

Topics

- Patients with Special Challenges
- <u>General Considerations in Responding</u> to Patients with Special Challenges
- · Diseases and Conditions
- Advanced Medical Devices
- Abuse and Neglect

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Disability

- Condition interfering with the ability to engage in activities of daily living
- Developmental disability
 - Cerebral palsy
 - Down syndrome

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Disability

- Result of traumatic injury or medical condition
 - Multiple sclerosis
 - Parkinson disease
 - Stroke
 - Traumatic brain injury
 - Spinal cord injury
- Many patients can live independently with accommodations.

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Disability



A blind patient may wish to touch the EMT's face. © Michal Heron

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Terminal Illness

- Progressive fatal diseases
 - End-stage cancer
 - Heart failure
 - Kidney failure
 - Huntington disease
 - Lou Gehrig disease

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Terminal Illness

- May depend on technology to sustain life or relieve pain
- · Advance directives
- Special emotional needs

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Obesity

- BMI of 30 or more
- Increases risk of multiple diseases
- Significant, growing problem in U.S.
- Special measures to care for obese patients
 - Allow patient to assume comfortable position for breathing.
 - Have enough assistance when lifting or moving patient.

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Homelessness and Poverty

- Serious health problems related to homelessness and poverty
 - Mental health problems
 - Malnutrition
 - Substance abuse problems
 - HIV/AIDS
 - Tuberculosis
 - Pneumonia

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Autism

- Affects 1 in 68 children
- · Affects ability to communicate
- May need to modify assessment techniques and treatment protocols

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Autism

- ABCS of dealing with patients who have autism
 - Awareness
 - Basic
 - Calm
 - Safety

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Awareness

- EMT must adapt approach and strategies to patient.
- Disruption of routine not well tolerated by patient
- Communication can be challenging.
- May have escalation or meltdown
 - Involuntary tantrum like behavior

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Basic

- Keep your instructions basic.
- Ask basic questions.
- · Basic means less "stuff"!
- · Keep your treatment basic.

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Calm

- · Calm creates calm.
- Start with one-to-one contact.
- · Clear, controlled voice
- Empathy, compassion
- · Take extra time.
 - Unless life-threatening emergency, follow patient's timeline.

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Safety

- Begin treatment where patient is found.
- Remove things that may aggravate child.
- Do a toe-to-head survey, one step at a time.
- · Consider taking breaks during exam.
- Let patient tell you when ready for next step.

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Think About It

 What is important to do with an autistic child who is escalating?

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General Considerations in Responding to Patients with Special Challenges

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Advanced Medical Devices in the Home

- Medical advances and insurance coverage have allowed more medical devices and care at home.
 - Results in more conditions that EMTs did not previously encounter
- Calls may be for a problem with the patient's device or a medical or traumatic problem unrelated to the device.

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Advanced Medical Devices in the Home



EMTs are increasingly called to assist patients who rely on advanced medical devices at home. This patient has a feeding line and a home ventilator connected to a eding line ariu u tracheostomy.

Variety of Health Care Settings

- · EMT may respond to calls at:
 - Private residences
 - Nursing homes
 - Specialty rehabilitation centers
 - Specialized care facilities

Knowledgeable Caregivers

- Caregivers likely trained on device
- · Ask caregivers:
 - Has problem occurred before? What fixed it?
 - Have you been taught how to fix this problem?
 - Have you tried to fix this problem? What happened?
 - How do you normally move patient?

A Knowledgeable Patient

- May be of help regarding:
 - Condition
 - Need for device
 - Functioning and operation of device
- · This approach depends greatly on the patient's mental status and baseline level of functioning.
- · Always explain what you are doing regardless of patient's condition.

A Knowledgeable Patient



The patient is often an expert on the device or devices she depends on. Enlist the patient's advice as you discuss her condition, special devices, and the assessments and care you plan to perform.

Following Protocols

- Is the problem with the device life threatening?
- Do I have the knowledge to fix this problem?
- Do I have supplies needed to fix this problem?
- Is it within my protocols or within medical control authorization?

Diseases and Conditions

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Diseases and Conditions

- Congenital diseases
 - Congenital heart disease
 - Cleft palate
 - Congenital deafness
- Acquired diseases
 - COPD
 - AIDS
 - Traumatic spinal cord injury
 - Deafness

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Diseases and Conditions

- Special concerns
 - Patient with a chronic disease may experience sudden worsening of disease.
 - Patient may also develop acute illness.
 - Acute illness may be more devastating because of coexisting chronic disease.

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Advanced Medical Devices

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Respiratory Devices

- Continuous positive airway pressure (CPAP) devices
 - Form of noninvasive positive pressure ventilation (NPPV)
 - Prevents alveoli from collapsing



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Respiratory Devices

- Continuous positive airway pressure (CPAP) devices
 - EMT assessment and transport
 - Problems not usually related to machine
 - Patient may wish to bring machine to hospital.
 - Alert hospital personnel of use of a CPAP device during sleep in radio report.

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Respiratory Devices

- Tracheostomy tubes
 - Surgical opening through neck (stoma) into trachea in which breathing tube is placed
 - A bag-valve mask (BVM) fits on end of tube.
 - Mucus build-up in tube
 - Patient may or may not be able to speak.

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Respiratory Devices

- Tracheostomy tubes
 - EMT assessment and transport
 - Check tube.
 - If clogged, insert whistle-tip catheter into stoma.
 - · Patient may buck during suction.
 - · May need to ventilate with BVM.
 - During transport, elevate patient's head to allow drainage.

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Respiratory Devices

- Home ventilators
 - Range of size from several pounds to over twenty pounds
 - Attached to ventilator circuit that enters the trachea
 - Patient may still lead an active life.
 - Problems include mucus plus and secretions or issues with the device.
 - Settings tailored for the patient

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Respiratory Devices

- Home ventilators
 - EMT assessment and transport
 - Make sure vent tube has no mucus build-up
 - · Assure that BVM is connected to oxygen
 - If transporting ventilator, secure device

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Cardiac Devices

- · Implanted Pacemakers
 - A small device is implanted under the skin and wires are implanted into the heart. (upper left chest or upper left ABD quadrant)
 - Designed to prevent the heart rate from becoming too slow
 - Delivers a series of low-energy pulses as set intervals to stimulate the heart to beat at a faster rate

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Cardiac Devices

- Implanted Cardiac Defibrillators (AICD)
 - Detects life-threatening cardiac rhythms
 - Delivers shock to correct dysrhythmia
 - Shock very painful to patient
 - · Cannot be felt by caregivers





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Cardiac Devices

- Implanted pacemakers and cardiac defibrillators
 - EMT assessment and transport
 - · May want to request ALS
 - Treat as high-risk cardiac patient.
 - · Provide high-concentration oxygen.
 - · Frequent reassessment needed.
 - If cardiac arrest, use CPR and AED as indicated.

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Left Ventricular Assist Device





This patient holds one of the two batteries that powers his implanted left ventricular assist device. The LVAD's controller is attached to his belt.

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Cardiac Devices

- · Left ventricular assist devices
 - While patient waiting for suitable donor for heart transplant, LVAD serves as a "bridge."
 - Moves blood from left ventricle through inserted tube to a pump implanted in the abdomen
 - Blood pressurized and sent to aorta for transport to the body.

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Cardiac Devices

- · Left ventricular assist devices
 - Infection, air leakage, battery failure
 - EMT assessment and transport
 - Battery failure
 - · Plug into AC source.
 - Pump failure
 - · Use hand or foot pump.
 - Battery should be secured so as not to pull tubing.

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Gastrourinary Devices

- Feeding tubes
 - Nasogastric tube (NG-tube)
 - Through nose into stomach
 - Gastrostomy tube (G-tube)
 - Through abdominal wall into stomach
 - · Longer-term nutrient delivery
 - Common problems include dislodgement, infection, and clog.

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Gastrourinary Devices

- Feeding tubes
 - EMT assessment and transport
 - Secure tube to patient's body with tape prior to transport
 - Keep nutrients higher than tube
 - Put protective cap in place to prevent leakage



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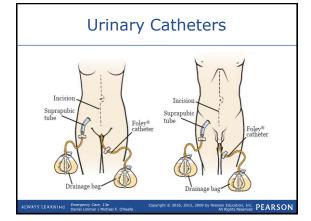
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Gastrourinary Devices

- Urinary catheters
 - Patient has lost ability to urinate or control when they urinate.
 - Down drain or leg bag
 - Problems include infection, blockages, urine discoloration, and dislodgement.

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Gastrourinary Devices

- Urinary catheters
 - EMT assessment and transport
 - During transport, keep catheter bag lower than patient (not on floor).
 - Document any urine discoloration or odor
 - · Empty bag if one-third to one-half full.
 - · Document amount emptied.

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Gastrourinary Devices

- Ostomy bags
 - Connected to site of colostomy or ileostomy
 - Not visible through clothing
 - Common problems
 - Infection at stoma site, blockage, or dislodgement

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Gastrourinary Devices

- Ostomy bags
 - EMT assessment and transport
 - · Use care when transporting patient.
 - Objective is to prevent breakage or dislodgement of bag.

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Gastrourinary Devices

- Dialysis
 - Patient has renal failure.
 - Dialysis replaces functions of kidney.
 - · Waste removal and fluid removal

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Gastrourinary Devices

- Dialysis
 - Hemodialysis
 - Performed by attaching patient to external machine (dialyzer)
 - · Usually at dialysis center
 - Large needles and tubing remove and return blood.
 - Complications
 - · Bleeding from A-V fistula, infection

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Gastrourinary Devices

- Dialysis
 - Peritoneal dialysis
 - Permanent catheter implanted through abdominal wall into peritoneal cavity
 - Dialysis solution runs into abdominal cavity and ultimately drained back into dialysis bag to be discarded.
 - Complications
 - Dislodging of catheter, infection (peritonitis)

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Gastrourinary Devices

- Dialysis
 - EMT assessment and transport
 - Do not take blood pressure on any arm with A-V shunt, fistula, or graft.
 - Rupture of shunt, fistula, or graft causes fast, significant blood loss.
 - · Direct pressure to control bleeding
 - Treat for shock.
 - Transport.

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Gastrourinary Devices

- · Central IV catheters
 - Surgically inserted for long-term delivery of medications or fluids
 - IV chemotherapy, parenteral nutrition
 - Peripherally inserted central catheter (PICC)
 - Central venous line

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Gastrourinary Devices

- · Central IV catheters
 - Implanted port
 - Complication
 - Infection at site

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Gastrourinary Devices

- · Central IV catheters
 - EMT assessment and transport
 - Use of central IV usually restricted to hospital personnel
 - · Be aware of type of catheter.
 - · Avoid tugging.
 - · Avoid contamination.

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Physical Impairments

- · Hearing, sight, or speech
- Each limitation requires different assessment/treatment approaches.
- Physical impairment does not mean mental impairment.
- Impairment may be partial or complete.

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Physical Impairments

- EMT assessment and transport
 - Provide necessary assistance.
 - Assess impairment.
 - · Baseline or new
 - Determine comfort level.
 - Explain actions and treatments.
 - When transporting, bring all aids required by patient.

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Abuse and Neglect

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Abuse and Neglect

- Vulnerable population
 - Patients dependent on others
 - Children and older adults
 - More vulnerable to physical and sexual abuse, exploitation, neglect

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Abuse and Neglect

- · What to look for:
 - Stories that are inconsistent with injuries
 - Multiple injuries in various stages of healing
 - Repeated injuries
 - Caregivers' indifference to patient

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Abuse and Neglect

- · Do not make accusations.
- Do best to get patient out of environment.
- Report suspicions according to requirements of jurisdiction.

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Think About It

 How does your approach in cases of possible abuse or neglect differ from your approach in other cases?

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Chapter Review

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Chapter Review

 Patients with special challenges include those who are homeless or living in poverty, are very obese, have sensory impairments, are terminally ill, have developmental disorders, and/or are technology dependent.

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Chapter Review

 A disability is a condition that interferes with a person's ability to engage in everyday activities, such as working or caring for oneself.

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Chapter Review

 Although patients with special challenges may require EMS for problems related to their disabilities or chronic conditions, do not assume that this is the case for a particular patient.

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Chapter Review

- It is critical for EMTs to treat patients with special challenges with empathy and respect.
- The homeless, poor, and obese are at increased risk for health problems.

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Chapter Review

 When dealing with patients who have autism, use ABCS: awareness (that ASD patients behave and react differently from most patients), basic (keep instructions, questions, treatments, and the environment simple), calm (be calm and patient; don't lose your temper, yell, or try to force the patient)...

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Chapter Review

- ... and safety (as much as possible, interact with the patient in his familiar surroundings, where he feels safe).
- Patients with special challenges, their families, and their caregivers are often very knowledgeable about the patients' needs and the function of their special equipment. As much as possible, rely on their expertise and involve them in care.

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Remember

- Assistive equipment and special accommodations allow many with special challenges to live normal lives.
- Beware of overstimulating a patient with an autism spectrum disorder.

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Remember

 To ensure proper care, you must recognize, understand, and evaluate the patient's special health care challenges in addition to the presenting problem or chief complaint that led to the call to EMS.

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Remember

- Caregivers and patients can provide valuable information on special health challenges and advanced medical devices.
- A chronic disease or medical condition may present as a primary problem or may complicate another illness or injury.

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Remember

- When encountering an advanced medical device, consider what the device is doing for the patient and how important the device is to the patient's survival.
- Special health challenges often make patients more vulnerable to abuse and neglect.

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Questions to Consider

- What does ABCS stand for when treating an autistic child?
- · What does a CPAP machine do?
- Can a responder be injured by an AICD that discharges?

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Critical Thinking

 You are called to transport a ventilator patient. As you begin your survey, the ventilator stops functioning. What steps should you take to care for this patient? What transport considerations do you have?

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