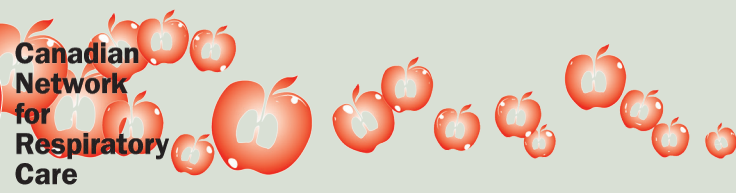


Réseau
canadien
pour
les soins
respiratoires



Canadian
Network
for
Respiratory
Care



National Learning Objectives for Respiratory Educators



National Learning Objectives for Respiratory Educators

The Respiratory Educator will be able to achieve the following objectives.

Performance objectives, denoted by the letter B, will be evaluated within the educator programs.

Cognitive Objectives

Asthma definition, epidemiology, pathogenesis and pathophysiology.

- 1. Define asthma.**
- 2. Describe the impact of asthma on society, and the individual and family in terms of:**
 - a) prevalence,
 - b) morbidity,
 - c) mortality,
 - d) economic costs,
 - e) psychological functioning,
 - f) social functioning,
 - g) quality of life, and
 - h) family life.
- 3. Explain how family history and personal history determine the natural history of asthma in an individual.**
- 4. Explain the pathogenesis of asthma.**
- 5. Explain the pathophysiology of asthma.**
- 6. Explain the relevance of asthma triggers:**
 - a) aeroallergens,
 - b) tobacco smoke,
 - c) viral respiratory infections,
 - d) air pollutants,
 - e) occupational sensitizers,
 - f) medications, and
 - g) physical and emotional factors.
- 7. Describe the relationship of asthma to:**
 - a) rhinitis,
 - b) sinusitis,
 - c) gastroesophageal reflux,
 - d) atopic dermatitis, and
 - e) food allergy.
- 8. Describe exercise-induced bronchoconstriction.**
- 9. Discuss the effect of the menstrual cycle on asthma.**
- 10. Explain the effect of:**
 - a) pregnancy on asthma, and
 - b) asthma on pregnancy.
- 11. Differentiate between occupational asthma (OA) and work-exacerbated asthma (WEA).**

Chronic Obstructive Pulmonary Disease definition, epidemiology, pathogenesis and pathophysiology

11. **Define chronic obstructive pulmonary disease.**
12. **Describe the impact of COPD on society, and the individual and family in terms of:**
 - a) prevalence,
 - b) morbidity,
 - c) mortality,
 - h) economic costs,
 - i) psychological functioning,
 - j) social functioning,
 - k) quality of life, and
 - e) family life.
13. **Explain the pathogenesis of chronic obstructive pulmonary disease.**
14. **Explain the pathophysiology of chronic obstructive pulmonary disease.**
15. **Explain the risk factors for chronic obstructive pulmonary disease:**
 - a) host,
 - b) environmental, and
 - c) other
16. **Describe alpha-1-antitrypsin deficiency.**
17. **Discuss the non-pulmonary manifestations of alpha-1-antitrypsin deficiency.**

18. **Discuss the following related to chronic obstructive pulmonary disease:**
 - a) Systemic manifestations,
 - b) Common co-morbidity,

Asthma Diagnosis and Evaluation

19. **Identify signs and symptoms that are indicative of asthma.**
- 20A. **Specify the essential components of a client history for asthma.**
- 20B. **Demonstrate how to take a client history.**
21. **Describe the components of a physical examination for asthma.**
22. **Interpret the findings of a physical examination of a person with asthma.**
23. **Explain the role of the following in diagnosing or evaluating asthma:**
 - a) lung function tests,
 - b) allergy assessment,
 - c) additional investigations, and
 - d) pharmacotherapy.
24. **Differentiate among the lung function tests that may be used to help confirm an asthma diagnosis.**

25. **Distinguish between asthma severity and asthma control.**
26. **Assess the severity of a client's asthma.**
- 27A. **Explain:**
- peak expiratory flow (PEF),
 - how to monitor PEF, and
 - how to use a Peak Flow Meter.
- 27B. **Demonstrate how to use a peak flow meter.**
28. **Interpret peak expiratory flow measurements.**
29. **Explain spirometry assessment in terms of:**
- indications,
 - interpretation of results (FEV₁, FVC, FEV₁/FVC), and
 - quality control.
30. **Explain hyperresponsiveness testing in terms of:**
- indications, and
 - interpretation of results.
31. **Explain:**
- how skin-testing is performed in an allergy assessment, and
 - the results of skin testing.
32. **Describe differential diagnoses for children and adults that are relevant to asthma.**
33. **Explain the role of the following in the diagnosis of work-related asthma:**
- occupational history,
 - serial peak expiratory flow measurement,
 - serial methacholine challenge,
 - immunological assessment (skin prick test, in vitro specific IgE assay), and
 - specific inhalation challenge (SIC).

Chronic Obstructive Pulmonary Disease Diagnosis and Evaluation

34. **Identify signs and symptoms that are indicative of chronic obstructive pulmonary disease.**
- 35A. **Specify the essential components of a client history for chronic obstructive pulmonary disease.**
- 35B. **Demonstrate how to take a client history.**
36. **Determine the components of a physical examination for chronic obstructive pulmonary disease.**
37. **Interpret the findings of a physical examination of a person with chronic obstructive pulmonary disease.**

38. **Explain the role of the following in diagnosing or evaluating chronic obstructive pulmonary disease:**

- a) pulmonary function tests,
- b) pharmacotherapy,
- c) walk test
- d) arterial blood gases,
- e) oximetry and
- f) chest x-ray.

39. **Explain methods for assessing dyspnea.**

40. **Assess the severity of a client's chronic obstructive pulmonary disease.**

41. **Explain spirometry assessment in terms of:**

- a) indications,
- b) interpretation of results (FEV₁, FVC, FEV₁/FVC, peak expiratory flow), and
- c) quality control.

42. **Examine alpha-1-antitrypsin deficiency in terms of:**

- a) targeted testing,
- b) diagnostic tests, and
- c) characteristics of the associated chronic obstructive pulmonary disease compared with the chronic obstructive pulmonary disease caused by environmental factors.

43. **Describe the clinical differences between asthma and chronic obstructive pulmonary disease.**

44. **Describe the features of asthma and chronic obstructive pulmonary disease coexisting in a given individual.**

45. **Identify differential diagnoses for chronic obstructive pulmonary disease.**

46. **Discuss the impact of sleep apnea on chronic obstructive pulmonary disease.**

Asthma Management

Asthma control

47. **Discuss the criteria that indicate asthma control.**

48. **Assess for indicators of loss of control of asthma.**

49. **Examine the continuum approach in asthma management.**

Self-management

50. **Explain the goal of client self-assessment.**

51A. **Explain how to use a diary in monitoring asthma control.**

51B. **Demonstrate how to complete a client diary form.**

52. **Interpret a diary as to whether asthma control is acceptable.**

53. **Explain the purpose of a written action plan.**

54. **Explain the relationship between the client diary and written action plan.**

55. **Describe the components of an appropriate written action plan.**

66A. **Describe how to use a written action plan.**

56B. **Demonstrate how to teach a client to use a written action plan.**

57. **Explain how to manage asthma during:**
a) the menstrual cycle, and
b) pregnancy.

58. **Explain how to manage exercise-induced bronchoconstriction.**

Environmental control

59. **Counsel on environmental control measures used in asthma management.**

Immunotherapy

60. **Examine the role of immunotherapy in asthma management.**

Alternative Therapies

61. **Discuss the role of alternative therapies in the management of asthma.**

Acute Asthma

62. **Assess acute asthma in emergency care.**

63. **Explain how to treat acute asthma in emergency care.**

Work-Related Asthma

64. **Describe primary and secondary prevention of work-related asthma.**

65. **Explain how to manage work-related asthma.**

Follow-up

66A. **Explain:**
a) the importance of follow-up, and
b) how to conduct an effective follow-up visit.

66B. **Perform a follow-up visit.**

67. **Determine the circumstances that warrant referral to:**
a) a specialist, and
b) other health care professionals.

Chronic Obstructive Pulmonary Disease Management

Self-Management

68. **Explain the purpose of a plan of action for chronic obstructive pulmonary disease.**
69. **Describe the components of an appropriate plan of action.**
- 70A. **Describe how to use a plan of action for a client with chronic obstructive pulmonary disease.**
- 70B. **Demonstrate how to teach a client to use an action plan or plan of action.**
71. **Examine the comprehensive approach to the management of chronic obstructive pulmonary disease.**
- 72A. **Examine strategies to assist clients to cope with chronic obstructive pulmonary disease:**
- a) physiological factors (dyspnea, fatigue, sleep disturbance, exercise limitation),
 - b) psychological factors (anxiety, depression, fear), and
 - c) activities of daily living.
- 72B. **Demonstrate:**
- a) pursed lip breathing technique,
 - b) diaphragmatic breathing,
 - d) controlled cough and forced expiration technique, and
 - e) relaxation techniques.
73. **Evaluate clients' need for nutritional intervention.**
74. **Examine the benefits of exercise training in chronic obstructive pulmonary disease.**
75. **Apply the PLISSIT model to address sexuality with clients with chronic obstructive pulmonary disease.**

Smoking Cessation

76. **Explain the importance of smoking cessation:**
- a) in the prevention of chronic obstructive pulmonary disease, and
 - b) in the management of chronic obstructive pulmonary disease.
77. **Assess the client's motivation to quit smoking using models of behaviour change.**
78. **Distinguish among the pharmacological aids to smoking cessation.**
79. **Apply counseling strategies to assist clients to quit smoking.**

Pulmonary Rehabilitation

- 80. **Identify the components of pulmonary rehabilitation programs.**
- 81. **Analyze the effectiveness of interventions used in rehabilitation.**

Oxygen Therapy

- 82. **Examine the role of oxygen therapy in the management of chronic obstructive pulmonary disease:**
 - a) define supplemental long-term oxygen therapy (LTOT),
 - b) examine the indications for LTOT,
 - c) describe the tests used to assess the need for LTOT,
 - d) examine the benefits of LTOT,
 - e) describe the oxygen equipment which is used for LTOT,
 - f) discuss choice of equipment which is best suited for client needs and lifestyle,
 - g) discuss safety factors concerning oxygen use, and
 - h) examine implications regarding oxygen use with air travel.

Antitrypsin Replacement Therapy

- 83. **Examine the role of antitrypsin replacement therapy in the management of alpha-1-antitrypsin deficiency lung disease.**

Noninvasive Mechanical Ventilation

- 84. **Explain the role of noninvasive mechanical ventilation in acute exacerbation of chronic obstructive pulmonary disease.**

Surgical Interventions

- 85. **Discuss surgical options for clients with chronic obstructive pulmonary disease:**
 - a) lung volume reduction, and
 - b) lung transplantation.

Alternative Therapies

- 86. **Discuss the role of alternative therapies in the management of chronic obstructive pulmonary disease.**

Acute Exacerbations of COPD

- 87. **Define acute exacerbation of chronic obstructive pulmonary disease (AECOPD).**
- 88. **Explain prevention strategies that may reduce the frequency of acute exacerbations of chronic obstructive pulmonary disease.**
- 89. **Assess for acute exacerbation of chronic obstructive pulmonary disease.**
- 90. **Explain how to manage acute exacerbation of chronic obstructive pulmonary disease.**

End of Life and Palliative Care

- 91. **Describe what is meant by end-of-life care planning.**
- 92. **Describe what is meant by advance directive.**
- 93. **Discuss the role of palliative care in end-stage chronic obstructive pulmonary disease.**
- 94. **Examine the team approach to end-of-life care planning.**

Pharmacotherapy for Asthma and/or Chronic Obstructive Pulmonary Disease

- 95. **Identify generic and trade names of medications.**
- 96. **Classify medications according to their action.**
- 97. **Explain the indications for the medications.**
- 98. **Describe the side effects of the medications.**
- 99. **Identify the methods of administration of the medications.**
- 100A. **Counsel clients on the proper method of use and maintenance of medication delivery devices.**
- 100B. **Demonstrate how to use and maintain medication delivery devices.**
- 101. **Identify which inhaled delivery devices are used with specific medications.**
- 102. **Establish which inhaled delivery devices are best suited to clients of different ages and varying needs.**

Education

Education

- 103. **Explain the benefits of client education.**
- 104A. **Analyze verbal and nonverbal communication in the educator-client relationship.**
- 104B. **Demonstrate effective verbal and nonverbal communication in the educator-client relationship.**
- 105. **Describe models and theories commonly used in health education, including the Health Belief Model, PRECEDE Model, Transtheoretical Model, Social Cognitive Theory and Self-efficacy Theory.**

106. **Distinguish the general characteristics that may influence learning among:**

- a) preschool children (3-4 years),
- b) young school-age children (5-8 years),
- c) older school-age children (9-12 years),
- d) adolescents (13-18 years),
- e) adults (19-65 years), and
- f) seniors (> 65).

107. **Distinguish the learning styles of:**

- a) preschool children (3-4 years),
- b) young school-age children (5-8 years),
- c) older school-age children (9-12 years),
- d) adolescents (13-18 years),
- e) adults (19-64 years), and
- f) seniors (> 65 years).

108. **Explain predisposing, enabling and reinforcing factors that influence behaviour.**

109. **Differentiate among educational interventions to address predisposing, enabling and reinforcing factors.**

110. **Describe group process in the context of providing group education.**

111A. **Apply effective instructional practices for individuals and groups.**

111B. **Demonstrate effective instructional practices for individuals and groups.**

112. **Apply the principles of health education.**

113. **Use motivational interviewing to facilitate behavior change.**

114A. **Utilize effective teaching strategies appropriate for:**

- a) preschool children (3-4 years),
- b) young school-aged children (5-8 years),
- c) older school-age children (9-12 years),
- d) adolescents (13-18 years),
- e) adults (19-65 years),
- f) seniors (> 65), and
- g) groups.

114B. **Demonstrate effective teaching strategies for individuals and groups.**

115. **Explain how to educate clients who have special needs or difficulty with self-management.**

116. **Identify the factors that an educator would evaluate to determine if a client is able to manage her/his respiratory illness.**

117A. **Use a comprehensive education process for individuals and groups:**

- a) assess learning needs, and factors that influence learning and behavior change,
- b) determine learning outcomes in collaboration with clients,
- c) design a plan for an education intervention,
- d) implement an education plan, and
- e) evaluate client learning outcomes (impact evaluation).

117B. **Demonstrate the education process for individuals and groups.**

118. Evaluate health education resources available in the community.

119. **Design a comprehensive education program.**

Educator and Program Evaluation

120. **Evaluate the educator's skills and abilities.**
121. **Evaluate the education program**
- a) Process (e.g., program delivery), and
 - b) Outcomes (e.g., program effectiveness).

Professionalism

122. Illustrate professional conduct:
- a) maintain professional competency,
 - b) appraise the literature for relevance and credibility,
 - c) adhere to evidence-based practice or best practice guidelines,
 - d) observe professional boundaries,
 - e) accept accountability for one's own actions,
 - f) acknowledge one's personal and professional limitations, and
 - g) maintain decorum.
123. **Apply ethical principles when conducting client education, including:**
- a) beneficence,
 - b) non-maleficence,
 - c) respect for autonomy,
 - d) justice,
 - e) confidentiality,
 - f) respect for the values and beliefs of others, and
 - g) respect for cultural differences.

124. **Examine the team approach to respiratory illness management in terms of:**

- a) the goal,
- b) benefits and barriers,
- c) role and responsibilities of the educator,
- g) role and responsibilities of other health care professionals,
- e) role and responsibilities of clients, and
- f) effective strategies.

125. **Advocate for health education, resources and services for people with respiratory illness.**

Performance Objectives

These performance objectives, which are denoted by the letter B, correspond with the cognitive objectives, which are denoted by the letter A. The performance objectives are to be evaluated within the educator programs.

Diagnosis and Evaluation

- 20B. **Demonstrate how to take a client history.**

- 27B. **Demonstrate how to use a peak flow meter.**

- 35B. **Demonstrate how to take a client history.**

Management

- 51B. **Demonstrate how to complete a client diary form.**
- 56B. **Demonstrate how to teach a client to use a written action plan.**
- 66B. **Perform a follow-up visit.**
- 70B. **Demonstrate how to teach a client to use a written action plan.**
- 72B. **Demonstrate:**
- a) pursed lip breathing technique,
 - b) diaphragmatic breathing,
 - d) controlled cough and forced expiration technique, and
 - e) relaxation techniques.
- 101B. **Demonstrate how to use and maintain medication delivery devices**

Education

- 104B. **Demonstrate effective verbal and nonverbal communication in the educator-client relationship.**
- 111B. **Demonstrate effective instructional practices for individuals and groups.**
- 114B. **Demonstrate effective teaching strategies for individuals and groups.**
- 117B. **Demonstrate the education process for individuals and groups.**