

Which of the following medications does not have hypoglycemic effects (does not augment insulin activity)?

- A. Beta- blockers
- B. Loop diuretics
- C. MAO inhibitors
- D. ACE inhibitors
- E. Somatostatin analogues

One of the main causes of hypoglycaemia is

- A. Weight gain
- B. Diarrhoea
- C. Unaccustomed exercise
- D. Weight loss
- E. Stress

Which insulin allows for once-daily dosing?

- A. Glargine
- B. Novorapid
- C. Protaphane
- D. Actrapid
- E. Insulin NPH

Which of the following medications does not have hypoglycemic effects (does not augment insulin activity)?

- A. Sulfanilamide
- B. Salicylates
- C. Ethanol
- D. Fluoxetine
- E. Glicised (Glicinum)

All of the following are indications for acarbose use, except:

- A. Monotherapy for type 1 diabetes
- B. Combination therapy with insulin for type 1 diabetes
- C. Monotherapy for type 2 diabetes
- D. Combination therapy with glimepiride for type 2 diabetes
- E. Combination therapy with insulin for type 2 diabetes

Gastrointestinal complications of diabetes include all, except:

- A. Gastrorrhagia
- B. Diarrhoea
- C. Anorexia
- D. Gastroparesis
- E. Decreasing of gastric secretion

Which of the following is not correct for oral hypoglycaemic drugs?

- A. Stimulation of insulin synthesis
- B. Inhibition of gluconeogenesis
- C. Anorexigenic effect
- D. Stimulation of insulin release
- E. Reduction of carbohydrate absorption

What is typically not seen with biguanide use?

- A. Gastrointestinal disturbances
- B. Increased glucose uptake by muscle tissue
- C. Decreased lactate level
- D. Decreased basal insulin level
- E. Decreased intestinal glucose absorption

Criterion for severe course of type 1 diabetes mellitus

- A. Proliferative diabetic retinopathy
- B. Acanthosis nigricans
- C. Daily insulin dose within 60-70 U
- D. Diarrhoea
- E. Ketoacidosis

Which of the following medications should be used in the case of hypoglycemic coma?

- A. 20 U of insulin IV
- B. 500 ml of 0.9% of sodium chloride I
- C. 20 U of insulin SQ
- D. 40-80-100 cc of 40% glucose solution
- E. 500 ml of 5% glucose solution IV

Clinical feature of lung impairment due to diabetes mellitus include all, except:

- A. Recurrent pneumonia
- B. Effusion forms of tuberculosis
- C. Cancer
- D. Disseminated tuberculosis
- E. Tuberculosis with dump cavern

Skin impairment which takes place in patients with diabetes mellitus is:

- A. Hyperpigmentation
- B. Depigmentation
- C. Dermatomyoma
- D. Disposition to skin infection
- E. Dermatofibrosis

Metformin is contraindicated in all of the following situations, except:

- A. Pregnancy
- B. Breast feeding
- C. Tendency to develop lactic acidosis
- D. Diarrhea and other gastrointestinal disturbances
- E. Increased BMI

What is typically not seen with biguanide use?

- A. Decreased basal insulin level
- B. Decreased lactate level
- C. Increased glucose uptake by muscle tissue
- D. Decreased intestinal glucose absorption
- E. Gastrointestinal disturbances

Choose false statement relatively to the nervous system impairment in patients with diabetes mellitus

- A. Associated with sensitive lesions on lower extremities
- B. Incidence is rare
- C. Often manifest with reduction of tendon reflexes

- D. Usually presented as encephalopathy
- E. "Charcot Joint" spares motor function

Sulfonylureas are contraindicated in all of the following patients, except:

- A. Patients with type 1 diabetes mellitus
- B. Patients with liver disease
- C. Patients with arterial hypertension
- D. Pregnant patients
- E. Patients with renal insufficiency

Insulin formulation that has a very fast onset of action is:

- A. Lispro (Humalog)
- B. Soluble human (Humodar)
- C. Human Isophane (Фармасулін HNP)
- D. Glargine (Lantus)
- E. Detemir (Levemir)

One of the main causes of hypoglycaemia is

- A. Unaccustomed exercise
- B. Weight loss
- C. Weight gain
- D. Stress
- E. Diarrhoea

Renal complications in patients with diabetes mellitus present with symptoms of:

- A. Nephrocystosis
- B. Nephrolithiasis
- C. Frequent urinary infection
- D. Nephrocele
- E. Increased frequency of renal cancer

Insulin preparations can have the following durations of action:

- A. Fast, medium and long
- B. Very fast, fast, medium and long
- C. Fast and long
- D. Polar, non-polar, neutral
- E. Subpolar, polar, non-polar

What is a 24 hour requirement of insulin in an adult person?

- A. 10-20 U
- B. 30-40 U
- C. 40-60 U
- D. 100-120 U
- E. 20-30 U

Duration of long-acting insulin is

- A. 30-42 hours
- B. 6-18 hours
- C. 36-72 hours
- D. 24-36 hours
- E. 18-30 hours

All of the following are indications for acarbose use, except:

- A. Monotherapy for type 1 diabetes
- B. Combination therapy with insulin for type 1 diabetes
- C. Combination therapy with glimepiride for type 2 diabetes
- D. Combination therapy with insulin for type 2 diabetes
- E. Monotherapy for type 2 diabetes

Which side effects are not commonly seen with sulfonylureas?

- A. Dizziness
- B. Headache
- C. Gastrointestinal disturbances
- D. Diaphoresis
- E. Hypoglycemia

Which of the features given below is correct with regard to bone lesion due to diabetes mellitus?

- A. Seronegative polyarthritis
- B. Skeletal hyperostosis
- C. Articular cartilage calcification
- D. Aseptic necrosis of bone
- E. Dupuytren contracture

Beta-blockers in the presence of hypoglycaemia may interact as follows

- A. Upset pulmonary circulation
- B. Increase sweating
- C. Mask bradycardia
- D. Mask tachycardia
- E. Formation of antibodies and immune complexes

All of the following are true with respect to thiazolidinediones, except:

- A. They influence insulin resistance
- B. They improve metabolism
- C. They decrease blood level of free fatty acids
- D. They result in frequent episodes of hypoglycemia
- E. They slow down progression of renal disease and development of hypertension.

Insulin therapy has all of the following effects, except:

- A. Increases concentration of free fatty acids in blood plasma
- B. Activates protein synthesis
- C. Decreases glucose level in blood
- D. Stimulates glucose uptake by tissues
- E. Inhibits lipolysis

Insulin should be prescribed under all of the following circumstances, except:

- A. Type 2 diabetes, light course
- B. Status post pancreatectomy
- C. Gestational diabetes
- D. Type 2 diabetes with diabetic foot syndrome
- E. Type 1 diabetes

Which of the features given below is correct with regard to bone lesion due to diabetes mellitus?

- A. Aseptic necrosis of bone
- B. Seronegative polyarthritis
- C. Dupuytren contracture

- D. Articular cartilage calcification
- E. Skeletal hyperostosis

One of the indications for prescribing nateglinide is:

- A. Resistance to sulfonylureas
- B. Tendency to develop lactic acidosis
- C. Significant postprandial hyperglycemia
- D. Depletion of pancreatic beta-cells
- E. Insulin resistance

Criterion for severe course of type 1 diabetes mellitus

- A. Acanthosis nigricans
- B. Diarrhoea
- C. Proliferative diabetic retinopathy
- D. Ketoacidosis
- E. Daily insulin dose within 60-70 U

What is typically not seen with biguanide use?

- A. Increased glucose uptake by muscle tissue
- B. Decreased intestinal glucose absorption
- C. Gastrointestinal disturbances
- D. Decreased basal insulin level
- E. Decreased lactate level

Which of the following medications does not have hypoglycemic effects (does not augment insulin activity)?

- A. MAO inhibitors
- B. Beta-blockers
- C. ACE inhibitors
- D. Loop diuretics
- E. Somatostatin analogues

Choose insulin without peak of action

- A. Actrapid
- B. Glargine
- C. Protaphane
- D. Insulin NPH
- E. Novorapid

What is a 24 hour requirement of insulin in an adult person?

- A. 10-20 U
- B. 30-40 U
- C. 20-30 U
- D. 100-120 U
- E. 40-60 U

Insulin preparations can have the following durations of action:

- A. Very fast, fast, medium and long
- B. Fast and long
- C. Subpolar, polar, non-polar
- D. Polar, non-polar, neutral
- E. Fast, medium and long

Which assertion is not correct as regards to angiopathy of lower extremities?

- A. Paresthesia
- B. Pain in legs when walking
- C. Decrease of foot temperature
- D. Step by step trophic disturbance beginning with fingers
- E. Developing of foot gangrene

Clinical feature of lung impairment due to diabetes mellitus include all, except:

- A. Cancer
- B. Tuberculosis with dump cavern
- C. Recurrent pneumonia
- D. Disseminated tuberculosis
- E. Effusion forms of tuberculosis

All of the following augment activity of biguanides, except:

- A. Tetracyclines
- B. Delayed calcium channel blockers
- C. MAO inhibitors
- D. Beta blockers
- E. ACE inhibitors

Which of the features given below is correct with regard to bone lesion due to diabetes mellitus?

- A. Seronegative polyarthritis
- B. Articular cartilage calcification
- C. Aseptic necrosis of bone
- D. Dupuytren contracture
- E. Skeletal hyperostosis

Which assertion is true for long acting insulin?

- A. Include Sol. Insulin Actrapid
- B. Acts 24-30 hours
- C. Is not recommended for short-term treatment
- D. Begins its action in 30 min.
- E. Peak of action on 24 hours

F. Insulin should be prescribed under all of the following circumstances, except:

- G. Type 2 diabetes, light course
- H. Type 1 diabetes
- I. Gestational diabetes
- J. Type 2 diabetes with diabetic foot syndrome
- K. Status post pancreatectomy

Gastrointestinal complications of diabetes include all, except:

- A. Anorexia
- B. Decreasing of gastric secretion
- C. Diarrhoea
- D. Gastrorrhagia
- E. Gastroparesis

Which side effects are not commonly seen with sulfonylureas?

- A. Dizziness
- B. Diaphoresis
- C. Gastrointestinal disturbances

- D. Hypoglycemia
- E. Headache

All of the following medications augment activity of sulfonylureas, except:

- A. Anabolic steroids
- B. Loop diuretics
- C. Tetracyclines
- D. Salicylates
- E. ACE inhibitors

One of the main causes of hypoglycaemia is

- A. Diarrhoea
- B. Weight loss
- C. Weight gain
- D. Stress
- E. Unaccustomed exercise

What is typically not seen with biguanide use?

- A. Decreased intestinal glucose absorption
- B. Decreased lactate level
- C. Decreased basal insulin level
- D. Gastrointestinal disturbances
- E. Increased glucose uptake by muscle tissue

All of the following augment activity of biguanides, except:

- A. Delayed calcium channel blockers
- B. Tetracyclines
- C. Beta blockers
- D. ACE inhibitors
- E. MAO inhibitors

We can suspect hypoglycaemia after use of:

- A. Levothyroxine
- B. Coffeinum
- C. Penicillin
- D. Cardiac glycosides
- E. Sulfonamides

Beta-blockers in the presence of hypoglycaemia may interact as follows

- A. Mask tachycardia
- B. Upset pulmonary circulation
- C. Increase sweating
- D. Formation of antibodies and immune complexes
- E. Mask bradycardia

All of the following medications augment activity of sulfonylureas, except:

- A. Tetracyclines
- B. Anabolic steroids
- C. ACE inhibitors
- D. Loop diuretics
- E. Salicylates

Which insulin allows for once-daily dosing?

- A. Actrapid
- B. Novorapid
- C. Insulin NPH
- D. Glargine
- E. Protaphane

Criterion for light stage of type 2 diabetes mellitus:

- A. Reaching compensation by diet and phytotherapy
- B. Nonproliferative retinopathy
- C. Glomerulosclerosis
- D. Glucose in blood – 3.3-5.5 mmol/l
- E. Reaching compensation by oral drug therapy

Which drug is considered first-generation sulfonylureas?

- A. Glyburide
- B. Gliquidone
- C. Chlorpropamide
- D. Glimepiride
- E. Glipizide

Oral hypoglycemic agents include all of the following, except:

- A. Sulfonylureas
- B. Phosphodiesterase inhibitors
- C. Alpha-glycosidase inhibitors
- D. Biguanides
- E. Thiazolidinedione's

Which of the following medications should be used to stabilize arterial blood pressure in a patient with diabetes and lactic acidosis comma?

- A. Adrenalin
- B. Cordiaminum
- C. Phenylephrine
- D. Hydrocortisone
- E. Glucagon

Patient K., suffering from diabetes mellitus during the past 8 years, is in coma. The skin is dry, Kussmaul's respiration, acetone breath is evidenced. What type of coma is it?

- A. Hypoglycaemic coma
- B. Brain coma
- C. Lactic acidosis
- D. Ketoacidosis
- E. Hyperosmolar state

The following class of medications is the treatment of choice for diabetic nephropathy:

- A. ACE inhibitors
- B. Angioprotectors
- C. Alpha blockers
- D. Non-selective beta blockers
- E. Selective beta blockers

All of the following qualities apply to nateglinide, except:

- A. Minimal risk for developing hypoglycemia

- B. Metabolized by liver
- C. Excreted by kidneys
- D. Restores early insulin secretion
- E. Short half-life

Which of the following drugs may precipitate cardiovascular complications?

- A. Glimepiride
- B. Gliclazide
- C. Nateglinide
- D. Acarbose
- E. Glyburide

Oral hypoglycemic agents include all of the following, except:

- A. Sulfonylureas
- B. Phosphodiesterase inhibitors
- C. Alpha-glycosidase inhibitors
- D. Biguanides
- E. Thiazolidinedione's

The following class of medications is the treatment of choice for diabetic nephropathy:

- A. ACE inhibitors
- B. Angioprotectors
- C. Selective beta blockers
- D. Alpha blockers
- E. Non-selective beta blockers

You have just diagnosed lactic acidosis and associated coma. What is the first medication that should be administered in this situation?

- A. 50-100 ml of 40% glucose
- B. 40-60 U of short-acting insulin SQ (subcutaneous)
- C. 8.5% Sodium Bicarbonate drip
- D. 400-500 ml of 5% glucose
- E. 20-25 U of short-acting insulin IV (intravenous)

What insulin dose is used for coma secondary to diabetic ketoacidosis?

- A. 0.1 U/kg/hour
- B. 100-200 U/24 hours
- C. 80-100 U/24 hours
- D. 1 U/kg/hour
- E. 40-60 U/24 hours

Which of the following medications should be prescribed for a patient with type 2 diabetes and co-existing chronic pyelonephritis?

- A. Gliclazide
- B. Gliquidone
- C. Metformin
- D. Rosiglitazone
- E. Glibenclamide

Which of the following medications should be used to stabilize arterial blood pressure in a patient with diabetes and lactic acidosis coma?

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- B. Glucagon

- C. Adrenalin
- D. Cordiaminum
- E. Phenylephrine

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- A. Metabolized by liver
- B. Short half-life
- C. Restores early insulin secretion
- D. Excreted by kidneys
- E. Minimal risk for developing hypoglycemia

Which of the following medications has the longest duration of action?

- A. Repaglinide
- B. Gliclazide MR
- C. Metformin
- D. Glibenclamide
- E. Gliquidone

Which of the following medications is not one of the sulfonylurea derivatives?

- A. Glibenclamide
- B. Gliclazide
- C. Gliquidone
- D. Glimepiride
- E. Rosiglitazone (Avandia)

Which of the following medications does not have hyperglycemic effects (does not decrease insulin action)?

- A. Thyroid hormones
- B. Betadin
- C. Nicotine
- D. Calcitonin
- E. Morphine sulfate

What insulin dose is used for comma secondary to diabetic ketoacidosis?

- A. 40-60 U/24 hours
- B. 0,1 U/kg/hour
- C. 1 U/kg/hour
- D. 100-200 U/24 hours
- E. 80-100 U/24 hours

Mechanism of sulphonylureas' action includes

- A. Beyond pancreatic activity
- B. Stimulating beta cells to synthesize insulin
- C. Stimulation beta cells to secrete insulin
- D. Inhibiting beta cell to secrete insulin
- E. Inhibiting insulin resistance

Which of the following medications has the longest duration of action?

- A. Metformin
- B. Glibenclamide
- C. Repaglinide
- D. Gliquidone
- E. Gliclazide MR

Patient K., suffering from diabetes mellitus during the past 8 years, is in coma. The skin is dry, Kussmaul's respiration, acetone breath is evidenced. What type of coma is it?

- A. Hyperosmolar state
- B. Brain coma
- C. Ketoacidosis
- D. Hypoglycaemic coma
- E. Lactic acidosis

All of the following qualities apply to nateglinide, except:

- A. Restores early insulin secretion
- B. Excreted by kidneys
- C. Metabolized by liver
- D. Short half-life
- E. Minimal risk for developing hypoglycemia

Please, choose an appropriate therapy for treatment of patients with type 2 diabetes and obesity:

- A. Metformin and glimepiride
- B. Glibenclamide and glibomet
- C. Glibenclamide and protaphane
- D. Actrapid and protaphane
- E. Gliclazide and actrapid

What is the most dangerous adverse effect following use of biguanides?

- A. Hypoglycemia
- B. Hyperosmolality
- C. Lactic acidosis
- D. Hyperglycemia
- E. Diabetic ketoacidosis

Please, choose the best therapy for treatment of diabetes in a patient with coexisting coronary artery disease:

- A. Metformin
- B. Glimepiride
- C. Acarbose
- D. Rosiglitazone
- E. Glibenclamide

Which drug is considered first-generation sulfonylureas?

- A. Glipizide
- B. Chlorpropamide
- C. Gliquidone
- D. Glyburide
- E. Glimepiride

Which of the following medications is most efficient at increasing glucose uptake by peripheral tissues?

- A. Solcoseryl
- B. Metformin
- C. Chlorpropamide
- D. Nicotinic acid
- E. Pentoxifylline

Which of the following medications has the longest duration of action?

- A. Gliquidone
- B. Repaglinide
- C. Glibenclamide
- D. Metformin
- E. Gliclazide MR

Development of type 2 DM is characterized by

- A. Overwhelming secretion of α -cells in Langerhans islets
- B. Increased insulin sensitivity
- C. Hypercortisolism
- D. Overwhelming secretion of β -cells in Langerhans islets
- E. Decreased glucose level in plasma

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- C. Glimepiride
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- B. Glibenclamide and glibomet
- C. Glibenclamide and protaphane
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- B. Short half-life
- C. Excreted by kidneys
- D. Restores early insulin secretion
- E. Minimal risk for developing hypoglycemia

Which of the following medications should be used to stabilize arterial blood pressure in a patient with diabetes and lactic acidosis comma?

- A. Adrenalin
- B. Hydrocortisone

- C. Glucagon
- D. Cordiaminum
- E. Phenylephrine

Insulin is obligatory in the following states, except:

- A. Surgery in patients with type 2 diabetes mellitus
- B. Light course of type 2 diabetes mellitus
- C. Lactation in patients with type 2 diabetes mellitus-
- D. Ketoacidosis in patients with type 2 diabetes mellitus
- E. Pregnancy in patients with type 2 diabetes mellitus

Patient K., suffering from diabetes mellitus during the past 8 years, is in coma. The skin is dry, Kussmaul's respiration, acetone breath is evidenced. What type of coma is it?

- A. Brain coma
- B. Hypoglycaemic coma
- C. Lactic acidosis
- D. Ketoacidosis
- E. Hyperosmolar state

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- C. Inhibiting insulin resistance
- D. Stimulating beta cells to synthesize insulin
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- C. Chlorpropamide
- D. Solcoseryl
- E. Pentoxifylline

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- A. Gliclazide and actrapid
- B. Metformin and glimepiride
- C. Glibenclamide and protaphane
- D. Glibenclamide and glibomet
- E. Actrapid and protaphane

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- B. Minimal risk for developing hypoglycemia
- C. Excreted by kidneys
- D. Short half-life
- E. Restores early insulin secretion

Please, choose the best therapy for treatment of diabetes in a patient with coexisting coronary artery disease:

- A. Glimepiride
- B. Metformin
- C. Acarbose
- D. Rosiglitazone
- E. Glibenclamide

Which of the anti-hypertensive agents listed below is the agent of choice for treatment of diabetic kidney disease?

- A. Crystepin
- B. Haemiton
- C. Rezerpin
- D. Lisinopril
- E. Adelphane

Which of the following drugs may precipitate cardiovascular complications?

- A. Glimepiride
- B. Gliclazide
- C. Acarbose
- D. Glyburide
- E. Nateglinide

You have just diagnosed lactic acidosis and associated coma. What is the first medication that should be administered in this situation?

- A. 50-10 ml of 40% glucose
- B. 400-500 ml of 5% glucose
- C. 20-25 U of short-acting insulin IV (intravenous)
- D. 8.5% Sodium Bicarbonate drip
- E. 40-60 U of short-acting insulin SQ (subcutaneous)

Which of the following medications does not have hyperglycemic effects (does not decrease insulin action)?

- A. Morphine sulfate
- B. Betadin
- C. Nicotine
- D. Calcitonin
- E. Thyroid hormones

Which of the following medications should be used to stabilize arterial blood pressure in a patient with diabetes and lactic acidosis comma?

- A. Glucagon
- B. Hydrocortisone
- C. Adrenalin
- D. Cordiaminum
- E. Phenylephrine

Which of the following medications does not have hyperglycemic effects (does not decrease insulin action)?

- A. Nicotine
- B. Thyroid hormones
- C. Calcitonin
- D. Morphine sulfate
- E. Betadin

Which of the following medications does not have hyperglycemic effects (does not decrease insulin actions)?

- A. H2 histamine receptor blockers
- B. Isoniazid
- C. Calcium channel blockers
- D. Pentoxifylline
- E. Beta 2 agonists

All of the following are contraindications for prescribing calcium supplements and vitamin D3, except:

- A. Arterial hypertension
- B. Hypercalcuria
- C. Sarcoidosis
- D. Hypercalcemia
- E. Chronic kidney disease.

In the moderate stage of thyrotoxicosis which of the following statements is not typical:

- A. ^{131}I uptake after 4 hours within 30-40%
- B. Low level of TSH
- C. Retinopathy
- D. 10-20% of weight loss
- E. Tachycardia 100-120/min.

Choose agent, which decreases thyroid hormone release

- A. Potassium perchlorate
- B. Thiamazole
- C. Dexamethasone
- D. Propylthiouracil
- E. Potassium iodide

Thyroid medications are contraindicated in all of the following circumstances, except:

- A. Untreated adrenal insufficiency
- B. Decompensated tachyarrhythmia
- C. Acute coronary syndrome
- D. Untreated hyperthyroidism
- E. Chronic heart failure

Biological activity of vitamin D includes all of the following, except

- A. Stimulation of calcification matrix in bone
- B. Increase of Ca^{2+} excretion in kidneys
- C. Stimulation of metabolism in muscles
- D. Stimulation of synthesis of bone matrix
- E. Intensification of Ca^{2+} absorption in guts

Severe course of thyrotoxicosis may be established, if there is

- A. High level of TSH
- B. "Hot" zones on radioisotope scanning
- C. III stage of thyroid enlargement
- D. ^{131}I uptake after 4 hours within 30-40%
- E. Tachycardia over 120/min

Biological activity of vitamin D includes all of the following, except

- A. Stimulation of calcification matrix in bone
- B. Stimulation of metabolism in muscles
- C. Stimulation of synthesis of bone matrix
- D. Intensification of Ca^{2+} absorption in guts
- E. Increase of Ca^{2+} excretion in kidneys

Which of the following side effects is not usually seen with overdose of cholecalciferol (vitamin D3) during treatment of hypoparathyroidism?

- A. Myalgia
- B. Hypocalciuria
- C. Arterial hypertension
- D. Metallic taste
- E. Hypercalcemia

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- B. Low level of TSH
- C. ^{131}I uptake after 4 hours within 30-40%
- D. Retinopathy
- E. Tachycardia 100-120/min.

Choose agent, which diminishes sympathetic reactions in the treatment of -Graves' disease

- A. Potassium perchlorate
- B. Thiamazole
- C. Propylthiouracil
- D. Potassium iodide
- E. Propranolol

Obesity is not typical for

- A. Lipomatosis
- B. Hypercortisolism
- C. Hypogonadism
- D. Hypothyroidism
- E. Hyperparathyroidism

Choose correct statement relatively to the detrimental action of increased thyroid hormone production

- A. Excessive level of thyroid hormones predisposes to constipation
- B. T_3 and T_4 cause hyperprolactinemia
- C. Weight gain is related with thyroid overproduction
- D. T_3 sensitises the myocardium to the effects of catecholamines
- E. T_4 directly induce tachycardia

Choose agent, which decreases thyroid hormone release

- A. Potassium perchlorate
- B. Dexamethasone
- C. Propylthiouracil
- D. Potassium iodide
- E. Thiamazole

Which medication is an agent of choice for treatment of diffuse toxic goiter?

- A. Thiamazole
- B. Lithium gluconate
- C. Lithium carbonate
- D. Glucocorticoids
- E. Propranolol

Overdose by thyroid hormones in elderly patients most commonly leads to:

- A. Increased irritability
- B. Psychomotor excitation
- C. Psychosis
- D. Atrial fibrillation
- E. Aggression

Patient developed thyrotoxic crisis. Which of the following medications should be used in this case?

- A. 40-60 U of short-acting insulin SQ
- B. 40-60 ml of 40% glucose solution
- C. 400 ml of 0.9% of sodium chloride
- D. Methimazole 50-60 mg may be prescribed through a nasogastric tube (should be crushed first)
- E. 8.5% Sodium Bicarbonate drip

Please indicate the diuretics which are suggested to be relatively weak:

- A. Carboanhydrase inhibitors and thiazide diuretics
- B. Potassium-sparing diuretics and thiazide diuretics
- C. Carboanhydrase inhibitors and potassium-sparing diuretics
- D. Loop diuretics and osmotic diuretics
- E. Loop diuretics and thiazide diuretics

Which of the following antihypertensive drugs could induce heart arrhythmias (conduction disorders)?

- A. Angiotensin II receptor antagonists
- B. Thiazide diuretics
- C. Beta-blockers
- D. ACE-inhibitors
- E. Potassium sparing diuretics

Which of the following antihypertensive treatment you would recommend to the patient effectively treated by lisinopril 10 mg /day experiencing severe dry cough?

- A. Losartane 100mg/day
- B. Enalapril 10mg x 2 times/day
- C. Terazosine 5mg/day
- D. Captopril 25 mg x 3 times/day
- E. Metoprolol 50mg x 3 times/day

Which of the following antihypertensive drugs could also treat heart arrhythmias?

- A. Thiazide diuretics
- B. Angiotensin II receptor antagonists
- C. Beta-blockers
- D. ACE-inhibitors
- E. Potassium sparing diuretics

In what trimester should pregnant women with adrenal insufficiency take higher doses of glucocorticoids?

- A. First and third
- B. First
- C. Second
- D. First and second
- E. Third

Spirolacton is...

- A. Glucocorticosteroid antagonist
- B. Sex steroid antagonist
- C. Bradykinine antagonist
- D. Beta-blocker
- E. Mineralocorticosteroid antagonist

Dry cough developing during long term use of ACE-inhibitors is related with:

- A. Chronic bronchitis
- B. Bronchospasm
- C. Irritation of pleura
- D. Decreased rate of bradykinine degradation due to ACE inhibition
- E. Central mechanisms

In case of hypertension associated with supraventricular tachycardia you will recommend:

- A. Verapamyl 40mg 3 times per day
- B. Nifedipine 10 mg 2 times per day
- C. Losartane 100mg/day
- D. Enalapril 10mg x 2 times/day
- E. Captopril 25 mg x 3 times/day

Choose factors, which can cause Addison's disease

- A. Autoimmune thyroiditis
- B. Tuberculosis
- C. Tumour acting on hormone of adrenals
- D. Pneumonia
- E. Diabetes mellitus

Effects on the cardiovascular system in patients with Addison's disease include all, except:

- A. Hypotension
- B. Cardiomegaly
- C. Bradycardia
- D. Decreasing ECG voltage
- E. Reduction in the dimensions of heart

Which of the following antihypertensive treatment you would recommend to the patient effectively treated by lisinopril 10 mg /day experiencing severe dry cough?

- A. Terazosine 5mg/day
- B. Enalapril 10mg x 2 times/day
- C. Metoprolol 50mg x 3 times/day
- D. Captopril 25 mg x 3 times/day
- E. Losartane 100mg/day

The following hormone is not synthesised by the adrenal cortex:

- A. Testosterone
- B. Aldosterone
- C. Dehydroepiandrosterone
- D. Androstenedione
- E. Cortisol

Patient has chronic adrenal insufficiency. Which medication should be prescribed first?

- A. 4% of sodium bicarbonate 2.5 ml/kg
- B. 5% ascorbic acid solution
- C. 25 mg of hydrocortisone IM (intramuscularly)
- D. 500 ml of 5% glucose solution
- E. 500 ml of 0.9% sodium chloride solution

Which statement is correct according to low Liddle's test?

- A. In the diagnostic approach to determine hypercortisolism
- B. To differentiate Cushing's syndrome from Cushing's disease
- C. Total 4 mg of dexamethasone per day
- D. Total 6 mg of dexamethasone per day
- E. 0.5 mg of dexamethasone once a day

Which of the following antihypertensive drugs are contraindicated in patients with asthma?

- A. Potassium sparing diuretics
- B. Beta-blockers
- C. ACE inhibitors
- D. Calcium channel blockers
- E. Thiazide diuretics

Which of the following antihypertensive drugs could induce heart arrhythmias (conduction disorders)?

- A. ACE-inhibitors
- B. Beta-blockers
- C. Potassium sparing diuretics
- D. Angiotensin II receptor antagonists
- E. Thiazide diuretics

Which of the following antihypertensive drugs could also treat heart arrhythmias?

- A. Thiazide diuretics
- B. ACE-inhibitors
- C. Potassium sparing diuretics
- D. Beta-blockers
- E. Angiotensin II receptor antagonists

Dry cough developing during long term use of ACE-inhibitors is related with:

- A. Central mechanisms

- B. Bronchospasm
- C. Chronic bronchitis
- D. Irritation of pleura
- E. Decreased rate of bradykinine degradation due to ACE inhibition

In case of hypertension associated with supraventricular tachycardia you will recommend:

- A. Nifedipine 10 mg 2 times per day
- B. Enalapril 10mg x 2 times/day
- C. Captopril 25 mg x 3 times/day
- D. Verapamyl 40mg 3 times per day
- E. Losartane 100mg/day

The major symptom (hypertension) of pheochromocytoma, a rare tumor, can be treated by

- A. Albuterol
- B. Propranolol
- C. Phenoxybenzamine
- D. Ephedrine
- E. Phenylephrine

Please indicate diuretics, which are suggested to be the most potent:

- A. Potassium-sparing diuretics and thiazide diuretics
- B. Loop diuretics and thiazide diuretics
- C. Carbonic anhydrase inhibitors and thiazide diuretics
- D. Carbonic anhydrase inhibitors and potassium-sparing diuretics
- E. Loop diuretics and osmotic diuretics

Please indicate the diuretics which are suggested to be relatively weak:

- A. Carboanhydrase inhibitors and thiazide diuretics
- B. Potassium-sparing diuretics and thiazide diuretics
- C. Loop diuretics and osmotic diuretics
- D. Loop diuretics and thiazide diuretics
- E. Carboanhydrase inhibitors and potassium-sparing diuretics

Prominent effect of the cardiovascular system in patient with hypercortisolism is:

- A. Respiratory arrhythmia
- B. Bacterial endocarditis
- C. Bundle-branch block
- D. Sinus bradycardia
- E. Hypertension

Which of the following antihypertensive drugs is contraindicated in patients with heart rate below 50 beats per minute?

- A. Beta-blockers
- B. Potassium sparing diuretics
- C. Thiazide diuretics
- D. Angiotensin II receptor antagonists
- E. ACE-inhibitors

In case of hypertension associated with supraventricular tachycardia you will recommend:

- A. Nifedipine 10 mg 2 times per day
- B. Verapamyl 40mg 3 times per day
- C. Captopril 25 mg x 3 times/day
- D. Enalapril 10mg x 2 times/day
- E. Losartane 100mg/day

Which of the following diuretic drugs may potentiate the adverse effects of ACE-inhibitors?

- A. Carboanhydrase inhibitors
- B. Loop diuretics
- C. Osmotic diuretics
- D. Potassium sparing diuretics
- E. Sodium sparing diuretics

Dry cough developing during long term use of ACE-inhibitors is related with:

- A. Central mechanisms
- B. Bronchospasm
- C. Chronic bronchitis
- D. Decreased rate of bradykinine degradation due to ACE inhibition
- E. Irritation of pleura

The beta-adrenergic receptor antagonist is appropriate drug for the following clinical situation:

- A. Hypothyroidism
- B. Bronchial obstruction
Hypotension
- C. Diabetes Mellitus
- D. Mitral valve prolapse

Effects on the cardiovascular system in patients with Addison's disease include all, except:

- A. Bradycardia
- B. Cardiomegaly
- C. Decreasing ECG voltage
- D. Reduction in the dimensions of heart
- E. Hypotension

Which of the following antihypertensive drugs are contraindicated in patients with asthma?

- A. ACE inhibitors
- B. Potassium sparing diuretics
- C. Thiazide diuretics
- D. Calcium channel blockers
- E. Beta-blockers

Antagonists of angiotensin II receptors are:

- A. Have more adverse effects than ACE inhibitors
- B. Have less side effects than ACE inhibitors
- C. More potent than ACE inhibitors
- D. Are effective in treatment of dry cough
- E. Could be used in treatment of chronic heart failure

Patient C., 32 y/o, was delivered unconscious to the intensive care department. The patient has a medical history of diabetes. Insulin was not found. The breathing is noisy, of Kussmaul's type; acetone breath, the skin is dry, turgor is lowered, the facial features are sharp, periosteal reflexes are absent, eye ball tone is lowered. Blood contains 1.2 mmol/l of lactic acid (norm - 0.62-1.3 mmol/l), glycemia - 29 mmol/l. What kind of coma can be suspected?

- A. Brain coma
- B. Hyperosmolar
- C. Ketoacidotic
- D. Hypochloremic
- E. Lactacidemic

Patient T., 26 y/o, is in the intensive care unit with a ketoacidotic coma. Her consciousness is clouded, eye ball tone is lowered, arterial pressure - 90/60, pulse - 130 beats/minute, glycemia - 35 mmol/l, PH - 7.1. The content of ketone bodies is 18 mg %. How would you manage this patient?

- A. Introducing 500ml 5% glucose solution
- B. Introducing 4% sodium carbonate 2.5 ml/kg
- C. Introducing 10-20 units of insulin at first by stream infusion and then by drip infusion during 1 hour by 0.05-0.1 units/kg/hour till the termination of ketoacidosis
- D. Introducing 40 – 60 units of insulin hourly
- E. Introducing 500 ml 0.9% sodium chloride

Patient M., 36 y/o, was found in the street unconscious. The patient has a medical history of diabetes. There is a smell of alcohol from the mouth. The skin is moist, warm, arterial pressure - 145/90 mm column of mercury, convulsive twitching of muscles. Breathing is shallow, eye ball tone is retained, pupils are dilated, hyperflexion. How would you treat this patient?

- A. Injecting 20 units of insulin subcutaneously
- B. Injecting 20 units of insulin intravenously
- C. Intravenous introduction of 40-80-100 ml 40% glucose solution
- D. Injecting 500 ml 5% glucose solution intravenously
- E. Injecting 500 ml 0.9% sodium chloride intravenously

Patient B., 18 y/o, is at a pharmacy store, and complains of intensive sweating, trembling hands, numbing of the tip of the tongue, palpitation. It is known that the patient has type 1 diabetes mellitus. His consciousness is clouded; he is disorientated in space and time, aggressive, refuses sweet food. Objectively: tendon and periosteal reflexes are sharply enhanced, positive Babinski's

symptom; the skin is moist and warm. Glycemia level on the glucometer is 2.3 mmol/l. There is no odor of acetone from the mouth. What are you going to do in this case?

- A. Injecting 20-40 ml (not more than 80 ml) of 40% glucose solution intravenously
 - a. Injecting 20 units of insulin subcutaneously
 - b. Injecting 20 units of insulin intravenously
 - c. Injecting 500 ml 0.9% sodium chloride intravenously
 - d. Injecting 500 ml 5% glucose solution intravenously

Patient T., 66 y/o, complains of stomach ache, nausea, vomiting and muscle ache. Objectively: evident symptoms of dehydration, Kussmaul's breathing, arterial pressure – 90/50 mm column of mercury, anuria, temperature – 35.9 °C, glycemia – 12.9 mmol/l, no acetonuria, blood PH – 6.8, lactic acid content -1.7 mmol/l (norm - 0.62 -1.3 mmol/l). What is your diagnosis?

- B. Uremic coma
- C. Ketoacidotic coma
- D. Brain coma
- E. Hyperlactacidemic coma
- F. Hyperosmolar coma

Patient M., 57 y/o, complains of nausea, vomiting and muscle ache. Objectively: evident symptoms of dehydration, Kussmaul's respiration, arterial pressure - 90/50 mm column of mercury, anuria, temperature – 35.9 °C, glycemia – 12.9 mmol/l, no acetonuria, blood PH – 6.8, lactic acid content -1.7mmol/l (norm - 0.62 -1.3 mmol/l). Hyperlactacidemic coma has been diagnosed. What therapeutic measures should be taken first of all?

- A. Injecting 20-25 units of short-acting insulin intravenously by stream infusion
- B. Injecting 8.5% solution of sodium bicarbonate, and 1% solution of methylene blue
- C. Injecting 40-60 units of short-acting insulin subcutaneously
- D. Injecting 50-100 ml 40% glucose solution
- E. Injecting 400 -500 ml 5% glucose solution

Patient M., 72 y/o, is in the intensive care unit with the symptoms of dehydration, oliguria, hypothermia and hypoxia. In anamnesis there is a record of type 2 diabetes mellitus, the patient was treated with biguanides. Her condition began to deteriorate after she had a myocardial infarction one month ago. Objectively: the skin is dry; turgor is lowered, arterial pressure – 80/40 mm column of mercury, pulse – 136beats/minute. The breathing is shallow, eye ball tone is lowered. What is your diagnosis?

- A. Uremic coma
- B. Ketoacidotic coma
- C. Brain coma
- D. Hyperlactacidemic coma
- E. Hyperosmolar coma

A 14-year-old girl was taken to the department of surgery complaining of acute abdominal pain, nausea and vomiting. The patient has been ill for two weeks after she had an acute respiratory viral disease followed by increasing thirst, mouth dryness and polyuria. Objectively: her consciousness is clouded; eye ball tone is lowered, the breathing is deep and noisy, arterial pressure – 100/55, pulse – 136 beats/minute. The abdominal muscles are tense. Glycemia – 21 mmol/l, acetonuria, plasma osmolarity – 200 mosm/l. What is your diagnosis?

- A. Ketoacidotic coma with pseudoperitoneal developments
- B. Renal form of ketoacidosis coma

- C. Encephalopathy form of ketoacidosis coma
- D. Hyperosmolar coma
- E. Acute diffuse peritonitis

A girl, 13 y/o, was taken to the department of surgery with complaints of acute abdominal pain, nausea and vomiting. The patient has been ill for two weeks after she had an acute respiratory viral disease followed by increasing thirst, mouth dryness and polyuria. Objectively: her consciousness is clouded; eye ball tone is lowered, the breathing is deep and noisy, arterial pressure – 100/55, pulse – 136 beats/minute. The abdominal muscles are tense. Glycemia – 21 mmol/l, acetonuria, plasma osmolarity – 200mosm/l. How would you treat this patient?

- A. Introducing 10-20 units of insulin at first by stream infusion and then by drip infusion during 1 hour by 0.05-0.1 units/kg/hour till the termination of ketoacidosis
- B. Introducing 500ml 5% glucose solution
- C. Introducing 4% sodium carbonate 2.5 ml/kg
- D. Introducing 40 – 60 units of insulin hourly
- E. Introducing 500 ml 0.9% sodium chloride

Patient Ch., 29 y/o, was taken to the cardiology department. Objectively: he has cold cyanotic extremities, infrequent and noisy respiration, of Kussmaul's type, alternating with shallow breathing, weak pulse, and arterial pressure – 60/35 mm column of mercury. There are clear signs of vascular collapse – flattened veins, especially in the neck. ECG shows ciliary arrhythmia. Glycemia - 23mmol/l, PH – 7.1. The content of ketone bodies is 23mg%. What is your diagnosis?

- A. Renal form of ketoacidosis coma
- B. Uremic coma
- C. Myocardial infarction
- D. Cardiovascular form of ketoacidotic coma
- E. Hyperlactacidemic coma

A 68-year-old patient was delivered to the intensive care unit with the suspicion of hyperlactacidemic coma and complaints of severe muscle ache, vomiting drowsiness alternating with stupor, pain in the heart region. Objectively: eye ball tone is lowered, arterial pressure – 100/55, pulse - 136beats/minute, glycemia - 14mmol/l, acidosis, blood PH – 7.0, level of lactic acid – 1.9mmol/l. What are you going to do in this case?

- A. Injecting 500ml 5% glucose solution
- B. Injecting 0.1% adrenaline solution
- C. Introducing 100 mg prednisolone
- D. Injecting 1% solution of methylene blue
- E. Introducing 500 ml 0.9% sodium chloride

A 46-year-old patient was taken to the intensive care unit with the symptoms of dehydration. Anamnesis has a record of type 1 diabetes mellitus and obesity. The patient is known to have taken diuretics for the purpose of losing weight, which caused increasing thirst, mouth dryness and polyuria. Objectively: her consciousness is clouded, eye ball tone is lowered, respiration is deep and noisy, arterial pressure – 110/60, pulse - 140beats/minute, glycemia - 45mmol/l, hyperchloremia, [hyponatremia](#), azotemia, absence of ketonemia and acetonuria, plasma osmolarity – 400 mOsm/l. What is your diagnosis?

- A. Hyperosmolar coma
- B. Ketoacidosis coma
- C. Brain coma

- D. Uremic coma
- E. Hyperlactacidemic coma

Patient P., 46y/o, was taken to the intensive care unit with the symptoms of dehydration. Anamnesis has a record of type 1 diabetes mellitus and obesity. The patient is known to have taken diuretics for the purpose of losing weight, which caused increasing thirst, mouth dryness and polyuria.

Objectively: her consciousness is clouded, eye ball tone is lowered, respiration is deep and noisy, arterial pressure – 110/60, pulse - 140beats/minute, glycemia - 45mmol/l, hyperchloremia, [hyponatremia](#), azotemia, absence of ketonemia and acetonuria, plasma osmolarity – 400 mOsm/l.

What is the treatment for this condition?

- A. Injecting 500ml 5% glucose solution, 40-60 units
- B. Injecting 4% sodium carbonate 2.5 ml/kg, 20-30 units of insulin
- C. Introducing 40 – 60 units of insulin hourly, 500ml of 5%glucose solution
- D. Introducing 4-6 l 0.45 % solution of sodium chloride, insulin in proportion 0.05-0.1 units/kg/hour
- E. Introducing 500 ml 0.9% sodium chloride, 40-60 units of insulin

Patient M., 36 y/o, was found unconscious in the street. The patient has a medical history of diabetes mellitus. His breath smells of alcohol, his skin is moist and warm, arterial pressure – 145/90 mm column of mercury, convulsive twitching of muscles, some tonic-clonic seizures. Breathing is shallow, eye ball tone is retained, pupils are dilated, hyperflexion. What is your diagnosis?

- A. Ketoacidosis coma
- B. Alcoholic coma
- C. Brain coma
- D. Hypoglycemic coma
- E. Hyperlactacidemic coma

Patient M, 72 y/o, is in the intensive care unit with the symptoms of dehydration, oliguria, hypothermia, hypoxemia (hypoxia). In the anamnesis there is a record of type 2 diabetes mellitus treated with biguanides. Her condition began to deteriorate after she had a myocardial infarction one month ago. Objectively: the skin is dry; turgor is lowered, arterial pressure – 80/40 mm column of mercury, pulse – 136beats/minute. The breathing is shallow, eye ball tone is lowered. What is your diagnosis?

- A. Uremic coma
- B. Hyperlactacidemic coma
- C. Ketoacidosis coma
- D. Brain coma
- E. Hyperosmolar coma

Patient N., 70 y/o, is complaining of stomach ache, nausea, vomiting and muscle ache. Objectively: evident symptoms of dehydration, Kussmaul's breathing, arterial pressure – 95/60 mm column of mercury, anuria, temperature – 35.9 °C, glycemia – 11.6 mmol/l, acetonuria is not present, blood PH – 6.7, content of lactic acid -1.9 mmol/l (norm - 0.62 -1.3 mmol/l). What is your diagnosis?

- A. Uremic coma
- B. Ketoacidosis coma
- C. Hyperlactacidemic coma
- D. Brain coma
- E. Hyperosmolar coma

Patient B., 18 y/o, is at a pharmacy store, and is complaining of intensive sweating, trembling hands, numbing of the tip of the tongue, palpitation. It is known that the patient has type 1 diabetes mellitus. His consciousness is clouded; he is disorientated in space and time, aggressive, refuses sweet food. Objectively: tendon and periosteal reflexes are sharply enhanced, positive Babinski's symptom; the skin is moist and warm. Glycemia level on the glucometer is 2.3 mmol/l. There is no odor of acetone from the mouth. What is your tactic?

- A. Injecting 20-40 ml (not more than 80 ml) of 40% glucose solution intravenously
- B. Injecting 20 units of insulin subcutaneously
 - a. Injecting 20 units of insulin intravenously
 - b. Injecting 500 ml 0.9% sodium chloride intravenously
 - c. Injecting 500 ml 5% glucose solution intravenously

What points, concerning myxedema coma are correct?

- A. Hyperfunction of adrenal glands is present
- B. Feeling warm may provoke myxedema coma
- C. Cause is – increase sensitivity to T₃ and T₄ receptors.
- D. Hypothermia is common
- E. Thyroid cancer

Patient developed thyrotoxic crisis. Which of the following medications should be used in this case?

- A. Methimazole 50-60 mg may be prescribed through a nasogastric tube (should be crushed first)
- B. 40-60 U of short-acting insulin SQ
- C. 40-60 ml of 40% glucose solution
- D. 8.5% Sodium Bicarbonate drip
- E. 400 ml of 0.9% of sodium chloride

Patient B., 56 y/o, is complaining of weakness, muscle ache, paresthesia in the facial zone, lower extremities, tonic-clonic seizures, breathing difficulty. Anamnesis contains a record of previous subtotal resection of thyroid gland. Objectively: her consciousness is clouded, the skin is dry, cyanotic, “main d'accoucheur”(obstetrician's hand) convulsions in the upper extremities swallowing function is disturbed, shortness of breath. Heart sounds are dull, rhythmical, arterial pressure – 115/55, pulse – 56 beats/minute. Positive Chvostek's and Trusso's symptoms. The level of calcium in the blood – 1.3mmol/l; hyperphosphatemia, hypocalcuria; glycemia – 5.6mmol/l.

What is your diagnosis?

- A. Hypothyroid coma
- B. Kidney failure
- C. Hypocalcemic crisis
- D. Hyperthyroid coma
- E. Brain coma

Patient B., 56 y/o, complains of weakness, muscle ache, paresthesia in the facial zone, lower extremities, tonic-clonic seizures, breathing difficulty. Anamnesis contains a record of previous subtotal resection of thyroid gland. Objectively: her consciousness is clouded, the skin is dry, cyanotic, “main d'accoucheur”(obstetrician's hand) convulsions in the upper extremities swallowing function is disturbed, shortness of breath. Heart sounds are dull, rhythmical, arterial pressure – 115/55, pulse – 56beats/minute. Positive Chvostek's and Trusso's symptoms. The level of calcium in blood – 1.3mmol/l; hyperphosphatemia, hypocalcuria; glycemia – 5.6mmol/l. How would you manage this patient?

- A. Injecting 10-15ml 4.5% solution of potassium chloride

- B. Injecting 10-20ml 10% solution of calcium chloride
- C. Introducing 100 mg prednisolone
- D. Introducing 1-2ml 0.5% solution of strophanthin
- E. Injecting 40-60ml 40% glucose solution

Patient C., 56 y/o, complains of weakness, muscle ache, loss of appetite, nausea, vomiting, aching bones, deterioration of memory and cramps. Anamnesis contains a record of the ulcerous disease of stomach, frequent pathological bone fractures. Objectively: the consciousness is clouded, the skin is dry of ashy gray color, present deformity of the vertebrae bodies, "goose-stepping" gait, X-ray shows systemic osteoporosis. Heart sounds are dull, rhythmical, arterial pressure – 160/100, pulse – 56beats/minute. The level of calcium in the blood – 3.9mmol/l; hypophosphatemia, hyperphosphaturia; glycemia – 4.8mmol/l. What is your diagnosis?

- A. Hypothyroid coma
- B. Acute [hypoparathyroidism](#)
- C. Climacteric osteoporosis
- D. Acute [hyperparathyroidism](#)
- E. Hyperlactacidemic coma

Patient K., 58 y/o, complains of weakness, muscle ache, loss of appetite, nausea, vomiting, aching bones, deterioration of memory and cramps. In anamnesis there is a record of the ulcerous disease of stomach, frequent pathological bone fractures. Objectively: the consciousness is clouded, the skin is dry of ashy gray color, present deformity of the vertebrae bodies, "goose-stepping" gait, X-ray shows systemic osteoporosis. Heart sounds are dull, rhythmical, arterial pressure – 160/100, pulse – 56beats/minute. The level of calcium in the blood – 3.9mmol/l; hypophosphatemia, hyperphosphaturia; glycemia – 4.8mmol/l. What are you going to do with this patient?

- A. Introducing 150ml of 4.5 % solution of sodium chloride, 100mg prednisolone
- B. Introducing 100mg prednisolone, 40g furosemide
- C. Introducing 2-3 l of 0.9 % solution of sodium chloride and the potassium phosphate and sodium
- D. Introducing 1-2ml 0.5% solution of strophanthin, 100mg prednisolone
- E. Introducing 40-60ml of 40% glucose solution, 80g furosemide

Patient R., 32 y/o, was delivered with complaints of fatigue, decrease of appetite, intensification of pigmentation in the open areas of the body, palms of the hands, cyanosis, losing weight, nausea and vomiting. The symptoms began to aggravate during 1-2 weeks after acute poisoning. Objectively: arterial pressure – 60/30 mm column of mercury, pulse – 140 beats/minute, skin turgor is lowered, the colour is dark with intense pigmentation of the elbows, scars, skin folds on the palms; clearly low levels of sodium and chlorine, high levels of potassium in the blood; glycemia – 4.3 mmol/l.

What is your diagnosis?

- A. Addisonian crisis
- B. Uremic coma
- C. Brain coma
- D. Acute cardio-vascular insufficiency
- E. Hypoglycemic coma

Patient R., 32y/o, was delivered with complaints of fatigue, reduced appetite, intensive pigmentation in the open areas of the body, palms of the hands, cyanosis, losing weight, nausea and vomiting. The symptoms began to aggravate during 1-2 weeks after acute poisoning. Objectively: arterial pressure – 60/30 mm column of mercury, pulse – 140 beats/minute, skin turgor is lowered, the colour is dark with intense pigmentation of the elbows, scars, skin folds on the palms; clear hyponatremia, hypochloremia and hyperkalemia; glycemia – 4.3 mmol/l. What is your diagnosis?

- A. Intramuscular injection of 25mg hydrocortisone hemi-succinate
- B. Injecting 500ml 5% glucose solution

- C. Injecting 4% sodium carbonate 2.5 ml/kg
- D. Injecting 5% ascorbic acid
- E. Introducing 500 ml 0.9% sodium chloride

Main clinical signs of acute adrenal failure are:

- A. Acetone breath, aggressiveness
- B. Loud breathing, bradycardia
- C. Vomiting, diarrhoea
- D. Polydipsia, polyuria
- E. Neck pain, hypertension