

※ 考生請注意：本試題不可使用計算機 請勿在本試題紙上作答，否則不予計分

I. Fill the following blanks. (1 point each, 40 points)

1. In the reimbursement scheme of the National Health Insurance in Taiwan, the oral solution is indicated for children aged less than (1) years old or patients with (2).
2. A 5-year-old (12 kg) child was prescribed with valproic acid 10 mg/kg/day given in 3 divided doses. The stock solution of valproic acid available contains 200 mg/ml. (3) milliliter of this stock solution should be administered for each dose. The proper way to administer the liquid dose is (4).
3. (5) is the first line oral antidiabetic drug for the treatment of type 2 diabetes, in particular, in obese people. However, it is contraindicated when serum creatinine higher than (6) mg/dL in females or higher than (7) mg/dL in males.
4. An HbA1c target of (8) among people with type 2 diabetes is reasonable to reduce risk of microvascular disease and macrovascular disease.
5. Both (9) and (10) are acceptable for first-line therapy for management of acute hypertension in pregnant women.
6. The vitamin K antagonist (11) is recommended for most atrial fibrillation patients with high risk of stroke. There are newer agents available in Taiwan including (12) and (13), which have similar effect.
7. SYMBICORT® inhalers contain corticosteroid (14) and long acting beta agonist (LABA) (15), which prevents using the LABA as monotherapy in asthma patient.
8. In Taiwan, it is suggested physicians check the phenotype of (16) before prescribing carbamazepine for naïve patients, because it's presence is associated with the serious adverse effect of (17).
9. Antiplatelet agents, (18), (19), and (20) are beneficial for the majority of patients with NSTEMI or unstable angina who have undergone early interventions.
10. Oral acetaminophen is the most commonly used antipyretic agent, the maximal dose is (21) gm per day.

(背面仍有題目，請繼續作答)

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11. Regarding to the treatment of anxiety in the elderly, (22) (a therapeutic class) is recommended, while (23) , (24) , (25) or (26) should be avoided.
12. Many key enzyme pathways are involved in psychiatric drug interactions, the most prominent being the CYP450 system. Examples of some classic inducers of psychiatric drugs are (27) , (28) , (29) and (30) .
13. Sildenafil is a (31) (enzyme) inhibitor used to treat pulmonary arterial hypertension. A recent warning to the drug label for sildenafil is that it not be prescribed to a certain age (age range: (32)) population because low doses do not effectively improve exercise ability, and high doses increase the risk for death.
14. A (33) is recommended as the first-line pharmacologic urate-lowering therapy approach. The recommended goal is to reduce serum urate to less than 6 mg/dL, and the initial drug dosage should be no greater than (34) mg/day. This should be followed by gradual increase of the maintenance dose, which can safely exceed (35) mg even in patients with chronic kidney disease.
15. (36) is recommended as the first-line drug for treatment of hyperthyroidism during the first trimester of pregnancy. Clinicians should change treatment of patients from the first-line drug to (37) (another drug name) after completion of the first trimester because of the potential for liver toxicity. To ensure that the infant receives 100 µg iodine per day, breast-feeding women with hyperthyroidism should maintain a daily intake of (38) µg iodine.
16. When drospirenone is indicated for hormone replacement therapy, the increased risk of cardiovascular events including (39) and (40) should be aware.

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

A

- (1) Ciprofloxacin
- (2) Citalopram
- (3) Ezetimibe
- (4) Methotrexate
- (5) Olanzapine
- (6) Pantoprazole
- (7) Ramipril
- (8) Rosiglitazone
- (9) Ritonavir
- (10) Sitagliptin

B

- (1) Activates the peroxisome proliferator-activated receptor-gamma nuclear receptors
- (2) Initial 10-15 mg qiw for rheumatic arthritis
- (3) Dipeptidyl peptidase IV Inhibitor
- (4) FDA pregnancy rating D
- (5) May have drug interaction with clopidogrel
- (6) Cholesterol absorption inhibitor
- (7) Potential risk of tendinitis
- (8) Antiretroviral agent for HIV infection
- (9) Combined with interferon for treating chronic hepatitis C infection
- (10) Concomitant use with MAOIs is contraindicated
- (11) Association with weight gain
- (12) Prescribing to heart failure patients is highly restricted

(背面仍有題目，請繼續作答)

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III. Answer the following questions:

1. A variety of nonsteroidal antiinflammatory drugs (NSAIDs) is readily available in Taiwan and widely used throughout the world. Different NSAIDs have varying inhibitory potentials of the two known isoforms of cyclooxygenase, COX-1 and COX-2. Please list 2 drugs in each category as non-selective COX-2 inhibitor, preferential COX-2 inhibitor and selective COX-2 inhibitors. Additionally, please describe the information about general or serious adverse effect of NSAIDs, which should be provided to patients for chronic user. (12 points)
2. When receive a prescription of amiodarone from one 65 y/o female patient who is newly diagnosed atrial fibrillation in a clinical consultation. Please describe what information you will provide to this patient. (10 points)
3. Rx: Keflex caps 500 mg Sig: 1 cap q12h for 10 days. If the pharmacist has only 250 mg capsules in the inventory, how many capsules should be given to the patient? Please describe how pharmacist should educate this patient. (5 points)
4. When sedative hypnotics are prescribed for bedtime use, what precautions should be considered? What are the optimal choices for the elderly? (5 points)
5. Please address the pharmaceutical management of rheumatoid arthritis. (10 points)
6. 就臺灣的現況而言，藥師如何發揮專業功能？(8 points)