

Chapter 37, Special Challenges

Table of Contents

1. Introduction to Special Challenges in Emergency Care A

2. Intellectual and Developmental Disabilities A

3. Sensory and Physical Disabilities A

4. Care for Bariatric Patients A

5. Patients Reliant on Medical Technology A

6. Other Special Situations and Considerations A

7. Conclusion A

1. Introduction to Special Challenges in Emergency Care

- This report discusses **patients with special challenges** in emergency care.
- It covers the needs of patients with **developmental, sensory, and physical disabilities**.
- Understanding the **unique anatomy and physiology** of these patients is crucial.
- Special care is also needed for patients relying on **medical technology**.
- Even with medical equipment, the focus must remain on the **patient**.
- Follow the **ABCs (Airway, Breathing, Circulation)** as a core principle.

Patient Group	Key Characteristics
Developmental Disabilities	May impair physical ability, learning, language, or behavioral skills
Sensory Disabilities	Affect vision or hearing
Physical Disabilities	Affect body movement and physical function
Medical Technology Assistance	Rely on devices for breathing, eating, urination, or bowel function

Bariatric Patients	Have excessive body fat
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2. Intellectual and Developmental Disabilities

- **Intellectual disability** is a subset of developmental disability.
- It involves **limitations in intellectual functioning and daily living skills**.
- Diagnosis is made before age 18.
- **Possible causes** include genetic factors, birth complications, or environmental factors.
- **Autism spectrum disorder** is characterized by **deficiencies in social communication** and repetitive behaviors.
 - Patients may have **abnormal sensory responses**.
 - They might laugh or hum in response to pain.
 - Sensitivity to noise or physical stimulation can be increased.
 - Keep the environment **calm** and minimize stimulation.
 - Use **short, direct, and simple phrases**.
 - Allow extra time for processing communication.
 - Demonstrating techniques on a trusted individual can help.
- **Down syndrome** is a genetic chromosomal defect.
 - It results in **mild to severe intellectual impairment**.
 - Increased maternal age is a risk factor.
 - **Physical abnormalities** include a round head, flat occiput, and large protruding tongue.
 - They have an **increased risk for medical complications** like heart defects and leukemia.
 - **Intubation** can be difficult due to large tongues and small cavities.
 - The **jaw thrust maneuver** or nasopharyngeal airway may be needed.
 - Approximately 15 percent have instability in the upper spine.
 - This places them at **increased risk with trauma**.
 - Approach calmly and friendly.
 - Introduce team members and explain procedures.
 - Move slowly and deliberately.
 - Make sure you are at eye level.

Condition	Characteristics	Care Considerations
Intellectual D.	Limitations in intellect and daily living skills	Rely on patients/family for info; susceptible to same diseases
Autism	Deficiencies in social communication; repetitive behaviors; abnormal sensory R.	Keep environment calm; minimize stimulation; use simple phrases; allow time
Down Syndrome	Mild to severe intellectual impairment; physical abnormalities; increased risks	Approach calmly; introduce team; explain actions; intubation/ventilation challenges

3. Sensory and Physical Disabilities

- **Sensory disabilities** affect vision or hearing.
- **Visual impairment** can range from partial to total.
 - Causes include congenital disease, injury, or nerve degeneration.
 - Look for signs like a cane or service animal.
 - Make yourself known upon entering a room.
 - Introduce yourself and your team.
 - Retrieve and provide visual aids.
 - Tell the patient what is happening and identify noises.
 - Describe the situation and surroundings.
 - Ambulatory patients can be led by a light touch or by resting their hand on your shoulder.
 - Ask the patient their preferred method.
 - Gently guide, never pull or push.
 - Communicate obstacles in advance.
 - Take canes or walkers with you during transport.
 - Service animals can remain with the patient.
- **Hearing impairment** ranges from slight to total deafness.
 - Causes include nerve damage or faulty transmission.
 - Clues include hearing aids or failure to respond.

- Assist with hearing aids if needed.
- Face the patient to allow lip reading.
- Do not exaggerate lip movements or look away.
- Position yourself about 18 inches in front.
- Do not speak louder, try lowering your pitch.
- Consider American Sign Language, paper, or pencil.
- Only one person should ask questions.
- **Physical disabilities** include conditions like cerebral palsy and spina bifida.
 - **Cerebral palsy** is due to damage to the developing brain.
 - It causes poorly controlled body movement.
 - Symptoms range from mild to severe.
 - Observe the airway closely.
 - Do not assume intellectual disability.
 - Limbs may be underdeveloped and prone to injury.
 - Unsteady gait is common, leading to falls.
 - Pad the patient for comfort.
 - Never force extremities into positions.
 - Take walkers and wheelchairs during transport.
 - Be prepared for seizures and keep suctioning ready.
 - **Spina bifida** is a birth defect with incomplete spinal column closure.
 - This often leaves spinal and neurologic damage.
 - Associated conditions include hydrocephalus and paralysis of lower extremities.
 - Ask caregivers the best way to move the patient.
- **Paralysis** is the inability to move one or more body parts voluntarily.
 - Possible causes include stroke, trauma, or birth defect.
 - Sensation can be normal or increased.
 - Facial paralysis can cause communication challenges.
 - The diaphragm may need ventilator assistance.
 - Patients may have specialized equipment like catheters or feeding tubes.
 - Difficulty swallowing may require suctioning.
 - Ask caregivers the best way to move these patients.

Disability Type	Communication Strategies	Transport Considerations
Visual Impairment	Make yourself known; introduce team; describe surroundings; identify noises	Take cane/walker; service animal may remain; gentle guidance; communicate obstacles
Hearing Impairment	Assist with hearing aids; face patient; lower pitch; sign language/writing	N/A
Cerebral Palsy	N/A	Observe airway; pad for comfort; do not force extremities; take walkers/wheelchairs
Spina Bifida	Ask patient/caregivers best way to move	Ask patient/caregivers best way to move
Paralysis	Facial paralysis may cause challenges; suctioning may be needed	Ask parents/caregivers best way to move

4. Care for Bariatric Patients

- **Obesity** is a condition with excessive body fat.
- It results from an imbalance between calories consumed and used.
- Obesity is defined as being **30% or more over ideal body weight**.
- **Severe obesity** is two to three times over ideal body weight.
- Obesity can negatively affect quality of life.
- Associated health problems include **mobility difficulties, diabetes, high blood pressure, heart disease, and stroke**.
- Patients may feel **embarrassed** about their condition.
- **Plan early for extra help or specialized equipment** if transport is needed.
- Find the **easiest and safest exit route**.
- There is a **risk of dropping the patient or injuring team members**.
- **Treat the patient with dignity and respect** at all times.

- Ask the patient the **best way to move them**.
- Avoid lifting with only one limb to prevent injury.
- **Coordination and communication** are crucial during lifting.
- Discuss all moves prior to lifting.
- This prevents soft tissue injury or deep vein thrombosis.
- Look for **pinch and pressure points** from equipment.
- Become familiar with specialized equipment and resources.
- Large patients may have **difficulty breathing in a supine position**.
- Plan egress routes to accommodate large patients, equipment, and crew.
- **Notify the receiving hospital early**.

5. Patients Reliant on Medical Technology

- Many patients with chronic diseases live at home with medical devices.
- **Tracheostomy tubes** provide an airway between the neck and trachea.
 - They can be temporary or permanent.
 - Secretions can build up around the tube.
 - Tubes are prone to obstruction by mucus or foreign bodies.
 - The **DOPE mnemonic** helps recognize obstruction causes.
 - **D** stands for Displacement, Dislodged, or Damaged tube.
 - **O** stands for Obstruction (blood, secretions, vomit).
 - **P** is for Pneumothorax.
 - **E** is for Equipment failure (kinking, ventilator issue, empty O2).
 - Common problems include bleeding, air leaking, or infection.
 - Suction the patient in a comfortable position.
 - Insert the suction catheter no more than 1-2 inches.
 - Do not suction for more than 10 minutes.
 - Do not force the catheter.
 - Oxygenate before and after suctioning.
 - Call for advanced life support.
- **Home oxygen** can be delivered by gas cylinders or concentrators.
 - Gas cylinders are heavy and bulky but don't need electricity.
 - Concentrators take ambient air and provide almost 100% oxygen.

- Concentrators need electricity and usually supply 1-3 liters.
- Patients must have a backup plan for power failure.
- Ask why they are on oxygen and their baseline requirements.
- **Mechanical ventilators** are used when patients cannot breathe on their own.
 - Causes include lung disease, brain injury, or muscular dystrophy.
 - If the ventilator malfunctions, remove the patient.
 - Apply a tracheostomy collar or face mask over the stoma.
 - Caregivers will know how the ventilator works.
- **Apnea monitors** are used for infants to monitor heart and respiratory rate.
 - They sound an alarm if rates are low.
 - They attach with electrodes to a belt.
 - They provide a pulse ox reading.
 - Bring the monitor to the receiving facility if possible.
- **Internal cardiac pacemakers** regulate the heart.
 - Some include an AED function.
 - Never place D-fib or pacing pads over the device.
 - Gather history about the pacemaker.
 - Patients may have an identification card.
- **Left Ventricular Assist Devices (LVADs)** take over heart ventricle function.
 - They bridge to transplant or are a permanent solution.
 - It may be difficult to palpate a pulse with an LVAD.
 - Assess perfusion by level of consciousness, skin, and blood pressure.
 - Risks include bleeding, infection, blood clots, or heart failure.
 - Call the patient support team and contact medical control.
 - Check connections and batteries if the alarm sounds.
 - Notify advanced life support.
- An **external defibrillator device** is a vest with monitoring and pads.
 - It provides alerts and prompts before delivering a shock.
 - Leave the vest in place during CPR unless it interferes.
 - Transport any patient who has received a shock.
- **Central venous catheters** provide venous access via the vena cava.
 - They are used for chemotherapy, antibiotics, nutrition, or dialysis.
 - Common problems include broken lines, infection, or bleeding.

- A **gastrostomy tube (G-tube)** is placed into the stomach for feeding.
 - It can be inserted through the nose/mouth or surgically through the abdominal wall.
 - It may become dislodged.
 - Immediately stop fluid flow if dislodged.
 - Assess for signs of bleeding in the stomach.
 - Patients are at increased risk of aspiration.
 - Have suctioning readily available.
 - Transport patients with difficulty breathing while sitting or on their right side with head elevated.
 - Diabetic patients with G-tubes may become hypoglycemic.
 - Continue the feeding tube and transport the pump unless it's dysfunctional.

Medical Technology	Purpose	Common Problems
Tracheostomy Tube	Provides airway	Obstruction (mucus, foreign bodies); bleeding; air leaking; infection
Home Oxygen	Provides oxygen via cylinder or concentrator	Cylinders heavy/bulky; concentrators need electricity; supply runs out
Mechanical Ventilator	Assists breathing	Malfunction
Apnea Monitor	Monitors infant heart/respiratory rate	Alarm sounds for low rates
Internal Cardiac Pacemaker	Regulates heart rhythm	Pads should not be placed over device
LVAD	Takes over heart ventricle function	Bleeding; infection; blood clots; acute heart failure; pulse difficult to palpate

External Defibrillator	Vest with monitoring and pads for shock delivery	Can interfere with CPR; patient needs transport after shock
Central Venous Catheter	Provides venous access	Broken/clotted lines; infection; bleeding
Gastrostomy Tube (G-tube)	Provides stomach access for feeding	Dislodgement; bleeding; aspiration risk

6. Other Special Situations and Considerations

- **Shunts** drain excess cerebral fluid from the brain.
 - They keep pressure from building up.
 - Types include ventricular peritoneum or ventricular atrium shunts.
 - A device beneath the skin may be felt.
 - Shunts can become **blocked or infected**.
 - Infections may occur soon after insertion.
 - Signs of problems include high-pitched crying (infants), headache, vomiting, altered mental status, irritability, or fever.
 - Difficulty with coordination, blurred vision, seizures, redness along the shunt, or bradycardia may occur.
- **Vagal nerve stimulators** treat seizures not controlled by medication.
 - They stimulate the vagal nerve at intervals.
 - They are used with medications to reduce seizure frequency.
 - They are located under the skin.
- **Ostomies** (colostomy, ileostomy, urostomy) are surgical openings.
 - They allow waste elimination into external bags.
 - Assess for signs of dehydration with diarrhea or vomiting.
 - The area around the stoma is prone to infection.
 - Signs of infection include warmth, redness, or tenderness.
 - Contact medical control or follow protocols for care.
- **Home care** patients receive services in their home.
 - This includes infants, older adults, and those with chronic illnesses.
 - Services range from meals and cleaning to personal care and wound care.

- Obtain status and history from the home healthcare provider.
- **Hospice care** is for terminally ill patients.
 - It provides comfort (palliative) care.
 - Most hospice patients have **do not resuscitate (DNR) orders**.
 - Follow local protocols and legal documents like DNRs.
 - Care at home impacts the family; show compassion and sensitivity.
 - Ascertain the family's wishes about remaining home or transport.
 - Follow protocols for handling death.
- **Poverty and homelessness** present special challenges.
 - Individuals may lack basic needs like housing, food, and healthcare.
 - Lack of disease prevention leads to increased probability of illness.
 - The homeless population includes those with mental illness, brain trauma, victims of abuse, and those with addiction.
 - Provide emergency care and transport to the appropriate facility.
 - All healthcare facilities must provide assessment and treatment regardless of ability to pay.
 - Become familiar with community social services resources.

7. Conclusion

- This lecture covered **patients with special challenges**.
- Understanding the unique needs of these patients is vital.
- The focus should always be on the **patient**, following the ABCs.
- Knowledge of intellectual, developmental, sensory, and physical disabilities is important.
- Care for bariatric patients requires planning and dignity.
- Patients with medical technology need specific care and troubleshooting.
- Situations like shunts, vagal nerve stimulators, ostomies, home care, hospice, poverty, and homelessness require informed care.
- Interacting with caregivers is an important part of assessment.
- Compassion, understanding, and sensitivity are crucial in all interactions.
- This report summarizes key considerations for patients with special challenges.

