

國立成功大學

112學年度碩士班招生考試試題

編 號：272

系 所：臨床藥學與藥物科技研究所

科 目：調劑學

日 期：0207

節 次：第 1 節

備 註：不可使用計算機

※ 考生請注意：本試題不可使用計算機。請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

I. Select one optimal answer. (40 points)

1. If sildenafil is taken with rifampin, the drug interaction may result in:

- (A) Priapism
- (B) Decreased efficacy of sildenafil
- (C) Nausea and vomiting
- (D) Acute hearing loss
- (E) Increased blood pressure

2. Which pharmacogenomic assessment would be most useful to provide more precise tacrolimus dosing?

- (A) TMPT activity
- (B) CYP2C19 genotype
- (C) CYP3A4 genotype
- (D) CYP3A5 genotype
- (E) CYP2C9 genotype

3. Which of the following would be an appropriate counseling point for rheumatic arthritis patients treated by adalimumab?

- (A) This medication can cause high blood pressure
- (B) This medication should not be interrupted for any reason
- (C) This medication should be administered monthly
- (D) This medication can be given with methotrexate
- (E) All above are appropriate

4. A patient with osteoporosis at high risk for fracture is being treated with zoledronic acid yearly to prevent hip and spine fractures. How long should zoledronic acid be continued before considering a drug holiday?

- (A) 3 years
- (B) 5 years
- (C) 6 years
- (D) 10 years
- (E) 15 years

5. About suspensions used pharmaceutically, which of the following drugs is NOT correct?

- (A) Suspensions can be used to replace tablets, to improve dissolution rate, to prolong action and to mask a bad taste.
- (B) "Shake well before use" and "Store in a cool place" should be part of the labels on a suspension.
- (C) Useful preservatives in extemporaneous preparations include chloroform water, benzoic acid and hydroxybenzoates with a 1-4 weeks expiry date.
- (D) Should not be used as ophthalmic preparations and parenteral administration.
- (E) Should be packed in amber bottles with adequate air space above the liquid to allow shaking and ease of pouring.

6. About preparing sterile products, which of the followings in NOT correct?

- (A) Multiple-dose injections must have an antimicrobial preservatives.
- (B) Isotonic property is not necessary for injection solutions for SC or IM.
- (C) Pyrogens cause fever and must be eliminated from water injections and water for irrigations.
- (D) Large-volume parental products must be sterilized after filling into their final containers.
- (E) The expiry date is relative short in aseptic dispensing products.

7. About preparing ophthalmic solutions, which one of following is NOT correct?

- (A) Pharmacist should review documentation that substantiates the safety and benefit of the product when administered into the eye.
- (B) Sterilization is required and filtration of the preparation through a 0.22- μm filter into a sterile final container is a commonly used method.
- (C) Preservatives should be used in the preparation of multi-dose intraocular injection solutions.
- (D) All extemporaneous compounding of ophthalmic products should be performed in a certified laminar airflow hood.
- (E) For eye drops, osmolality could be equivalent to 0.6% - 2% NaCl.

8. About the therapy goals of diabetic food infection, which is NOT correct?

- (A) Successfully treat infected wounds by using effective nondrug and antibiotic therapy.
- (B) Prevent additional infectious complications.
- (C) Preserve as much normal limb function as possible.
- (D) Requires multiple antibiotic regimens to avoid treatment failure
- (E) Minimize toxicities and cost while increasing patient quality of life.

9. About the pneumonia, which is NOT correct?

- (A) Respiratory pathogens may enter the lower respiratory tract by aspiration of oropharyngeal contents

- (B) Hospital-acquired pneumonia is predominantly caused by gram-negative aerobic bacilli or *S. Aureus* and is less likely to be caused by a MDR isolate.
- (C) For patients with community-acquired pneumonia who at-risk comorbidity, macrolide or doxycycline are first choice for empirical therapy.
- (D) For patients with community-acquired pneumonia who enter ICU, fluoroquinolone add vancomycin are first choice for empirical therapy.
- (E) For patients with ventilator-associated pneumonia who at MDR risk, piperacillin-tazobactam is first choice for empirical therapy.
- 10. Which vitamin D agent is active as given and is most appropriate for a patient with ESRD requiring vitamin D to treat secondary hyperparathyroidism (PTH 800 pg/mL [ng/L; 86 pmol/L])?**
- (A) Ergocalciferol
- (B) Cholecalciferol
- (C) Calcifediol
- (D) Calcitriol
- (E) 1- α Hydroxylase
- 11. When you see G.Z. 6 months later for a follow-up, she tells you she is about 6 weeks pregnant. She has had no seizures attack under therapy with lamotrigine. Which strategy is best for G.Z.?**
- (A) Discontinue her seizure medication immediately.
- (B) Discontinue her seizure medication immediately and give folic acid.
- (C) Continue her seizure medication.
- (D) Change her seizure medication to phenobarbital.
- (E) Change her seizure medication to phenytoin.
- 12. Which of the following medications would be expected to result in hyperkalemia?**
- (A) Hydrochlorothiazide
- (B) Fosinopril
- (C) Furosemide
- (D) Albuterol
- (E) Amiodarone
- 13. A 76-year-old patient presents to the ED with chest tightness that started 8 hours ago. This is the third episode, is associated with diaphoresis and dyspnea, and is refractory to sublingual nitroglycerin. Blood pressure is 104/75 mm Hg, heart rate is 120 bpm, respiratory rate is 24 breaths/min, and oxygen saturation is 87% (0.87) on room air. ECG demonstrates 2-mm ST-**

segment depression. Bilateral crackles are noted at the bases bilaterally on physical examination.

Which of the following acute supportive measures should be avoided in this patient?

- (A) IV metoprolol
- (B) IV morphine
- (C) IV nitroglycerin
- (D) Oxygen
- (E) All the above are suitable treatment

14. Mr. KM experienced ischemic stroke recently at his 68th birthday. He has underlying diseases of hypertension and was diagnosed with hyperlipidemia during this hospitalization. Which of the following anti-dyslipidemia treatment is most suitable for him?

- (A) Rosuvastatin 80mg OD
- (B) Atorvastatin 40mg QD
- (C) Simvastatin 10mg QD
- (D) Pitavastatin 2mg QD
- (E) Fluvastatin 40mg QD

15. Which of the following is NOT suitable in the management of acute asthma?

- (A) Give oxygen
- (B) Give oral corticosteroid
- (C) Give mepolizumab
- (D) Give SABA
- (E) Give IV corticosteroid

16. Which statement concerning the management of acute coronary syndrome is NOT correct?

- (A) In STEMI, Primary PCI is favored over fibrinolysis due to improved survival.
- (B) Initial aspirin of 162 to 325 mg should be given to all patients with ACS, no matter which type.
- (C) Clopidogrel and prasugrel require hepatic activation to provide their antiplatelet effect.
- (D) DAPT with aspirin and a P2Y12 inhibitor should be continued to at least 6 months.
- (E) A statin and beta-blocker should be added if no contraindication.

17. Container is the primary packaging materials are in direct contact with the product. Which of the following oral drugs in NOT suitable packed with child-resistant containers?

- (A) Valproic acid
- (B) Acetaminophen
- (C) Nitroglycerin
- (D) Topiramate

(E) Acetylcysteine

18. About the empirical treatment of intra-abdominal infection, which is NOT correct?

- (A) For high-severity community-acquired complicated intra-abdominal infections, moxifloxacin is first choice.
- (B) For patients with mild-to-moderate community-acquired infections, regimens with substantial anti-pseudomonal activity are not required.
- (C) Empiric antibiotic therapy for healthcare-associated intra-abdominal infection should be driven by local microbiologic results.
- (D) Antimicrobial therapy of established infection should be limited to 4 days, unless it is difficult to achieve adequate source control.
- (E) Longer durations of therapy have not been associated with improved outcome.

19. Which of the following is NOT a reasonable treatment for deep vein thrombosis?

- (A) Fondaparinux SC on day 0-7 overlapped with warfarin PO with INR ≥ 2.0
- (B) UFH SC on day 0-5, then edoxaban 60mg PO QD
- (C) LMWH SC on day 0-5, then dabigatran 150mg PO BID
- (D) Apixaban 10mg PO BID on day 0-21, then Apixaban 5mg PO BID
- (E) Rivaroxaban 15mg PO BID on day 0-21, then Rivaroxaban 20mg PO QD

20. Choose CORRECT description concerning COPD treatment.

- (1) Bupropion SR 150mg TID can be given for 12 weeks to help patients for smoking cessation
 - (2) The primary goal of pharmacotherapy is to improve patient symptoms, reduce the frequency and severity of exacerbations, and improve the patient's exercise tolerance.
 - (3) Start LAMA or LABA for symptom control for patients with category B (more symptoms, less risk)
 - (4) If highly symptomatic (ie, CAT >20), consider dual long-acting bronchodilators (LAMA/LABA)
- (A) (1)(2)
 - (B) (1)(2)(3)
 - (C) (2)(3)
 - (D) (2)(3)(4)
 - (E) (1)(3)(4)

II. For each drug in column A, match most relevant description. (10 points)**Column A**

A. Citalopram	B. Paroxetine	C. Duloxetine
D. Mirtazapine	E. Paliperidone	F. Risperidone
G. Clozapine	H. Olanzapine	I. Appendicitis
J. Cirrhosis with ascites	K. Nephrotic syndrome	L. Peritoneal dialysis
M. Inflammatory bowel diseases	N. Necrotizing	

1. The agent should be cautiously used in “at-risk” patients (eg, electrolyte disturbance). Discontinuation is needed if QTc persistently >500 ms or increased >50 ms over baseline.
2. Among the second-generation antipsychotics, the drug carries the highest risk of EPS (8 to 25 percent in adults), especially at doses greater than 4 mg/day.
3. The antidepressant is frequently occurring and significant (>7% over baseline) weight gain among adults.
4. The agent has been used for treatment of peripheral neuropathic pain, fibromyalgia, and chronic musculoskeletal pain.
5. 1, 3 and 6 month long-Acting injectable agent are available for schizophrenia patients.
6. This is the only antipsychotic that has evidence for efficacy in individuals with “treatment-resistant schizophrenia.”
7. Which are the causes of primary (spontaneous) bacteria peritonitis?
8. Which are the causes of secondary bacteria peritonitis?

III. Answer the questions (50 points)

1. For Type I diabetes, the choice of basal insulin depends upon patient preference, lifestyle, and cost concerns. Describe what is the difference between the following insulins: insulin glargine, insulin detemir and insulin degludec. (12 points)
2. Helicobacter pylori infection is one of the most common infectious diseases worldwide, and it is the most common cause of gastric and duodenal ulcers and gastric cancer. What is the first-line therapy (dose and treatment duration) recommendations for *H. pylori* eradication in Taiwan in treatment naïve cases. (12 points)
3. Look-Alike, Sound-Alike (LASA) medicines are those that can commonly be miss-selected during the dispensing process due to their similar names or similar looking packaging. Describe the strategy to prevent LASA dispensing errors. (12 points)
4. Write a patient’s guide for first time taking warfarin case. (14 points)