

Therapeutics



Final - Past papers

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Therapy of Diabetes Mellitus

1. Which of the following regimens best mimics physiological insulin release?

- A) NPH and Lispro morning, midday, evening
- B) Lispro morning, midday, evening, glargine bedtime
- C) NPH morning and evening

ANSWER : B

2. Which of the following drug is considered a relatively safe drug for treating elderly patient with DM2?

- A) Insulin
- B) Sulfonylurea
- C) Dapagliflozin
- D) Sitagliptin
- E) Thiazolidinediones

ANSWER : D

3. Which of the following insulin regimens has the shortest duration of action:

- A) Insulin detemir
- B) Insulin lispro
- C) Insulin glargine
- D) NPH insulin
- E) Regular insulin

ANSWER : B

4. Which of the following drug induced DM is mismatched with mechanism:

- A) Cyclosporine-may cause insulin resistance
- B) Clozapine-weight gain and insulin resistance
- C) HIV protease inhibitors-relative hyperglucagonemia
- D) Interferon-beta cell destruction
- E) Nicotinic acid-increase hepatic glucose production

ANSWER : E

Therapy of Diabetes Mellitus

5. Which of the following isn't a contraindication of metformin:

- A) Congestive heart failure
- B) Dyslipidemia
- C) Renal failure
- D) Metabolic acidosis
- E) Respiratory disease

ANSWER : B

6. Which of the following Diabetes drugs is associated with weight loss:

- A) Insulin
- B) GLP 1 agonists
- C) Sulfonylureas
- D) Thiazolidinediones
- E) Meglitinides

ANSWER : B

7. Which of the following drugs is mismatched with its side effect:

- A) Canagliflozin-hypotension
- B) Sitagliptin-nasopharyngitis
- C) Exentide-acute pancreatitis
- D) Thiazolidinediones-thirst

ANSWER : D

8. Which of the following is NOT correct about diabetes management:

- A) All patients should do lifestyle modification
- B) Non obese patients are more likely given medications to increase insulin secretion
- C) Obesity-healthy eating diet to sustain weight loss
- D) Low dose Aspirin is given to ischemic heart disease patients for secondary cardioprotection
- E) Sulfonylureas for renal impairment

ANSWER : E

Therapy of Diabetes Mellitus

9. Drug that cause insulin resistance:

- A) glucocorticoid
- B) interferon
- C) pentamidine
- D) nicotinic acid

ANSWER : D

10. drug of choice in DM type 2 with atherosclerosis CVD :

- A) Exentide
- B) sitagliptin
- C) Glyburide
- D) Repaglinide
- E) rosiglitazone

ANSWER : A

11. Not contraindication to use SGLT2 :

- A) recurrent UTI
- B) hypotension
- C) GFR (60)

ANSWER : C

12. all of the following prevent DM type 2 except :

- A) metformin
- B) rosiglitazone
- C) acarbose
- D) liraglutide
- E) teplizumab

ANSWER : E

Therapy of Diabetes Mellitus

13. incorrect regarding treatment of DM type 2:

- A) obese patients without contraindications treated with metformin
- B) non obese patients treated with insulin secretagogue
- C) TZD considered first line treatment of DM
- D) all diabetic patients should be started with lifestyle modification

ANSWER : C

14. mismatch Side effects:

ANSWER : Insulin => weight loss

15. All the following about pramlintide are correct except :

ANSWER : Mixed with insulin at the same syringe

16. mismatch:

ANSWER : Metformin => non alcoholic fatty liver disease

Therapy of Diabetes Mellitus

17. Which of the following best describes the use of pramlintide?

- A) It can be mixed with the same injection with insulin
- B) It should be used prior to meals to decrease post prandial hyperglycemia
- C) It can be substituted by some insulin doses

ANSWER : B

18. Incorrect match about drug induced diabetes :

ANSWER : corticosteroids destroy pancreatic beta cells

19. part of food not used in hypoglycemia because it doesn't increase plasma glucose level :

ANSWER : proteins

20. Insulin used for DKA :

ANSWER : Regular insulin

Therapy of Diabetes Mellitus

21. Incorrect about insulin :

ANSWER : the regular insulin analogs more closely replicate normal physiology than does rapid acting insulin.

22. Incorrect about GLP 1 agonist :

ANSWER : Mostly given by oral route

23. Mismatch about adverse effects of oral hypoglycemic agents :

ANSWER : Sitagliptin and weight gain

24. Incorrect about SGLT2 inhibitors

ANSWER : Contraindicated if GFR less than 60

Therapy of Diabetes Mellitus

25. What is the best initial drug for an obese patient with type 2 diabetes?

ANSWER : Metformin.

26. A diabetic patient with osteoporosis is on metformin and sulfonylurea but not controlled. What to add?

ANSWER : Sitagliptin.

27. What is the preferred treatment for a hospitalized diabetic patient?

ANSWER : Insulin.

28. Which statement about pramlintide is wrong?

ANSWER : Pramlintide can be mixed with insulin.

Therapy of Diabetes Mellitus

29. 18-year-old with type 1 DM, erratic postprandial glucose. Best choice

ANSWER : pramlintide

30. Patient with polyuria, hyperventilation, ketones + glucose in urine, BS 400 mg/dl. Best therapy

ANSWER : IV insulin

31. Which drug is not known to cause diabetes

ANSWER : spironolactone

32. Type 2 DM + uncontrolled HTN + heart failure. Contraindicated drug

ANSWER : pioglitazone

Therapy of Diabetes Mellitus

33. Drug that decreases gastric emptying, decreases postprandial glucose, causes weight loss

ANSWER : pramlintide

34. Obese female with type 2 DM, high insulin levels. Best therapy

ANSWER : metformin

35. Which of the following drugs may produce acute pancreatitis?

- A) Miglitol
- B) Metformin
- C) Exenatide
- D) Pramlintide
- E) Glyburide

ANSWER : C

36. A 5-year-old boy presented to the emergency room with coma and rapid breathing. The mother told you his problem started within the last 24 hours with excessive urination and thirst followed by nausea and vomiting. Urine examination was positive for glucose and ketones. Measurement of blood glucose showed hyperglycemia with blood glucose level of 400 mg/dL. Which of the following is the treatment of choice?

- A) Subcutaneous insulin
- B) NPH insulin
- C) Insulin Glargine
- D) Insulin Detemir
- E) Regular insulin

ANSWER : E

Therapy of Hypertension

37. Which of the following is not matched with its adverse effect?

- A) Nitroglycerin -throbbing headache
- B) Enalaprilat-hypotension
- C) Esmolol-heart block
- D) Sodium nitroprusside-methemoglobinemia

ANSWER : D

38. Which of the following causes hypertension by sodium and water retention?

- A) Amphetamines
- B) Licorice
- C) Alcohol

ANSWER : B

39. Which of the following drugs that cause hypertension do that by vasoconstriction?

- A) Anabolic steroids
- B) NSAIDs
- C) Estrogen containing oral contraceptives
- D) Erythropoetin
- E) Corticosteroids

ANSWER : B

40. Which of the following is not true about management of hypertensive urgencies?

- A) Increasing antihypertensive dose
- B) Short-acting antihypertensive labetalol
- C) Decreasing hypertension to stage 1 over several hours to days
- D) Oral or sublingual nifedipine
- E) Oral therapy

ANSWER : D

Therapy of Hypertension

41. All of the following cause HTN except :

- A) Darbepoetin
- B) cocaine
- C) bradykinin

ANSWER : C

42. all of the following are first line treatment of HTN except :

- A) ACEI
- B) ARBs
- C) Thiazide
- D) CCB
- E) alpha 1 blocker

ANSWER : E

43. true in hypertensive urgency :

- A) we use labetalol
- B) normalise blood pressure in few hours
- C) use nifedipine

ANSWER : A

44. mismatch side effect:

- A) NTG=> tolerance
- B) enalaprilat=> fall in pressure in high renin
- C) fenoldopam => bronchoconstriction

ANSWER : C

Therapy of Hypertension

45. anti HTN drug used in elderly:

A) alpha 2 agonist

B) thiazide

ANSWER : B

46. incorrect :

ANSWER : Use BB to treat HTN in diabetic patient

47. 65-year-old with HTN on beta blocker, ACEI, aspirin, simvastatin. Took diphenhydramine, phenylephrine, guanfacine. BP increased. Most likely cause

ANSWER : phenylephrine

48. A patient with DM type 2, CKD stage 3. BP 155/92 on enalapril. Best modification

ANSWER : increase enalapril dose

Therapy of Hypertension

49. Which of the following herbs if given continuously antagonizes

ANSWER : Liquorice

50. Which of the following is given to reduce multiple cardiovascular risk factors in

51. Mismatch in hypertensive emergency

ANSWER : Enalapril and eclampsia

52. Drug causes hypertension not by sodium and water retention :

ANSWER : Darbipointen

Therapy of Hypertension

53. Patient with on and off occipital headache , BP 200/125 , physiological testing is unremarkable (urgency) , incorrect :

ANSWER : Give oral antihypertensive to lower BP to 120/80 within few days

54. Antihypertensive needs electrolyte monitoring:

ANSWER : Valsartan

55. Shared side effect of loop diuretics and thiazides :

ANSWER : hypokalemia

56. Antihypertensive reasonable in elderly

ANSWER : Amlodipine

Therapy of Hypertension

57. Antihypertensive for a patient with peripheral vascular disease

ANSWER : Carvidolol

58. Not used in pregnancy

ANSWER : Enalapril

59. What is the preferred drug for a patient with PAD and hypertension?

ANSWER : Carvedilol.

60. What is a known adverse effect of ARBs?

ANSWER : Hypokalemia.

Therapy of Hypertension

61. Which combination is **WRONG** in Stage 2 hypertension?

ANSWER : Beta-blocker + hydralazine.

62. In hypertensive emergency, BP should **NOT** be reduced below what level initially?

ANSWER : 140 mmHg.

Therapy of Acute Coronary Syndromes

63. Which of the following is not part of secondary prevention of STEMI and Non STEMI-Acute coronary syndrome?

- A) Abciximab
- B) Beta blocker
- C) Aspirin
- D) High intensity statins
- E) Angiotension converting enzyme inhibitors

ANSWER : A

64. all of the following drugs used within 1st 24 hour in ACS except :

- A) BB
- B) fibrinolytic
- C) ACEI

ANSWER : B

65. All of the following used for ACS secondary prevention except :

- A) ACEI
- B) BB
- C) non dihydropyridine CCB

ANSWER : C

66. What is the correct duration of clopidogrel therapy after stenting?

ANSWER : 12 months.

Therapy of Acute Coronary Syndromes

67. Which group of drugs used after MI for secondary prevention

ANSWER : (valsartan , resorvastatin , aspirin , metoprolol)

68. Wrong about beta blocker in ACS

ANSWER : Decreases the risk of cardiogenic shock

69. After STEMI what is incorrect ?

ANSWER : Taking aspirin 162 - 320 indefinitely

70. all of the following used for ACS secondary prevention except :

ANSWER : non dihydropyridine CCB

Therapy of Acute Coronary Syndromes

71. Which drug class lowers the risk of cardiogenic shock?

ANSWER : Beta-blockers.

72. What four drugs are used for secondary prevention after MI?

ANSWER : Statin, aspirin, β -blocker, ACE inhibitor.

73. A 34-year-old lady with cervical cancer sees you in clinic. She complains of a constant dull pain. Which of the following statements regarding the WHO analgesic ladder is false?

- A) It is acceptable to commence analgesia with step 3 if pain is severe
- B) Step 1 and 3 analgesics can be administered together regularly
- C) Step 2 and 3 analgesics can be administered together regularly
- D) Step 1 and 2 analgesics can be administered together regularly
- E) Morphine is the first-line step 3 analgesic

ANSWER : C

74. Which of the following is NOT correct concerning the use of spironolactone to reduce mortality in acute coronary syndrome?

- A) The patient should have an ejection fraction of at least 0.55
- B) The patient should have started ACE inhibitors
- C) The patient should have either heart failure symptoms or diabetes mellitus
- D) The patient should have started beta-blockers
- E) Monitoring of serum potassium is essential to prevent hyperkalemia

ANSWER : A

Therapy of Chronic Heart Failure

75. Which of the following is not true about drug and its adverse effect?

- A) Spironolactone-gynecomastia
- B) Eplerenone-polyuria
- C) Ivabradine- atrial fibrillation
- D) Vericiguat-teratogenic

ANSWER : B

76. Which of the following drugs which exacerbate or precipitate heart failure do that by direct cardiotoxicity?

- A) Verapamil
- B) Trastuzumab

ANSWER : B

77. Which of the following is not part of the cascade of ventricular remodeling?

- A) Angiotensin II
- B) Atrial natriuretic peptide
- C) Norepinephrine
- D) Certain inflammatory mediators

ANSWER : B

78. Which of the following is not true about ARB/Neprilysin inhibitor?

(Sacubitril/Valsartan)

- A) It causes vasodilation
- B) It causes diuresis
- C) It reduces production of aldosterone
- D) It is used when ACEI are contraindicated

ANSWER : C

Therapy of Chronic Heart Failure

79. Which of the following is not true about non pharmacological management of stage C heart failure?

- A) Teaching heart failure self care
- B) Vaccination against respiratory infections
- C) Decreasing excessive sodium intake
- D) Decreasing regular physical activity

ANSWER : D

80. Which of the following is the first step in management of patient presented with chronic heart failure?

- A) Revascularization therapy
- B) Identify the cause
- C) Admission to the hospital

ANSWER : B

81. mismatch side effect :

- A) ivabredine => a fib & bradycardia
- B) hydralazine & Isosorbide dinitrate=> bradycardia

ANSWER : B

82. In a patient with hypertension, dyslipidemia and diabetes mellitus but with NO structural heart disease, drugs may be given to prevent heart failure development. Which of the following pair of drugs is useful in this regard?

- A) Amlodipine + a loop diuretic
- B) Thiazide diuretic + spironolactone
- C) Loop diuretic + verapamil
- D) ACEI + statins
- E) ACEIs + beta-blockers

ANSWER : D

Therapy of Chronic Heart Failure

83. Drug exacerbates heart failure , not cardiotoxic

ANSWER : Beta blocker

84. Which is used with ivabredine without causing a harmful side effects

ANSWER : Lisinopril

85. Patient with heart failure not controlled well with the medication , what to give to reduce hospitalization and cardiotoxic deaths

ANSWER : Vericiguat

86. Incorrect about heart failure

ANSWER : TZDs should be used with EF 50% or less

87. Incorrect about hyperkalemia with aldosterone antagonists in heart failure

ANSWER : discontinue loop diuretics therapy if aldosterone antagonist is stopped

Therapy of Chronic Heart Failure

88. cardiotoxic drug :

ANSWER : Imatinib

89. all true in management of pre HF except :

ANSWER : Valsartan/Sacubitril (ARNi)

90. incorrect :

ANSWER : Digoxin reduce mortality

91. incorrect :

ANSWER : add ARNi to ACEi to treat HF

Therapy of Chronic Heart Failure

92. incorrect about HFpEF & HFrEF :

ANSWER : No role of RAAS in treatment of HFpEF

93. Which calcium channel blocker should NOT be used in HFrEF?

ANSWER : Verapamil.

94. Which beta-blocker should be avoided in acute decompensated heart failure?

ANSWER : Carvedilol.

95. What is the recommended treatment for Stage B heart failure?

ANSWER : Statin, beta-blocker, ACE inhibitor.

Therapy of Chronic Heart Failure

96. Which drug class does NOT prevent cardiac remodeling?

ANSWER : Loop diuretics.

97. What is the mainstay treatment for chronic heart failure?

ANSWER : Beta-blocker.

98. Acute dyspnea after hearing bad news. Bilateral crackles, high JVP, ↓ capillary filling. Drug not used

ANSWER : IV metoprolol

99. IHD with HTN, symptoms on less exertion. On enalapril, bisoprolol, aspirin, statin. Add

ANSWER : spironolactone

Therapy of Dyslipidemias

100. Which of the following drugs raises LDL while treating hypertriglyceridemia?

- A) Statins
- B) Fibrates

ANSWER : B

101. Common side effect of antihyperlipidemia

ANSWER : Elevation of hepatic enzyme

102. One of the following is not correct:

ANSWER : LP(a) => cholestyramine

103. Non-pharmacological drug that elevate HDL:

ANSWER : Weight control

Therapy of Dyslipidemias

104. Not correct regarding dyslipidemia treatment:

ANSWER : Statin and resin are effective for familial homozygous hypercholestolemia

105. Which drug is NOT part of dyslipidemia management in diabetes?

ANSWER : Niacin.

106. Which drug is used when LDL receptor function is deficient?

ANSWER : Statins.

107. Which drug increases VLDL levels?

ANSWER : Bile acid resins.

Therapy of Dyslipidemias

108. Sustained-release niacin → flushing + itch. Best management

ANSWER : use aspirin before dose

109. Hypertriglyceridemia + hypercholesterolemia on itraconazole.
Contraindicated drug

ANSWER : simvastatin

Therapy of Venous Thromboembolism

110. Which of the following is not true about anticoagulant and management in excessive anticoagulation?

- A) Heparin - protamine sulfate
- B) Warfarin-Vitamin K
- C) Bivalirudin -discontinue the drug
- D) Fondaparinux-hemodializable

ANSWER : D

111. Which of the following increases anticoagulant effect of warfarin?

- A) Green tea
- B) Nicotine
- C) Barbiturates
- D) Garlic

ANSWER : D

112. Which of the following is the duration of treatment of first acute VTE?

- A) 10 days
- B) Three months
- C) One month
- D) Six months
- E) One year

ANSWER : B

113. Which of the following is wrong match about anticoagulant and monitoring?

- A) Unfractionated Heparin - aPTT
- B) Low molecular weight heparin - anti Xa level
- C) Fondaparinux-Anti Xa level
- D) Bivalirudin-thrombin inhibitor assay
- E) Rivaroxaban-aPTT

ANSWER : E

Therapy of Venous Thromboembolism

114. Prophylaxis of knee replacement Therapy:

ANSWER : 10 days

115. The treatment of choice for patient with cancer:

ANSWER : Long term LMWH

116. Which anticoagulant is preferred when creatinine clearance is < 25 mL/min?

ANSWER : UFH (Unfractionated heparin).

117. Common side effect of VTE treatment:

ANSWER : Bleeding

Therapy of Venous Thromboembolism

118. Mismatch:

ANSWER : Rivaroxaban- bleeding time

119. Dabigatran antidote:

ANSWER : Idarucizumab

120. Which antibiotic increases INR in a patient taking warfarin?

ANSWER : Metronidazole.

121. Which anticoagulant can be used in a COVID patient with DVT?

ANSWER : Dabigatran.

Antimicrobial Selection and Prophylaxis

122. Treatment for enterococci with multidrug resistance

ANSWER : Imipenem

123. Prophylaxis for emergency colon surgery

ANSWER : Cefazolin with Metronidazole

124. Incorrect about importance of age in choosing antibiotic

ANSWER : It determines the risk for allergic reactions

125. Which drug doesn't need adjustment in liver failure

ANSWER : Nitrofurantoin

Antimicrobial Selection and Prophylaxis

126. GBS with penicillin allergy :

ANSWER : Cefazolin

127. Which antibiotic's dose should be adjusted according to creatinine clearance?

ANSWER : Ciprofloxacin.

128. Which antibiotic should not be taken with dairy products?

ANSWER : Ciprofloxacin.

129. Which antibiotic is wrongly matched in pediatrics due to lack of evidence?

ANSWER : Tetracycline.

Antimicrobial Selection and Prophylaxis

130. Which antibiotic increases INR in a patient taking warfarin?

ANSWER : Metronidazole.

131. Best prophylactic for elective colorectal surgery

ANSWER : Oral neomycin and erythromycin

132. Least cause of superior infection is

ANSWER : gentamycin

133. True about rational drug prescription

ANSWER : specimen for culture should be taken at time of empirical drug

Antimicrobial Selection and Prophylaxis

134. week pregnant woman with pyelonephritis, E. coli. Best medication

ANSWER : cephtriaxone

Therapy of Pneumonias

135. Duration of treatment of strep pneumonia

ANSWER : 10-14 days

136. Neonatal pneumonia treatment

ANSWER : Vancomycin with meropenem

137. Incorrect about pneumonia

ANSWER : All patients with CAP should be covered for respiratory syncytial virus

138. Outpatient treatment of CAP with comorbidity , incorrect

ANSWER : Azithromycin with doxycycline

Therapy of Pneumonias

139. Incorrect for pseudomonus treatment in VAP

ANSWER : Gentamicin with polymyxin

140. Not a common cause of C diff infection*

ANSWER : Metronidazole

141. Mismatch of antibiotic with side effect*

ANSWER : Aminoglycosides and C diff infection

142. 75 years, picture of lobar pneumonia, RR 38, BP 107/70, BUN 12, alert and oriented. Best management

ANSWER : admit to medical floor and start levofloxacin

Therapy of Meningitis

143. Mismatch of bacteria and antibiotic

ANSWER : Nisseria meningitidis and vancomycin

144. Prophylaxis for meningococcal infection

ANSWER : Ciprofloxacin

145. Baby less than one month with meningitis what to give

ANSWER : Ampicillin and cefutoxime

146. Preferred treatment for cryptococcal meningitis

ANSWER : Amphoticerin B with flucytosin

Therapy of Meningitis

147. 65 with fever, neck rigidity, CSF hazy, no culture yet. Best start

ANSWER : vancomycin + cephtriaxone + ampicillin

Therapy of Infection in Neutropenic Patients

148. Treatment for resistant pseudomonas

ANSWER : Moxifloxacin

149. Patient on CHOP-R regimen developed fever, hypotension and dizziness 8 days after treatment. Most likely

ANSWER : ANC < 200 /microlitre

150. Higher rate of adverse effects when you treat neutropenic fever by which of the following:

ANSWER : Cefepime plus gentamicin

151. Chemotherapy + neutropenic pneumonia

ANSWER : may add G-CSF*

Medication Error

152. cause of 75% of medication errors

ANSWER : Distraction of physicians

153. Incorrect about strategies to reduce medication errors whoever do it

**ANSWER : Sita malpractice lawsuit for those make these errors
(something like that)**

154. Reasonable form in prescription

ANSWER : 5 mg of this drug taken by mouth for pain

155. Incorrect about medication errors

ANSWER : Counts 15% of all medical errors

لا تنسوني من صالح دعائكم

Malek Abu Rahma

The End
Good Luck シ

