is significantly underdeveloped at birth.

D Post mature infant

E Term infant with normal body weight

** Emerging complications in the first half (early) pregnancy are called toxicosis, and in the second (late) – gestosis.

### Classification of prematurity.

<table>
<thead>
<tr>
<th>The grade of the prematurity</th>
<th>Term of the gestation</th>
<th>Weight, gr</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>35 – 37 weeks</td>
<td>2001 – 2500</td>
</tr>
<tr>
<td>II</td>
<td>32 – 34 weeks</td>
<td>1501 – 2000</td>
</tr>
<tr>
<td>III</td>
<td>29 – 31 weeks</td>
<td>1001 – 1500</td>
</tr>
<tr>
<td>IV</td>
<td>Under 29 weeks</td>
<td>Less than 1000</td>
</tr>
</tbody>
</table>
A child was taken to a hospital with focal changes in the skin folds. The child was anxious during examination, examination revealed dry skin with solitary papulous elements and ill-defined lichenification zones. Skin eruption was accompanied by strong itch. The child usually feels better in summer, his condition is getting worse in winter. The child has been artificially fed since he was 2 months old. He has a history of exudative diathesis. Grandmother by his mother's side has bronchial asthma. What is the most likely diagnosis?

A) Atopic dermatitis → Allergic. family hx of atopia (Grandmother with asthma)
B) Contact dermatitis
C) Seborrheal eczema
D) Strophulus
E) Urticaria

A boy, aged 9, was examined: height - 127 cm (-0.36), weight - 28.2 kg (+0.96), chest circumference - 64.9 cm (+0.66), lung vital capacity - 1520 ml (-0.16). What is the complex assessment of the child's physical development?

A) Harmonious → check down. you will understand it.
B) Disharmonious
C) Apparently disharmonious
D) Excessive
E) Below the average

The main criterions of assessment of physical development are:
1. weight;
2. height (stature, head-to-heel length);
3. head circumference (HC);
4. chest circumference;
5. proportionality of these measurements.

**NOTE: all result between (+1 and – 1) will be Harmonious, If result between (+2 to +1 and -2 to -1) disharmonious if more than +2 or more than -2 will be apparently (severe) disharmony

A child is 7 months old. Birth weight was 3450, the child is breastfed. Supplemental feeding was introduced on time. Determine the daily protein requirements for the child:

A) 3.0 g/kg
B) 2.0 g/kg
C) 2.5 g/kg
D) 3.5 g/kg
E) 4.0 g/kg

The daily requirement infants in basic food ingredients (1 kg) in mixed feeding

<table>
<thead>
<tr>
<th>Protein</th>
<th>4 months to 2.0 - 2.5 g</th>
<th>3.5 - 4.0 g</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-9 months</td>
<td>3.0 - 3.5 g</td>
<td>3.5 - 4.0 g</td>
</tr>
<tr>
<td>9-12 months</td>
<td>3.0 - 3.5 g</td>
<td>3.5 - 4.0 g</td>
</tr>
<tr>
<td>Fats</td>
<td>up to 4 months 6.5 - 6.0 g</td>
<td>6.5 - 6.0 g</td>
</tr>
<tr>
<td>4-9 months</td>
<td>6.0 - 5.5 g</td>
<td>6.0 - 5.5 g</td>
</tr>
<tr>
<td>9-12 months</td>
<td>5.5 - 5.0 g</td>
<td>5.5 - 5.0 g</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>during the year 12.0 - 14.0 g</td>
<td></td>
</tr>
</tbody>
</table>
95-2 weeks after recovering from angina an 8-year-old boy developed edema of face and lower limbs. Objectively: the patient is in grave condition, AP-120/80 mm Hg. Urine is of dark brown colour. Oliguria is present. On urine analysis: relative density - 1,015, protein - 1,2 g/l. RBCs are leached and cover the whole vision field, granular casts - 1-2 in the vision field, salts are represented by urates (big number). What is the most likely diagnosis?
A Acute glomerulonephritis with nephritic syndrome check table ↓↓
B Acute glomerulonephritis with nephrotic syndrome
C Acute glomerulonephritis with nephrotic syndrome, hematuria and hypertension
D Acute glomerulonephritis with isolated urinary syndrome
E Nephrolithiasis
96-A 14 year old child suffers from vegetovascular dystonia of pubertal period. He has got sympathoadrenal attack. What medicine should be used for attack reduction?

A Obsidan → Propranolol hydrochloride. Non-selective β blocker used to treat high blood pressure, a number of types of irregular heart rate, thyrotoxicosis, capillary hemangiomas, performance anxiety, and essential tremors

B No-shpa → antispasmine

C Amysyl → may be they mean Amaryl Tablets (Glimepiride) hypoglycemic agent

D Aminophylline → Bronchodilator

E Corglicone → Corglycon Cardiac glycosides Acute & chronic heart failure (intolerance of digitalis).

Sympathoadrenal crises can be called diseases of the cardiovascular system, hormonal dysfunction caused by age-related changes in the body during adolescence or menopause, during pregnancy. Typically, the crisis begins suddenly, very quickly "dispersed" and in seconds reaches its peak. Pressure may spike to 200/100-120 mm Hg. art., pulse up to 120 to 150 and even higher. They mean Addisonian crisis

97-A child is 9 months old. The patient's body temperature is 36.7°C, the skin is pale, humid, there is pain in leg muscles. There is no extremities mobility, sensitivity is present. The child has been diagnosed with poliomyelitis. The causative agent of this disease relates to the following family:

A Picornavirus

B Paramyxovirus

C Tohovirus

D Adenovirus

E Rotavirus

98-A 4 month old child fell seriously ill: body temperature rose up to 38.5°C, the child became inert and had a single vomiting. 10 hours later there appeared rash over the buttocks and lower limbs in form of petechiae, spots and papules. Some haemorrhagic elements have necrosis in the centre. What is the most probable disease?

A Meningococcemia → star-like rash petechial (satellite)

B Rubella

C Influenza

D Haemorrhagic vasculitis

E Scarlet fever
A 5-year-old child had strong headache, vomiting, ataxy, dormancy, discoordination of movements, tremor of the extremities on the 8th day of the disease. It was followed by rise in body temperature, vesiculosis rash mainly on the skin of the body and the hairy part of the head. At the second wave of the fever a diagnosis of encephalitis was given. What disease complicated encephalitis in this case?

A Chicken pox → Varicella zoster virus VZV, in adult called Shingles, Inflammation of the brain, or encephalitis, can occur in immunocompromised individuals → check Q 16

B Measles
C German measles
D Enterovirus infection
E Herpetic infection
A 13 year old girl was admitted to the cardiological department because of pain in the muscles and joints. Examination of her face revealed an edematous erythema in form of butterfly in the region of nose bridge and cheeks. What is the most probable diagnosis?

A Systemic lupus erythematosus → SLE Review Q 54
B Rheumatism
C Dermatomyositis
D Rheumatoid arthritis
E Periarteritis nodosa

A 4 y.o. boy was admitted to the hospital with complaints of dyspnea, rapid fatigability. His anamnesis registers frequent respiratory diseases. On percussion: heart borders are dilated to the left and upwards. On auscultation: amplification of the SII above pulmonary artery, a harsh systolodyastolic "machine" murmur is auscultated between the II and the III rib to the left of breast bone, this murmur is conducted to all other points including back. AP is 100/20 mm Hg. What is the most probable diagnosis?

A Opened arterial duct → Patent Ductus Arteriosus PDA (machinar Murmur)
B Interventricular septal defect
C Isolated stenosis of pulmonary arterial orifice
D Interatrial septal defect
E Valvar aortic stenosis
A 12 year old girl complains about abrupt weakness, nausea, dizziness, vision impairment. The day before she ate home-made stockfish, beef. Examination revealed skin pallor, a scratch on the left knee, dryness of mucous membranes of oral pharynx, bilateral ptosis, mydriatic pupils. The girl is unable to read a simple text (mist over the eyes). What therapy would be the most adequate in this case?

A. Parenteral introduction of polyvalent antibotulinic serum  
B. Parenteral disintoxication  
C. Parenteral introduction of antibiotics  
D. Gastric lavage  
E. Parenteral introduction of antitetanus serum

A child from the first non-complicated pregnancy but complicated labor had cephalohematoma. On the second day there developed jaundice. On the 3th day appeared changes of neurologic status: nystagmus, Graefe's sign. Urea is yellow, feces- golden-yellow. Mother's blood
group is A(II)Rh⁻, child- A(II)Rh⁺. On the third day child's Hb- 200 g/L, RBC- 6,1x10¹²/L, bilirubin in blood - 58 mk mol/L due to unconjugated bilirubin, Ht- 0,57. What is the child's jaundice explanation?

A Brain delivery trauma  
B Physiologic jaundice  
C Hemolytic disease of newborn → BE CAREFUL  
D Bile ducts atresia  
E Fetal hepatitis

104-A full-term baby (the 1st uncomplicated pregnancy, difficult labour) had a cephalogematoma. On the 2nd day there was jaundice, on the third the following changes in neurological status appeared: nystagmus, Graefe syndrome. Urine was yellow, feces were of golden-yellow colour. Mother's blood group is A(II)Rh⁻, the baby's one - A(II)Rh⁺. On the third day the child's Hb was 200g/l, RBCs - 6,1x10¹²/l, blood bilirubin - 58 micromole/l at the expense of unbound fraction. What caused the jaundice in the child?

A Craniocerebral birth trauma → Same Q up  
B Physiological jaundice  
C Neonatal anaemia  
D Biliary atresia  
E Fetal hepatitis

105-After birth a child was pale and had arrhythmical breathing. Oxygen therapy didn’t have any effect. Pulse was weak and rapid. It was difficult to measure arterial pressure accurately. There were no edemata. What is the most likely reason for these symptoms?

A Asphyxia  
B Congestive heart failure  
C Intracranial haematoma  
D Intrauterine sepsis  
E Congenital pneumonia

106-A child was delivered severely premature. After the birth the child has RI symptoms, anasarca, fine bubbling moist rales over the lower lobe of the right lung. Multiple skin extravasations, bloody foam from the mouth have occurred after the 2 day. On chest X-ray: atelectasis of the lower lobe of the right lung. In blood: Hb-100 g/L, Ht- 0,45. What is the most probable diagnosis?

A Edematous-hemorrhagic syndrome → "Finkelstein's disease or Seidlmayer syndrome is a skin
**107**- An infant is 2 days old. He was born full-term with signs of intrauterine infection, and therefore receives antibiotics. Neonates should be given antibiotics at longer intervals and lower doses compared to older children and adults because:

A. Neonates have lower glomerular filtration → most antibiotic clearance through kidney and Neonate still have Low GFR, so need to lower dose of drug and increase intervals.
B. Neonates have lower concentration of protein and albumin in blood
C. Neonates have a reduced activity of glucuronil transferase
D. Neonates have a decreased blood pH
E. Neonates have higher hematocrit

**108**- An infant is 2 d.o. It was full-term born with signs of intrauterine infection, that's why it was prescribed antibiotics. Specify, why the gap between antibiotic introductions to the new-born children is longer and dosage is smaller compared to the older children and adults?

A. The newborns have a lower level of glomerular filtration → Same Q above
B. The newborns have lower concentration of protein and albumins in blood
C. The newborns have reduced activity of glucuronil transferase
D. The newborns have diminished blood pH
E. The newborns have bigger hematocrit

**109**- A 10-year-old child is sick with chronic viral hepatitis B with marked activity of the process. Total bilirubin – 70 µmol/L, direct - 26µmol/L, indirect – 44 µmol/L. AST - 6.2 mmol/L, ALT - 4.8 mmol/L. What mechanism underlies the transaminase level increase of this patient?

A. Cytolysis of hepatocytes → hepatocyte necrosis due to Viral infection
B. Failure of the synthetical function of the liver
C. Hypersplenism
D. Intrahepatic cholestasis
E. Failure of bilirubin conjugation

**110**- A 12-year-old girl applied to doctor with complaints of swelling on the front part of the neck. The doctor diagnosed hyperplasia of the thyroid gland of the second degree, euthyroidism. Ultrasound suspected autoimmune thyroiditis. Blood was taken for titre of antibodies to
thyroglobulin. What titre of antibodies will be diagnostically important?

A 1:100  
B 1:50  
C 1:150  
D 1:200  
E 1:250

Indication for antithyroglobulin antibody test:

1. If the patient has following symptoms:
   1. If there is weight gain without any explanation.  
   2. Patients have a history of fatigue.  
   3. History of constipation.  
   4. In the case of dry skin.

Normal

- Titer = <1:100
- A small normal population may have antithyroglobulin antibody.
- 5 to 10% normal population may show low titer

A 14-year-old girl has been presenting with irritability and tearfulness for about a year. A year ago she was also found to have diffuse enlargement of the thyroid gland (II grade). This condition was regarded as a pubertal manifestation, the girl didn't undergo any treatment. The
girl's irritability gradually gave place to a complete apathy. The girl got puffy face, soft tissues pastosity, bradycardia, constipations. Skin pallor and gland density progressed, the skin became of a waxen hue. What disease may be suspected?

**A** Autoimmune thyroiditis → Hashimoto’s Thyroiditis (Hypothyroidism) symptoms

autoimmune thyroiditis is the release and entering of thyroid antigens into the blood as the result of inflammatory processes and traumas combined with surgical operations on thyroid gland. It has been found the presence of antibodies to thyroglobulins, colloidal component of thyroid gland and microsomal fraction. However the presence of antithyroid Ab not always results in the damage of the thyroid. The cytotoxic properties of these antibodies manifest only after their interaction with T-lymphocytes and HLA antigens.

**B** Diffuse toxic goiter → type of hyperthyroidism

**C** Thyroid carcinoma → no specific symptoms for CA also age young

**D** Subacute thyroiditis → it is self-limiting, no specific treatment, 15-20% of patients presenting with thyrotoxicosis and 10% of patients presenting with hypothyroidism. And can be euthyroid

**E** Juvenile basophilism → PITUITARY BASOPHILISM IN THE JUVENILE

it is type of Acanthosis nigricans is characterized by the formation of hyperpigmented

**Pastosity = mean swelling and edema**

**112** - In the anamnesis of a 2-year-old girl there are recurrent pneumonias with signs of obstruction. There are heterogeneous moist and dry rales, respiration is weakened. Dense, viscous secretion is difficult to hawk. There are "drumsticks", physical retardation. What is the most probable diagnosis?

**A** Mucoviscidosis, pulmonary form

**B** Recidivating bronchitis

**C** Bronchial asthma

**D** Congenital pulmonary polycystosis

**E** Pulmonary tuberculosis

**Review Q 79**

**113** - On the 3rd day of life a baby presented with haemorrhagic rash, bloody vomit, black stool. Examination revealed anaemia, extended coagulation time, hypoprothrombinemia, normal thrombocyte rate. What is the optimal therapeutic tactics?

**A** Vitamin K → Hemorrhagic Disease of Newborn due to Vit K deficiency

Vitamin K is also a byproduct of certain types of bacteria that live in your intestines and colon (gut flora). Like (Lactobacillus)also found in breast-fed babies doesn’t synthesize vitamin K

**B** Sodium ethamsylate → increasing capillary endothelial resistance and promoting platelet adhesion.

**C** Epsilon-aminocapronic acid → fibrinolytic inhibitor, give at Bleeding associated with fibrinolysis. Prevent conversion of plasminogen to plasmin that important to convert fibrinogen to fibrin the last process in clot formation

**D** Fibrinogen → Fibrinogen is used to treat bleeding episodes in people with a congenital fibrinogen deficiency.

**E** Calcium gluconate

**clotting time (coagulation time) the time required for blood to clot in a glass tube**

**114** - A 2 month old full-term child was born with weight 3500 g and was on the mixed feeding. Current weight is 4900 g. Evaluate the current weight of the child:

**A** Corresponding to the age → review Q 24 (for 2 months add 1400g ) 3500 + 1400 = 4900g so the infant growing normally.

**B** 150 g less than necessary
**C** Hypotrophy of the I grade  ➔  **underweight**  
**D** Hypotrophy of the II grade  
**E** Paratrophy of the I grade  ➔  mean obesity, when his weight greater than normal

115-A 2 m.o. breast-fed child suffers from cheek skin hyperemia, sporadic papulous elements on the skin of the chest and **back** following the **apple juice introduction**. The child is restless. What is the initial pediatrician’s tactics?  
**A** Clarify mother’s diet and exclude obligate allergens  ➔  child got hypersensitivity from juice ... you should explain mother about child diet , and should not give any food before 4 – 6 months and should not get any allergens food .  
**B** Refer to prescribe dermatologist  
**C** Administer general ultraviolet irradiation  
**D** Treat with **claritine**  
**E** Apply ointment with corticosteroids to affected skin areas

116-A 5 month old boy was born *prematurely*, he didn’t suffer from any disease at the infant age and later on. Examination at an outpatient’s hospital revealed paleness of skin, sleepiness. Blood count: **Hb** - 95 g/l, **erythrocytes** - 3,5\times10^{12}/l, **reticulocytes** - 9 %, **colour index** - 0,7, osmotic stability of erythrocytes - 0,44-0,33%, **serum iron** - 4,9 micromole/l. What is the most probable cause of anemia?  
**A** Iron deficit  ➔  pt. have sx. of Iron Deficiency anemia (\downarrow RBC/Hb \uparrow reticluocyte \downarrow CI mean hypochromic )  
normal Iron in blood serum **11.6 – 31.3 \mu mol/l** (or they will write you normal value at end)  
**B** Hemogenesis immaturity  
**C** Infectious process  
**D** Erythrocyte hemolysis  
**E** B_{12} deficit  ➔  also called cyanocobalamine: type of megaloblastic anemias (big cell size), ( **Pernicious anemia**)

117-A 7 y.o. child had elevation of temperature to 40 \degree C in anamnesis. For the last 3 months he presents **fusiform swelling of fingers, ankle** joints and **knee** joint, **pain** in the upper part of the sternum and cervical part of the spinal column. What is the most probable diagnosis?  
**A** Juvenile rheumatic arthritis  ➔  mean young RA .  
**B** Rheumatism  
**C** Toxic synovitis  ➔  inflammation of synovial fluid of joints  
**D** Septic arthritis  
**E** Osteoarthrits  ➔  usually old age

118-An 8 year old girl complains about **joint pain**, temperature rise up to 38 \degree C, dyspnea. Objectively: the **left cardiac border** is deviated by 2,5 cm to the left, **tachycardia**, **systolic murmur** on the **apex** and in the **V point** are present. Blood count: **leukocytes** – 20\times10^9/l, ESR - 18 mm/h. What sign gives the most substantial proof for **rheumatism** diagnosis?  
**A** Carditis  ➔  one of the major criteria of Bens Jones of Acute Rheumatic fever.  
**B** Arthralgia  
**C** Leukocytosis  ➔  minor criteria  
**D** Fever  
**E** Accelerated ESR

119-A 5 y.o. child with **stigmas of dysembryogenesis** (small chin, thick lips, opened mouth, **hyperthelorismus**) has **systolic murmur** in the second intercostal to the **right** of the sternum. The murmur passes to the neck and along the sternum left edge. The pulse on the left brachial artery
is weakened. BP on the right arm is 110/60 mm Hg, on the left - 100/60 mm Hg. ECG results: hypertrophy of the right ventricle. What defect is the most probable?

A Aortic stenosis
B Defect of interventricular septum
C Defect of interatrial septum
D Coarctation of the aorta
E Open aortic duct

Don’t afraid from MURMURS 😊 😊

<table>
<thead>
<tr>
<th>Systolic murmurs</th>
<th>Diastolic murmurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aortic stenosis (AS)</td>
<td>Aortic regurgitation (AR)</td>
</tr>
<tr>
<td>Pulmonic stenosis (PS)</td>
<td>Pulmonic regurgitation (PR)</td>
</tr>
<tr>
<td>Mitral regurgitation (MR)</td>
<td>Mitral stenosis (MS)</td>
</tr>
<tr>
<td>Tricuspid regurgitation (TR)</td>
<td>Tricuspid stenosis (TS)</td>
</tr>
<tr>
<td>Mitral valve prolapse (MVP)</td>
<td>Austin-Flint murmur</td>
</tr>
<tr>
<td>Atrial septal defect (ASD)</td>
<td>Continuous murmurs</td>
</tr>
<tr>
<td>Ventricular septal defect (VSD)</td>
<td>Patent ductus arteriosus (PDA)</td>
</tr>
<tr>
<td>Hypertrophic Cardiomyopathy</td>
<td>Combination murmurs</td>
</tr>
</tbody>
</table>

A120-A 1,5-year-old child fell ill acutely with high temperature 38°C, headache, fatigue. The temperature declined on the fifth day, muscular pain in the right leg occurred in the morning, there were no movements and tendon reflexes, sensitivity was reserved. What is the initial diagnosis?

A Polyomyelitis → is an acute infectious disease that is caused by one of three types of poliovirus and is characterized by the large range of clinical forms (from abortive to paralytic one).

B Viral encephilitis
C Polyartropathy
D Osteomyelitis
E Hip joint arthritis
Forms of poliomyelitis without the CNS damage:
I. Inapparent (virus carrying).
II. Abortive (small illness).

Forms of poliomyelitis with the CNS damage:
I. Nonparalytic or meningeal.
II. Paralytic:
1. Spinal (neck, pectoral, lumbar, limited or widespread).
2. Pontinus.
4. Pontosinal.
5. Bulbosinal.

Differential diagnostics of poliomyelitis with similar forms of enterovirus infection

<table>
<thead>
<tr>
<th>Signs</th>
<th>Poliomyelitis</th>
<th>Poliomyelitis like forms of enterovirus infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latent period</td>
<td>5-35 days</td>
<td>2-10 days</td>
</tr>
<tr>
<td>Toxic syndrome</td>
<td>Severe</td>
<td>Mild or moderate</td>
</tr>
<tr>
<td>Fever</td>
<td>High</td>
<td>Moderate</td>
</tr>
<tr>
<td>Catarrhal signs</td>
<td>Mild</td>
<td>Typical (herpangina)</td>
</tr>
<tr>
<td>Preparalytic period duration</td>
<td>2-3 days</td>
<td>5-7 days</td>
</tr>
<tr>
<td>Skin rashes</td>
<td>Absent</td>
<td>Often present</td>
</tr>
<tr>
<td>Paralysis</td>
<td>Peripheral paralysis, stable</td>
<td>Peripheral paresis, usually disappears</td>
</tr>
<tr>
<td>the tendon reflexes</td>
<td>Absent</td>
<td>Decreased or normal</td>
</tr>
<tr>
<td>Muscular atrophy</td>
<td>Typical</td>
<td>Rare, some muscles</td>
</tr>
<tr>
<td>Renewal of function</td>
<td>Less damaged motoneurons in a year</td>
<td>Practically complete in 3-4 wks</td>
</tr>
<tr>
<td>CSF changes</td>
<td>As in serous meningitis</td>
<td>Not typical</td>
</tr>
<tr>
<td>Virological studies</td>
<td>Poliovirus</td>
<td>Coxackie A, ECHO</td>
</tr>
</tbody>
</table>
121-A 3-year-old child has been delivered to a hospital in soporose state with considerable amyotonia, inhibition of tendon and periosteal reflexes. Miosis and asthenocoria are also present. Corneal reflexes are preserved. Pulse is rapid and weak. AP- 80/50 mm Hg. The parents suspect the child of accidental taking some tablets. Such clinical presentations are typical for intoxication with the following tableted drugs:

A Tranquilizers → anxiolytics, antipsychotics. Mood stabilizers: drugs which is designed for the treatment of anxiety, fear, tension, agitation, and disturbances of the mind, specifically to reduce states of anxiety and tension

B Antipin drugs
C Antihypertensive drugs
D Barbiturates
E Beta-2-adrenoceptor agonists

** Soporose: characterized by or manifesting morbid sleep or sleepiness

**Amyotonia: deficiency of muscle tone.

122-A 2 m.o. child with birth weight 5100 g has jaundice, hoarse cry, umbilical hernia, physical development lag. Liver is +2 cm enlarged, spleen is not enlarged. In anamnesis: delayed falling-away of umbilical cord rest. In blood: Hb- 120 g/L, erythrocytes - 4,5x10¹²/L, ESR- 3 mm/h. Whole serum bilirubin is 28 mcmole/L, indirect - 20 mcmole/L, direct - 8 mcmole/L. What is the most probable diagnosis?

A Congenital hypothyreosis → congenital Hypothyroidism
B Congenital hepatitis
C Hemolitic anemia
D Conjugated jaundice
E Cytomegalovirus infection

** Lag: mean delay, physical development lag: mean delay in growth (retardation)

123-A 5-year-old child developed an acute disease starting from body temperature rise up to 38,5°C, running nose, cough and conjunctivitis. On the 4th day the child presented with maculo-papular rash on face. Body temperature rose again up to 39,2°C. Over the next few days the rash spread over the whole body and extremities. Mucous membrane of palate was hyperemic, there was whitish deposition on cheek mucous membrane next to molars. What is your provisional diagnosis?

A Measles → Koplik's spot
B Acute viral respiratory infection
C Yersinia
D Enterovirus diseases
E Rubella

Review Q 15 – 16 / 77
A 3 year old child fell acutely ill, body temperature rose up to 39.5°C, the child became inert, there appeared recurrent vomiting, headache. Examination revealed positive meningeal symptoms, after this lumbar puncture was performed. Spinal fluid is turbid, runs out under pressure, protein concentration is 1.8 g/l; Pandy reaction is +++, sugar concentration is 2.2 millimole/l, chloride concentration - 123 millimole/l, cytosis is $2.35 \times 10^9$ (80% of neutrophils, 20% of lymphocytes). What is the most probable diagnosis?

**A** Purulent meningitis → Neutrophil / Polymorphonuclear cell / PMN and hx of purulent infect.  
**B** Serous viral meningitis → Lymphocyte predominant and sugar normal, hx of viral infection.  
**C** Serous tuberculous meningitis → Lymphocyte predominant and sugar low, hx of TB  
**D** Subarachnoid haemorrhage → Hx of trauma, hemorrhage also no infection, no T  
**E** Brain tumour

### Differential diagnosis of meningitis

<table>
<thead>
<tr>
<th>Signs</th>
<th>Meningismus</th>
<th>Viral meningitis</th>
<th>Tuberculosis meningitis</th>
<th>Purulent bacterial meningitis</th>
<th>Subarachnoid hemorrhage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color, transparence</td>
<td>Colorless, transparent</td>
<td>Colorless, transparent or opalescent</td>
<td>Colorless, xanthochromic or opalescent</td>
<td>White-yellow or green, muddy</td>
<td>bloody, after settling – xanthochromic</td>
</tr>
<tr>
<td>Pressure (mm. H$_2$O), flow out speed (drops per 1 minute)</td>
<td>below 180-200, 50-80</td>
<td>200-300, 60-90</td>
<td>250-500, 60-90</td>
<td>250-500 jet, sometimes rare drops</td>
<td>250-400 &gt; 70 or jet</td>
</tr>
<tr>
<td>Cytosis (in 1 mk l.)</td>
<td>2-12</td>
<td>20-800</td>
<td>200-700</td>
<td>500-1000 andmore</td>
<td>It is hard to count in the first days, from 5-7 day15-120</td>
</tr>
<tr>
<td>Cytogram lymphocytes, % neutrophils, %</td>
<td>80-85, 15-20</td>
<td>80-100, 0-20</td>
<td>40-60, 20-50</td>
<td>0-30, 30-100</td>
<td>from 5-7 day lymphocytes prevail</td>
</tr>
<tr>
<td>Protein, g/l</td>
<td>0.16-0.33</td>
<td>0.33-1.0</td>
<td>1.0-3.3</td>
<td>0.66-16.0</td>
<td>0.66-16.0</td>
</tr>
<tr>
<td>Sedimentation tests (Pandy)</td>
<td>–</td>
<td>+++</td>
<td>+++(++++)</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Dissociations</td>
<td>Absent</td>
<td>cellular-protein on the low level (from 8-10 day – protein-cellular)</td>
<td>protein-cellular</td>
<td>cellular-protein on the high level</td>
<td>–</td>
</tr>
<tr>
<td>Fibrin pellicle</td>
<td>–</td>
<td>- in 3-5 %</td>
<td>Often rough in 30-40 %</td>
<td>Often as a sediment</td>
<td>Rare</td>
</tr>
<tr>
<td>Glucose, mmol/l</td>
<td>2.2-3.3</td>
<td>2.2-3.3</td>
<td>For 2-3 weeks 1.0-2.0</td>
<td>Normal or slightly less than normal</td>
<td>normal</td>
</tr>
</tbody>
</table>
125-A 13 y.o. girl complains of having temperature rises up to febrile figures for a month, joint ache, periodical skin rash. Examination revealed steady enhancing of ESR, LE-cells. What is the most probable diagnosis?
A Systematic lupus erythematosus
B Juvenile rheumatoid arthritis
C Systematic scleroderma
D Acute lymphoblast leukosis
E Rheumatics

126-A child is 1 year old. After the recent introduction of complementary feeding the child has presented with loss of appetite, diarrhea with large amounts of feces and occasional vomiting, body temperature is normal. Objectively: body weight is 7 kg, the child is very pale, there are edemata of both legs, abdomen is significantly enlarged. Coprogram shows many fatty acids and soaps. The child has been diagnosed with celiac disease and administered the gluten-free diet. What is to be excluded from the ration?
A Cereals - wheat and oats
B Milk and dairy products
C Fruit
D Animal protein
E High digestible carbohydrates

** Coprogram: mean general stool test

autoimmune disorder that primarily affects the small intestine. Classic symptoms include gastrointestinal problems such as chronic diarrhoea, abdominal distention, malabsorption, loss of appetite and among children failure to grow normally. This often begins between six months and two years of age. Coeliac disease is caused by a reaction to gluten, which are various proteins found in wheat and in other grains such as barley and rye. Moderate quantities of oats, free of contamination with other gluten-containing grains, are usually tolerated.

127-A 7-year-old child was brought to a doctor for a check. The child has a 4-year history of bronchial asthma, asthma attacks occur mainly in spring and summer. Allergy tests revealed hypersensitivity to poplar seed tufts, field herbs. What recommendation should be given?
A Specific hyposensitization
B Physiotherapy
C Treatment at a health resort
D Phytotherapy
E Needle reflexotherapy

128-A 9-month-old child presents with fever, cough, dyspnea. The symptoms appeared 5 days ago after a contact with a person having ARVI. Objectively: the child is in grave condition. Temperature of 38°C, cyanosis of nasolabial triangle is present. RR- 54/min, nasal flaring while breathing. There was percussion dullness on the right below the scapula angle, and tympanic sound over the rest of lungs. Auscultation revealed bilateral fine moist rales.
predominating on the right. What is the most likely diagnosis?

**A** Acute pneumonia → complication from ARVI, from percussion we can determined that is focal pneumonia

**B** ARVI → be careful, he have it already but then complicated.

**C** Acute laryngotracheitis → Croup, stridor cough.

**D** Acute bronchitis

**E** Acute bronchiolitis

*ARVI mean acute respiratory viral infection.*

**DIAGNOSTIC CRITERIA OF PNEUMONIA**

**Clinical** → Increasing of body temperature above 38°C, hyperthermia during 3-5 days and more; dry cough at first, then moist; signs of intoxication and respiratory failure; at palpation increased voice fremitus, at percussion over the affected area of lung a shortened tympanitis, at auscultation - hard breathing, first dry, then moist sonorous small and medium bubble wheezing, possible crepitation over the size of lesions, enforced bronchophonia.

**X-Ray** → - Infiltrative shadows in the form of foci of different size and intensity, darkening of one or several segments, lobe or several foci.

**Differential diagnosis of focal pneumonia, bronchitis and bronchiolitis**

<table>
<thead>
<tr>
<th>Diseases</th>
<th>Functional changes in lungs</th>
<th>X-ray changes in lungs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percussion sighs</td>
<td>Type of breath</td>
</tr>
<tr>
<td>Focal pneumonia</td>
<td>Lung sound with box inflection</td>
<td>Harsh, focally moist or crepitation</td>
</tr>
<tr>
<td>Simple bronchitis</td>
<td>Lung sound with box inflection</td>
<td>Harsh</td>
</tr>
<tr>
<td>Obstructive bronchitis</td>
<td>Bandbox sound</td>
<td>Harsh</td>
</tr>
<tr>
<td>Bronchiolitis</td>
<td>Bandbox sound</td>
<td>Harsh</td>
</tr>
</tbody>
</table>
An 8 y.o. boy complains of constant cough along with discharge of greenish sputum, dyspnea during physical activities. At the age of 1 year and 8 months he fell ill for the first time with bilateral pneumonia that had protracted course. Later on there were recurrences of the disease 5-6 times a year, during the remission periods there was constant productive cough. What examination results will be the most important for making a final diagnosis?

A Bronchography → x ray with contrast media injected through the bronchus, pt have symptoms of bronchitis
B Roentgenography of thorax organs
C Bacterial inoculation of sputum
D Bronchoscopy
E Spirography

A mother of a 5 y.o. girl consulted a doctor about daughter's involuntary urination at night, nightmares, sleep disorders, slow gaining of body weight. Objectively: malnutrition, intellectual development is good, the girl can read and explains common situations quite adultly. Her skin is very pale, liver is enlarged in size. Her mother suffers from holetithiasis. What type of diathesis is the most probable in the child's case?

A Gouty diathesis → keep it, just connect mother had GB stone, so the daughter have gout
B Urine acid diathesis
C Exudative diathesis
D Allergic diathesis
E Lymphohypoplastic diathesis
Holetithiasis = choletithiasis

A 10 year old girl complains about abdominal pain that is arising and getting worse after eating rough or spicy food. She complains also about sour eructation, heartburn, frequent constipations, headache, irritability. She has been suffering from this for 12 months. Objectively: the girl's diet is adequate. Tongue is moist with white deposit at the root. Abdomen is soft, painful in its epigastric part. What study method will help to make a diagnosis?

A Esophagogastroduodenoscopy → to exclude any upper GIT pathology like GERD, Gastritis, peptic ulcer, esophageal sphincter (achalasia) and so on......
B Intragastral pH-metry
C Fractional examination of gastric juice
D Contrast roentgenoscopy
E Biochemical blood analysis
A 40 h.o. child has hyperosthesia, CNS depression, dyspepsia. Sepsis is suspected. What should the differential diagnosis be made with?

A Hypoglycemia
B Hypocalcemia
C Hyperbilirubinemia
D Hyperkaliemia
E Hypomagnesemia

Point and Symptoms

Most neonates with hypoglycaemia are initially asymptomatic. Those who are symptomatic may present with the following:
- Apnoea
- Cyanosis
- Jitteriness
- Hypotonia
- Poor feeding
- Seizures
- Irritability
- Lethargy
- High pitched cry

All signs are nonspecific and also occur in neonates who have asphyxia, sepsis or hypocalcemia, or opioid withdrawal. Therefore, at-risk neonates with or without these signs require an immediate bedside serum glucose check.

Examination of a full-term 6-day-old infant revealed that different areas of skin had erythemas, flaccid bubbles, eroded surface, cracks, peeling of the epidermis looking like being scalded with boiling water. There was positive Nikolsky’s symptom. General condition of the child was serious. The child was restless, hypersensitive, febrile. What is the most likely diagnosis in this case?

A Ritter’s exfoliative dermatitis
Scalded skin syndrome (Ritter disease): A relatively rare syndrome caused by exfoliative toxin takes the form of superficial fragile blisters that burst, leaving a tender base. The patient often is febrile and occasionally has mucopurulent eye discharge. Place special emphasis in making this diagnosis because it can often be mistaken for erythema multiforme and/or toxic epidermal necrolysis, which are treated with corticosteroids. Misdiagnosis delays treatment and allows exfoliation to progress, and corticosteroid therapy could potentiate bacterial superinfection. Although the mortality rate is low in children with this entity, most fatalities are caused by delays in diagnosis.

Examination shows superficial fragile blisters that burst, leaving a tender base. Skin sloughs easily when touched, called Nikolsky sign (see ↓↓) Fever is often present. A mucopurulent eye discharge may be present. Misdiagnosis must be avoided.

Therapy for this, as with any S aureus toxin–mediated disease, should be aimed at eradicating the focus of infection and ending toxin production. Administer large doses of intravenous antistaphylococcal agents, such as oxacillin (150 mg/kg/d) or a first-generation cephalosporin, such as cefazolin (100 mg/kg/d)
134-A 1.5 y.o. child fell seriously ill: chill, body temperature rise up to 40.1°C, then rapid dropping to 36.2°C, skin is covered with voluminous hemorrhagic rash and purple cyanotic spots. Extremities are cold, face features are sharpened. Diagnosis: meningococcosis, fulminant form, infection-toxic shock. What antibiotic must be used at the pre-admission stage?
A Soluble Levomycetine succinate → Chloramphenicol
B Penicillin
C Lincomycin
D Gentamycin
E Sulfamonometoxin

135-A 10 year old boy suffers from chronic viral hepatitis type B with maximal activity. What laboratory test can give the most precise characteristic of cytolysis degree?
A Transaminase test → liver enzymes Alanine transaminase (ALT/ SGPT) and Aspartate transaminase (AST/ SGOT)
B Weltman's coagulation test
C Takata-Ara test
D Prothrombin test
E Test for whole protein

136-A 6 y.o child complains of thirst, polyuria, increased appetite for 2 months with weight loss for 3 kg. There has been nocturnal enuresis during last week. On examination: hyperglycemia 14 mol/L. The diagnosis is diabetis mellitus I type. What is the genesis of this disease?
A Autoimmune
B Viral
C Bacterial
D Neurogenic
E Virus-bacterial

137-A 10 y.o. child who is at oligoanuretic stage of acute renal insufficiency has got sensations of pricking in the mucous membrane of oral cavity and tongue, extremities numbness, reduced reflexes, respiratory disturbance, arrhythmia. What are these symptoms caused by?
A Hyperkaliemia → ↑ K⁺
Dr. Hur A. Salman - OdNMU

**B** Hyponatremia → ↓ Na⁺

**C** Hyperazotemia → ↑ nitrogen waste in blood

**D** Acidosis → if metabolic PH ↓, HCO₃ ↓, PCO₂ ↓

**E** Alkalosis → if metabolic PH ↑, HCO₃ ↑, PCO₂ ↑

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**138**- Examination of a 12 year old child revealed diffuse thyroid enlargement of the II degree. Heart auscultation revealed dullness of heart sounds, heart rate was 64/min. The child has frequent constipations, anemia. Concentration of thyroglobulin antibodies is increased. What disease might have caused such symptoms?

- **A** Autoimmune thyroiditis → review Q 111
- **B** Diffuse toxic goiter
- **C** Thyroid carcinoma
- **D** Thyroid hyperplasia
- **E** Endemic goiter

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**139**- An 8-year-old girl has been admitted to the cardiology department. Objectively: there is a skin lesion over the extensor surfaces of joints with atrophic cicatrices, depigmentation, symmetrical affection of skeletal muscles (weakness, edema, hypotrophy). What disease are these changes most typical for?

- **A** Dermatomyositis → is an idiopathic inflammatory myopathy (IIM) with characteristic cutaneous findings. It is a systemic disorder that most frequently affects the skin and muscles, but may also affect the joints, the esophagus, the lungs, and, less commonly, the heart. Calcinosis is a complication of dermatomyositis that is observed most often in children and adolescents. An association between dermatomyositis and cancer has long been recognized.
- **B** Systemic scleroderma → CREST syndrome.
- **C** Nodular periarteritis → vasculitis.
- **D** Systemic lupus erythematosus → SLE explained above.
- **E** Reiter's disease → Reactive Arthritis.
Dermatomyositis.

# Bohan and Peter suggested 5 subsets of myositis, as follows:
- Dermatomyositis
- Polymyositis
- Myositis with malignancy
- Childhood dermatomyositis/polymyositis
- Myositis overlapping with another collagen-vascular disorder

Clinical Presentation
Skin eruption/hair loss

A : is  diffuse alopecia with a scaly scalp dermatosis is common in dermatomyositis.
- Muscle involvement
B: Juvenile dermatomyositis (Children)  → Calcinosis is a complication of it.

The characteristic and possibly pathognomonic cutaneous features of dermatomyositis are the *heliotrope rash* and *Gottron papules*.
This rash is rarely observed in other disorders; therefore, its presence is highly suggestive of dermatomyositis.

C is Heliotrope rash in a woman with dermatomyositis.
D & E - Gottron papules
*Gottron papules* are found over bony prominences, particularly the metacarpophalangeal joints, the proximal interphalangeal joints, and/or the distal interphalangeal joints
Also include malar erythema, poikiloderma extensor surfaces of the arm, the vee of the neck or the upper part of the back (Shawl sign) or on the lateral thighs (Holster sign), in a photosensitive distribution (Patients rarely complain of photosensitivity), violaceous erythema on the extensor surfaces, and periungual telangiectases and cuticular changes. Nail-fold telangiectasia are present in this patient.

In some patients, particularly those with anti-synthetase antibodies, ulceration over the knuckles occurs. These lesions may require surgical intervention.

Other cutaneous findings include panniculitis and urticaria, as well as changes of hyperkeratosis of the palms known as mechanic's hands. Other findings include cutaneous mucinosis, follicular hyperkeratosis, hyperpigmentation, ichthyosis, white plaques on the buccal mucosa, cutaneous vasculitis, and a flagellate erythem - joint swelling, changes associated with Raynaud phenomenon, and abnormal findings on cardiopulmonary examination. The arthritis is nondeforming.

140- An 8-year-old child with a 3-year history of diabetes was hospitalized in hyperglycemic coma. Specify the initial dose of insulin to be administered:

- **A** 0.1-0.2 U/kg of body weight per hour
- **B** 0.05 U/kg of body weight per hour
- **C** 0.2-0.3 U/kg of body weight per hour
- **D** 0.3-0.4 U/kg of body weight per hour
- **E** 0.4-0.5 U/kg of body weight per hour

141- A 12-year-old girl undergoes regular gastroenterological check-ups for duodenal ulcer.
biliary dyskinesia. What is the recommended frequency of anti-relapse treatment?

**A** Twice a year  
**B** Every two months  
**C** Every 3 months  
**D** Once a year  
**E** Three times a year  

142- A 13 y.o. teenager who suffers from hemophilia A was taken to the hospital after a fight at school. His diagnosis is right-sided hemarthros of knee joint, retroperitoneal hematoma. What should be primarily prescribed?

**A** Fresh frozen plasma  
**B** Aminocapronic acid  
**C** Washed thrombocytes  
**D** Placental albumin  
**E** Dry plasma  

**NOTE**

Hemophilia A deficiency of F VIII preferably treated by Cryoprecipitate, and for Hemophilia B treated by fresh frozen plasma using

143- A 3 m.o. child fell seriously ill, body temperature raised up to 37.8°C, there is semicough. On the 3rd day the cough grew worse, dyspnea appeared. On percussion: tympanic sound above lungs, on auscultation: a lot of fine moist and wheezing rales during expiration. What is the most probable diagnosis?

**A** Acute respiratory viral infection, bronchiolitis  
**B** Acute respiratory viral infection, bronchopneumonia  
**C** Acute respiratory viral infection, bronchitis  
**D** Acute respiratory viral infection, bronchitis with asthmatic component  
**E** Acute respiratory viral infection, focal pneumonia

**Bronchiolitis:** is blockage of the small airway in the lungs due to a viral infection. It usually only occurs in children less than two years of age. Symptoms may include fever, cough, runny nose, wheezing, and breathing problems. More severe cases may be associated with nasal flaring, grunting, or the skin between the ribs pulling in with breathing. If the child has not been able to feed properly, signs of dehydration may be present.

respiratory syncytial virus (72% of cases) or human rhinovirus (26% of cases)

144- On the 1st day of life a full-term girl (2nd labour) weighing 3500g, with Apgar score of 8 points, presented with jaundice. Indirect bilirubin of blood - was 80 micromole/l, 6 hours later - 160 micromole/l. What is the optimal method of treatment?

**A** Exchange blood transfusion  
**B** Phototherapy  
**C** Infusion therapy  
**D** Phenobarbital treatment  
**E** Enterosorbents
A child was born at a gestational age of 34 weeks in grave condition. The leading symptoms were respiratory distress symptoms, namely sonorous and prolonged expiration, involving additional muscles into respiratory process. The Silverman score at birth was 0 points, in 3 hours it was 3 points with clinical findings. Which diagnostic study will allow to diagnose the form of pneumopathy?

A X-ray of chest  
B Clinical blood test  
C Determination of blood gas composition  
D Proteinogram  
E Immunoassay

**SILVERMAN ANDERSON SCORE**

- Score >7 – respiratory failure  
- Score 4–7 – respiratory distress

![Image of Silverman score chart](image-url)

Figure: The Silverman score for assessing the magnitude of respiratory distress. (From Avery, M.E., and Fletcher, B.D.: The Lung and Its Disorders in the Newborn. Philadelphia, W.B. Saunders Company, 1974) (Courtesy of W.A. Silverman)
A 10-year-old girl consulted a doctor about thirst, frequent urination, weight loss. She has been observing these symptoms for about a month. Objectively: no pathology of internal organs was revealed. What laboratory analysis should be carried out in the first place?

A Blood glucose analysis on an empty stomach ➔ Fast blood sugar (FSB), signs of Diabetes?
B Glucose in urine test on the base of daily diuresis
C Acetone in urine test
D Glucose tolerance test
E Glucosuric profile

A 6-year-old child complains of frequent liquid stool and vomiting. On the 2nd day of disease the child presented with inertness, temperature rise up to 38.2°C, Ps- 150 bpm, scaphoid abdomen, palpatory painful sigmoid colon, defecation 10 times a day with liquid, scarce stool with mucus and streaks of green. What is a provisional diagnosis?

A Shigellosis
B Salmonellosis
C Escherichiosis
D Intestinal amebiasis
E Yersiniosis

Review Q 78 see Difference between shig. And Salmon.

**CLINICAL PICTURE**
- The transmission of the infection is realized through contaminated food-stuffs and water. Infection of food-stuffs, water, different objects happens due to direct contamination by infected excrements, through dirty hands and also with participation of flies.
- Incubation period is from 2 to 5 days, rarely – 7 days.
- Symptoms begin with sudden onset of high-grade fever, abdominal cramps & watery diarrhea
- Subsequently the diarrhea became mucoid, of small volume & mixed with blood. This is accompanied by abdominal pain, tenesmus & urgency. Fecal incontinence may occur.
- Physical signs are those of dehydration beside fever, lower abdominal tenderness & normal or increased bowel sounds

A 4-year-old boy had untimely vaccination. He complains of painful swallowing, headache, inertness, fever. Objectively: the child is pale, has enlarged anterior cervical lymph nodes, swollen tonsils with cyanotic hyperemia, tonsils are covered with gray-white pellicles which cannot be easily removed. When the pellicles are forcibly removed, the tonsils bleed. What is the most likely diagnosis?

A Oropharyngeal diphtheria
B Lacunar tonsillitis
C Pseudomembranous tonsillitis
D Infectious mononucleosis
E Follicular tonsillitis
149-After a 10-year-old child had been bitten by a bee, he was delivered to a hospital. There were lip, face and neck edema. The patient felt hot and short of breath. Objectively: breathing was laboured and noisy. There were foamy discharges from the mouth, cough. The skin was pale and cold. There was bradypnoea. Heart sounds were muffled and arrhythmic. Thready pulse was present. What diagnosis was made by the expert in resuscitation?

A. Anaphylactic shock
B. Quincke's edema → Angioedema.
C. Bronchial asthma
D. Acute cardiovascular collapse
E. Cerebral coma

150- A 13-year-old girl complains of fever up to 37.4°C during the last 2 months after recovering from ARVI. Objectively: malnutrition, diffuse grade II enlargement of the thyroid gland feeling dense on palpation, exophthalmos, tachycardia. What kind of pathological syndrome is it?

A. Thyrotoxicosis → is the condition that occurs due to excessive thyroid hormone of any cause and therefore includes hyperthyroidism.
B. Hypothyroidism
C. Hypoparathyroidism
D. Hyperparathyroidism
E. Thymomegaly
151-A 3-year-old girl presents with pertussis-like cough with thick sputum. There have been persistent changes in lungs since the age of 6 months when she was first diagnosed with acute pneumonia. Chloride concentration in the perspiration is 112 mEq/l. The child has been diagnosed with mucoviscidosis. What is the basis for autosomal recessive disease - mucoviscidosis?

A Inadequate transport of sodium and chloride ions \(\rightarrow\) Cystic Fibrosis.
B \(\alpha\)_1-antitrypsin deficiency
C Deposition of calcium triphosphates and carboxylates in the alveoles
D Pulmonary cysts
E Pulmonary artery hypoplasia

Review Q 79 / 112

152-A newborn has purulent discharges from the umbilical wound, the skin around the navel is swollen. The baby's skin is pale, with a yellow-gray tint, generalized hemorrhagic rash is present. What is the most likely diagnosis?

A Sepsis \(\rightarrow\) severe infection that has spread via the bloodstream.
B Hemorrhagic disease of the newborn
C Hemolytic disease of the newborn
D Thrombocytopathy
E Omphalitis

153-From urine of a 14-year-old boy with the exacerbation of secondary obstructive pyelonephritis *Pseudomonas aeruginosa* was isolated with a titer of 1000000 microbes per 1 ml. Which antibiotic is most advisable to be administered in this case?

A Ciprofloxacin \(\rightarrow\) good in Urinary tract infection, (P.aeruginosae, E.coli, Klebsiella)
B Ampicillin
C Cefazolinum
D Azithromycin
E Chloramphenicol

154-A 14-year-old boy with a history of chronic tonsillitis and sinusitis has developed a feeling of heart irregularities and additional pulse. HR- 83/min. ECG results: regular impulses with no visible P wave that occur every two sinus contractions, QRS complex is dramatically deformed and prolonged to over 0,11 s, T wave is discordant followed by a complete compensatory pause. Specify the arrhythmia type:

A Trigeminal extrasystole \(\rightarrow\) each 2 wave normal the 3\textsuperscript{rd} one extrasystole
B Bigeminal extrasystole \(\rightarrow\) each 1 wave normal the 2\textsuperscript{nd} one extrasystole
C Partial AV-blockade
D Complete AV-block
E Left bundle branch block \(\rightarrow\) wide QRS, [ V1 QS (or rS) W , V6 R notched (M)]

**Trigeminal PVC's: every third beat is a PVC**

**Extrasystole (Ectopic)**
An 8-year-old girl periodically has sudden short-term heart pain, sensation of chest compression, epigastric pain, dizziness, vomiting. Objectively: the patient is pale, respiratory rate - 40/min, jugular pulse is present. Ps- 185 bpm, of poor volume. AP- 75/40 mm Hg. ECG taken during an attack shows ectopic P waves, QRS wave is not deformed. At the end of an attack a compensatory pause is observed. The most likely cause of the attack is:

A Paroxysmal atrial tachycardia \(\Rightarrow\) PAT = Sudden atrial increased heart rate. , attention QRS not deformed

B Sinus tachycardia

C Paroxysmal ventricular tachycardia \(\Rightarrow\) P wave normal , QRS deformed.

D Complete AV-block

E Atrial fibrillation

A 10-year-old child with a history of nonrheumatic carditis has periodic attacks manifested by heart pain, dyspnea, pallor, high blood pressure, a dramatic increase in heart rate up to 180/min. What drug would be most effective to treat this patient?

A Obsidan \(\Rightarrow\) review Q 96

B Procainamide

C Lidocaine

D Verapamil

E Ajmaline

A 1-month-old child became restless and presented with an increase in head sweating. It's known from the history that the child has been fed with cow's milk since birth (September 5). Examination revealed craniotabes. A doctor administered a course of UV radiation. Decide, if the child needs ergocalciferol:

A 2-2.5 months after the UVR withdrawal \(\Rightarrow\) UVR = Ultra-violate radiation , here the child have thinning of bone (may be richets?) Vit D deficiency ? you can give ergocalciferol after 2 – 2.5
cholecalciferol (vitamin D₃) is produced naturally by the skin when exposed to ultraviolet light.

B Does not need
C In combination with UVR
D Immediately after the UVR withdrawal
E A month after the UVR withdrawal

** Craniotabes is softening or thinning of the skull in infants and children, which may be normally present in newborns
** Ergocalciferol, also known as vitamin D₂ and calciferol, is a type of vitamin D found in food and used as a dietary supplement. As a supplement it is used to prevent and treat vitamin D deficiency.

158-15 minutes after the second vaccination with DTP vaccine a 4-month-old boy exhibited the symptoms of Quincke's edema. What medication should be given for emergency aid?
A Prednisolone to relieve hypersensitivity reaction after DTP vaccine
B Heparin
C Adrenalin
D Furosemide
E Seduxen

159- A baby is 3 months old. The mother consulted a pediatrician about lack of breast milk. After several test weighings it was found that the child had to receive supplementary feeding. What is the optimal milk formula for this child?
A Malysh
B Milk formula № 2
C Milk formula № 3
D Whole cow's milk
E Malutka

160- Examination of a newborn revealed skin redness that appeared immediately after birth and reached the maximum intensity on the second day of life. What is your provisional diagnosis?
A Simple erythema redness of the skin, may be the result of increased temperature from climatic conditions, local inflammation, or infection. It may also appear as a sign of skin irritation, allergy, or other dermatoses.
B Toxic erythema
C Transient erythema
D Erythema nodosum
E Annular erythema

161- A child is 2 days old. He was born with a weight of 2900 kg, body length of 50 cm. On examination the skin is intensely red, elastic, with preserved turgor. Puerile respiration is present. Respiration rate - 40/min, cardiac sounds are rhythmic, sonorous. HR- 138/min. The
abdomen is soft. The liver extends 2 cm below the costal margin. Diuresis is sufficient. Stool is in form of meconium. What is the most likely diagnosis?

A Physiological erythema of the newborn → as the child have normal parameters and condition just this redness is physiologically appeared and dissolve without any
B Toxic erythema of the newborn
C Neonatal phlegmon
D Erysipelas
E Exfoliative Ritter's dermatitis → Q 81, 133

162-A full-term baby was born with body weight of 3200 g, body length of 50 cm, Apgar score - 8-10 points. What is the optimum time for the first breast-feeding?
A First 30 minutes
B First 6 hours
C First 24 hours
D First 48 hours
E After 48 hours

163-A 3-year-old child has been taken to a pediatrician. He has no recent history of any diseases. Objective examination revealed no pathology of the internal organs. The child needs the routine immunization against the following disease:
A Poliomyelitis → review Q 120
B Diphtheria and tetanus
C Measles, rubella, parotitis
D Pertussis
E Type B hepatitis

164-An 11-year-old girl has been immunized according to her age and in compliance with the calendar dates. What vaccinations should the children receive at this age?
A Diphtheria and tetanus
B TB
C Polio
D Hepatitis B
E Pertussis

165-A 6-year-old child has duodenal ulcer. What antibacterial drug should be co-administered together with metronidazole and De-Nol in order to eradicate Helicobacter pylori infection?
A Amoxicillin
B Tetracycline
C Oleandomycin
D Biseptol
E Sulfadimethoxinum

166-A baby born after fast labour has palsy of hand muscles. Grasp reflex is absent, as well as hand-to-mouth reflex. Hand sensitivity is absent. What is the most likely diagnosis?
A Dejerine-Klumpke palsy → distal brachial plexus paralysis (C7-8-T1)
B Duchenne-Erb’s palsy → proximal brachial plexus paralysis (C5-6)
C Total lesion of the brachial plexus → both proximal and distal (A+B)
D Muscle paresis
E Bernard-Horner syndrome → oculosympathetic paresis
A child is 12 years old. He complains of a dull aching pain in the epigastrium and right hypochondrium, that is getting worse after taking fatty or fried food, headache, weakness, nausea, low-grade fever. Abdominal palpation reveals a marked resistance of muscles in the right hypochondrium, positive Kerr’s, Ortner’s, Murphy’s symptoms. What is the most likely diagnosis?

A Chronic cholecystitis → chronic inflammation of Gall bladder.
B Acute appendicitis
C Viral hepatitis
D Acute gastritis
E Acute pancreatitis

A 3-month-old girl presents with rhinitis, dyspnea, dry cough. These manifestations has been observed for two days. Objectively: the child has pale skin, acrocyanosis, shallow respiration at the rate of 80/min. Percussion reveals handbox resonance over the whole surface of lungs, massive fine rales. What is the most likely diagnosis?

A Acute bronchiolitis → review Q 128, 143
B Pneumonia
C Mucoviscidosis
D Foreign body of the airway
E Acute bronchitis

During the first home visit to a full-term boy after his discharge from the maternity hospital a pediatrician revealed a symmetrical swelling of mammae without skin changes over them, swelling of the scrotum. The body temperature was of 36.5°C. The baby was calm, sucked the mother’s breast actively. What condition should you think of?

A Hormonal crisis of the newborn
**Mammae = breast**

170 - A full-term neonate weighing 4500 g was born asphyxiated with Apgar score of 4-6 points. During the delivery shoulder dystocia occurred. Neurologic assessment revealed non-focal neurologic symptoms, total flaccid paresis of the upper extremities since the arm was atonic and pronated. Grasping, Babkin’s and Moro’s reflexes were absent. What segments of spinal cord had been affected?

- **A** - C5 - Th1 \( \rightarrow \) (C5 - 6-7-8-T1) total brachial plexus paralysis, proximal and distal. ERB’s + KLUMPKE. Review Q 128, 143
- **B** - C1 - CII
- **C** - CIII - CIV
- **D** - ThI - ThV
- **E** - ThVI - ThVII

171 - A newborn (mother's I pregnancy) weighing 3500 g presents with jaundice, lethargy, reduced reflexes. Objectively: second grade jaundice of skin with saffron tint, liver - +2 cm, spleen - +1 cm. Urine and feces are yellow. Blood count: Hb- 100 g/l, RBCs - 3.2x10^{12}/l, WBCs - 18.7x10^{9}/l, mother’s blood type - A(I) Rh(+), baby’s blood type - A(II) Rh(-), bilirubin - 170 mmol/l, indirect fraction. ALT, AST rates are normal. What disease is the child most likely to have?

- **A** Hemolytic disease of newborn, AB0-conflict
- **B** Perinatal hepatitis
- **C** Hemolytic disease of newborn, Rh-conflict
- **D** Biliary atresia
- **E** Physiologic jaundice

Review Q 11

172 - A 10-year-old girl was admitted to a hospital with carditis presentations. It is known from the anamnesis that two weeks ago she had exacerbation of chronic tonsillitis. What is the most likely etiological factor in this case?

- **A** Streptococcus
- **B** Staphylococcus
- **C** Pneumococcus
- **D** Klebsiella
- **E** Proteus

173 - All the joints on the left elbow of a newborn are extended, the whole arm hangs vertically along the trunk with the forearm pronated. Active movements in the elbow joint are absent but present in the shoulder joint. The hand is flattened, atrophied, cold to the touch, hangs passively. Grasp reflex and hand-mouth reflex on the affected side are missing. Haemogram values are normal. What is the most likely diagnosis?

- **A** Inferior distal obstetrical paralysis \( \rightarrow \) Review Q 128, 143
- **B** Osteomyelitis
- **C** Proximal obstetrical paralysis
- **D** Complete obstetrical paralysis
- **E** Hypoxic-ischemic encephalopathy
Head circumference of a 1-month-old boy with signs of excitement is 37 cm, pefontanel is 2x2 cm large. After feeding the child regurgitates small portions of milk; stool is normal in respect of its volume and composition. Muscle tonus is within norm. What is the most likely diagnosis?

A. Pylorospasm → child physical development normal.
B. Meningitis → inflammation of meningeas.
C. Pylorostenosis → child physical development retarded; throwing vomiting / projectile
D. Microcephaly → small head.
E. Craniostenosis → premature closure of cranial suture due to abnormalities of skull development.

Pylorospasm and Pyloric Stenosis

- Abnormalities of the pyloric sphincter in infants
- Pylorospasm
  - muscle fibers of sphincter fail to relax trapping food in the stomach
  - vomiting occurs to relieve pressure
- Pyloric stenosis
  - narrowing of sphincter indicated by projectile vomiting
  - must be corrected surgically

175- 10 days after birth, a newborn developed a sudden fever up to 38.1°C. Objectively: the skin in the region of navel, abdomen and chest is erythematous; there are multiple pea-sized blisters with no infiltration at the base; single bright red moist erosions with epidermal fragments on the periphery. What is your provisional diagnosis?

A. Epidemic pemphigus of newborn → Is an acute contagious disease of staphylococcal nature. Pathogenesis: the main pathogenic factor is sensitivity of the skin to infections, prematurity, pregnancy toxicosis, birth injury. The source of infection is often the medical staff, mother and the patients themselves.

Clinical features. Emergence of small vesicles with thin tensed cover and serous-yellow contents, tendency towards fusion and formation of large vesicles. Fever is possible. Vesicles are converted into pustules, open, erosion slowly epithilizes. It is necessary to differentiate epidemic pemphigus form syphilitic pemphigus. The latter arises on palms and soles, on an infiltrated base, characterized by the presence of T. palladium in the contents of the vesicles, positive compliment fixation test in child and mother.

First, the symptoms of the disease often occurs in infants born in 4-10 days, contagious. Most damage occurred in the face, hands and other exposed parts, but also occur widely in the trunk and limbs, palms and soles, often without damage, and sometimes damage also occurred in the mucosa or spread finger nail bed caused by inflammation or suppurative paronychia. The initial stage of the disease symptoms was not obvious, with the progress of the disease may include fever, body temperature as high as 39 diarrhea, pneumonia, nephritis, meningitis or septicemia, resulting in death in children.

Second, the lesions began to tip to the great big big red spots, blisters appeared on it quickly. Rapid expansion of blisters, from pea to a large walnut or larger, blister and thin and break. A day or two, become turbid fluid bullae or blister before the end of some yellow pus, but most of the bullae will fester. Bullous be very full, after expanding and relaxation. After the blisters rupture, exposing flushing, smooth erosion surface, formed after the thin crust. Bullae can also occur elsewhere, but
as you can into a piece of the general erosion of pemphigus.

**Treatment.** Antibiotics, antistaphylococcal serum, transfusion of plasma, locally: aniline stains, creams with antibodies.

**B** Syphilitic pemphigus → check ↑↑

**C** Streptococcal impetigo → non-follicular pustule on a hyperemic edematous base, small red spot on the surface of which a vesicle of the size of a pinhead to a lentil forms in a few hours - localization of the process is the face and the sides of the trunk and limbs

**D** Vulgar impetigo

**E** Atopic dermatitis → allergy

**Naval region mean umbilicus**

![Vesicle, Pustule, Bulla](image)

176-On the **second day after preventive vaccination** a 2-year-old boy presented with abdominal pain without clear localization, body temperature rose up to 38°C. On the third day the child got red **papular haemorrhagic** eruption on the extensor surfaces of limbs and around the joints. Knee joints were edematous and slightly painful. Examination of other organs and systems revealed no pathological changes. What is the most likely diagnosis?

**A** Haemorrhagic vasculitis → Henoch–Scholen Purpura check Q1

**B** Thrombocytopenic purpura

**C** Meningococcemia

**D** Urticaria

**E** DIC syndrome

177-On the 6th day of life a child got multiple **vesicles filled with seropurulent fluid** in the region of occiput, neck and buttocks. General condition of the child is **normal**. What disease should be suspected?

**A** Vesculopustulosis → Is a disease of the newborn, characterized by multiple pustules, emerging in the openings of ducts of eccrine sweat glands. In pathogenesis the main role is played by maceration of the skin, prematurity, artificial feeding. Bathing is restricted during the disease. Pustules are cleaned with aniline stains. The skin around the pustules is cleaned by disinfectant solutions

**B** Impetigo neonatorum → ↓↓

**C** Miliaria → ↓↓

**D** Impetigo

**E** Epidermolysis bullosa → Q 175
A patient is 14 years old. Cytochemical study of punctate revealed 40% of blasts, there was negative reaction to peroxidase and with Sudan black, positive reaction to glycogen. Specify the form of acute leukemia:

A Lymphoblastic → check table down ↓↓↓ >> esp. red mark .. :D::D:
B Myeloblastic
C Monoblastic
D Promyelocytic
E Undifferentiated

All other options explained at table ↓↓↓
Six months ago, a 5-year-old child was operated for CHD. For the last 3 weeks, he has complained of fever, heart pain, aching muscles and bones. Examination results: "white-coffee" skin colour, auscultation revealed systolic murmur in the region of heart along with a noise in the III-IV intercostal space. Examination of fingertips revealed Janeway lesions. What is your provisional diagnosis?

A. Infectious endocarditis
B. Sepsis
C. Nonrheumatic carditis
D. Acute rheumatic fever
E. Typhoid fever

Janeway lesions: are non-tender, small erythematous or hemorrhagic macular or nodular lesions on the palms or soles only a few millimeters in diameter that are indicative of infective endocarditis. Pathologically, the lesion is described to be a micro abscess of the dermis with marked necrosis and inflammatory infiltrate not involving the epidermis. They are caused by septic emboli which deposit bacteria, forming microabscesses. Janeway lesions are distal, flat, ecchymotic, and painless.

Osler's nodes: are painful, red, raised lesions found on the hands and feet. They are associated with a number of conditions, including infective endocarditis, and are caused by immune complex deposition. Their presence is one definition of Osler's sign.
The condition of a 3-year-old child with acute non-rheumatic myocarditis has suddenly deteriorated: he presents with anxiety, acrocyanosis, peripheral edema, dyspnea. Auscultation of lungs reveals fine moist rales on both sides mainly in the lower parts. AP - 65/40 mm Hg, HR - 150/min, heart sounds are muffled, arrhythmic (extrasystole). Liver is +4 cm. Oliguria is present. The child has been diagnosed with acute heart failure. Which method of examination is most informative for assessing the child’s status dynamics?

A Echocardiography → for checking Ejection fraction, wall thickness (like Hypertrophied), check valve, (pt. with symptoms of RT side HF), cardiac Temponade & pericardial effusion

B ECG

C Diuresis monitoring

D Monitoring of K+, Na+ concentration in blood

E 24-hour monitoring of heart rhythm
181-A hospital admitted an 11-year-old boy diagnosed with medium-severe asthma, exacerbation period. In order to arrest the attacks the boy was administered broncholytic nebulizer therapy. During the day the child’s condition stabilized. What is the most appropriate method for further monitoring of respiratory function in this patient?

A Peak flowmetry
B Spirometry
C Pneumotachometry
D Bronchodilatation tests
E Veloergometry

PEFR (peak expiratory flow rate)

- Use: Monitoring changes in airflow limitation in asthma
- PEFR is mainly used
  1. to diagnose asthma
  2. to monitor exacerbations of asthma
- Advantages:
  1. Portable
  2. Can be used at the bedside
- Disadvantages
  1. Effort-dependent
  2. Poor measure of chronic airflow limitation

DIAGNOSIS:
1. PULMONARY FUNCTION TESTS:

Ideally pt should be instructed to record Peak Flow Readings after rising in the morning and before retiring in the evening.

Simple spirometry:
- confirms airflow limitation with a reduced FEV1, FEV1/FVC, 15 minutes after an Inhaled short acting B2- agonist in some pt’s by 2 to 4 weeks trial of oral corticosteroids, [Prednisone/Prednisolone]

182-A full-term newborn was born with body weight of 4000 g, body length of 57 cm. Reaction to the postnatal check was absent. There was diffuse cyanosis, heart rate of 80/min. What resuscitation measures should be taken?

A Start ALV with a mask
B Give 100% oxygen
C Intubate the child and start ALV
D Start tactile stimulation
E Give an injection of naloxone

ALV = Artificial Lung Ventilation
A 2-year-old child in a satisfactory condition periodically presents with moderate proteinuria, microhematuria. USI results: the left kidney is undetectable, the right one is enlarged, there are signs of double pyelocaliceal system. What study is required to specify the diagnosis?

A Excretory urography → x ray with I.V contrast media better on (Fluorography)
B Micturating cystography
C Retrograde urography
D Doppler study of renal vessels
E Radioisotope renal scan
An 8-year-old boy has a 2-year history of blotchy itchy rash appearing after eating citrus fruit. The first eruption occurred at the age of 6 months after the introduction of juices to the baby’s diet. Father has a history of bronchial asthma, mother - that of allergic rhinitis. What is the most likely diagnosis?

A. Atopic dermatitis  
B. Psoriasis  
C. Pityriasis Rosea  
D. Urticaria  
E. Quincke’s edema

An 8-year-old child was hospitalized for fever up to 39.8°C, inactivity, moderate headache, vomiting. Examination revealed meningeal symptoms. Lumbar puncture was performed. The obtained fluid had raised opening pressure, it was transparent, with the cell count of 450 cells per 1mcL (mainly lymphocytes - 90%), glucose level of 2.6 mmol/l. What causative agent might have caused the disease in the child?

A. Enterovirus  
B. Meningococcus  
C. Koch's bacillus  
D. Staphylococcus  
E. Pneumococcus

A 3-year-old child with ARVI had been administered biseptol, paracetamol, nazoferon. On the third day of treatment the baby's condition deteriorated: he developed sore throat, stomatitis, conjunctivitis, hypersalivation, painful dark red spots on the neck, face, chest and legs, then the spots were replaced with vesicles. Examination revealed lesions of mucous membranes around the mouth and anus. What is your provisional diagnosis?

A. Stevens-Johnson syndrome  
B. Atopic dermatitis  
C. Chickenpox  
D. Serum sickness  
E. Bullous dermatitis

A 12-year-old child had three attacks of acute rheumatic fever accompanied by carditis. Examination revealed the symptoms of chronic tonsillitis, mitral insufficiency, carious teeth. What is the optimal method of secondary prophylaxis?

A. Year-round bicillin prophylaxis till the age of 25  
B. Course of cardiotrophic drugs twice a year
C Year-round bicillin prophylaxis for 3 years
D Tonsillectomy
E Oral cavity sanitation

188-A 7-year-old female child has developed an acute condition. She complains of a headache, two onsets of vomiting. Objectively: deferred reactions, body temperature - 39.3°C, pronounced hyperesthesia, nuchal rigidity, positive superior and inferior Brudzinski’s signs, symmetric Kernig’s sign. What is the provisional diagnosis?
A Meningitis → check Q 124
B Food toxicoinfection
C Craniocebral trauma
D Toxic encephalopathy
E Encephalitis

189
A 7-year-old child complains of itching, papular erythematous rash, dry skin. Objectively: there is lichenification in the popliteal fossae and antecubital spaces. What immunologic indicator if found in the blood serum will verify the diagnosis (atopic dermatitis)?
A Total IgE → check Q 29-92
B Secretory IgA
C IgM
D IgG
E IgD

190-A 7-year-old patient presents with body temperature rise up to 39°C, dry cough, pain in the lateral abdomen. Objectively: there is cyanosis of the nasolabial triangle, inspiratory dyspnea with accessory muscle recruitment. Percussion reveals pulmonary dullness; among auscultation findings there are diminished breath sounds, crepitant rales. Respiratory rate is of 50/min, HR-120/min. Evaluate the grade of respiratory failure in the patient:
A II → RR = 50 /min
B I → RR = 30 /min
C III → RR = 80 /min
D IV
E 0

191-An 8-year-old boy was brought to the admission department by his parents. Parents report that he has had pain in the right knee for the last 9 months, recently mother has noticed some limitation of motion in his right leg, and morning stiffness that doesn't last till the evening. What is the most likely diagnosis?
A Juvenile rheumatoid arthritis → check Q 117
B Rheumatism
C Osteomyelitis of the knee joint
D Reactive arthritis
E Traumatic arthritis

192-A 9-year-old patient has measles. On the 6th day after the rash appeared, the boy developed a condition manifested by dyspnea, barking cough, stenotic respiration. Objectively: the rash on the face, neck and torso turned brown. There is a branny desquamation. Respiratory rate is 22/min. What complication should be diagnosed?
A Laryngotracheitis → check Q 55 - 128
B Bronchitis
193-A 13-year-old boy with hypertrophic cardiomyopathy complains of dyspnea on minimal exertion. EhoCG reveals asymmetric left ventricular hypertrophy, signs of pulmonary hypertension, dilatation of the left atrium. EF is 64%. The revealed alterations are indicative of:

- **A** Diastolic heart failure → Hypertrophy cardiomyopathy = Filling problem
- **B** Systolic heart failure → Dilated cardiomyopathy = Pumping problem
- **C** Primary pulmonary hypertension
- **D** Primary arterial hypertension
- **E** Symptomatic arterial hypertension

**Introduction**

- common among preschool children, most often between the ages of three months to three years.
- The most common is **acute laryngotracheitis**, involving the larynx, subglottic tissues and trachea
- Cases can extend to **laryngotracheobronchitis (LTB)** or **laryngotracheobronchopneumonitis (LTBP)**
194-A 6-year-old boy complains of paroxysmal pain that occurs after a mental stress, consuming cold drinks or ice cream. After clinical and instrumental examination the boy has been diagnosed with hypertensive biliary dyskinesia. The drugs of the following groups should be administered in the first place:

- **A** Antispasmodics and choleretics → to relieve spasm and abnormal motility of biliary ducts and
- Choleretics = increase bile secretion by hepatic cell, e.g bile salts and secretin / drug: Ursodeoxycholic acid (UDCA) Ursodiol

- **B** Choleretics and cholekinetics
- **C** Sedatives and cholekinetics
- **D** Antioxidants
- **E** Antibiotics

195-A 5-year-old girl has had thirst, polyuria, increased appetite for two months. At the same time, there is a 3 kg decrease in body weight. During the last week, these presentations got accompanied by nocturnal enuresis. Examination revealed hyperglycemia at the rate of 14 mmol/l. The child has been diagnosed with type I diabetes. What is the most likely genesis of this disease?

- **A** Autoimmune
- **B** Viral
- **C** Bacterial
- **D** Neurogenic
- **E** Viral and bacterial

196-A 9-year-old girl has been admitted to a hospital for an elevated body temperature (39.8°C), painful dry cough, abdominal pain on the right. Examination reveals dullness on percussion on the right, diminished breath sounds, crepitus. What study is required to make a diagnosis?

- **A** Radiography of the chest cavity = Chest x ray, to exclude pneumonia?
- **B** USI of the chest cavity
- **C** Pleural puncture
- **D** Bronchoscopy
- **E** Bronhography

197-A 3-month-old infant has occipital alopecia, restless sleep, excessive sweating. What disease can you think of?

- **A** Rickets → check Q 82
- **B** Spasmophilic diathesis
- **C** Anemia
- **D** Phosphate diabetes
- **E** Chondrodystrophy

198-A 12-year-old boy presents with nausea, frequent repeated vomiting that first occurred after eating canned vegetables. Objectively: the patient has dry mucous membranes, muscular hypotonia, anisocoria, mydriasis, dysphagia and dysarthria. What is the most likely diagnosis?

- **A** Botulism
- **B** Shigellosis
- **C** Salmonellosis
- **D** Cholera
- **E** Yersiniosis
At the first minute of life a full-term infant born with umbilical cord entangled around his neck has total cyanosis, apnea, HR- 80/min, hypotonia and areflexia. There are no signs of meconium aspiration. After the airway suctioning the newborn did not start breathing. What is the next action of the doctor?

A ALV with a 100% O\textsubscript{2} mask → signs of asphyxia due to umbilical cord

B Intravenous administration of adrenaline

C Intravenous administration of etamsylate

D Tracheal intubation and ALV

E Stimulation of the skin along the spine

Examination of an 11-year-old boy revealed frequent nosebleeds, fatigue when walking, underdevelopment of the lower half of the body, increased blood pressure in the upper extremities and decreased pressure in the lower ones, extension of the left heart border, blowing systolic murmur in the interscapular region. ECG shows the horizontal axis of heart. Radiography reveals left cardiomegaly, costal usuration. What is the most likely diagnosis?

A Aortic stenosis: mean stenosis of aortic arch from outside, location after branches

B Aortic stenosis arteriosus

C Patent ductus arteriosus

D Ventricular septal defect

E Atrial septal defect
A 6-year-old boy had had a quinsy. 9 days later, there appeared edema of the face, extremities and trunk, general health condition deteriorated. Urine became turbid. Objectively: expressive edema, ascites, AP-100/55 mm Hg, diuresis - 0.2 l of urine per day. Results of the biochemical blood analysis: total protein - 50 g/l, cholesterol - 11.28 mmol/l, urea - 7.15 mmol/l, creatinine - 0.08 mmol/l. Urinalysis results: leukocytes - 3-5 per HPF, red blood cells are absent. What is the provisional diagnosis?

A Acute glomerulonephritis
B Acute pyelonephritis
C Urolithiasis
D Acute renal failure
E Chronic glomerulonephritis

Quinsy: peritonsillar abscess

A 13-year-old boy has had abdominal pain, bloating, nausea, liquid fatty gray stool with putrid smell for the last 3 years. Palpation reveals epigastric tenderness, as well as tenderness in the Desjardins' pancreatic point, Chauffard's triangle; there is positive Mayo-Robson's sign. Failure of exocrine pancreatic function has been suspected. What is the most informative method for evaluating the state of exocrine pancreatic function?

A Fecal elastase-1 determination
B Blood serum trypsin determination
C Sonography of the pancreas
D Blood and urine amylase determination
E Scatological study

* Pancreatic elastase 1 is a serine endopeptidase, a specific type of protease that has the amino acid serine at its active site*

Determination of fecal elastase-1 is highly sensitive in the diagnosis of severe and moderate exocrine pancreatic insufficiency and is of significantly higher sensitivity than fecal chymotrypsin estimation
Main indications:
- Diagnosis/exclusion of exocrine pancreatic insufficiency caused by e.g. Chronic Pancreatitis, Cystic Fibrosis, Diabetes Mellitus, Cholelithiasis (Gallstones), “Failure to Thrive”, Pancreatic Cancer, Papillary Stenosis
- Follow-up monitoring of patients with mild or moderate pancreatic insufficiency
- Diagnosis/exclusion of pancreatic involvement in association with gastrointestinal symptoms, abdominal pain or osteoporosis, for example.
An 11-year-old boy complains of general weakness, fever up to 38.2°C, pain and swelling of the knee joints, feeling of irregular heartbeat. 3 weeks ago, the child had quinsy. Knee joints are swollen, the overlying skin and skin of the knee region is reddened, local temperature is increased, movements are limited. Heart sounds are muffled, extrasystole is present, auscultation reveals apical systolic murmur that is not conducted to the left inguinal region. ESR is 38 mm/h. CRP is 2+, antistreptolysin O titre - 400. What is the most likely diagnosis?

A Acute rheumatic fever
B Vegetative dysfunction
C Non-rheumatic carditis
D Juvenile rheumatoid arthritis
E Reactive arthritis

Quinsy = Peritonsillar abscess

Rheumatic Fever: Criteria

Mnemonic: “JONES CAFE PAL”

<table>
<thead>
<tr>
<th>Major Criteria</th>
<th>Minor Criteria</th>
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</thead>
<tbody>
<tr>
<td>J Joint Involvement</td>
<td>C CRP Increased</td>
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<tr>
<td>O O looks like a heart = myocarditis</td>
<td>A Arthralgia</td>
</tr>
<tr>
<td>N Nodules, subcutaneous</td>
<td>F Fever</td>
</tr>
<tr>
<td>E Erythema marginatum</td>
<td>E Elevated ESR</td>
</tr>
<tr>
<td>S Sydenham chorea</td>
<td>P Prolonged PR Interval</td>
</tr>
<tr>
<td></td>
<td>A Anamnesis of Rheumatism</td>
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<tr>
<td></td>
<td>L Leukocytosis</td>
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</table>

Diagnosis

Throat cultures growing GABHS OR Elevated anti-streptolysin O titers

2 Major criteria

OR

1 Major criterion and 2 Minor criteria

A 38-year-old male patient complains of marked dyspnea that escalates with physical exertion. The problems, namely acute chest pain on the left and cough, arose unexpectedly 2 hours before at work. The pain abated, but there were progressing dyspnea, dizziness, pallor, cold sweat, cyanosis. Auscultation reveals the absence of vesicular breath sounds, radiograph shows a shadow on the left. What pathology can be suspected?

A Left-sided spontaneous pneumothorax
B Pulmonary infarction
C Pleurisy
D Left-sided pneumonia
E Lung abscess
205-A 67-year-old male patient complains of rash, severe pain in the subscapular region on the right. Objectively: skin in the right subscapular region is covered with linearly arranged pink-red edematous lesions that are somewhat infiltrated, and have clear boundaries. On the lesion surface there are vesicles with transparent exudate. What is the most likely diagnosis?

A Herpes zoster = HZV also called Shingles in adult  
B Duhring dermatitis  
C Erysipelas  
D Atopic dermatitis  
E Impetigo → review Q 177

206

A 64-year-old male patient has a 35-year history of chronic pancreatitis. In the last 5 years, he claims to observe the pain abatement, bloating, frequent bowel movements up to 3-4 times a day, grayish, glossy stool with undigested food rests, the progressive loss of body weight. Change of symptoms in the patient is due to overlay of:

A Exocrine pancreatic insufficiency  
B Endocrine pancreatic insufficiency  
C Lactase deficiency syndrome  
D Irritable bowel syndrome  
E Chronic enterocolitis
During the doctor's round, a 56-year-old male patient with decompensated cirrhosis complains of dizziness, palpitations, moving black specks seen before the eyes, general weakness. The patient is pale, Ps- 110/min, AP- 90/50 mm Hg. What complication is most likely to have occurred in the patient?

A Bleeding from esophageal varices
B Hepatocellular insufficiency
C Hepatic encephalopathy
D Acute coronary syndrome
E Paroxysmal tachycardia
208-5 days before, a 26-year-old female patient developed an acute condition. Objectively: marked headache, vomiting, weakness, poor appetite, temperature up to 39°C. Objectively: the patient is in a moderately grave condition, excited. The face is hyperemic, sclerae are injected. The tongue is coated with brown fur. The trunk and limbs are covered with plentiful roseolous and petechial rash. Hepatosplenomegaly is present. Complement binding reaction with Rickettsia prowazekii is positive with the titer of 1:640. What drug should be administered?
A Doxycycline ➔ antibiotic, pt have Epidemic Typhus
B Chloramphenicol
C Penicillin
D Streptomycin
E Metronidazole

209-A 39-year-old female patient complains of dyspnea when walking, palpitation, edemata in the evening. The patient's height is 164 cm, weight - 104 kg. Objectively: overnutrition. Heart sounds are weak, and tachycardia is present. The menstrual cycle is not broken. Blood sugar is 5.6 mmol/l, ACTH-response tests revealed no alterations. X-ray of the Turkish saddle revealed no pathology. What disease is it?
A Alimentary obesity ➔ overnutrition (eating much), no Hormonal problems.
B Climax ➔ the highest or most intense point in the development or age related
C Pituitary obesity ➔ normal Pituitary
D Diabetes mellitus ➔ normal glucose
E Cushing's syndrome (primary hypercortisolism) ➔ normal ACTH/Adrenal

210-A 26-year-old male patient complains of a rash on the upper lip skin, which arose on a background of influenza with high-grade fever and is accompanied by pain and burning. The rash has been present for 3 days. Objectively: the skin of the upper lip is edematous and erythematous, grouped vesicles are filled with serous fluid and have a rough surface. What is the most likely diagnosis?
A Herpetic vesicular dermatitis
B Eczema
C Contact dermatitis
D Dermatitis herpetiformis
E Erythema multiforme
A 15-year-old patient consulted a dermatologist about a painful lump in the **armpit**. Objectively: there is a **walnut-sized node, lymphadenitis, infiltration** of the surrounding tissues. The patient has been diagnosed with hidradenitis. What is the most likely causative agent of this disease?

A. Staphylococci → Hidradenitis = inflammation of sweat gland

B. Streptococci

C. Proteus vulgaris

D. Pseudomonas aeruginosa

E. Mixed infection

Armpit = Axilla

Rest of Q it is not pediatrics, I didn’t do it

SORRY FOR LATE

THANKS FOR TRUST