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National Pirogov Memorial Medical University, Vinnytsia
The direction – 1201 “Medicine”
Specialty – 7.12010001 “General Medicine”

«Considered»
on the methodical council of
therapeutic disciplines
Protocol № 4 from 21.01.2020
Chairman _____
prof. Stanislavchuk M.A.

Instruction to the station №2
"Standardized patient in the clinic of internal medicine, Part #2
(endocrinology, phthisiology, allergology and occupational pathology)"

At the station, the student must greet and introduce himself, present a student identification card and a route sheet to the teacher.

A student receives a clinical task, which involves communication with the patient (tutor), who needs to interview complaints, their details and anamnestic data.

During working with a patient (tutor):

The student must greet and introduce himself and ask the patient how he can address him. After receiving information about the patient's name, ask the permission to interview him.

NB! Pay attention!

When dealing with a patient, student's communicability is assessed separately

Interview the patient's complaints, detail them, and analyze the anamnestic data.

NB! Pay attention!

During working with a patient, the ability to elaborate complaints and interview anamnestic data is assessed separately.

Be sure to interview TB contact and history when suspected of having tuberculosis and a professional history, harmful working conditions in case of suspected occupational disease.

The patient reports immediately all complaints that concern him, which automatically indicates no other complaints.

The patient may inquire about: «Explain, please, what is with me?», which indicates that the patient does not have information about which the student is too inquisitive interrogated, thereby making it clear that it is necessary to proceed to the next step in the survey. The student must give a brief answer to the patient and continue to perform the next task.

The student receives data from the objective examination of the patient in a paper version (clinical task) in addition to the task.

When working with the clinical problem:

it is necessary to analyze the data of the objective patient survey, which are given,

- to interpret the data of the laboratory-instrumental examination of the patient,

- to present a preliminary diagnosis,

- to determine the tactics of patient management,

- conducting examination of work capacity at occupational diseases,

- to know the disease for differential diagnosis with tuberculosis,

- to prepare a plan for the examination of a patient suspected of having tuberculosis;

- to know the research methods to specify the diagnosis of tuberculosis;

- to know the complications of tuberculosis;

- to appoint a treatment for the patient, naming a group of drugs and a representative,

- to know the TB treatment regimen;

To know the antidotes in professional poisoning, as indicated in the task.

After completing the assignment or ending the time at the station, return the task to the teacher, pick up your route card with a mark on the station and leave the station.

Station №2 «Standardized patient in clinic of internal medicine, Part 2»

To collect tutor's complaints and anamnesis.

Objectively:

IBW – 33 kg/m²

The skin is dry. Pulse rate 80 per minute. BP – 120/80 mm Hg.

Heart tones are muffled. Vesicular breathing above the lungs.

The abdomen is soft, painless. The liver is enlarged (+ 2 cm).

Pasternacky symptom is negative from the both sides.

The skin of the legs is normal. The patient has no edema.

Pulsation ar.dorsalis pedis et tibialis posterior is normal.

Additional information:

Random blood glucose– 13mmol/l

Complete blood count– normal

Urine analysis –specific gravity– 1032, Protein– absent, glucose– present

Questions:

1. Previous diagnosis?
2. Which analysis is needed to determine the treatment strategy?
3. Treatment. Diet and drug therapy?

Station №2 «Standardized patient in clinic of internal medicine, Part 2»

To collect tutor's complaints and anamnesis.

Objectively:

Height – 165 cm, weight – 100 kg. BMI – 36,8 kg/m².

The skin is normal. Subcutaneous fat tissue is normally located.

The patient has no edema.

Pulse rate 72 perminute. BP – 150/105 mmHg.

Hear ttones are muffled. An accent of the II heart tone over the aorta.

Stretch marks on the skin are absent.

Additional information:

Complete blood count, urine analysis – normal

Fasting blood glucose - 5,3 mmol/l (3,3-5,5 mmol/l)

Ocular fundus -narrowed arteries

ECG - left ventricular hypertrophy

Questions:

- 1.Diagnosis?
- 2.Is oral glucose tolerance test needed?
- 3.First line treatment?

Station №2 «Standardized patient in clinic of internal medicine, Part 2»

To collect tutor's complaints and anamnesis.

Objectively:

Height – 167cm, weight – 57kg.

The skin is wet, warm.

Pulse rate 118per minute, rhythmical, fast, average.

The boundaries of relative cardiac dullness is normal.

Cardiac tone is loud on the apex, systolic murmur on the apex.

BP – 155/60 mm Hg.

The eyelids are pigmentated.

Grefe, Mebius symptoms are negative.

The thyroid gland is visible in a normal position of the head, shifts while swallowing, elastic, painless. The patient has small tremor of the arms.

Questions:

1. To make the clinical evaluation of the function of the thyroid gland.
2. To put the previous diagnosis.
3. What main investigations are needed to confirm the diagnosis? Interpretation of the results.
4. What are the first line treatment drugs? Dosages?
5. Which laboratory criteria is used to control the effectiveness of treatment?

Station №2 «Standardized patient in clinic of internal medicine, Part 2»

To collect tutor's complaints and anamnesis.

Objectively: Height – 174cm, weight – 82kg. The skin is pale, cold and dry. Pulse rate 58 per minute, rhythmical.

BP – 120/80 mm Hg. The boundaries of relative cardiac dullness is normal. The heart tones are muffled.

The face is with mild swelling, swelling in the arms. The thyroid gland is not palpable.

Questions:

1. To make the clinical evaluation of the function of thyroid gland.
2. To put the previous diagnosis.

3. What main investigations are needed to confirm the diagnosis? Interpretation of the results.
4. What are the first line treatment drugs? Daily dosage?
5. Which laboratory criteria is used to control the effectiveness of treatment?

Station №2 «Standardized patient in clinic of internal medicine, Part 2»

To collect tutor's complaints and anamnesis.

Objectively:

Height – 166cm, weight – 54kg.

The skin has the color of intense tan, increased pigmentation of the areola, palms and elbows.

Pulse rate 88 per minute, small. BP in a lying position – 100/60 mm Hg, standing – 80/50 mm Hg.

The boundaries of the heart are normal. The heart tones are muffled on the apex (mostly I tone). The abdomen is soft, sensitive in the epigastric area. The liver is not enlarged. The patient has no edema.

Questions:

1. To put the previous diagnosis.
2. What main investigations are needed to confirm the diagnosis? Interpretation of the results.
3. What are the diet peculiarities?
4. What is the first line treatment drug?
5. What vitamin should be prescribed firstly?

Station №2 «Standardized patient in clinic of internal medicine, Part 2»

To collect tutor's complaints and anamnesis.

Objectively: Height – 170cm, weight – 67kg. Temperature – 37,6.

The skin is damp and warm. Pulse rate 100 per minute. BP – 122/70 mm Hg.

Heart tones are sound. Vesicular breathing above the lungs.

The abdomen is soft, painless. The thyroid gland is visible in a normal position of the head, shifts while swallowing. The thyroid gland increased for all parts, right part is more painful.

Peripheral lymphnodes are not increased.

Questions:

1. To make the clinical evaluation of the function of thyroid gland.
2. To put the previous diagnosis.

3. What main investigations are needed to confirm the diagnosis? Interpretation of the results.
4. What are the first line treatment drugs? Daily dosage?
5. Which laboratory criteria is used to control the effectiveness of treatment?

Station №2 «Standardized patient in clinic of internal medicine, Part 2»

To collect tutor's complaints and anamnesis.

Objectively: Height – 168 cm, weight – 78kg. Pulse rate 68 per minute. BP – 130/80 mm Hg.

Heart tones are sound. Vesicular breathing above the lungs. The abdomen is soft, painless. The thyroid gland is not palpated.

Additional information: Urine analysis –specific gravity– 1003, glucose– absent
Fasting level of glucose – 5,3 mmol/l, after 2 hours – 7,1 mmol/l, Plasma sodium - 140 mmol/l, kalium - 4.3 mmol/l.

Questions:

1. To put the previous diagnosis.
2. To make the clinical evaluation of glycemia.
3. What main investigations are needed to confirm the diagnosis?
4. What are the first line treatment drugs?
5. Which laboratory criteria is used to control the effectiveness of treatment?

Station №2 «Standardized patient in clinic of internal medicine, Part 2»

To collect tutor's complaints and anamnesis.

Objectively: Height – 172 cm, weight – 105 kg, IBW – 35,5 kg/m². The postponement of subcutaneous fat in dysplastic type, mainly in the trunk and face. Skin is dry. Pigmentation marked on the neck and elbows. Cyanosis marked on the buttocks. purplish-red stripes marked on the sides of the abdomen and hips. Hypoplasia of the gluteal and hip muscles. Pulse rate 76 per minute. BP – 165/105 mm Hg. The left border of relative dullness of the heart is shifted 2 cm to the left of the mid-clavicular line. The heart tones are muffled, second tone accent over the aorta. Vesicular breathing above the lungs. The abdomen is not palpated, because patient with obesity. The patient has no edema.

Additional information:

Complete blood count is normal

Urine analysis – detected glucose

Fasting level of glucose – 7,27 mmol/l,

Diuresis – 1,4 l

Questions:

1. To put the previous diagnosis.
2. What type of obesity at the patient?
3. To make the clinical evaluation of carbohydrate metabolism?
4. What main investigations are needed to confirm the diagnosis?
5. The patient has a cortisol of blood 62 mkg/dl (norm of 6.2-19.4 mkg/dl). Which specify test needs to be carried out?
6. What hormonal disbalance is the reason of arterial hypertension?

Station №2 «Standardized patient in clinic of internal medicine, Part 2»

To collect tutor's complaints and anamnesis.

Objectively: Height – 173 cm, weight – 165 kg. Skin is dry. Pulse rate 78 per minute. BP – 120/80 mm Hg. The skin is dry.

Heart tones are loud. Vesicular breathing above the lungs.

The abdomen is soft, painless.

The liver is enlarged (+ 2 cm).

Pasternacky symptom is negative from the both sides.

The patient has no edema.

Additional information:

Random blood glucose– 14mmol/l

Urine analysis –specific gravity– 1032, detected glucose and positive reaction to acetone.

Questions:

1. To put the previous diagnosis.
2. Which analysis is needed to determine the treatment strategy?
3. What diet recomend for patient?
4. What start dose of insulin for this patient?
5. Which laboratory criteria is used to control the effectiveness of treatment?

Station №2 «Standardized patient in clinic of internal medicine, Part 2»

To collect tutor's complaints and anamnesis.

Objectively: The skin is wet, warm. Pulse rate 126 per minute, rhythmical, fast, average. cardiac tone is loud Height – 167cm, weight – 57kg.

The boundaries of relative cardiac dullness is normal. Heart tones are loud. BP – 245/135 mmHg. Vesicular breathing above the lungs. The abdomen is soft, painless. Temperature is 37,8 C.

During crisis at the patient investigated the complete blood count , defined blood glucose on Cito! Results of researches: blood glucose - 8.6 mmol/l (she did not eat food before crisis, patient hasn't diabetes), blood leukocytes - $18.0 \times 10^9/l$.

Questions:

- 1.To put the previous diagnosis.
2. What hormones are hypertensive and hyperglycemic at the same time?
3. What main investigations are needed to confirm the diagnosis?
4. What drugs should be prescribed to the patient with hypertensive crisis?

Station № 2 “A standardized patient in the clinic of internal medicine, part 2”

Complaints and anamnesis should be collected from the patient.

Objectively: Moderate patient's condition. Pale skin with cutaneous vasodilation on upper spinal zone (Frank's sign).

Chest X-ray showed infiltrate in the upper right lobe with signs of cavitation.

AFS (acid fast stain) - no organisms.

Complete blood count:

Index	Result	Normal Ranges
Red blood cells	$2,9 \cdot 10^{12}/L$	$4,5 - 5,5 \times 10^{12}/L$
Hemoglobin	85 g/L	120 – 140 g/L
Color index	0,8	0,9 – 1,0
White blood cells	$12,4 \cdot 10^9/L$	$4,0 - 9,0 \times 10^9/L$
Erythrocyte Sedimentation Rate	48 mm/h	Up to 10 mm/h

Questions:

1. What is the most likely diagnosis?
2. What else might this illness be?
3. What is your investigation plan?

Station № 2 “A standardized patient in the clinic of internal medicine, part 2 »

Complaints and anamnesis should be collected from the patient.

Objectively: Patient looks pale and asthenic. Cutaneous vasodilation on upper spinal zone (Frank's sign) and no post-BCG scar.

On percussion- dull sound over upper lobe of the left lung; auscultation over this area - diminished breathing.

Chest X-ray showed non-homogenous consolidation from 4th rib to diaphragm connected with root of lung.

AFS (acid fast stain) microscopy - no organisms. Tuberculin skin test = 24 mm of induration.

Questions:

1. What is the most likely diagnosis?
2. How you may interpret TST result?
3. What are the most common complications of suggested illness?

Station № 2 “A standardized patient in the clinic of internal medicine, part 2”

Complaints and anamnesis should be collected from the patient.

Objectively: General condition – satisfactory. He denies any complaints and TB contact.

Chest X-ray showed 2 nodules on second segment of left lung surrounding by increased lung pattern.

Tuberculin skin test = 21 mm of induration.

Complete blood count:

Index	Result	Normal Ranges
Red blood cells	4,5 x 10 ¹² /L	4,5 – 5,5 x 10 ¹² /L
Hemoglobin	120 g/L	120 – 140 g/L
White blood cells	9 x 10 ⁹ /L	4,5 – 11 x 10 ⁹ /L
segmented	62%	54%-62%
eosinophils	1%	1% - 3%
lymphocytes	23%	25%-33%
monocytes	14%	3%-7%

Questions:

1. What is the most likely diagnosis?
2. What else might this illness be?
3. How are you going to treat this patient?

Station № 2 “A standardized patient in the clinic of internal medicine, part 2”

Complaints and anamnesis should be collected from the patient.

Objectively: General condition – moderate severe. Skin and visible mucous membranes are pale. The right half of the chest lags in the act of breathing. On auscultation – bronchovesicular breathing, mosaic moist rails.

Chest radiography revealed a medium intensity multiple nodules throughout both lungs with certain areas of fusion and few cavities.

AFB (acid fast bacilli) smear microscopy - negative.

Complete blood count:

Index	Result	Normal Ranges
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Red blood cells	$3,9 \cdot 10^{12}/L$	$4,5 - 5,5 \times 10^{12}/L$
Hemoglobin	107 g/L	120 – 140 g/L
Color index	0,85	0,9 – 1,0
White blood cells	$13,0 \cdot 10^9/L$	$4,0 - 9,0 \times 10^9/L$
Erythrocyte Sedimentation Rate	45 mm/h	Up to 10 mm/h

Questions:

1. What diagnosis do you suspect?
2. What else might this illness be?
3. How are you going to treat this patient?

**Station № 2 “A standardized patient in the clinic of internal medicine, part 2”
Complaints and anamnesis should be collected from the patient.**

Objectively: General condition – severe. Skin and visible mucous membranes are pale. Patient is asthenic. On lung auscultation – diminished vesicular sound.

Abdominal palpation revealed hepatosplenomegaly.

Chest radiography detected a bilateral diffuse symmetrically located small nodules.

AFB smear microscopy – negative.

Tuberculin skin test – negative.

Questions:

1. What diagnosis do you suspect?
2. What else might this illness be?
3. How are you going to treat this patient?

Station № 2 “A standardized patient in the clinic of internal medicine, part 2”

Collect complaints and medical history from the patient.

Objectively: nasal breathing is difficult, ENT - status - the mucous membrane of the nasal cones is pale, swollen. Nasocytogram: mucous secretion, eosinophilic granulocytes - 70 in view, neutrophilic granulocytes, mould fungi - not detected, epithelium - single in field of view.

Questions:

1. Make a diagnosis .
2. What additional examination methods are needed to confirm the diagnosis?
3. Specify the groups of drugs that can be used to treat the disease.

Station № 2 “A standardized patient in the clinic of internal medicine, part 2”

Collect complaints and medical history from the patient.

Objectively: general state of patient is moderate severity, auscultation of the lungs - scattered dry wheezing.

Spirography: FEV1 - 74% predicted, FVC - 87% predicted, FEV1 / FVC = 0.6. Test with bronchodilator - increase in FEV1 - 14%.

Questions:

1. Make a diagnosis.
2. What additional examination methods are needed to confirm the diagnosis?
3. Specify the principles of treatment for this disease.

Station № 2 “A standardized patient in the clinic of internal medicine, part 2”

Collect complaints and medical history from the patient.

Objectively: general condition is moderate severity, hoarseness of the voice, pink swelling of the face in the area of the lips, urticaria in the area of the neck. Swelling is soft by palpation, not painful.

Questions:

1. Make a diagnosis.
2. By what type of immunopathological reactions does this pathology occur?
3. Assign first aid (name one drug from each group).

Station № 2 “A standardized patient in the clinic of internal medicine, part 2”

Collect complaints and medical history from the patient.

Objectively: The overall condition of the patient is satisfactory. On the skin there is a urticaria rash, pinky colored, with places of a generalization. Pink dermographism.

Questions:

1. Make a diagnosis.
2. List the diseases for differential diagnosis?
3. Specify the groups of drugs that can be used to treat the disease.

Station № 2 “A standardized patient in the clinic of internal medicine, part 2”

Collect complaints and medical history from the patient.

Objectively: the patient's general condition is moderate severity, skin and mucous membranes are pale, generalized itchy urticaria rash. BR - 35 respiratory movements per minute. BP - 80/40 mm Hg. Ps - 96 per minute, rhythmic, medium filling.

Questions:

1. Make a diagnosis.
2. What additional examination methods are needed to confirm the diagnosis?
3. Specify the groups of medications that can be used to provide first aid.

Station № 2 “A standardized patient in the clinic of internal medicine, part 2”

Complaints and anamnesis should be collected from the patient.

Objectively: over the lungs mosaic percussion sound: areas of shortening and a tympanic shade of percussion sound. Against the background of hard breathing the areas of weakened breathing are heeded. Tones of the heart are pure, rhythmic. BP 120/70 mm hg. pulse 68 per minute/ satisfactory filling and pressure.

Spirography: slight decrease in FVC, functional residual capacity and total capacity of the lungs.

Chest X-ray: vascular-bronchial pattern enhanced, elevated transparency of the lung fields in the lower particles. In the middle and lower divisions lungs of the nodule shadows with a diameter of 1.5-3 mm, mainly in the root sections lungs with a density of their location 1-2 shades per 1 cm 2. Shape of nodes rounded, contours are clear. The shadows of the roots of the lungs are moderately enlarged, condensed. The heart is in within the limits of age changes.

Questions:

1. Formulate a preliminary diagnosis
2. Give an interpretation of the Chest X-ray.
3. What expert decision should be taken regarding the working capacity of this worker?

Station № 2 “A standardized patient in the clinic of internal medicine, part 2”

Complaints and anamnesis should be collected from the patient.

Objectively: hyperhidrosis, fibrillation of limbs muscles and facial muscles. Expressed miosis with no pupils reaction to light. The breath is whistling with difficulty exhale Pulse rate - 52 per minute, rhythmic, BP 85/50 mm Hg. Stomach painful with palpation in the epigastrium and in the intestines. After some time, there was anxiety, a sharp general weakness, darkening in the eyes, hallucinations, fear, diarrhea, frequent urination.

Comon blood count:

<i>Test</i>	<i>Result</i>	<i>Reference range</i>
RBC, * 10 ¹² /l	6,1x10 ¹² /l	4,5 – 5,5
Haemoglobin, g/l	148	120 – 140
WBC,* 10 ⁹ /l	9,8x	4,0 – 9,0
rod-nuclear, %	11	1-6
Segment-nuclear, %	63	47-72
Lymphocytes, %	18	19-37
Monocytes, %	8	3-11
ESR, mm/hour	23	Up to 10
Cholinesterase activiyu – decrease on 60 % from the proper standart		

Questions:

1. Formulate a preliminary diagnosis
2. Prescribe treatment and antidots.
3. Make an examination of work capacity.

Station № 2 “A standardized patient in the clinic of internal medicine, part 2”

Complaints and anamnesis to collect from the patient.

Objectively: the skin is pale, clean. Heart rate 60 per min., BP 140/90 mm Hg. Heart tones are weakened, rhythmic at all points of auscultation, no noise. In the lungs - vesicular breathing. Tongue is moist, along the edge of the gums, mostly near the frontal teeth, a strip of lilac-like color is determined. Abdomen is soft, painless. The liver is not palpated.

Neuropathologist has established astheno-vegetative syndrome, vegetative-sensory polyneuropathy of the lower extremities.

Complete Blood Count:

<i>Sing</i>	<i>Data</i>	<i>Reference values</i>
Red blood cells,* 10 ¹² /l	4,3	5,5 – 6,5
Hemoglobin, g/l	110	130 – 160
Color index	0,77	0,85-1,0
Reticulocytes, ‰	35	2-12
Red blood cells with basophyllic punctation, ‰	40	not

White blood cells, * 10 ⁹ /l	9,4	4,0 – 9,0
ESR, mm/h	18	До 10
Serum iron, mkmol/l	37	12,5-30,5

Urine test:

D-aminolevulinic acid in the urine, mkg/gr of creatinine	15	0,5-2,5
Coproporphyrin in the urine, mkg/gr of creatinine	230	до 60

Questions:

1. Formulate a preliminary diagnosis.
2. Give an interpretation of the blood test.
3. Determine the place of treatment and prescribe the main treatment, referring to the antidotes, the route of administration and the duration of the antidote therapy.

Station № 2 “A standardized patient in the clinic of internal medicine, part 2”

Complaints and anamnesis should be collected from the patient.

Objectively: pallor of the skin and mucous membranes, bright red dermographism, hyperhidrosis of the palms, decreased body temperature. Lymphnodes are not enlarged. In Romberg’s post of - tremor of fingers. Pulse 76 per minute, rhythmic. BP 110/60 mm Hg. The lability of the pulse and blood pressure is determined. The abdomen is soft, the liver is palpated along the costal edge, the spleen is not palpated.

Complete Blood Count:

<i>Sing</i>	<i>Data</i>	<i>Reference values</i>
Red blood cells,* 10 ¹² /l	3,0	5,5 – 6,5
Hemoglobin, g/l	100	130 – 160
Color index	1,0	0,85-1,0
White blood cells, * 10 ⁹ /l	2,8	4,0 – 9,0
Stab	0	1-6
Segmented	33	47-72
Lymphocytes	59	19-37
Monocytes	8	3-11
Platelets	100	180-320
ESR, mm/h	3	До 10

Questions:

1. Formulate a preliminary diagnosis.
2. Give an interpretation of the blood test.

3. Assign the treatment, calling the group and the drug.

Station № 2 “A standardized patient in the clinic of internal medicine, part 2”

Complaints and anamnesis should be collected from the patient.

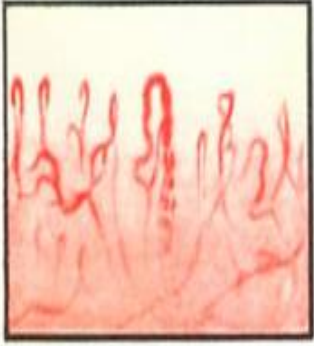
Objectively: the skin of the limbs is cold to the touch, the skin of the hands is cyanotic, while pressing on it there are white spots, palms are hyperhidrosis. The temperature of the skin of hands is 32 °C. During palpation of the leg muscles pain is noted. Pain, tactile and temperature sensitivity are lowered. Pulse - 84 per minute, rhythmic. BP - 150/100 mm Hg. The heart tones are weakened.

On ECG: signs of myocardial hypoxia.

X-ray of the ankle-joint: moderate osteoporosis.

Consultation of a neurologist: a syndrome of vegetative-sensory polyneuropathy of extremities.

Capillaroscopy of the thumb's nail fold:

<i>Index</i>	<i>Result</i>	<i>Reference values</i>
	On the 1 mm edge of the nail-bed 6-7 capillaries are visualized in the field of view, the background is pale, the arterial knee is narrowed.	On the 1 mm edge of the nail-bed there are 8 and more capillaries that have the correct number of parallel, identical sized and shaped Π-shaped loops, uniformly distributed along the edge of the nail-bed.

Questions:

1. Formulate a preliminary diagnosis.
2. What diagnostic method is the most informative in this case? Give an interpretation of the results of capillaroscopy.
3. What expert decision should be made regarding this patient?