



EXAM GUIDE

**CERTIFIED ASTHMA EDUCATOR (CAE)
CERTIFIED RESPIRATORY EDUCATOR (CRE)
CERTIFIED COPD EDUCATOR (CCE) AND
CERTIFIED TOBACCO EDUCATOR (CTE)
CERTIFICATION EXAMS**



**CERTIFIED ASTHMA EDUCATOR (CAE)
CERTIFIED RESPIRATORY EDUCATOR (CRE)
CERTIFIED COPD EDUCATOR (CCE) and
CERTIFIED TOBACCO EDUCATOR (CTE)**

are registered trademarks and may only be used
under license from the registered owner, the
Canadian Network for Respiratory Care.

APPLICATION DEADLINE

Friday, May 11th, 2018

EXAMINATION DATE

Friday, June 8th, 2018



For more information, contact **CNRC** at:
16851 Mount Wolfe Road
Caledon, ON
L7E 3P6

Phone: **905 880-1092**
Fax: **905 880-9733**
Email: **info@cnrhome.net**

Introduction

The Canadian Network for Respiratory Care (CNRC) Tobacco, Asthma, COPD and Respiratory Educator Certification Examinations are intended to fulfill the examination requirements for becoming a Certified Tobacco Educator (CTE) or a Certified Asthma Educator (CAE) or a Certified Respiratory Educator (CRE) in Canada or a Certified COPD Educator (CCE) in the US. CNRC is the organization responsible for the development, administration, scoring, and reporting of results of the CNRC Examinations. CNRC has contracted the professional testing services of Yardstick to compile, administer, and score the Certified Tobacco, Asthma, COPD and Respiratory Educator certification examinations.

Purpose

Licensure/certification examinations have a well-defined purpose: to protect the public by ensuring that those who are certified possess sufficient knowledge and skills to perform important occupational activities safely and effectively¹. The purpose of the CNRC Tobacco, Asthma, Respiratory and COPD Educator Certification Examinations is to assist in determining whether or not an applicant for certification possesses adequate knowledge and skills related to entry-level asthma or respiratory education standards.

¹American Educational Research Association, American Psychological Association, National Council on Measurement in Education (1999). *Standards for Educational and Psychological Testing*. Washington, DC, American Psychological Association.

Tobacco and Respiratory Education

Tobacco and respiratory education is a resource with a unique body of knowledge requiring distinct expertise. Tobacco and respiratory education can generally be defined as a collaborative relationship in which the tobacco or respiratory educator works with the client, other healthcare professions, and society in general to achieve and maintain optimal tobacco and respiratory education and management as an integral part of well-being. Tobacco and respiratory education must ensure protection of the public and a high quality of education through the appropriate professional background, education, and certification of the tobacco and respiratory educator.

For further information on the CTE, CAE, CRE or CCE Programs, please visit the CNRC website at:

www.cnrchome.net

Dear Candidate

Congratulations!

You have just taken a significant step toward earning an important professional credential. The professional designations, Certified Tobacco Educator (CTE), Certified Asthma Educator (CAE), Certified Respiratory Educator (CRE) and Certified COPD Educator (CCE), are granted to candidates who satisfy the certification eligibility criteria (see page 4) and successfully complete the written Canadian Network for Respiratory Care (CNRC) CTE, CAE, CRE and CCE Certification Examinations.

Certification in asthma education was developed in response to a priority concern of Canadian asthma educators. At the founding meeting of the Canadian Network for Asthma Care (CNAC) held in April 1994, members agreed to develop, design, and implement a certification program for asthma educators in order to provide appropriate, consistent education to clients with asthma and their families in a cost effective manner. In 2007, the Certified Respiratory Educator (CRE) exam was developed for educators of both asthma and COPD (Chronic Obstructive Pulmonary Disease). In 2009, CNAC changed its name to the Canadian Network for Respiratory Care (CNRC). In 2012, CNRC created the Certified COPD Educator (CCE) for US healthcare professionals. In 2014, CNRC added the Certified Tobacco Educator (CTE) credential.

The CNRC Tobacco, Asthma, Respiratory and COPD Educator Certification Examinations are based on national curriculum standards (i.e. learning objectives or competencies) developed and validated by individuals knowledgeable in tobacco and respiratory education working in a variety of environments. The examinations have been set to determine that successful candidates have learned the core technical and teaching competencies expected of a safe, competent, entry-level educator. Thus, national certification is a quality assurance mechanism, which enhances tobacco and respiratory education, as well as facilitates portability of knowledge and skills across Canada.

A candidate must meet the eligibility requirements to write the CNRC Tobacco or Respiratory Educator Certification Examinations. This application booklet provides information to help you to apply and prepare for both exams.

The Canadian Network for Respiratory Care would like to thank its member organizations and the countless individuals who have contributed their time, energy, and financial support towards the development of the CNRC CTE, CAE, CRE and CCE Certification process.

Sincerely

Heather Sharpe RN MN PhD CRE CTE

Chair, CNRC Certification Management Committee

Contents

Application Process	4
Certification	4
How to Apply — Two Easy Steps	5
After You Register Online	8
Special Accommodations for Taking the Examination	8
Preparing for the Examination	9
How Are the Examinations Developed?	9
What Are the Examinations Like?	9
How and When Should I Prepare for the Examination?	9
What Do I Need to be Admitted to the Examination?	11
What Happens on the Examination Day?	11
How is the Passing Score Set?	12
What Happens After the Examination?	12
Continuing Competency/Recertification Program	12
Sample Questions for Certification Examination	12
Independent Questions	15
Answers and Rationale	16



Application Process

CERTIFICATION

Eligibility

To be eligible to write the CNRC Asthma Educator, Respiratory Educator or COPD Educator Certification Examinations you must:

1 and **2** and **3**

Hold a degree or diploma in a recognized health care profession with a scope of practice that includes counselling.

FOR CAE:

Graduate from CNRC-approved Health Educator and Asthma Educator programs

FOR CRE:

Graduate from CNRC-approved Health Educator, Asthma Educator **AND** COPD Educator programs

OR Graduate from a CNRC-approved Respiratory Educator program

FOR CCE:

Graduate from a CNRC-approved COPD Educator program

FOR CTE:

Graduate from CNRC-accredited Health and Tobacco Education programs

Submit the required fee.

Examination Rewrite Policy

Persons who have sat for the examination and who have been unsuccessful twice, may write the examination for a third time. If unsuccessful a third time, successful completion of a

CNRC-approved tobacco, asthma, COPD, respiratory or health education program will be required prior to re-challenging the certification examination.

How to Apply

TWO EASY STEPS

You can register online for the CTE, CAE, CRE or CCE exams or COPD-only exam (for current CAEs) at www.cnrchome.net. If you have a disability and need special accommodations to take the examination, please notify CNRC about your specific needs when you apply, so that we can take appropriate measures when applicable. Special accommodation requests need to be approved by CNRC. Approval is based on specific guidelines and candidates requesting such accommodations will be contacted individually and approval will be granted on a case-by-case basis.

STEP 1

Apply to register for the exam online at www.cnrchome.net.

Please note that the name on the online application form will appear on your certificate.

Professional Degree(s)

List all professional degree(s) obtained, indicating the discipline (e.g., BScPharm, RT, RN, etc.).

Examination Options

Candidates must first identify which examination they wish to register for: the CTE, CAE, CRE or the COPD-only exam (for current CAEs) or the CCE exam (for US candidates).

Choice of Examination Language

Indicate whether you want to take your examination in English or French. As this is a computer-based exam, you will be able to choose your preferred language at the start of the exam. You will also be able to toggle between English and French throughout the exam.

Test Centres

Test centres are located at convenient locations across Canada. These include:

Alberta:

Calgary
Edmonton
Fort McMurray

(surcharge \$75)

Grande Prairie
Lloydminster
Medicine Hat
Red Deer

British Columbia:

Kelowna
Vancouver
Victoria

Manitoba:

Brandon
Winnipeg

New Brunswick:

Moncton
St. John

Newfoundland:

Corner Brook
St. John's

Nova Scotia:

Halifax

North West Territories/

Yukon:
Whitehorse, YK
Yellowknife, NT

PEI:

Charlottetown

Quebec:

Montreal

Saskatchewan:

Regina
Saskatoon

Ontario:

Barrie
Hamilton
Kingston
London
Mississauga
North Bay
Ottawa
Peterborough
Scarborough
Sudbury
Thunder Bay
Toronto –
Central
Toronto –
Durham Region
Waterloo
Windsor

Additional Test Centres

If there are sufficient candidates, additional writing centres may be established. Please indicate when you register your preferred choice of examination site.

US and International Test Centres

US and International centres will be established upon registration.

FOR CAE EXAM

Approved Asthma Educator Programs

Indicate the name of the asthma educator program, the month and year of graduation, and the city & province you took the course in.

Current Programs still operating:

- Lung Association Resp *Trec* (includes education and asthma)
- Pear Healthcare Health eLearning Education and Asthma Programs
- Quebec Respiratory Health Education Network

Programs Eligible (but no longer operating)

- Alberta Asthma Centre Professional Certification
- Ontario Pharmacists' Association/ Drug Information & Research Centre Asthma Patient Care
- The Michener Institute for Applied Health Sciences Asthma Educator Program
- Thompson Rivers University (formerly The University College of the Cariboo / "UCC/ProCAM Online")

International Programs

- Delphi HSA Inc. HSA Respiratory Educator Programs
- Dr. Soliman Fakeeh Hospital Respiratory Educator Certificate Program Saudi Arabia

FOR CTE EXAM

Please see the "Take on Tobacco" guide for the list of programs and requirements

Tobacco Education Workbook

- You may order a copy of the CNRC Tobacco Education Workbook for a cost of \$120 plus shipping. The workbook covers the tobacco education content (tobacco epidemic; tobacco use disorder and other substance use; tobacco control; assessment; interventions; pharmacological, complementary and alternative treatments; client centred approach; and tobacco programs and systems). The workbook details the content in a comprehensive way and also includes activities, quizzes and reflections.

FOR CRE, CCE AND COPD-ONLY EXAMS

Approved COPD and Respiratory Educator Programs

Indicate the name of both the asthma and COPD educator programs or respiratory educator program (combined asthma and COPD), the month and year of graduation, and the city & province you took the course in.

Current Programs still operating:

- Lung Association Resp *Trec* (includes Asthma *Trec* & COPD *Trec*)
- Pear Healthcare Health eLearning Education, Asthma and COPD Programs
- Quebec Respiratory Health Education Network

Programs Eligible

(but no longer operating)

- Ontario Pharmacists' Association/Drug Information & Research Centre Asthma/Respiratory Patient Care
- The Michener Institute for Applied Health Sciences Asthma & COPD Educator Programs
- Thompson Rivers University

Foundational Health Education Workbook

You may order a copy of the CNRC Foundational Health Education Workbook for a cost of \$110 plus shipping. The workbook covers the health education content (health promotion and education, communication, educational interventions, resource management, professional practice, and program evaluation). The workbook details the content in a comprehensive way and also includes activities, quizzes and reflections.

Statement of Understanding

Read the instructions regarding the confidentiality of individual information and the accuracy of your exam registration information. The Canadian Network for Respiratory Care is committed to protecting your privacy and safeguarding your personal information.

STEP 2

Pay Your Fees

The fees for your examination are outlined below, and must be paid in full with your application.

You will receive an emailed receipt after you register. Online credit card payments will be processed by PayPal.

Cheques or money orders in Canadian funds must be payable to the **Canadian Network For Respiratory Care** and mailed to the CNRC office. **No postdated payments will be accepted.** Electronic receipts will only be issued after the cheque or money order have been received and processed by the CNRC office.

FEES

Examination Fee: CAE, CRE & CCE

\$100 non-refundable application fee +
\$350 exam fee = **\$450.00**

Examination Fee: COPD-only

\$100 non-refundable application fee +
\$200 exam fee = **\$300.00**

Re-write Fee (all exams):

\$100 non-refundable application fee +
\$200 exam fee = **\$300.00**

Examination Fee: CTE

Hold a current CNRC credential:
\$100 non-refundable application fee +
\$250 exam fee = **\$350.00**

Do not hold a current CNRC credential:
\$100 non-refundable application fee +
\$350 exam fee = **\$450.00**

Withdrawing from the Certification Examination

If you decide to withdraw from the examination, please inform CNRC in writing (by email or by fax) as soon as possible. CNRC will acknowledge your withdrawal in writing. Candidates who withdraw from the examination or are found to be ineligible to write the examination (see page 4) will receive the following refunds:

REFUND POLICY

Withdrawal

Withdrawal requests must be received 30 days or more before the exam date. Refundable less \$100 application fee.

Postponement

Requests for postponement must be received 30 days or more before the exam date.

An exam may only be postponed once, and only to the next scheduled exam administration date. The fee for postponing is \$50.

Requests for postponement less than 30 days before the exam date will only be considered for medical issues and other exceptional circumstances. In addition to the postponement fee of \$50, additional fees may apply.

After You Register Online

Applications for certification are reviewed according to the CNRC eligibility requirements. Yardstick will send eligible candidates confirmation by email of examination eligibility, test centre information, and information about the examination approximately **two** weeks before the examination date. Programs will confirm with CNRC that all candidates have successfully completed the required programs. Programs will also verify your professional qualifications.

If you receive a letter of conditional eligibility, you must meet the conditions stated in the letter before the application deadline.

Candidates who do not meet the eligibility requirements will be notified of the specific reason(s) in writing. Please allow approximately **two** weeks for notification of your application status.

Special Accommodations for Writing the Examination

If you have a disability that could adversely affect your performance on the examination and may require some accommodation in taking the examination, it is important that you complete the appropriate request forms for examination accommodations. Contact CNRC for additional information about accommodations. The deadline for a request for a special accommodation is **April 27th, 2018**, in order to ensure that CNRC has sufficient time to determine whether the request can be granted. If accommodations are not requested in advance, we cannot guarantee that the accommodations will be available.

Preparing for the Exam

HOW ARE THE EXAMINATIONS DEVELOPED?

The CAE and CRE examinations are developed to measure an explicitly defined content area, which consists of the core curriculum of technical and teaching competencies in asthma or respiratory education. These core learning objectives and the specifications that outline the way they should be measured on the examination are based on the 2010 Canadian Network for Respiratory Care National Learning Objectives for Asthma Educators for the CAE exam and the 2010 Canadian Network for Respiratory Care National Learning Objectives for Respiratory Educators for the CRE exam and the 2012 Learning Objectives for COPD Educators for the CCE exam. These learning objectives have been developed by experts in the field. The purpose of the learning objectives is to describe how the examinations are developed. The CTE exam is based on the CNRC Foundational Health and Tobacco Education Competencies.

These examinations pass through several steps to ensure they are realistic, reflect current tobacco, asthma and respiratory education, and are professionally sound. Certified Tobacco or Respiratory Educators, comprised of a multidisciplinary group of healthcare professionals, working in different environments and regions across Canada provide the content expertise. Testing consultants facilitate the test development process and provide measurement expertise.

WHAT ARE THE EXAMINATIONS LIKE?

There are about 145 to 165 multiple-choice questions on the CTE, CAE, CRE and CCE exams (95–110 items for the COPD-only CRE exam for current CAEs). Each question has an introductory statement followed by four possible answers. These questions may appear as cases (i.e. an introductory text followed by three to six questions), or as independent questions (i.e. single questions unrelated to other questions).

Individuals with knowledge of tobacco or respiratory education created the questions to reflect the core learning objectives.

You will take the exam on a computer. The CTE, CAE, CRE and CCE examinations are 2 hours in length. The COPD-content CRE exam for current CAEs is 2½ hours in length.

HOW AND WHEN SHOULD I PREPARE FOR THE EXAMINATION?

We recommend that you prepare for your examination through systematic self-study or review. Organize your time so that you can prepare gradually, in the months and weeks leading up to the examination. Select the method that suits you – study independently or with a group of colleagues who are also writing the examination.

Some of the tools that you should use to prepare yourself for the exam include:

- The CNRC Foundational Health Education workbook
- Current asthma, COPD or tobacco guidelines

The following steps are suggestions to help you prepare for the examination.

Review the Sample Questions in this Booklet

The sample questions illustrate the types of questions found in the certification examination, and give an overall idea of how the questions may relate to day-to-day respiratory education. They also familiarize you with the question format.

What If I'm Uncomfortable with Examinations?

Understanding multiple-choice questions will allow you to effectively apply your asthma or respiratory education knowledge and skills to the testing situation. A multiple choice question is constructed so that only one option appears to be correct to someone who has mastered the subject. To someone who lacks a firm grasp of the subject, other options look equally plausible. The following suggestions may help you prepare and feel more comfortable on the examination day. Learn and use a few of these techniques.

Read the Questions Carefully

Read the question carefully and understand it. Use your asthma/respiratory education knowledge and skills to try to deduce the correct answer before looking at the choices.

- Concentrate on what is actually being asked and relate it to the data provided. Try to understand the client's health situation and the asthma/respiratory education that the client is likely to require.
- On the examination, each question has four possible answers. Select the answer that you think is correct, or the **best** of the four alternatives.
- Avoid reading too much into the question.
- In the introductory text of a case or in a question, use a highlighter or colored pen to underline the most important details to remember. Re-read the question before filling in your answer.

One Question at a Time

- Deal with each question separately. Try not to let a difficult question make you anxious when you read the next one.
- Limit your time on each question so you can finish the examination.
- If you don't know the answer to a question, make a note of it, skip it, and return to it later.

Consider Types of Questions

- Examination questions will relate to tobacco and respiratory education and will test certain technical and teaching competencies.
- Although you may not have experienced situations exactly like those on the certification examination, you should be able to apply the specialized knowledge and skills acquired while in your tobacco, asthma, COPD or respiratory education program.
- Try to prepare for questions that test your ability to recall information and facts, to apply principles and procedures to the tobacco or respiratory education process, and to use your judgment about tobacco or respiratory education.

Use the Process of Elimination

- If, after reading a question, you are unsure of the correct answer, try to eliminate the absolutely incorrect options.
- Focus on the key idea in the question.
- You can flag any questions you are unsure of and return to them at the end of the exam.

Guessing

- There is no penalty for guessing. You will not lose marks for an incorrect answer; use your experience to choose what you think is best or most correct.
- You can flag any questions you are unsure of and return to them at the end of the exam.

Changing Answers

- Be cautious when changing an answer. Do it only if you are confident that your new choice is correct.

WHAT DO I NEED TO BE ADMITTED TO THE EXAMINATION?

The following information is required in order to be admitted into the examination:

- Photo identification card (e.g. driver's license, health card or passport).
- Admissibility Letter that includes your name, address, candidate number, the examination title and date of administration and the address of the test centre. Your admissibility letter and candidate number are valid for one test only and will be emailed to you prior to the examination date.

NO SMOKING AND SCENTS POLICY

The examination test centres are no smoking areas. In addition, as some candidates may be sensitive to perfume or after-shave lotions, please refrain from wearing scents. Thank you.

WHAT HAPPENS ON EXAMINATION DAY?

The examination will take place on Friday, June 8th, 2018. Start times vary at the different centres. Please arrive **30 minutes early** for on-site registration before the session.

Note: Books, notes, calculators and other aids are **NOT** permitted in the examination room.

At each test centre, a proctor/invigilator is responsible for the fair and secure administration of the examination. The proctor will provide instructions to candidates and answer questions relating to the administration of the examination (but not about examination content). It is the responsibility of the invigilator to protect the security of the examination. Candidates are not permitted to remove notes from the examination room. Candidates who leave the examination room before completing the examination will not be permitted to return.

In addition to the proctor's instructions, there is a short demonstration on how to use the software. It is recommended that you take the time to take the practice test prior to starting your exam.

HOW IS THE PASSING SCORE SET?

CNRC sets the passing score by convening an Examination Committee. The Examination Committee establishes a score that represents the expected performance of entry-level asthma or respiratory educators. The passing score is established prior to the examination administration, based on the level of difficulty of the questions.

In addition to the expert ratings, a variety of relevant data is carefully considered to ensure that the standard that candidates will be required to achieve on the examination is fair and valid.

Your examination score will be compared against the established pass mark. If your score is equal to or higher than the pass mark, you will receive a “pass” result. If your score is lower than the pass mark, you will receive a “fail” result.

WHAT HAPPENS AFTER THE EXAMINATION?

The examinations are computer-scored by Yardstick. You will receive one point for each correct answer. You receive no points for omitted or double answers. Examination questions that do not meet statistical standards will not count toward your total score. Also, the examination may contain experimental questions that are being assessed for future use. Your answers to these questions will not count toward your score. Approximately six weeks after you take the certification examination, you will receive your result by mail. Your result will be reported as pass or fail.

RESULTS WILL NOT BE GIVEN OUT OVER THE TELEPHONE.

If you are successful on the certification examination, you will be granted the Certified Tobacco Educator (CTE) designation, Certified Asthma Educator (CAE) designation, Certified Respiratory Educator (CRE) designation or the Certified COPD Educator (CCE) designation depending on which examination you successfully completed.

If you are not successful on the certification examination, you may retake the examination at the next administration.

CONTINUING COMPETENCY/ RECERTIFICATION PROGRAM

CTEs, CAEs, CREs and CCEs must maintain their CTE, CAE, CRE or CCE designation every five years through a Recertification program that demonstrates continuing competency. Successful CTE, CAE, CRE or CCE candidates will be advised of details of the program.



All correspondence should be directed to:

Canadian Network for Respiratory Care

16851 Mount Wolfe Road
Caledon, ON L7E 3P6

Phone: **905 880-1092**

Fax: **905 880-9733**

E-Mail: **info@cnrhome.net**

Sample Questions

FOR CERTIFICATION EXAMINATION

The following questions are examples of types of questions likely to appear on the CNRC CAE, CRE or CCE Certification Examinations. (*Sample CTE exam items can be found in the CTE Exam Study Group on TimedRight.*) Answers and rationales are on page 16.

Questions 1 to 6 refer to this case.

CASE

Tim, 11 years old with exercise-induced bronchospasm, states, "I hate having asthma. I can't do anything!" After further questioning, the asthma educator discovers that Tim was told by his hockey coach that he would be cut from the team if he could not get into better shape.

1. What is the most appropriate response to give Tim?

- a** "That must be hard for you. Have you and your Mom/Dad discussed your asthma with your coach?"
- b** "I'm sorry to hear that you can't play hockey anymore Tim."
- c** "Maybe you just need to work harder at practice Tim. Lots of athletes have asthma and can keep up."
- d** "I bet you are a great hockey player Tim. I'm sure it will work out."

2. As a result of Tim's diagnosis, what should the asthma educator recommend to Tim prior to playing hockey?

- a** Begin with practising sprints to increase his tolerance.
- b** Ensure adequate fluid intake.
- c** Use a β 2-agonist medication 15 minutes before any exercise.
- d** Have preventer medicine available in case he experiences asthma symptoms.

3. What other factors may influence Tim's physical ability to play hockey?

- a** Ambient air temperature, the arena air quality, and aerobic fitness level
- b** Arena air quality, parent's concern, and aerobic fitness level
- c** Aerobic fitness level, Tim's fear of breathlessness, and ambient air temperature
- d** His coach's knowledge about asthma, aerobic fitness level, and arena air quality

4. What is the best approach for the asthma educator to use in addressing Tim's psychosocial needs?

- a** Explore with Tim his feelings and encourage him to become involved in a peer asthma group.
- b** Suggest that most youth outgrow exercise-induced asthma so he will be able to play hockey later.
- c** Boost Tim's self-esteem by telling him that he is a good hockey player and that his medications will help.
- d** Suggest that if he slows down during practice his asthma will not interfere with his game.

5. The asthma educator and Tim agree that the educator should meet with Tim's coach to discuss his exercise-induced asthma. Which of the following statements is the most appropriate for the educator to use when speaking to Tim's coach?

- a** "Tim's problem is related to his asthma and he should not be penalized because of this."
- b** "I would like to discuss Tim's exercise induced asthma with you and ways we could try to optimize his performance."
- c** "Tim's self-esteem would be enhanced if you allowed him to have as much ice time as possible during a game."
- d** "When Tim reaches adolescence his exercise-induced asthma should improve allowing him to increase his physical activity level."

6. The asthma educator has discussed exercise-induced asthma with Tim. Which of the following statements best indicates that Tim now has an accurate understanding of how to manage his asthma?

- a** "I should work on warming up more before each practice."
- b** "I should use my Ventolin 'puffer' twice a day to prevent my breathing problem."
- c** "I think I need to practice more in order to play a better game."
- d** "I need to drink less water during practice in order to keep my airways dry."

END OF CASE



Independent Questions

Questions 7 to 12 do not refer to a case.

7. Why should respiratory viral infections be monitored closely in individuals with asthma?

- a** They decrease air way hyperresponsiveness.
- b** They require treatment with antibiotics.
- c** They mainly affect people with allergies.
- d** They cause airway inflammation.

8. Clients with asthma should be assessed by the educator at every follow-up visit. What should the assessment include?

- a** Symptom pattern and frequency, β 2-agonist use, and aggravating and alleviating factors
- b** β 2-agonist use, family history, and physical examination
- c** Aggravating and alleviating factors, need for immunotherapy, and family history
- d** β 2-agonist use, symptom pattern and frequency, and need for skin testing

9. Which of the following statements is correct regarding the importance of environmental control in asthma?

- a** Reducing exposure to indoor fungi can prevent asthma symptoms.
- b** Indoor air-cleaning devices effectively reduce house dust mite exposure.
- c** Humidity within the home should be kept above 50%.
- d** Skin testing replaces the need for a detailed history of allergen exposures.

10. The client's commitment to learning how to manage their asthma is an example of which type of factor influencing behaviour change?

- a** Predisposing
- b** Participating
- c** Enabling
- d** Reinforcing

11. Susan, 23 years old, a university student, returns to the clinic with worsening symptoms of asthma. She states she is frustrated that, despite her objections, her roommate has acquired a cat. Which of the following interpersonal skills is most appropriate for the educator to use?

- a** Active listening
- b** Sympathy
- c** Repetition
- d** Silence

12. According to the Canadian Asthma Guidelines, what minimum percentage of diurnal variation in peak expiratory flow is one of the required measurements to confirm the diagnosis of asthma?

- a** 5%
- b** 10%
- c** 15%
- d** 20%

END OF INDEPENDENT QUESTIONS



Answers & Rationale

Question Number	Correct Answer	Rationale
1	a	The client should be able to communicate expectations, anxieties, and any problems they are experiencing. This option demonstrates empathy by paraphrasing and seeking additional information to further understand possible solutions.
2	c	β2-agonist is the treatment of choice for exercise-induced asthma.
3	a	Only those factors that influence Tim's physical ability are correct.
4	a	By identifying Tim's perceptions of his asthma, the educator is better able to implement appropriate interventions. Utilizes social cognitive theory.
5	b	Facilitation is one of the 11 principles of health education and provides a means for patients to take action or reduces barriers to action tied to enabling factors.
6	a	Warm up is an important preventative measure for exercise-induced asthma.
7	d	Viral infections assist the inflammatory response and cause increased asthma symptoms that can often last for weeks.
8	a	Ongoing client monitoring (follow-up) need not include: family history, physical exam, need for immunotherapy or skin testing, but should focus on symptom control and response to treatment.
9	a	Reducing exposure to aeroallergens that the individual with asthma is sensitive to may be effective in decreasing asthma symptoms.
10	a	Examples of predisposing factors include: knowledge, attitudes, beliefs, values, expectations, and confidence.
11	a	Active listening is the best principle of effective communication to apply in this situation in order to elicit the client's feelings.
12	d	Diagnosis cannot occur with less than 20% variability in diurnal variation of peak flow.

References

- Becker, A. (Ed.). (2000). *The asthma educator's guide*. North York, ON: Canadian Network For Asthma Care.
- Boulet, L.-P., et al. (2001). *What is new since the last (1999) Canadian Asthma Consensus Guidelines?* Canadian Respiratory Journal, 8(Suppl. A), 1A - 45A.
- Boulet, L.-P., Becker, A., Bérubé, D., Beveridge, R., & Ernest, P. (1999). *Summary of recommendations from the Canadian Asthma Consensus Report, 1999*. Canadian Medical Association Journal, 161(11 Suppl.), S1-S12.
- Boulet, L.-P., Chapman, K.R., & Green, L.W. (1994). *Asthma education*. Chest, 106(4, Suppl.), 184S-194S.
- Canadian Network For Asthma Care. (1996). *Proceedings of the 2nd national conference on asthma and education*. Canadian Respiratory Journal, 3(Suppl. A), 1A-47A.
- Ernst, P., Fitzgerald, J. M., & Spier, S. (1996). *Canadian asthma consensus conference: Summary of recommendations*. Canadian Respiratory Journal, 3(2), 89-100.
- Green, L. W. & Frankish, C. J. (1994). *Theories and principles of health education applied to asthma*. Chest, 106(4, Suppl.), 219S-230S.
- National Institute of Health. (1995). *Asthma management and prevention: A practical guide for public health officials and health care professionals* (NIH Publication No. 96-3659A). Bethesda, MD: Author.