

# BLOCK L PREPROFFS

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3. A well in a rural area was contaminated with an unhygienic source nearby. The disease more likely to be transmitted through this well water:

- a. Trachoma
- b. Leishmaniasis
- c. Typhoid
- d. Dental fluorosis
- e. Goitre

## 1. COMMUNITY

### PAPER WMC

1. A water supply is unfit for consumption.

2. A doctor notices an increased incidence of a disease in a village. He should suggest a measure to prevent the disease.

- a. Fluoridation of water
- b. Chlorination of water
- c. Filtration of water
- d. Boiling of water
- e. Use of aquatabs in water

# ENDOCRINE PHARMACOLOGY FROM PREPROFFS FOR FORTH YEAR MBBS KP.

...ly having four members in a village were brought to the ... One day they will be brought to the ... something difficulty and ... probable

...age. Sullage

- ... waste
- ... excreta
- ... waste water form kitchen
- e. Oraganic waste

**3. MICROBIOLOGY**

**PAPER WMC**

1. STDs are on the rise all over the world. A young man presented to a doctor in the emergency with bilateral conjunctivitis and high grade temperature. On examination he had swelling of eyelids and conjunctiva and copious purulent discharge. On laboratory smear diplococci were seen. The most likely diagnosis is:

- a. Streptococci
- b. Gonococci**
- c. Staphylococci
- d. Meningococci
- e. H. influenzae

**GMC 2023**

1. The following selective medium is used to isolate Neisseria Gonorrhoea.

- a. Blood agar
- b. Chocolate agar
- c. MacConkey's medium
- d. Mannitol salt agar
- e. Modified Thayer-Martin medium**

**4. ENDOCRINE PHARMACOLOGY**

**PAPER WMC**

1. The release of insulin from pancreatic beta cells would most likely be stimulated by which of the following?

- a. Clonidine
- b. Norepinephrine
- c. Diazoxide
- d. Glipizide**
- e. Hypoglycemia

2. Which of the following is a drug that produces a permanent reduction in thyroid activity?

- a. Radioactive Iodine**
- b. Methimazole
- c. Propylthiouracil
- d. Thiocyanate (SCN<sup>-</sup>)
- e. Thyroglobulin

3. Large doses of anabolic steroids increase the risk of which of the following?

- a. Anemia
- b. Hepatic impairment**
- c. Hirsutism
- d. Hyperprolactinemia
- e. Testicular enlargement

4. Estrogen therapy in postmenopausal woman has been implicated in increasing the risk of the following disorders except:

- a. Gall stones
- b. Endometrial carcinoma
- c. Breast cancer
- d. Osteoporosis**
- e. Leg vein thrombosis

5. Which one of the following drug belongs to first generation of sulphonylurea:

- a. Tolbutamide**
- b. Glibenclamide
- c. Phenformin
- d. Metformin
- e. Torsemide

6. Which one of the following anti-thyroid drug produces its effect by inhibiting iodine pump?

- a. Propyl thiouracil
- b. Thiocyanate**
- c. Potassium iodine
- d. Methimazole
- e. Carbimazole

7. Which of the following alpha blocking agent can be used for benign prostatic hypertrophy (BPH)?

- a. Phentolamine
- b. Phenoxybenzamine
- c. Thrazocin**
- d. Indoramin
- e. Urapidil

8. Among the following effects, the only effect not observed after prolonged treatment with adrenal steroids:

- a. Hypokalemia
- b. Fluid retention
- c. Hypersensitivity reaction**
- d. Weight gain
- e. Osteoporosis

9. Which type of insulin has very fast and shortest duration of action:

- a. Glargine insulin
- b. Linpro insulin**
- c. Flegular insulin
- d. Lente insulin
- e. Ultra lente insulin

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10. A known diabetic patient with history of Chronic Kidney Disease has haemoglobin of 8.5mg/dl. What is the most appropriate treatment for this?

- a. Calcitonin
- b. Thrombopoietin
- c. Erythropoietin
- d. Cyanocobalamin
- e. Parathormone

11. 45 year old female patient presented with palpitations and heat tolerance. Thyroid function show TSH: 0.001 (0.5-5), free T3: 10(3-6), free T4: 55(11-21). Which of the following drug is recommended for her treatment:

- a. Carbimazole
- b. Dexamethasone
- c. Hydrocortisone
- d. Ketoconazole
- e. Thyroxin

GMC 2023

1. A 26 year old female is using injectable med Roxy progesterone acetate as a method of contraception. Which of the following adverse effects is a concern if she wishes to use this therapy long term?

- a. Hyperkalemia
- b. Male pattern baldness
- c. Osteoporosis
- d. Weight loss
- e. Hypokalemia

2. Which of the following is drug of choice for pregnant female suspected of having a baby with congenital adrenal hyperplasia?

- a. Betamethason
- b. Beclamethasone
- c. Dexamethasone
- d. Hydrocortisone
- e. Prednisolone

3. A 60 year old male patient taking medicine for treatment of BPH for 6 months. Which may cause

reflex tachycardia or /and postural hypotension initial administration?

- a. Atenolol
- b. Hydrochlorothiazide
- c. Metoprolol
- d. Prazosin
- e. Verapamil

4. Which of the following is a selective estrogen receptor modulator that improve bone mineral density in a postmenopausal women?

- a. Clomiphene citrate
- b. Raloxifene
- c. Ormeloxifene
- d. Alendronate
- e. Both a & b

5. Addition of progestin for 10-12 days each month of estrogen replacement therapy in a postmenopausal women is recommended because of progestin.

- a. Block the increased risk of myocardial infarction due to estrogen
- b. Block the increased risk of myocardial carcinoma due to estrogen
- c. Reverse vulval atrophy occurring in postmenopausal women
- d. Both a & b
- e. All are correct

6. In which of the following conditions, Estrogen is not the primary drug but us added to progestin as adjuvant?

- a. Dysfunctional uterine bleeding
- b. Menopausal syndrome
- c. Osteoporosis
- d. Atrophic vaginitis
- e. All of the above

7. A 19 year old medical student presented with complaints of weight loss, polyuria and polydipsia. He was otherwise stable. His lab were as under .FBS .397mg/dL, HBA1C . >15%. what will be the treatment strategy?

- a. Metformin
- b. Sulfonylureas
- c. DDP4 inhibitors
- d. Insulin
- e. Diet and life style modification

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8. 35 years old female presented to emergency department with polyuria. She is diabetic for past 2 years and using glimepiride 4 mg . Now, she got pregnant with gestational amenorrhea of 4 months. Her labs are as under . RBC 250 msg/dL, HbA1C 7.4% . What will be the treatment strategy?

- a. Continue glimepiride and add Metformin
- b. Stop glimepiride and start on GP-1 analogue
- c. Continue glimepiride and add DDP 4 inhibitor
- d. Stop glimepiride and switch to insulin
- e. Continue glimepiride and add insulin

KGMC 2023

1. A 22-year-old woman has been sexually assaulted. She requests a postcoital contraceptive. Which of the following usually is the most appropriate drug, assuming no contraindications?

- a. Ergonovine (or methylergonovine)
- b. Mifepristone
- c. Raloxifene
- d. Ritodrine
- e. Tamoxifen

2. We prescribe bromocriptine for a woman with primary amenorrhea. Normal menstruation returns about a month after starting therapy. Which of the following statements best described the mechanism by which bromocriptine caused its desired effects?

- a. Blocked estrogen receptors, enhanced gonadotropin release
- b. Increased follicle-stimulating hormone (FSH) synthesis
- c. Inhibited prolactin release
- d. Stimulated ovarian estrogen and progesterin synthesis
- e. Stimulated gonadotropin-releasing hormone (GnRH) release

3. A patient with a previously undiagnosed thyroid cancer presents with thyrotoxicosis (thyroid storm). One drug that is administered as part of early management, and may be lifesaving, is propranolol. Which of the following best summarizes why we give this drug, or what we want it to do?

- a. Block thyroid receptors
- b. Block thyroid hormone release by a direct effect on the gland
- c. Inhibit thyroid hormone synthesis
- d. Lessen dangerous cardiovascular symptoms of hyperthyroidism
- e. Lower TSH levels

4. A patient with Cushing's syndrome is being treated by X-irradiation of the pituitary. It may take several months of treatment for adequate symptomatic and metabolic improvement. Until that time, which of the following might be administered adjunctively to suppress glucocorticoid synthesis?

- a. Cimetidine
- b. Cortisol (massive doses)
- c. Fludrocortisone
- d. Ketoconazole
- e. Spironolactone

5. A 35-year-old woman has Graves' disease, a small goiter, and symptoms that are deemed "mild to moderate." Propylthiouracil is prescribed. Which of the following is the most serious adverse response to this drug, for which close monitoring is required?

- a. Agranulocytosis
- b. Cholestatic jaundice
- c. Gout
- d. Renal tubular necrosis
- e. Rhabdomyolysis

6. A 50-year-old woman at very high risk of breast cancer is given Tamoxifen. for prophylaxis. Tamoxifen does which of the following in this situation?

- a. Blocks estrogen receptors in breast tissue
- b. Blocks estrogen receptors in the endometrium
- c. increases the risk of osteoporosis
- d. Raises serum LDL cholesterol and total cholesterol, lowers HDL
- e. Reduces the risk of thromboembolic disorders

7. A woman who has been taking an oral contraceptive (estrogen plus progestin) for several years is diagnosed with epilepsy and started on phenytoin. Which of the following is the most likely consequence of adding the phenytoin?

- a. aplastic anemia, requiring stopping both drugs immediately
- b. Breakthrough seizures from increased phenytoin clearance
- c. Phenytoin toxicity, significant and of fast onset
- d. Profoundly increased risk of craniofacial abnormalities in the fetus
- e. Reduced contraceptive efficacy

8. A 70-year-old woman is being treated with raloxifene for osteoporosis. Which of the following is a concern with this therapy?

- a. Breast cancer.
- b. Endometrial cancer.
- c. Venous thrombosis
- d. Hypercholesterolemia.
- e. Headaches

9. A 53-year-old woman with Type 2 diabetes mellitus is started on glyburide. Which of the following is a main mechanism by which this drug and others of its class lower blood glucose levels?

- a. Decrease insulin resistance by lowering body weight
- b. Enhance renal excretion of glucose
- c. Increase insulin synthesis
- d. Promote glucose uptake by muscle, liver, and adipose tissue via an insulin independent process
- e. Release insulin from the pancreas

10. A man with Type 2 diabetes is receiving a combination of oral drugs to maintain glycemic control. He becomes hypoglycemic and ingests a glucose containing product marketed to manage such an event. It doesn't work; his blood glucose levels remain low, his symptoms persist. Which of

the following antidiabetic drugs was he most likely taking?

- a. Acarbose
- b. Glyburide
- c. Metformin
- d. Repaglinide
- e. Rosiglitazone

11. Common adverse effect associated with the use of spironolactone is;

- a. Hypoglycemia
- b. Hyperkalemia
- c. Bradycardia
- d. Respiratory depression
- e. Photosensitivity

12. What is the primary pharmacological action of spironolactone?

- a. It is a calcium channel blocker, primarily affecting cardiac muscle cells.
- b. It is a selective serotonin reuptake inhibitor, used to treat depression and anxiety.
- c. It is a potassium-sparing diuretic, blocking the action of aldosterone in the distal tubules.
- d. It is an angiotensin-converting enzyme (ACE) inhibitor, reducing blood pressure.
- e. It is a nonsteroidal anti-inflammatory drug (NSAID) used to relieve pain and inflammation.

13. A 60-year-old man with Type 2 diabetes mellitus is treated with pioglitazone. Which of the following is mechanism of action of this drug?

- a. Blocks intestinal carbohydrate absorption
- b. Causes glycosuria (increased renal glucose excretion)
- c. Increases hepatic gluconeogenesis
- d. Increases release of endogenous insulin
- e. Increases target tissue sensitivity to insulin

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14. A 27-year-old woman with endometriosis is treated with danazol. Which of the following is the most likely drug-induced side effect or adverse response for which you should be monitoring often?

- a. Anemia from excessive vaginal bleeding
- b. Hasuitism, oily skin, virilism
- c. Increase HDL
- d. Thrombocytopenia
- e. Weight loss

15. A 75-year-old man had surgery for prostate carcinoma, and local metastases were found intraoperatively. Which of the following is the most appropriate follow- up drug aimed at treating the metastases?

- a. Methyltestosterone
- b. Fludrocortisone
- c. Flutamide
- d. Mifepristone
- e. Ketokonazole

NWSM 2023

4. ENDOCRINE AND REPRODUCTIVE PHARMACOLOGY

1. A 32 years old patient with body swelling, malar rash, arthralgia, photo-sensitivity and alopecia. She on examination has a malar rash, small joint tenderness and pedal edema. On urine- analysis she has +2 albumin and +3RBC casts. the diagnosis of SLE with renal involvement. Which of the following is not a hallmark of nephritic syndrome

- a. Hematuria
- b. Hypertension
- c. Impaired renal functions
- d. Nephrotic-range proteinuria
- e. Proteinuria

2. A woman 47 years old, para 5, complains of hot flashes. She has undergone total abdominal hysterectomy and bilateral salpingo ophrectomy. She want treatment for this symptoms. The best option for her is?

- a. Serotonin
- b. Solifenacin

- c. Oxybutinin
- d. Turbutalin
- e. Tibolone

3. A female of 26 years presented to the medical emergency after a miscarriage half an hour ago. She is taken to the labour room. Which of the following will be used for the management of this patient?

- a. Desogestrel
- b. Hydroxyprogesterone
- c. Medroxy progesterone
- d. Mifepristone
- e. Norethindrone

4. A female of 55 years was started on a drug to counter act the risk of development of breast carcinoma. The drug made the patient prone to the development of endometrial carcinoma. Which of the following drugs can be given to this patient as a substitute to avoid the risk of endometrial cancer?

- a. Estradiol
- b. Progestin
- c. Raloxifene
- d. Tamoxifen
- e. Tibolone

5. A 40-year old man with asymmetrically enlarged thyroid gland associated with elevated levels of T3 and T4 is treated with propylthiouracil (PTU). Which of the following best summarizes the principal mechanism of action of PTU?

- a. Blocks iodide transport into thyroid
- b. Increases hepatic metabolic inactivation of circulating T4 and T3
- c. Inhibits proteolysis of thyroglobulin
- d. Inhibits thyroidal peroxidase
- e. Releases T3 and T4 into the blood

6. A 43-year-old man has had watery diarrhea and epigastric pain for the past 3 months. Over-the-counter antacid medications do not relieve the pain. An upper gastrointestinal endoscopy shows multiple

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shallow, sharply demarcated ulcers in the duodenum. He is given omeprazole. Three months later, repeat endoscopy shows that the ulcerations are still present. Which of the following analytes is most likely to be increased in his blood?

- a. Gastrin
- b. Glucagon
- c. Insulin
- d. Somatostatin
- e. Vasoactive intestinal peptide

7. A 24 year old obese woman in her 26th week of pregnancy was diagnosed with gestational diabetes mellitus after a positive glucose tolerance test. She was otherwise healthy, and her past medical history was unremarkable. Dietary management failed to control the blood glucose, and her physician decided to prescribe anti diabetic therapy. Which of the following drugs would be most appropriate for the patient at this time?

- a. Glyburide
- b. Insulin
- c. Metformin
- d. Repaglinide
- e. Sitagliptin

8. The estrogen acts through which of the following mechanisms?

- a. Activating G protein coupled receptors
- b. Activating hsp90 bound nuclear receptors
- c. Inactivating the gene transcription
- d. Inhibition of estrogen response elements
- e. Inhibition of release of progesterone

9. A 66 years old patient with gastro enteritis presents to medical emergency with decreased urine output and AKI, His workup shows hyperkalemia and AKI. ECG shows tall-t waves, which of the following is the immediate treatment of hyperkalemia?

- a. insulin with dextrose
- b. Hemodialysis
- c. Peritoneal dialysis
- d. inj calcium gluconate
- e. Ventolin nebulizations

10. A patient with hypothyroidism following thyroidectomy will require life long hormone replacement therapy. Which of the following agents generally would be most suitable?

- a. Levothyroxine
- b. Liothyronin
- c. Liotrix
- d. Protirelin
- e. Thyroid, desiccated

11. A 7-year-old boy was brought to the emergency department by his parents because of nausea, vomiting, and persistent abdominal pain secondary to the flu. Medical history of the patient was unremarkable. Pertinent serum values on admission were fasting blood glucose 300 mg/dL(70-110 mg/dL), glycosuria 3+. Which of the following drugs would be appropriate for this patient?

- a. Metformin
- b. Miglitol
- c. Pioglitazone
- d. Regular insulin
- e. Repaglinide

KMC 2023

1. A 62-year-old woman recently diagnosed with type 2 diabetes started a therapy that included acarbose. Inhibition of which of the following enzymes most likely mediated the therapeutic effect of the drug in the patient's disease?

- a. Acyltransferase
- b. Alpha-glucosidase
- c. Glucokinase
- d. Hormone-sensitive lipase
- e. Pyruvate carboxylase

2. A 50 year old woman who underwent thyroid ablation with radioactive iodine started treatment with levothyroxine, Which of the following cell elements represent the main site of therapeutic action of this drug?

- a. Cell membrane
- b. Cell nucleus
- c. Golgi apparatus
- d. Mitochondria
- e. Smooth endoplasmic reticulum

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3. A 54-year-old diabetic man presented to OPD with complaints of dry cough over the past few days and an unexpected weight gain over the past few weeks. His diabetes is well controlled with a combination of oral antidiabetic agents. Physical examination showed evident peripheral edema, mild jugular venous distention. Which of the following drugs most likely caused the patient's signs and symptoms?

- a. Acarbose
- b. Exenatide
- c. Glyburide
- d. Metformin
- e. Pioglitazone

4. A 59-year-old man suffering from type 2 diabetes had been receiving an oral anti-diabetic therapy that included a drug that closes adenosine triphosphate (ATP)-sensitive K<sup>+</sup> channels on pancreatic  $\beta$ -cell membranes. Which of the following drugs most likely uses this mechanism of action?

- a. Acarbose
- b. Glimepiride
- c. Insulin
- d. Metformin
- e. Pioglitazone

5. A 56 year old male patient comes for a follow up after being treated for benign prostatic hyperplasia. His urinary symptoms have improved but he now complains of dizziness when getting out of bed in the morning. His vitals and physical examination is unremarkable. keeping in mind his current complaints, which mechanism is used by the prescribed drug to cause symptomatic relief of benign prostatic hyperplasia?

- a. Antagonism at  $\alpha_1$  receptors
- b. Agonism at  $\alpha_2$  receptors
- c. Antagonism at androgen receptors
- d. Inhibition of 5- $\alpha$  reductase enzyme
- e. Competitive inhibition of dihydrotestosterone

6. 40-year-old woman's biopsy report revealed ER-positive breast cancer. She was prescribed tamoxifen in combination with aromatase inhibitor which of the following drug is a selective non-

steroidal aromatase Recombination with aromatase inhibitor. Which of inhibitor?

- a. Anastrozole
- b. Clomiphene
- c. Danazol
- d. Finestrade
- e. Tamoxifen

7. A 56-year-old woman was recently diagnosed with type 2 diabetes. Her medical history was significant for a Serious allergic reaction to sulfamethoxazole and for recurrent urinary tract infections presently treated with Ciprofloxacin, An appropriate therapy was prescribed that included a strict diet and an oral antidiabetic drug. Which of the following drugs would be contraindicated for this patient?

- a. Acarbose
- b. Glyburide
- c. Metformin
- d. Pioglitazone
- e. Repaglinide

8. A 48-year-old woman underwent hysterectomy and bilateral salpingoophrectomy. The doctor suggested a low dose estrogen to prevent menopausal symptoms. Which of the following is a synthetic estrogen?

- a. Desogestrel
- b. Diethylstilbestrol
- c. Levonorgestrel
- d. Norethindrone
- e. Norgestrel

9. A 24-year-old female diagnosed with endometriosis was prescribed combined oral contraceptives to relieve her endometriosis related pain. Which of the following is not a side effect of oral contraceptives?

- a. Breast cancer
- b. Cervical cancer
- c. Chloasma
- d. Gall stones
- e. Ovarian cancer

10. An under-nourished 50-year-old man confined to bed because of the fractured femur is prescribed anabolic steroids to promote muscle growth and Increase strength and energy. What component of anabolic steroids cause this effect?



- a. Amphetamines
- b. High protein levels
- c. Synthetic testosterone
- d. Natural sugars
- e. Triglycerides

11. A 59-year-old woman recently diagnosed with type 2 diabetes started a therapy with diet and metformin. Which of the following actions most likely mediated the therapeutic effect of the drug in the patient's disease?

- a. Activation of adenosine monophosphate (AMP) activated protein kinase
- b. Activation of glucagon-like polypeptide-1 (GLP-1) receptors
- c. Blockade of glucagon receptors
- d. Blockade of adenosine triphosphate (ATP)-sensitive K<sup>+</sup> channels
- e. Regulation of transcription of genes involved in glucose utilization

12. A 66-year-old diabetic man receiving a combination therapy with metformin and glyburide. Due to poor glycemic control, his physician decided to add pioglitazone to the treatment regimen. Which of the following is the most likely mechanism of action?

- a. Activation of adenosine monophosphate (AMP)-activated protein kinase Slowing glucose absorption from the gastrointestinal tract
- b. Activation of glucagon-like receptors. polypeptide-1 (GLP-1)
- c. Blockade of K channels in pancreatic  $\beta$ -cell membranes.
- d. Regulation of transcription of genes related to glucose utilization
- e. Regulation of transcription of genes related to glucose utilization

13. A 35-year-old woman visited prenatal clinic and was diagnosed with gestational diabetes. Two doses of Isophan (NPH) Insulin daily were advised by the

gynecologist. According to the classification, how long does NPH Insulin take to work?

- a. 60-120 mins
- b. 3-5 hours
- c. 7-10 hours
- d. 11-18 hours
- e. 24-30 hours

14. A 55-year-old woman suffering from type 2 diabetes had started treatment with metformin, but the drug was poorly tolerated, and her physician decided to shift to repaglinide. Which of the following actions most likely mediated the therapeutic effect of repaglinide in the patient's disease?

- a. Blockade of somatostatin receptors in the pancreas
- b. Blockade of glucagon receptors
- c. Blockade of  $\beta_2$  receptors in the liver
- d. Decreased glucose absorption from the gastrointestinal tract
- e. Stimulation of insulin release

15. A 60-year-old woman was admitted as an inpatient with urosepsis and an acute kidney injury (AKI). Her Potassium level is 6.8 mg/dl. The trainee medical officer on duty asks you to give calcium gluconate to this patient. What's the role of calcium gluconate the management of hyperkalemia?

- a. Decrease potassium levels by unknown mechanism
- b. Increase gastrointestinal loss of potassium
- c. Increase renal excretion of potassium
- d. Intracellular shift of potassium
- e. Stabilization of cardiac membrane

16. 55-year-old woman was admitted with recurrent severe hyperkalemia, that only transiently improve with insulin and dextrose infusions. She takes no regular medications and has no significant past medical history. What would be an additional prescription to help prevent this recurrence? ?

- a. Calcium gluconate
- b. Calcium resonium
- c. Furosemide
- d. Magnesium supplementation
- e. Spironolactone