

Therapeutic Decision-Making (TDM) Examination Candidate Information Sheet



For the purposes of the Therapeutics Decision-Making (TDM) Examination, therapeutics is defined as the application of knowledge in the pharmacological and non-pharmacological management of medical problems (acute, chronic, etc.) at the level required of a family physician practising independently in Canada.

The TDM Examination is three hours long. Each test form is comprised of 40 cases or patient-based scenarios. For each case there is one to several questions. Each case is equally important to the total score, regardless of the number of questions for the case. There are approximately 100 questions per test form.

The cases represent common or important presentations from across four dimensions of care: Health Promotion and Illness Prevention, Acute Illness, Chronic Illness, and Safety and Adverse Effects. The questions are designed to assess your critical thinking and decision-making skills.

You will be assessed on your ability to:

- Make specific treatment decisions and provide rationales when asked
- Provide the name of the drug, dose, route, frequency and/or duration for admission orders and prescriptions. In some contexts, you will be asked only for the class of drug
- List common side/adverse effects and drug interactions
- Manage common side/adverse effects and drug interactions
- Advise a patient regarding the management of their problem.

Cases and questions will also assess your awareness and understanding of alternative therapies, respect for negotiating a therapeutic contract and recognition of drug misuse and abuse.

You should always read the information in the clinical vignette carefully. Then, read the questions carefully and document the most appropriate therapeutic / management option(s). Responses will be scored according to your understanding of clinical issues, relevance and appropriateness of your decisions.

Examination Tips

Format and Scoring:

- **Text boxes will be provided to list your answers.** The number of boxes will vary for each case.
- **Use a separate text box for each response.**
- **List only the number of responses asked.** You will receive points only for the number of answers that is asked in the question. Your responses will be scored in the order they appear in each text box; the remaining responses will not be scored.
- If you feel that no treatment is indicated in your management, please list “No treatment is indicated” in the text box

- If there is no indication on the number of permissible answers required for a question (e.g., List 2), use your best judgement when responding to that question
- Points are not deducted for incorrect answers

Management of information:

- Focus and coherence
 - **Be as brief as possible**, making use of the space provided after each question.
 - Word your responses carefully. Correct answers are usually a single word, a few words or a short phrase.
 - Partial marks will be given for partial information
 - **Be as specific as possible**
 - For example, 'thyroid disease' is an unacceptable response when 'hyperthyroidism' is the correct response
- Drug nomenclature
 - **Some questions ask about a class or type of drug** (e.g., beta-blocker) rather than a specific drug. This will be clearly noted in the question.
 - When asked to list or prescribe drugs or medications **use generic names whenever possible**
- Drug dosage, route of administration, frequency and duration of treatment
 - **Read questions carefully** to determine if the drug dosage, route of administration, frequency and duration of treatment need to be specified in your answer
 - Do **not** provide a range (e.g., 5-10 days or 10-20 mg) unless specifically asked to do so
 - When asked to provide a **drug dose** you should be reasonably confident about the proper dose. No credit is given for an incorrect dose; however, no penalty is assigned for an incorrect dose.
 - **Drug dose** may be expressed as an actual dose (e.g., 200 mg) or in mg/kg of body weight (some questions will provide the patient's weight in the clinical scenario)
 - **Normal values** are provided in brackets directly in the case and next to the test results for your reference (e.g., sodium 128mmol/L (135-145)).

Communication of information:

Grammar, spelling, mechanics, conforming to conventions for abbreviations

- **Abbreviations:**
 - Only use very common short forms and acronyms; e.g., CBC for complete blood count, and IV for intravenous are acceptable. Abbreviations may not be clear even for a specific context and should be written out.
 - Generally, drug names should be spelled completely rather than using abbreviations or acronyms. However, some very common abbreviations are acceptable (e.g. ASA, NSAID, SSRI).

- **Spelling:**
 - **Accurate spelling** of drug names is important
 - Spelling errors will not hurt your score so long as the error does not interfere with the marker understanding your answer

Additional Resources

Below is a list of suggested reference materials to help you study for the TDM Examination. We strongly suggest that you review these resources to help you better prepare.

The MCC does not require candidates to purchase or use any particular resource. The following textbooks may be used by MCC test committees to validate examination questions.

1. **Safety Competencies:** patientsafetyinstitute.ca/en/toolsResources/Integration-of-Safety-Competencies-Framework/Pages/default.aspx
2. **ICD 11: International Statistical Classification of Diseases and Related Health Problems, 11th edition, (World Health Organization, 2018)**
3. **Bugs and Drugs:** bugsanddrugs.ca
4. **UptoDate.com**
5. **Textbooks related to Family Medicine:**
 - a. McWhinney, Ian R., *A Textbook of Family Medicine*, 3rd edition, (Oxford University Press, 2009)
 - There is a revised version by Freeman, Thomas R., *McWhinney's Textbook of Family Medicine*, (Oxford University Press, 2016)
 - b. Rakel, Robert, *Textbook of Family Medicine*, 9th Edition, (Saunders Elsevier, 2015)
 - c. Evans, M., Meuser, J. (eds), *Mosby Family Practice Sourcebook; An Evidence-Based approach to care*, 4th edition, (Elsevier Canada, 2006)
6. **Medicine:**
 - a. Goldman, L., Schafer, A., *Cecil Textbook of Medicine*, 25th edition (Elsevier Canada, 2015)
 - There is another version by Andreoli and Carpenter's *Cecil Essentials of Medicine*, 9th edition, (Elsevier Canada, 2015)
7. **Other related resources:** canada.ca/en/public-health/services/infectious-diseases.html
8. **PHAC Canadian Immunization guide:** phac-aspc.gc.ca/publicat/cig-gci/index-eng.php
9. **College of Family Physician Priority Topics and Key Features** (99 topics) cfpc.ca/KeyFeatures
10. **Choosing Wisely campaign:** choosingwiselycanada.org
11. **Clinical Practice Guidelines:** cmaj.ca/guidelines

Sample Item 1

A 79-year-old woman presents to the clinic with chronic back pain adequately treated with acetaminophen. Radiograph reveals generalized osteopenia, a vertebral compression fracture of L2 and wedging of thoracic vertebrae.

1. What class of medication may be prescribed for this patient? List 1.
2. What non-pharmacologic intervention should be considered for this patient? List 1.
3. What potential long-term serious adverse effect of this class of medication should be disclosed to this patient before prescribing?
4. Name 1 contra-indication to this class of medication.

Question 1

Bisphosphonate

Question 2 (Any 1 of the following)

1. Fall prevention advice/strategies
2. Physical activity
3. Weight-bearing exercise

Question 3

Osteonecrosis of the jaw or just osteonecrosis

Question 4 (Any 1 of the following)

1. Esophagus abnormalities - e.g., Barrett's esophagus, esophageal motility abnormalities (achalasia, stricture)
2. Chronic kidney disease
3. Impaired renal function
4. Inability to stand/sit up for >30 minutes after drug ingestion

Sample Item 2

A 56-year-old woman presents to the clinic for follow-up after being recently discharged from hospital for a cerebrovascular accident (CVA). While in hospital, several new medications were added to her drug regimen.

1. What strategies will help this patient's adherence to her new medication regimen? List 6.

Question 1 (Any 6 of the following)

1. Use generic or lower cost drugs (reduce cost of drugs)

2. Refer her for social assistance (help with purchase if necessary)
3. Discuss side effects carefully
4. Provide careful instructions and good patient education about the illness and the treatment
5. Give written instructions - in plain language
6. Suggest timing aids/reminders/routines/blister packs or dosette
7. Choose medications with less frequent dosing. Once a day if possible
8. Reduce number of drugs if possible/avoidance of polypharmacy or therapeutic duplication.
9. Use a single pharmacy
10. Engage family members as a reminder
11. Engage patient in choice of medication
12. Schedule follow-up visits. Ensure the patient is able to follow up urgently if side effects or questions arise.

Sample Item 3

A 68-year-old woman presents to the clinic with a 24-hour history of symptoms consistent with progressive isolated left sided facial nerve paralysis.

1. What drugs should be prescribed? List 2 (include dose, route, frequency, and duration).
2. What pieces of advice should be given regarding eye care for this patient? List 3.
3. What is the optimal time frame from the onset of symptoms to the initiation of treatment in order to achieve maximum benefit?

Question 1

1. Prednisone 50-80 mg PO OD x 7 days
2. Valacyclovir 1000mg PO TID x 7 days
OR
Famcyclovir 500 mg PO TID x 7 days
OR
Acyclovir 800 mg PO 5x daily x 7 days

Question 2

1. Liberal use of lubricating drops throughout the day
2. Lubricating ointment to be used at night
3. Tape the eye closed at night while sleeping

Question 3

4. 3 days (72 hours)

Sample Item 4

A 23-year-old woman is seen in clinic with a history of mild asthma symptoms, often exacerbated by exercise.

1. What class and type of medication is recommended as first line management for this patient? Give your rationale for this choice.
2. You prescribe this medication. List three patient behaviors or actions that may adversely affect the intended outcome of the treatment that you have prescribed.
3. List three measures this patient can take to minimize asthma symptoms.

Question 1

1. Short-acting beta 2 agonist; inhaler

Rationale: mild asthma mostly triggered by exercise

Question 2

1. Not getting the prescription filled
2. Taking the drug at the incorrect time (not using inhaler before exercise)
3. Forgetting to use medication
4. Incorrect inhaler technique

Question 3

1. Avoid known allergens and/or irritants
2. Avoid smoking
3. Learn about asthma triggers, symptoms and therapy (patient education/self-management)
4. Regularly use a Beta 2 agonist prior to exercise