



Candidate Handbook



The BCCTPC is a subsidiary of



Table of Contents

HOW TO CONTACT IBSC	3
HOW TO CONTACT PSI/AMP	3
POPULATION BEING CERTIFIED	4
INTRODUCTION	5
ELIGIBILITY	5
TESTING AGENCY	5
STATEMENT OF NON-DISCRIMINATION	5
REQUEST FOR ACCOMMODATION	5
APPLYING FOR AN EXAMINATION	5
SCHEDULING AN EXAMINATION	5
EXAMINATION LOCATIONS	5
MISSED OR CANCELLED APPOINTMENTS	6
BLACK-OUT DATES	6
PREPARING FOR THE EXAMINATION	6
CCP-C EXAM CONTENT	6
MAINTAINING YOUR CERTIFICATION	7
AUDITS	7
DISCIPLINARY POLICIES	7
CCP-C CONTENT OUTLINE (BLUEPRINT)	7
CCP-C DETAILED CONTENT OUTLINE	8
CCP-C SAMPLE QUESTIONS	12
ON THE DAY OF YOUR EXAMINATION	15
SECURITY	15
INCLEMENT WEATHER OR EMERGENCIES	16
EXAMINATION RESTRICTIONS	16
MISCONDUCT	16
FOLLOWING THE EXAMINATION	16
SCORE REPORTING	17
IF YOU PASS THE EXAMINATION	17
IF YOU DO NOT PASS THE EXAMINATION	17
SCORES CANCELLED BY THE IBSC OR PSI/AMP	17
REQUESTS FOR HAND GRADING	18

HOW TO CONTACT IBSC

International Board of Specialty Certification (IBSC®)
4835 Riveredge Cove
Snellville, GA 30039
Phone: (770) 978-4400
Fax: (678) 261-1895
E-mail: help@bcctpc.org
Web: www.IBSCertifications.org

HOW TO CONTACT PSI/AMP

PSI/AMP
18000 W. 105th Street
Olathe, KS 66061-7543
Phone: (913) 895-4600
Fax: (913) 895-4650
E-mail: info@goAMP.com
Web: www.goAMP.com

POPULATION BEING CERTIFIED

The Certified Critical Care Paramedic (CCP-C) examination candidate is a paramedic professional who is seeking employment with or who is currently associated with an air medical and or ground critical care patient transport service. The candidate must possess an advanced level knowledge of the various transport environments, not the sole requirements or specifications for any one individual transport program or patient population, i.e.: adult, pediatrics, neonatal, maternal, bariatric, etc.

Candidates must have an understanding of advanced level patient care pathophysiology, while maintaining a significant knowledge of current standards established for Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), Neonatal Resuscitation Program (NRP), International Trauma Life Support (ITLS), and industry accreditation standards.

This certification examination is beyond the scope of the average, entry-level field paramedic and is not intended to evaluate entry-level knowledge; but rather to measure the experienced paramedic's skills and knowledge of the patient requiring critical care intervention during the various aspects of patient transport, i.e.: ground ambulance, helicopter, aircraft, marine/boats, etc. The target audience for the Certified Critical Care Paramedic (CCP-C) certification examination is any licensed or certified paramedic functioning in a specialty and or critical care clinical practice arena. The broader audience includes the following:

- i. United States Government
- ii. United States military as well as foreign militaries
- iii. Federal, state and local Emergency Medical Services (EMS) providers
- iv. Private and government operated Emergency Medical Services (EMS) agencies
- v. Air medical transport programs, i.e.: helicopters and airplanes
- vi. Ground ambulance providers
- vii. Marine transport, i.e.: U.S. Navy, maritime vessels, etc.
- viii. Hospitals and various acute care medical facilities
- ix. Education institutions such as local and state colleges or technical centers that provide Emergency Medical Services (EMS) training
- x. Municipal fire protection departments
- xi. Various local, state, and federal police or law enforcement agencies
- xii. Other areas around the globe that already or may require specialty certification, i.e.: State Department operations, Department of Defense - (DOD), etc.

For additional questions related to qualifying for a certification examination, please contact the IBSC at 770-978-4400 or via help@bcctpc.org.

INTRODUCTION

The International Board of Specialty Certification (IBSC) is responsible for the construction, administration and maintenance of the Certified Critical Care Paramedic (CCP-C) examination.

The IBSC does not believe paramedics should work in a critical care environment without being certified. The legal risk to the employer and the medical director is exponentially increased without validation of clinical competency. The CCP-C certification targets competency at the mastery level of paramedic practice coupled with entry-level competency over the knowledge, skills and abilities contained within the Critical Care Transport specialty.

ELIGIBILITY

To obtain certification, the candidate must meet **each** of the following:

- hold an unrestricted license or certificate to practice as a paramedic
- complete an approved examination application
- Submit paramedic license or certification for verification and approval

To maintain certification, the certificant must meet all eligibility requirements, as well as demonstrate continued competency by meeting all recertification requirements. These requirements can be found on the IBSC web site at <http://www.ibscertifications.org/exam/exam-requirements>

The examination is available in computer based testing (CBT), Web International, and traditional pencil/paper formats. The board is not affiliated or part of any other trade organization and is not involved with any review courses offered to the public. If you have questions concerning the board or the administration of the examinations, please contact the IBSC at help@bctpc.org or by calling the IBSC office at (770) 978-4400 – 0900-1700 Eastern Time Monday – Friday.

TESTING AGENCY

PSI/AMP is the professional testing agency contracted by IBSC to assist in the development, administration, scoring and analysis of the Certified Critical Care Paramedic (CCP-C) examinations. All

CBT and Web International examination delivery is provided by the PSI/AMP testing center network.

STATEMENT OF NON-DISCRIMINATION

IBSC and PSI/AMP do not discriminate among candidates based on age, gender, race, color, religion, national origin, disability or marital status.

REQUEST FOR ACCOMMODATION

To be considered for an accommodation under the ADA, an individual must present adequate documentation demonstrating that his/her condition substantially limits one or more major life activities. Only individuals with disabilities who, with or without reasonable accommodations, meet the eligibility requirements for certification at the level of the requested examination are eligible for accommodations.

For more information related to accommodations, please contact the IBSC at 770-978-4400. Additional information can also be found at <http://www.ibscertifications.org/resource/pdf/ADA.pdf>

APPLYING FOR AN EXAMINATION

Register for the examinations through the IBSC website at www.IBSCertifications.org or by contacting the IBSC at (770) 978-4400. After your completed registration and fees have been submitted and approved, you will receive an electronic notice confirming your eligibility to take the examination. A testing ID number will be issued along with instructions how to schedule your exam. The period of testing eligibility is one year.

SCHEDULING AN EXAMINATION

Check the www.IBSCertifications.org website for scheduled pencil/paper examinations. Computer based (CBT) and Web International examinations can be scheduled at any time. Follow the simple step-by-step instructions to choose and register for your examination.

EXAMINATION LOCATIONS

The IBSC offers our entire family of examinations including FP-C®, CCP-C®, CP-C®, TP-C® or the TR-C® exam at conferences, colleges and public facilities around the world.

CBT, Web International, and pencil/paper

examinations are administered at PSI/AMP Assessment Centers geographically distributed throughout the world. Assessment Center locations are available online. A complete listing of these sites can be found at <http://online.goamp.com/CandidateHome/displayTCList.aspx?pExamID=20962>

Christmas Holiday (Dec. 24-25)

Web International examination sites have various black-out dates based on their global location. Contact PSI/AMP at info@goamp.com or 913-895-4600 for more information and availability.

MISSED OR CANCELLED APPOINTMENTS

You will forfeit your examination registration and all fees paid to take the examination under the following circumstances.

- You cancel your examination after confirmation of eligibility is received.
- You wish to reschedule an examination but fail to do so at least two business days prior to the scheduled testing session.
- You wish to reschedule a second time.
- You arrive after the examination start-time for a pencil/paper examination appointment.
- You are more than 15 minutes late to a CBT or Web International site.
- You fail to report for an examination appointment.
- You do not schedule an examination within the one-year eligibility period.

A new, complete registration and examination fee are required to reapply for an examination.

All examination candidates will adhere to the IBSC rules and acknowledge that the IBSC has a disciplinary process that affords everyone due process.

UNSCHEDULED CANDIDATES (WALK-INS) ARE NOT ADMITTED TO ANY IBSC EXAMINATION.

BLACK-OUT DATES

Computer based (CBT) exams will not be offered on:

- New Year's Holiday (Dec. 30 31 & Jan. 1)
- Martin Luther King Jr. Day
- President's Day
- Good Friday
- Memorial Day
- Independence Day
- Labor Day
- Columbus Day
- Veteran's Day
- Thanksgiving Holiday (Thursday-Friday)

PREPARING FOR THE EXAMINATION

The first step is to complete an approved application and provide proof of paramedic licensure or certification. The examination is designed to validate the unique knowledge and skills of the Critical Care Paramedic. Experience in the critical care transport environment and additional education in this specialty area are highly recommended to prepare you for being successful on the examination.

CCP-C EXAM CONTENT

The Certified Critical Care Paramedic (CCP-C) Examination consists of 135 questions (125 scored and 10 non-scored pretest questions) and the candidate is provided 2.5 hours to complete the examination. The certification process is focused on the knowledge level of accomplished, experienced paramedics currently associated with a Critical Care Transport Team. The questions on the examination are based on sound paramedic practice. The candidate is expected to maintain a significant knowledge of current ACLS, PALS, NRP, and ITLS/PHTLS standards. This examination is not meant to test entry-level knowledge, but rather to test the experienced paramedics' skills and knowledge of critical care transport.

As you prepare for the examination, please consider there are a variety of mission profiles throughout the spectrum of transport medicine. Please remember this examination tests the candidates' overall knowledge of the transport environment, not the specifics of one individual program. Just because your program does not complete IABP transports, does not mean you will not have questions related to these types of transports. Likewise, if your program does not perform pediatric transports, you still need to understand this information for the examination. We have included a brief outline below of the topics and skills included in the exam. As you can see, most of these are beyond the scope of the average field paramedic. Though some outline topics are within the

Certified Critical Care Paramedic Candidate Handbook

paramedic's scope of practice, the exam questions will be related to critical care and are of a much higher level of difficulty. The detailed content outline follows.

documentation of all continuing education. Failure to submit education when audited will result in denial of eligibility to recertify.

MAINTAINING YOUR CERTIFICATION

A minimum of 100 contact hours must be submitted with a clear and direct application to the practice of medicine in the area of specialty. Seventy-five of the contact hours must be in the CLINICAL category. Sixteen CLINICAL hours must be from an approved CCP-C/FP-C review class. Twenty-five CE's may be in the OTHER category to complete the 100 hours. It is acceptable to have more than 75 of the contact hours in the CLINICAL category. For CE to be applicable for renewal, it must have occurred during the four-year period of certification.

DISCIPLINARY POLICIES

The IBSC has disciplinary procedures, rights of appeals, and due process within its policies. Individuals applying for certification or recertification who wish to exercise these rights should review the following [Review and Appeals Process Policy](#) and the [Denial, Suspension, or Revocation of Certification Policy](#) located on the IBSC web site. Requests to appeal must be submitted within thirty days (30) calendar days of receipt of notice of a determination.

AUDITS

The IBSC reserves the right to investigate recertification material at any time. You must retain

CCP-C CONTENT OUTLINE (BLUEPRINT)

	Topic Area	Items
1.	Transport and Safety	15
2.	Airway, Anesthesia, and Analgesics	30
3.	Medical	30
4.	Trauma/Burn Patient	25
5.	Special Populations	25



CCP-C DETAILED CONTENT OUTLINE

1. Transport and Safety (15 questions in the section)
 - A. Practice crew resource management
 - B. Use risk assessment matrices
 - C. Participate in mission safety decisions (e.g., go / no-go)
 - D. Manage safety equipment while in transport (e.g., personnel restraints, equipment harness)
 - E. Ensure the safety of all passengers (e.g., specialty teams, family, law enforcement, observer)
 - F. Identify stressors related to transport (e.g., thermal, humidity, noise, vibration, or fatigue related conditions)
 - G. Take corrective action for patient stressors related to transport
2. Airway, Anesthesia, and Analgesics (30 questions in the section)
 - A. Develop a context specific anesthesia plan (e.g., analgesia agents, sedation agents, paralytic agents, comprehensive airway strategy,)
 - B. Implement a context specific anesthesia plan (e.g., analgesia agents, sedation agents, paralytic agents, comprehensive airway strategy)
 - C. Develop context specific mechanical ventilation and oxygenation strategies
 - D. Implement context specific mechanical ventilation and oxygenation strategies
3. Medical (30 questions in the section)
 - A. General Medical Patient
 - i. Perform a comprehensive assessment of the complex medical patient sufficient to establish a physiological based problem list
 - ii. Initiate the critical interventions for the management of the complex medical patient based on the physiological based problem list (e.g., shock, GI/GU, metabolic disorders, immunology, endocrine, sepsis, infectious diseases)
 - iii. Adapt the care plan based on the analysis of
 1. laboratory values
 2. monitoring equipment (e.g., invasive line monitoring, drains)
 3. diagnostics (e.g., radiography, ultrasound, CT)
 - iv. Manage pharmacologic agents
 - v. Manage medical patient complications
 - vi. Manage blood products
 - B. Cardiac Patient
 - i. Perform a comprehensive assessment of the critical care cardiac patient sufficient to establish a physiological based problem list
 - ii. Initiate the critical interventions for the management of the cardiac patient based on the physiological based problem list. Manage patients with:
 1. acute coronary syndrome
 2. heart failure
 3. cardiogenic shock
 4. primary arrhythmias
 5. hypertensive crisis
 6. hemodynamic instability
 7. chronic cardiac conditions
 8. vascular disorders (e.g., AAA, thoracic dissection)
 9. infectious cardiac disease (e.g., pericarditis, endocarditis, valvular disease)
 - iii. Adapt the care plan based on the analysis of
 1. laboratory values
 2. monitoring equipment (e.g., multi-lead ECG, hemodynamic monitoring, drains)
 3. diagnostics (e.g., cardiac catheterization, VQ scans, radiography, ultrasound, CT)
 - iv. Manage pharmacologic agents

- C. Neurologic Patient
 - i. Perform a comprehensive assessment of the critical care neurologic patient sufficient to establish a physiological based problem list
 - ii. Initiate the critical interventions for the management of the neurologic patient based on the physiological based problem list. Manage patients with:
 - 1. altered mental status
 - 2. seizures
 - 3. cerebral ischemia
 - 4. cerebral hemorrhage
 - 5. head injuries
 - 6. spinal cord injuries
 - 7. chronic neurologic conditions
 - iii. Adapt the care plan based on the analysis of
 - 1. laboratory values
 - 2. monitoring equipment (e.g., ICP, hemodynamic monitoring, drains)
 - 3. diagnostics (e.g., radiography, ultrasound, CT)
 - iv. Manage pharmacologic agents
 - v. Manage neurologic patient complications
 - vi. Manage blood products

- D. Respiratory Patient
 - i. Perform a comprehensive assessment of the critical care respiratory patient sufficient to establish a physiological based problem list
 - ii. Initiate the critical interventions for the management of the respiratory patient based on the physiological based problem list (e.g., acute respiratory distress syndrome, spontaneous pneumothorax, pneumonia)
 - iii. Adapt the care plan based on the analysis of
 - 1. laboratory values
 - 2. monitoring equipment (e.g., invasive line monitoring, drains)
 - 3. diagnostics (e.g., chest radiography, VQ scan, CT)
 - iv. Manage pharmacologic agents
 - v. Manage respiratory patient complications

- E. Toxic Exposure and Environmental Patient
 - i. Perform a comprehensive assessment of the exposure patient sufficient to establish a physiological based problem list
 - ii. Initiate the critical interventions for the management of the exposure patient based on the physiological based problem list (e.g., environmental exposure, chemical/biological/radiological/nuclear/explosive, dive/altitude related illnesses, adverse flora/fauna reactions)
 - iii. Adapt the care plan based on the analysis of
 - 1. laboratory values
 - 2. monitoring equipment (e.g., invasive line monitoring, drains)
 - iv. Manage pharmacologic agents
 - v. Manage exposure patient complications

4. Trauma/Burn Patient (25 questions in the section)

- A. Perform a comprehensive assessment of the critical care trauma/burn patient sufficient to establish a physiological based problem list
- B. Initiate the critical interventions for the management of the trauma/burn patient based on the physiological based problem list
 - i. Manage the patient with life-threatening isolated trauma
 - ii. Manage the patient with life-threatening multi-system trauma
- iii. Manage the patient with burns
- C. Adapt the care plan based on the analysis of
 - i. laboratory values
 - ii. monitoring equipment (e.g., invasive line monitoring, drains)
 - iii. diagnostics (e.g., chest radiography, ultrasound, CT)
- D. Manage pharmacologic agents

- E. Manage trauma/burn patient complications
- F. Manage blood products

5. Special Populations (25 questions in the section)

- A. Obstetric Patients
 - i. Perform a comprehensive assessment of the obstetric patient sufficient to establish a physiological based problem list
 - ii. Initiate the management of the obstetric patient based on the physiological based problem list (e.g., pregnancy induced hypertension, hypertonic or titanic contractions, cord prolapse, placental abruption)
 - iii. Adapt the care plan based on the analysis of
 - 1. laboratory values
 - 2. monitoring equipment (e.g., FHT, invasive line monitoring, tocodynamometer)
 - iv. Manage pharmacologic agents
 - v. Manage obstetric patient complications
 - vi. Manage fetal distress
- B. Neonatal Patient
 - i. Perform a comprehensive assessment of the neonatal patient sufficient to establish a physiological based problem list
 - ii. Initiate the critical interventions for the management of the neonatal patient based on the physiological based problem list
 - iii. Adapt the care plan based on the analysis of
 - 1. laboratory values
 - 2. monitoring equipment (e.g., invasive line monitoring, drains)
 - 3. diagnostics (e.g., radiography, ultrasound, CT)
 - iv. Manage pharmacologic agents
 - v. Manage neonatal patient complications
- C. Pediatric Patient
 - i. Perform a comprehensive assessment of the critical care pediatric patient sufficient to establish a physiological based problem list
 - ii. Initiate the critical interventions for the management of the pediatric patient based on the physiological based problem list
 - iii. Adapt the care plan based on the analysis of
 - 1. laboratory values
 - 2. monitoring equipment (e.g., invasive line monitoring, drains)
 - 3. diagnostics (e.g., radiography, ultrasound, CT)
 - iv. Manage pharmacologic agents
 - v. Manage pediatric patient complications
 - vi. Manage blood products
- D. Bariatric Patient
 - i. Perform a comprehensive assessment of the critical care bariatric patient sufficient to establish a physiological based problem list
 - ii. Initiate the critical interventions for the management of the bariatric patient based on the physiological based problem list
 - iii. Adapt the care plan based on the analysis of
 - 1. laboratory values
 - 2. monitoring equipment (e.g., invasive line monitoring, drains)
 - 3. diagnostics (e.g., radiography, ultrasound, CT)
 - iv. Manage pharmacologic agents
 - v. Manage bariatric patient complications
 - vi. Manage blood products
- E. Geriatric Patient
 - i. Perform a comprehensive assessment of the critical care geriatric patient sufficient to establish a physiological based problem list
 - ii. Initiate the critical interventions for the management of the geriatric patient based on the

- physiological based problem list
- iii. Adapt the care plan based on the analysis of
 - 1. laboratory values
 - 2. monitoring equipment (e.g., invasive line monitoring, drains)
 - 3. diagnostics (e.g., radiography, ultrasound, CT)
- iv. Manage pharmacologic agents
- v. Manage geriatric patient complications
- vi. Manage blood products

END OF DETAILED CONTENT OUTLINE

CCP-C SAMPLE QUESTIONS

A patient is in cardiac arrest after falling through the ice. Emergency Medical Services (EMS) reports that the patient's core temperature is 28 degrees Celsius. The patient is not intubated and effective cardiopulmonary resuscitation (CPR) and bag-valve-mask (BVM) ventilation is being performed. An intravenous line (IV) has been established and the cardiac monitor shows the patient is in Pulseless electrical activity (PEA). What would be an appropriate action?

- A. Begin immediate anterior/posterior transcutaneous pacing.
- B. Continue CPR and administer warmed IV fluids.
- C. Continue CPR and withhold administering epinephrine.
- D. Continue CPR and administer only single doses of medications.

Correct Answer is B

Rationale:

2015 Emergency Cardiac Care (ECC) guidelines which AHA follows now state: "Patients with severe hypothermia and cardiac arrest can be rewarmed most rapidly with cardiopulmonary bypass. Alternative effective core rewarming techniques include warm-water lavage of the thoracic cavity and extracorporeal blood warming with partial bypass.

Adjunctive core rewarming techniques include warmed IV or intraosseous (IO) fluids and warm humidified oxygen. Heat transfer with these measures is not rapid, and should be considered supplementary to active warming techniques.

Do not delay urgent procedures such as airway management and insertion of vascular catheters. Although these patients may exhibit cardiac irritability, this concern should not delay necessary interventions.

Given the lack of human evidence and relatively small number of animal investigations, the recommendation for administration or withholding of medications is not clear.

It may be reasonable to consider administration of a vasopressor during cardiac arrest according to the standard ACLS algorithm concurrent with rewarming strategies. (Class IIb, LOE C)"

While transporting a patient in cardiogenic shock, what value would you expect to decrease first?

- A. Central Venous Pressure (CVP)
- B. Blood Pressure (B/P)
- C. Pulmonary Vascular Resistance (PVR)
- D. Cardiac Output (CO)

Correct Answer is D

Rationale:

Patients in cardiogenic shock (often from an acute MI) demonstrate clinical evidence of hypoperfusion from an initial decrease in cardiac output. Patients may subsequently develop tachycardia, low urine output, and cool extremities. Systemic hypotension ultimately develops and further propagates tissue hypoperfusion.

Upon arrival to the sending facility, the transferring physician shows you an AP chest film that shows diffuse bilateral infiltrates. Upon further questioning, you learn that the patient's PCWP is 16 mmHg and his PaO₂/FiO₂ is 198. Which condition is the patient most likely suffering from?

- A. Acute Respiratory Distress Syndrome (ARDS)
- B. Spontaneous pneumothorax
- C. Chronic Obstructive Pulmonary Disease (COPD)
- D. Pneumopericardium

Correct answer is A

Rationale:

ARDS is an acute, diffuse, inflammatory lung injury that leads to increased pulmonary vascular permeability and a loss of aerated tissue. The Berlin Definition of ARDS requires that following criteria be present to diagnose ARDS: Bilateral opacities must be present on a chest film and a moderate to severe impairment of oxygenation must be present. This is defined by the ratio of arterial oxygen tension to fraction of inspired oxygen (PaO₂/FiO₂). The severity of the hypoxemia defines the severity of the ARDS. In an acute COPD exacerbation you would not expect to see bilateral infiltrates. Spontaneous pneumothorax would be present on the chest film. Pneumopericardium would not impair oxygenation.

During transport of a patient with a 24-hour-old C-6 spinal cord lesion, their face becomes flushed, complain of anxiety and nausea, and their blood pressure is now 210/130. You should administer which of the following medications?

- A. Dexamethasone
- B. Lorazepam
- C. Hydralazine
- D. Diphenhydramine

Correct answer C

Rationale:

Spinal cord injuries above T6 level may be complicated by a phenomenon known as autonomic dysreflexia, a manifestation of the loss of coordinated autonomic responses to demands on heart rate and vascular tone. Common clinical manifestations are headache, diaphoresis, and increased blood pressure. The severity of attacks can range from asymptomatic hypertension to hypertensive crisis. Management includes prompt reduction of blood pressure with a rapid-onset/short-duration agent such as hydralazine.

You are transporting a 68-year old female patient for an exploratory laparotomy with a medical history of multiple abdominal surgeries and a ventral hernia. She is vomiting, dehydrated, and pale. She is mildly tender to palpation in the left lower quadrant and denies any other pain. You insert a nasogastric tube, with a return of 2400 mL of bilious fluid. What is the most likely cause of her condition?

- A. Acute cholecystitis
- B. Large bowel obstruction
- C. Acute pancreatitis
- D. Small bowel obstruction

Correct answer is D

Rationale:

The most common causes of mechanical small bowel obstructions are postoperative adhesions and hernias. This patient has both risk factors. Obstruction leads to progressive dilation of the intestine proximal to the blockage. Swallowed air can accumulate adding to bowel distention. As the process continues, the bowel wall becomes edematous and normal absorptive function is lost. Fluid begins to accumulate in the bowel lumen. Acute cholecystitis presents with pain in the right upper quadrant and pancreatitis usually presents with mid-epigastric pain. Accumulation of bilious fluid is not consistent with acute cholecystitis or pancreatitis. Patients with mechanical large bowel obstruction typically present with bloating, abdominal pain, and obstipation. Nausea and vomiting is rarely seen.

A 23-year old female was struck in the face and neck by a tree branch and thrown of a horse. First responders have immobilized the patient on a long board with a cervical immobilization device. Your initial assessment reveals cyanosis, poor respiratory effort, and an altered level of consciousness. You also note a crunching sound with auscultation of her lung fields which is synchronous with her heart rate, and subcutaneous air palpated in the upper chest. Which of the following injuries do you suspect is the cause of these symptoms?

- A. Tension pneumothorax
- B. Pulmonary contusion
- C. Tracheobronchial disruption
- D. Diaphragmatic rupture

Correct answer is C

Rationale:

Injury of the cervical trachea is uncommon but can occur from a direct blow, which may be of low energy. Signs of cervical tracheal injury include dyspnea, hoarseness, and subcutaneous emphysema. Tension pneumothorax presents with decreased or absent breath sounds and tracheal deviation in addition to sometimes subcutaneous emphysema. Pulmonary contusion and diaphragmatic rupture do not present with subcutaneous emphysema.

The fluid shift phase of the body's response to burn injuries reaches a peak how many hours after the injury?

- A. 4
- B. 8
- C. 16
- D. 24

Correct answer B

Rationale:

Burn injuries cause increased capillary permeability resulting in large fluid shifts and depletion of intravascular volume. This can lead to massive edema. Rapid, aggressive fluid resuscitation to restore intravascular volume and thereby maintain end-organ perfusion is crucial. The fluid shift phase peaks 6-8 hours after the burn injury and lasts for 18-24 hours.

You are transporting a neonatal patient on high frequency oscillatory ventilation. The patient's ventilator settings are Amplitude 30 cmH₂O, Frequency 10 Hertz (Hz), Mean Airway Pressure 10 cmH₂O, and 50 % (percent) FiO₂ (fraction of inspired oxygen). During transport, you note that the patient's chest wall wiggle has diminished. What action should you take to improve chest wall wiggle?

- A. Increase the amplitude.
- B. Increase the frequency.
- C. Increase the mean airway pressure.
- D. Increase fraction of inspired oxygen.

Correct answer A

Rationale:

During high-frequency oscillatory ventilation, the lungs are not capable of being auscultated to assess adequacy of ventilation. The amplitude of the "chest wiggle" in such infants (by visual inspection or palpation) can be a useful guide to the effectiveness of the high-frequency pulsations. In order to increase ventilation, the frequency is decreased and the amplitude is increased. Decreasing the frequency allows an increased tidal excursion of the piston producing an increase in bulk flow of gas. Increasing the amplitude drives the piston a greater distance producing an increase in bulk flow of gas.

ON THE DAY OF YOUR EXAMINATION

On the day of your examination appointment, report to the Assessment Center no later than your scheduled testing time. Once you enter the Assessment Center, look for the signs indicating PSI/AMP Assessment Center Check-In. **IF YOU ARRIVE MORE THAN 15 MINUTES AFTER THE SCHEDULED TESTING TIME YOU WILL NOT BE ADMITTED TO THE TESTING SITE.**

To gain admission to the Assessment Center, you must present two forms of identification, one with a current photograph. Both forms of identification must be valid and include your current name and signature. You will also be required to sign a roster for verification of identity.

Acceptable forms of primary identification include photo ID's such as a current:

1. driver's license
2. gov't issued identification card
3. passport
4. military identification card

Employment ID cards, student ID cards and any type of temporary identification are NOT acceptable as primary identification, but may be used as secondary identification if they include your name and signature.

You are prohibited from misrepresenting your identity or falsifying information to obtain admission to the Assessment Center.

YOU MUST HAVE PROPER IDENTIFICATION TO GAIN ADMISSION TO THE ASSESSMENT CENTER.

The following security procedures apply during the examination:

- Examinations are proprietary. No cameras, notes, tape recorders, personal electronic devices, pagers or cellular phones are allowed in the testing room.
- Only silent, non-programmable calculators without alpha keys or printing capabilities are allowed in the testing room.
- No guests, visitors or family members are allowed in the testing room or reception areas.
- No personal items, valuable, or weapons should be

brought to the Assessment Center. PSI/AMP is not responsible for items left in the reception area.

SECURITY

IBSC and PSI/AMP maintain examination administration and security standards that are designed to assure all candidates are provided the same opportunity to demonstrate their abilities. The Assessment Center is continuously monitored by audio and video surveillance equipment for security purposes. Candidates may be subjected to a metal detection scan upon entering the examination room.

The computer monitors the time you spend on the examination. The examination will terminate if you exceed the time limit. You may click on the "Time" button in the lower right portion of the screen to monitor your time. A digital clock indicates the time remaining for you to complete the examination. The time feature may also be turned off during the examination.

Only one question is presented at a time. The question number appears in the lower right portion of the screen. The entire question appears on-screen (i.e., stem and four options labeled – A, B, C and D). **Indicate your choice by either entering the letter of the option you think is correct (A, B, C or D) or clicking on the option using the mouse.** Your answer appears in the window in the lower left portion of the screen. To change your answer, enter a different option by pressing the A, B, C or D key or by clicking on the option using the mouse. You may change your answer as many times as you wish during the examination time limit.

To move to the next question, click on the forward arrow (>) in the lower right portion of the screen. This action will move you forward through the examination question by question. If you wish to review any question or questions, click the backward arrow (<) or use the left arrow key to move backward through the examination.

You may leave a question unanswered and return to it later. You may also bookmark questions for later review by clicking in the blank square to the right of the TIME button. Clicking on the hand icon or using the arrow key to advance to the next unanswered or bookmarked question on the examination. To identify all unanswered

and bookmarked questions, repeatedly click on the hand icon. When you have completed the examination, the number of questions you answered is reported. If you have not answered all questions and you have time remaining, return to the examination and answer those questions. Be sure to answer each question before ending the examination. There is no penalty for guessing.

You may provide comments for any question by clicking on the button displaying an exclamation point (!) to the left of the TIME button. This opens a dialogue box where you may enter your comments.

INCLEMENT WEATHER OR EMERGENCIES

In the event of inclement weather or unforeseen emergencies on the day of an examination, PSI/AMP will determine whether circumstances warrant the cancellation, and subsequent rescheduling, of an examination. The examination will usually not be rescheduled if the Assessment Center personnel are able to open the Assessment Center.

You may visit PSI/AMP's website at www.goAMP.com prior to the examination to determine if PSI/AMP has been advised that any Assessment Centers are closed. Every attempt is made to administer the examination as scheduled; however, should an examination be canceled at an Assessment Center, all scheduled candidates will receive notification following the examination regarding rescheduling or reapplication procedures.

If power to an Assessment Center is temporarily interrupted during an administration, your examination will be restarted. The responses provided up to the point of interruption will be intact, but for security reasons the questions will be scrambled.

EXAMINATION RESTRICTIONS

- Pencils will be provided during check-in.
- Possession of a cellular phone or other electronic devices (including smart watches) is strictly prohibited and will result in dismissal from the examination.
- You will be provided with one piece of scratch paper at a time to use during the examination. You must return the scratch paper to the supervisor at the completion of testing, or you will not receive a score report. No documents or notes of any kind may be

removed from the Assessment Center.

- No questions concerning the content of the examination may be asked during the examination.
- Eating, drinking or smoking will not be permitted in the Assessment Center.
- You may take a break whenever you wish, but you will not be allowed additional time to make up for time lost during breaks.

MISCONDUCT

If you engage in any of the following conduct during the examination you may be dismissed, your scores will not be reported and examination fees will not be refunded. Examples of misconduct are when you:

- create a disturbance, is abusive, or otherwise uncooperative;
- display and/or use electronic communications equipment such as pagers, cellular phones, personal electronic device;
- talk or participate in conversation with other examination candidates;
- give or receive help or is suspected of doing so;
- leave the Assessment Center during the administration;
- attempt to record examination questions or make notes;
- attempt to take the examination for someone else; or
- are observed with notes, books or other aids.

Violation of any of the above provisions results in dismissal from the examination session. The candidate's score on the examination is voided and examination fees are not refunded. Evidence of misconduct is reviewed to determine whether the candidate will be allowed to reapply for examination. If re-examination is granted, a complete application and fee are required to reapply.

FOLLOWING THE EXAMINATION

FOR COMPUTER BASED (CBT) and WEB INTERNATIONAL TESTING: After you finish the examination, you are asked to complete a short evaluation of your testing experience conducted by PSI/AMP. Then, you will be instructed to report to the examination proctor to receive your score report. Scores are reported in printed form only, in person or by U.S. Mail. Scores are **NOT** reported over the

telephone, by electronic mail or by facsimile.

FOR PENCIL/PAPER TESTING: After you finish the examination, you will return all materials to the examination proctor in the envelopes provided. Scores are reported in printed form only, in person or by U.S. mail. For international candidates, scores will be sent via electronic mail to a verified candidate email provided at the time of registration and in printed form via U.S. Mail. Scores are **NOT** reported over the telephone or by facsimile.

SCORE REPORTING

To pass any IBSC examination, your score must equal or exceed the passing score. The passing standard for each IBSC exam is established using standard-setting techniques that follow best practices in the testing industry.

The passing standard for each certification exam is set by a designate IBSC Subspecialty Board, Test Committee or Subject Matter Expert Group. Members of these groups are nationally recognized specialists whose combined expertise encompasses the breadth of clinical knowledge in the specialty area. Members include educators, managers and providers, incorporating the perspectives of both the education and practice environments. In setting the passing standard, the committee considers many factors, including relevant changes to the knowledge base of the field as well as changes in the characteristics of minimally qualified candidates for certification.

The passing standard for an exam is based on a specified level of mastery of content in the specialty area. Therefore, no predetermined percentage of examinees will pass or fail the exam. The committee sets a content-based standard, using the modified Angoff method.

The IBSC no longer provides the passing candidate with a raw score nor a breakdown of the examination score by topic area. Exam results are reported pass/fail. If you did not pass the exam, you will receive an examination report indicating subject areas of relative strength and weakness. The diagnostic report can assist you if you decide to retake the exam. This change is necessary to endorse the philosophy that

certification is the goal and that the raw score number beyond the passing score does not matter.

The domain scores on the score reports are not used to determine pass-fail decision outcomes. They are only provided to offer a general indication regarding your performance in each domain. The examination is designed to provide a consistent and precise determination of your overall performance and is not designed to provide complete information regarding your performance in each domain. You should remember that areas with a larger number of items will affect the overall score more than areas with a fewer number of items. The precision and consistency of scores diminishes with fewer items, and therefore, sub-scores should be interpreted with caution, especially those that correspond to domains with very few items.

Numeric scores are not provided for examinees who pass to ensure that the scores are not used for purposes other than licensure and certification. For example, numeric scores should not be used for hiring and promotion decisions because the IBSC exams are not designed for these purposes.

IF YOU PASS THE EXAMINATION

If you pass the examination, your score report will state “pass” without a score breakdown. You will receive a card, patch and certificate within 4-6 weeks after your testing date. Your certification is valid for a four-year period.

IF YOU DO NOT PASS THE EXAMINATION

If you fail the examination, additional detail is provided in the form of raw scores by major content category. A raw score is the number of questions you answered correctly. As an example, in domain “A”, the score of 7/12 means you correctly answered 7 of the 12 questions. Providing this data allows the candidate to direct their review and study material to address those domains in which you were not successful. You may retake the examination after 30 days. The retesting process is outlined at <http://www.ibscertifications.org/resource/pdf/Retesting%20Policy.pdf>

SCORES CANCELLED BY THE IBSC OR PSI/AMP

IBSC and PSI/AMP are responsible for the integrity of the scores they report. On occasion, occurrences, such as computer malfunction or misconduct by a candidate, may cause a score to be suspect. IBSC and PSI/AMP are committed to rectifying such discrepancies as expeditiously as possible. IBSC may void examination results if, upon investigation, violation of its regulations is discovered.

REQUESTS FOR HAND GRADING

A candidate may request a hand score by submitting a written request along with the fee of \$25.00 (check or money order). Candidates must include the following:

- * Contact information
- * Testing ID number
- * Date of examination
- * Testing location
- * Exam type

Request and payment should be addressed to:

PSI/AMP
Examination Services
18000 W 105th St
Olathe, KS 66061

Once the request is received the answer sheet is manually scored against the examination key. Within 10 days a letter is mailed or emailed to the candidate with results of the hand score.

The best
PARAMEDICS
in the world
are board certified.



CRITICAL CARE PARAMEDIC ♦ FLIGHT PARAMEDIC
TACTICAL PARAMEDIC ♦ TACTICAL RESPONDER ♦ COMMUNITY PARAMEDIC

Learn more at www.bcctpc.org