EMERGENCY NURSE PRACTITIONER

CERTIFICATION REVIEW /
CLINICAL UPDATE
CONTINUING EDUCATION COURSE

www.NPcourses.com
Barkley & Associates
8235 Santa Monica Blvd., Suite 201
West Hollywood, CA 90046
On behalf of the company, welcome to a Barkley & Associates Certification Review/Clinical Update Continuing Education Course. Please take a moment to read the following information to maximize the benefits involved in taking one of our courses.

Barkley & Associates’ BLITZ courses are specifically designed to assist you in organizing a large body of information to help identify your learning needs so that when you return home, time can be efficiently spent focusing on areas of weakness. It is important to remember, “we tend to study what we already know and/or are familiar with.” Therefore, we hope that our outlined approach to covering material will help you highlight both content which you have mastered, as well as specific areas to remediate.

When preparing for certification exams, it is helpful to remember that all certification bodies are required to document the answers and/or rationales for correct answers to questions from at least two expert sources within a particular field. Therefore, time should be spent reviewing MAJOR, NATIONAL standards of care, developmental milestones, national health promotion guidelines, and the like rather than obscurely found disorders or controversial treatments and therapies. Every effort has been made to structure our course content to match exam content outlines by each certification body. There is no need to take copious notes. Rather, simply highlight and make notes on your handouts regarding areas of weakness to specifically revisit once you are studying alone at home.

The following tips have also been instrumental in our > 99% pass rate on ALL national certification exams! We strongly recommend that you follow each of these recommendations to maximize your success:

- Study and master OUR material FIRST – before concentrating on additional notes, texts or question/answer books. The content outlined in our handouts is absolutely essential information to know.
- How do you know that you know what you know? You must be asked! Therefore, quiz with a partner and be expected to clearly verbalize answers to your partner’s questions. Familiarity with the subject matter can be very dangerous when taking a multiple-choice exam under stress. If the correct answer comes out of your mouth when being questioned, you know that you have mastered the material. If your response is not clearly correct, practice and polish until there can be no confusion that you understand the material as evidenced by verbally answering questions correctly.
- Do not delay taking your exam for months following the review course. Rather, plan a specific time frame for studying and take your exam as soon as you possibly feel confident.

We are very pleased to have the opportunity to serve you and hope you enjoy the educational experience we have planned. Thank you for choosing us as your certification review/clinical update continuing education company. We wish you the most success!

With kindest regards,

Thomas W. Barkley, Jr., PhD, ACNP-BC, ANP, FAANP
President
Notice

Emergency nursing and the practice of emergency nurse practitioners is an ever-changing field. Standard safety precautions must be followed, but as new research and clinical experience broaden our knowledge, changes in treatment and drug therapy may become necessary or appropriate. Readers are advised to check the most current product information provided by the manufacturer of each drug to be administered to verify the recommended dose, the method and duration of administration and contraindications. It is the responsibility of the licensed prescriber, relying on expertise and knowledge of the patient, to determine dosages and the best treatment for each individual patient. Neither Barkley & Associates nor any contributing authors assume any responsibility for any injury and/or damage to persons or property arising from this publication.

Thomas W. Barkley, Jr., PhD, ACNP-BC, ANP, FAANP
President
Barkley & Associates, Inc.
EMERGENCY NURSE PRACTITIONER

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1. Emergency Nurse Practitioner Board Certification Examination


150 Questions (135 Scored + 15 Practice)

2. ENP Examination Testing Domains

<table>
<thead>
<tr>
<th>Domain I – Domains</th>
<th>% of ENP Exam</th>
<th>% of Scored Items (135 items)</th>
<th># of Pretest Items (15 items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Medical Screening</td>
<td>20%</td>
<td>27</td>
<td>3</td>
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<tr>
<td>2. Medical Decision Making/Differential Diagnosis</td>
<td>27%</td>
<td>36</td>
<td>4</td>
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<tr>
<td>3. Patient Management</td>
<td>31%</td>
<td>42</td>
<td>5</td>
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<tr>
<td>4. Patient Disposition</td>
<td>14%</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>5. Professional, Legal, and Ethical Practices</td>
<td>8%</td>
<td>11</td>
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</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td>135</td>
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<table>
<thead>
<tr>
<th>Domain II – Patient Conditions</th>
<th>% of ENP Exam</th>
<th>% of Items (135 items)</th>
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<tbody>
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<td>Thoracic – Respiratory Disorders</td>
<td>15%</td>
<td>20</td>
</tr>
<tr>
<td>Cardiovascular Disorders</td>
<td>12%</td>
<td>16</td>
</tr>
<tr>
<td>Dermatologic/Soft Tissue Disorders</td>
<td>8%</td>
<td>11</td>
</tr>
<tr>
<td>Abdominal and Gastrointestinal Disorders</td>
<td>14%</td>
<td>19</td>
</tr>
<tr>
<td>Musculoskeletal Disorders (Non-Traumatic)</td>
<td>11%</td>
<td>15</td>
</tr>
<tr>
<td>Renal/Genitourinary Disorders</td>
<td>8%</td>
<td>11</td>
</tr>
<tr>
<td>Nervous System Disorders</td>
<td>6%</td>
<td>8</td>
</tr>
<tr>
<td>Head, Ear, Eye, Nose, and Throat Disorders</td>
<td>11%</td>
<td>15</td>
</tr>
<tr>
<td>Traumatic Disorders</td>
<td>8%</td>
<td>11</td>
</tr>
<tr>
<td>Psychobehavioral and Other Disorders</td>
<td>7%</td>
<td>9</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td>135</td>
</tr>
</tbody>
</table>

3. 3 KEYS to SUCCESS:

- KNOW your Manual: Let go of everything else! Know differences and details WELL!
- Get a QUIZ Partner: Must VERBALIZE this information to know you are set!
- Do not Delay: Set a date/time frame and take the exam with CONFIDENCE!
Asthma: Characterized by an increased responsiveness of the trachea and bronchi to various stimuli, and manifested by widespread narrowing of the airways; hypertrophy of smooth muscle, mucosal edema and hyperemia, thickening of epithelial basement membrane, hypertrophy of mucus glands, acute inflammation, and plugging of airways by thick, viscid mucus.

Causes:
1. Most allergens are encountered indoors
   a. Dust Mites
   b. Pets
   c. Cock roaches
   d. Molds
   e. Tobacco Fumes
2. Exercise
3. Pollutants

Signs and Symptoms:
1. Respiratory distress at rest
2. Difficulty speaking in sentences
3. Use of Accessory muscles
4. RR ≥ 28 bpm, Pulse > 110 bpm
5. Pulsus paradoxus > 12 mmHg
6. Cough
7. Difficulty speaking
8. Chest tightness
9. May or may not have wheezing
   a. Inspiratory Wheezes
   b. Expiratory Wheezes
10. Ominous Signs include:
    a. Fatigue
    b. Paradoxical chest/abdominal movement
    c. Inability to lay back (recumbent)
    d. Cyanosis
    e. Absent breath sounds

Laboratory/Diagnostics:
1. May have slight elevation of WBC
2. PFTs abnormal
   a. FEV₁ < 30% predicted value, or does not increase to 40% predicted value after 1 hour vigorous therapy – Must be Hospitalized
Thoracic-Respiratory Disorders

b. Peak Flow < 60 liters/minute initially or does not improve to >50% predicted after 1 hour treatment - Must be Hospitalized
3. Initially respiratory acidosis, with mild hypoxemia
   a. $\text{Pco}_2 > 45$
4. Chest X-ray
   a. May not be of value
      i. Hyperinflation
      ii. Looking for other causes

Management of Asthma
1. Supplemental $\text{O}_2$ at 2-3 L/min
2. In mild to moderate, ABG not necessary if $\text{SaO}_2 > 90\%$ by pulse ox
3. In severe attacks, check initial ABG
4. Adequate hydration by oral or intravenous routes
5. Inhalation sympathomimetics:
   a. Metaproterenol sulfate (Alupent) (0.3 cc in 5% sol) in 2.2 ml NSS q 30-60 min
   b. Albuterol sulfate (Proventil, Ventolin) 0.3 cc in 3 ml NSS q 30-60 min
6. Corticosteroids in patients who do not respond to sympathomimetics
   a. Methylprednisolone 60-125 mg IV X 1 then 20 mg IV q4-6 hrs until attack broken
7. Parenteral sympathomimetics in patients unable to cooperate
   a. Aqueous epinephrine 1:1000 0.1-0.5 ml SQ every 30-90 min may repeat X 4
8. Anticholinergic (Atrovent) MDI 2-6 puffs q 4-6 hours

Pediatric Management
1. Mild
   a. Albuterol 0.15 mg/kg
   b. Consider oral prednisone 2 mg/kg, or dexamethasone 0.6 mg/kg
2. Moderate
   a. Continuous albuterol neb for 1 hour
   b. Combine albuterol with ipratropium
   c. IV fluid bolus 20 cc/kg
   d. Methylprednisolone 1 – 2 mg/kg IV
3. Severe
   a. Same as Moderate
   b. Magnesium sulfate 75 mg/kg (max 2.5 gram) over 20 minutes

Status Asthmaticus: Term used to describe severe, acute asthma presenting in an unremitting, poorly responsive, life threatening manner. Clinical findings are not reliable indicators of the severity of asthma

Management
1. Oxygen
2. IV D5 ½ NS
3. Inhalation and parenteral sympathomimetics
4. Methylprednisolone 60-125 mg or hydrocortisone 300 mg IV immediately
5. Consider anticholinergic (Atrovent)
6. Monitor pulse ox continuously
7. Monitor ABG q 10-20 minutes
8. Intubate

**Bronchiolitis:** Lower respiratory tract infection in children ≤ 2 years. Usually caused by Respiratory Syncytial Virus (RSV).

**Signs/Symptoms**
1. Seasonal
   a. November – April
2. Coughing
3. Coarse Wheezing
4. Fever
5. Congestion/Rhinorrhea
6. Increased work

**Diagnostics:**
1. RSV swab
2. Chest X-ray may be normal. Get if suspect another cause

**Treatment:**
1. IV fluid to maintain hydration
   a. Unable to take PO fluids – due to work of breathing
      i. Albuterol via nebulizer
2. If hypoxic
   a. \( \text{O}_2 \) Via NC
   b. More severe - Vapotherm
3. Corticosteroids are contraindicated

**Disposition:**
1. Admit
   a. Hypoxic on room air
   b. Apneic episodes
   c. Resp Rate ≥ 70 bpm
   d. Infants if they requiring frequent suctioning
   e. Dehydration
   f. Unable to maintain oral intake
   g. Poor social circumstances
2. Normal SaO₂ ok to send home.
   a. For infants, give good instructions on how to suction
   b. Give good follow up/return instructions
      i. Early presentations (Day 1-2) are usually OK to discharge, but may become worse, and may need to be admitted
      ii. Symptoms worse on days 3-5

**Pertussis**
1. Gram-negative coccobacillus – *Bordetella pertussis*
2. Spread by droplets
3. Incubation period 7-10 days
4. Check immunization status
Thoracic-Respiratory Disorders

Signs/Symptoms: 3 Phases
1. Catarrhal
   a. Nasal congestion that last 1-2 weeks – similar to common cold
2. Paroxysmal – most serious Phase
   a. Persistent, severe cough
      i. Classic “whoop” cough – ages 6 mo – 5 years
   b. Apnea or Respiratory Depression – ages < 6 mo
3. Convalescent
   a. Cough subsides
      i. May persist for several weeks to months

Diagnostics:
1. PCR test

Treatment:
1. Macrolides
   a. Azithromycin, or
   b. Trimethoprim-sulfamethoxazole (TMP/SMZ)

Disposition:
1. Admit
   a. Less than 5 years old
   b. Less than 3 months need ICU admit

Chronic Bronchitis and Emphysema (COPD)
1. Chronic bronchitis: characterized by excessive secretion of bronchial mucus and is manifested by productive cough for 3 months or more in at least two consecutive years
2. Emphysema: abnormal, permanent destruction of the alveoli

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Chronic Bronchitis</th>
<th>Emphysema</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dyspnea</td>
<td>Intermittent mild to moderate</td>
<td>Progressive, constant</td>
</tr>
<tr>
<td>Onset of symptoms</td>
<td>&gt;35 years old</td>
<td>&gt; 50 years old</td>
</tr>
<tr>
<td>Sputum</td>
<td>Copious/ purulent</td>
<td>Mild/ clear</td>
</tr>
<tr>
<td>Body Habitus</td>
<td>Stocky, Obese</td>
<td>Thin, wasted</td>
</tr>
<tr>
<td>Chest A-P Diameter</td>
<td>Normal</td>
<td>Increased</td>
</tr>
<tr>
<td>Chest Percussion</td>
<td>Normal</td>
<td>Hyperresonant</td>
</tr>
<tr>
<td>Chest Xray</td>
<td>Nonspecific</td>
<td>Hyperinflated/ flat diaphragm/Dark</td>
</tr>
<tr>
<td>Hematocrit</td>
<td>Increased</td>
<td>Normal</td>
</tr>
<tr>
<td>ABG</td>
<td>Hypercapnea/hypoxia</td>
<td>Hypercapnea/hypoxia</td>
</tr>
</tbody>
</table>

Laboratory/Diagnostics
1. Low, flattened diaphragm by CXR
2. FEV1 and all other measurements of expiratory airflow reduced
3. Increased pCO2
4. Increased HCO3