Operations

A pertinent negative is the absence of a sign, symptom, or other finding that you may expect to find in a person with a particular chief complaint, but do not. For example, it is pertinent that a patient with syncope does not have a cardiac history. Although a cardiac history is absent (negative), it is pertinent to the patient’s chief complaint because an underlying cardiac problem (eg, a dysrhythmia) can cause syncope. Another example of a pertinent negative is a patient with a heart rate of 45 beats/min who denies chest pain or shortness of breath; many patients with bradycardia are symptomatic and present with chest pain and/or shortness of breath. Documenting pertinent negatives is just as important as documenting positive findings—in this case, a heart rate of 45 beats/min and information obtained from the bystander. Documentation of pertinent negatives demonstrates that, based on the patient’s chief complaint, a thorough assessment was performed and you actively sought out potential causes that could be causing or contributing to the chief complaint. Of course, all of the items listed in this question should be documented on the PCR.

Recognizing and rewarding personnel with good performance, strict adherence to all system protocols, and finding solutions for identified problems are all vital components to any quality assurance program

In the triage area, victims are assessed and assigned a triage category. Treatment does not occur in the triage area. If it does, triage efforts will be compromised, resulting in more lives lost that may have been saved. After the victims have been triaged, they are moved to the treatment area. Once there, secondary triage is performed (victim’s conditions can change after initial triage), and emergency care is provided. The transport officer then arranges transport of the victims to appropriate medical facilities, starting with the most critically injured. A steady and consistent flow of victims from the extrication area, to the triage area, to the treatment area, and to an appropriate medical facility, will maximize effectiveness of the entire operation and minimize the number of lives lost.

Nerve agents, discovered while in search of a superior pesticide, are in a class of chemicals called organophosphates. Nerve agents block acetylcholinesterase, an essential enzyme that regulates the degradation of acetylcholine, thus causing profound parasympathetic nervous system stimulation. Sarin (GB), soman (GD), tabun (GA), and V agent (VX) are examples of chemical nerve agents. The resulting symptoms can be remembered using the mnemonic “DUMBELS,” which stands for defecation, urination, miosis (pupillary constriction), bradycardia and bronchorrhea, emesis, lacrimation, and salivation. Another useful mnemonic is “SLUDGEM,” which stands for salivation, lacrimation, urination, defecation, GI distress, emesis, and miosis.

The SOAP documentation format is a simple and logical method used to document various aspects of the patient encounter. It stands for subjective, objective, assessment, and plan (for treatment). Subjective findings are statements made to you by the patient, a family member, or other person. Examples include, “My chest hurts,” “My husband was recently in the hospital,” and “I took two nitroglycerin tablets before calling EMS.” The patient’s chief complaint—in his or her own words—is the best example of a subjective finding. Whenever documenting statements made by the patient or another person, use quotation marks; this tells other health care providers who read your patient care report that they were not your statements. Objective findings are observations that you make without input from the patient. Examples include, “Upon arrival, found the patient sitting in a chair with his hand against his chest,” “The patient appeared anxious,” and “There was no evidence of gross hemorrhage.” Objective findings are factual, not speculative or representative of your personal opinion. Items such as vital signs, auscultation of breath sounds, ECG findings, and pupillary reaction are included in the assessment part of the narrative. The plan outlines the treatment you provided to the patient—for example, “Administered high-flow oxygen,” “Established an IV of normal saline with an 18-gauge catheter,” or “Gave 0.5 mg of atropine rapid IV push at 1030 hours.”

Haddon’s matrix is a tool used to facilitate understanding of all three phases of an injury sequence—pre-event, event, and post-event—and helps paramedics understand that injuries often result from a predictable, and therefore preventable, sequence of events. The pre-event phase is the period of time before the release of energy (ie, before the injury occurs). The event phase is the period of time during which the injury occurs. The post-event phase is the period of time following the injury. Three factors comprise the injury triangle: the host (patient), the agent (energy), and the environment (the place where the host and agent come together).

Tuberculosis (TB) is transmitted via the droplet route. The paramedic may be exposed to TB if he or she inhales airborne droplets from an infected person. Gloves should be used with ALL patients, not just those suspected of being infected with TB. High-efficiency particulate air (HEPA) masks, such as the N-95 respirator, will afford the paramedic the greatest protection from exposure. Surgical masks are insufficient for preventing inhalation of the TB bacterium

Battery is defined as touching the patient without his or her expressed consent. You should never assume that a patient will readily accept your treatment; therefore, you must apprise them of what you intend to do prior to carrying out the task. Assault is the instillation of fear in a patient, but does not involve touching him or her. Breach of duty is defined as failing to act as another prudent paramedic would have acted in the same or similar circumstances. Proximate cause is the direct relationship between the paramedic's actions or inactions and the patient's injury or illness.

To safely restrain the patient, you should have a minimum of five people—one assigned to each extremity and a fifth person to communicate with the patient throughout the procedure. Then, at a signal from the team leader, move in fast from the patient’s sides; approaching from the front gives the patient an opportunity to escape to one side or the other. Grasp the patient at the elbows, knees, and head, and apply restraints to all four extremities. The safest position in which to secure the patient to the stretcher is supine, with legs spread-eagled and both arms secured to one side of the stretcher.

Perhaps the least obvious way to control your anxiety while caring for a patient is to use controlled breathing—taking deep breaths in through your nose and out through your mouth. If you suddenly dismiss yourself from the patient, he or she will think that something is wrong; you do not want to instill this thought in your patient!

Advance directives are generally executed by the patient while he or she has decision-making capacity. The living will is a type of advance directive in which a patient can express his or her wishes regarding end-of-life medical care. These directives are sometimes called “durable” powers of attorney because they remain in effect once a patient loses decision-making capacity. Living wills generally require some kind of precondition to activate, such as a terminal illness or an irreversible coma. The living will should spell out exactly what kind of treatment a patient wishes to be given should he or she become incapacitated. Living wills often contain a health care power of attorney, which designates another person—spouse, partner, adult sibling, or parent—to make health care decisions for the patient at any time the patient is unable to make those decisions.

Your best protection from legal liability is to consistently provide a high standard of care to all patients, which includes performing thorough assessments, providing appropriate and timely treatment, and thoroughly and accurately documenting the call.

Bronchopulmonary dysplasia (BPD) is a lung disease that typically affects low birth weight infants and is characterized by chronic respiratory distress and frequent lower respiratory tract infections. The basic underlying etiology behind BPD is a deficiency of pulmonary surfactant at birth. Surfactant acts to lubricate the alveolar walls, allowing them to expand and recoil normally.

In order for a patient to give informed consent, he or she must be made aware of your proposed treatment, as well as the potential benefits and risks associated with the treatment. This will give the patient enough information to make an informed decision about his or her health care. Informing the patient of the consequences of refusing EMS treatment and/or transport is called an informed refusal. Expressed (actual) consent is obtained when the patient asks you for help, either verbally or non-verbally (ie, extending their arm so you can take their blood pressure). Implied consent, also known as the emergency doctrine, is based on the assumption that an unresponsive or otherwise impaired person would consent to emergency treatment if they were not in their present condition.

Communication with area hospitals to determine their capabilities is the responsibility of the transport officer. By identifying each hospital’s capabilities, the transport officer can direct exiting ambulances from the mass-casualty incident (MCI) to the most appropriate facility. The staging officer is responsible for directing personnel to the appropriate location at an MCI from the staging area. The triage officer is responsible for the initial triage process as patients are moved from the scene to a centralized triage area. Support personnel are individuals who are assigned specific tasks by the incident commander; this may include functioning in the triage or treatment areas.

Regardless of the type of incident command system (ICS) used, a single incident commander (IC) must be in charge. In a unified incident command system, plans are drawn up in advance by all cooperating agencies that assume a shared responsibility for decision making. The response plan should designate the lead and support agencies for several types of mass-casualty incidents (MCIs). For example, the Haz-Mat team will take the lead in a chemical leak and the medical team will take the lead in a multi-vehicle car crash. Large MCIs often require a unified incident command system. A single incident command system is one in which one person is in charge, even if multiple agencies respond to the scene. It is generally used with incidents in which one agency has the majority of responsibility for incident management. Ideally, it is used for short-duration, limited incidents that require the services of a single agency.

Your most immediate priority should be to remain at least 20 inches away from the passenger’s side dashboard if possible; this distance—as recommended by the National Highway Traffic Safety Administration—will minimize the risk of personal injury if the passenger’s side airbag spontaneously deploys. Do not place any solid object in between you and an undeployed airbag; this will not protect you—it will only increase the risk of severe injury if the airbag does deploy. After you have taken measures to ensure your own safety, you should then tend to the patient.

The JumpSTART triage system is intended for use in children younger than 8 years of age or who appear to weigh less than 100 pounds. According to the JumpSTART triage system, if the child’s respiratory rate is less than 15 breaths/min or greater than 45 breaths/min, he or she should be assigned an immediate triage category (red tag). After placing a red tag on the child, move to the next patient. If the respiratory rate is between 15 and 45 breaths/min, the next step would be to assess for a palpable pulse. The only treatment provided during the JumpSTART triage system would be to deliver 5 rescue breaths if the child remains apneic (and has a palpable pulse) after positioning the upper airway.

The incident commander has control over the logistical operations at the scene of a mass-casualty incident (MCI); however, the EMS medical director is ultimately responsible for all patient care-related activities. It is important that the incident commander remain in close contact with the medical director during a MCI.

When parking the ambulance at a crash scene, pick a position that will allow for efficient traffic control and flow around a crash scene. Do not park alongside the scene because you may block the movement of other emergency vehicles. Instead, park about 100 feet past the scene on the same side of the road. It is best to park uphill and/or upwind of the scene if smoke or hazardous materials are present.

Asystole—especially when prolonged beyond 10 minutes—has a grim outcome. You should inform the patient’s wife that her husband is dead and that further resuscitative efforts will not change the outcome. To continue resuscitative efforts would be futile and may only instill false hope in the patient’s wife. Nonetheless, if the patient’s wife requests that you continue resuscitative efforts, you must do so.

The staging area in a mass-casualty incident is where all resources congregate and are dispatched to the most appropriate locations by the incident commander. It is at the staging area that individuals are assigned various tasks by the incident commander, such as triage officer, transport officer, and extrication officer.

Adults with decision-making capacity have the legal right to refuse EMS treatment and/or transport—even if it has already been initiated.

The Simple Triage and Rapid Treatment (START) system is a 60-second triage method that enables rescuers to rapidly identify those at greatest risk for rapid death. The START system focuses on four assessment parameters: ability to walk, respiratory effort, perfusion status, and mental status. Victims are classified as being delayed, urgent, immediate, or dead/dying. Based on the patient’s classification, an internationally recognized color-coded triage tag is placed on him or her. According to the START system, if a patient is apneic, you should reposition his or her airway and reassess for breathing. If breathing is still absent, the patient is classified as dead/dying and is identified with a black triage tag. If the patient’s breathing resumes, however, he or she is classified as immediate and is identified with a red triage tag.

A flammable solid is identified by a solid red placard. A non-flammable gas is identified by a solid green placard. Radioactive material is identified by a yellow and white placard. Explosive and blasting agents are identified by a solid orange placard.

In 2004, the ICS was included in the National Incident Management System (NIMS). Federal law requires all emergency response agencies to use the ICS, regardless of the type, size, and complexity of the incident. The ICS is not an algorithmic approach to all major incidents; it can easily be applied when the resources at the scene are sufficient to effectively manage the incident and can be adjusted accordingly if the size, duration, or complexity of the incident changes.

According to the Centers for Disease Control and Prevention (CDC), frequent hand-washing, especially in between patients, is the most effective method for preventing the spread of disease. Adherence to standard precautions (ie, gloves, mask, gown, etc) will minimize your risk of disease exposure. Keeping your immunizations up-to-date will help protect you from contracting certain diseases if you are exposed to them.

A critical incident defusing is typically performed within 2 to 4 hours after the incident and is an informal process designed to provide immediate relief and support to all who were involved in the incident. A critical incident defusing should be held no later than 12 hours after the incident. A critical incident stress debriefing (CISD) is a formal process that should occur within 24 hours but no later than 72 hours following the incident. Only those directly involved in the incident should attend a CISD.

Remember the “4 Ds” that are required to prove negligence: duty to act, duty not performed, direct harm, and disability to the patient.