Chapter 3

Patient Safety, Communication, and Recordkeeping
Learning Objectives

- Describe how to apply good body mechanics and posture to moving patients.
- Describe how to ambulate a patient and the potential benefits of ambulation.
- Write definitions of key terms associated with electricity including **voltage**, **current**, and **resistance**.
- Identify the potential physiologic effects that electrical current can have on the body.
Learning Objectives

- State how to reduce the risk of electrical shock to patients and yourself.
- Identify key statistics related to the incidence and origin of hospital fires.
- Identify impediments to care and risk in the direct patient environment.
- List the conditions needed for fire and how to minimize fire hazards.
- State how communication can affect patient care.
- Describe the two patient identifier system.
Learning Objectives

- List the factors associated with the communication process.
- Describe how to improve your communication effectiveness.
- Describe how to recognize and help resolve interpersonal or organizational sources of conflict.
- List the common components of a medical record.
- State the legal and practical obligations involved in record keeping.
- Describe how to maintain a problem-oriented medical record.
Patient Safety Continuum

- Respiratory therapist and health care team
- Communication and recordkeeping
- Safety considerations
Safety Considerations

- Patient Movement & ambulation
  - Good posture minimizes risk of injury when moving patients or heavy equipment
  - RTs should use their legs with straight spine to lift patients & heavy objects
Basic Body Mechanics
Moving the Patient in Bed

A

B
Moving the Patient in Bed
Moving the Patient in Bed
Ambulation

- Extended bed rest can lead to new medical problems, such as atelectasis
- Ambulation (walking) helps restore & maintain normal body function
- Ambulation should begin as soon as patient is stable & free from severe pain
- Ambulation can reduce length of hospital stay
Extended bed rest can result in which of the following?

A. atelectasis
B. Diabetes
C. COPD
D. asthma
Electrical Safety

- Fundamentals of Electricity
  - Electricity moves from point A to point B due to differences in voltage
  - Voltage is power behind electrical energy
  - Most homes & hospitals are powered w/ 120-V power sources
Electrical Safety (cont.)

- Power sources w/ high voltage have potential to generate large amounts of electrical current
- Current is directly related to voltage difference between point A & point B, & inversely related to resistance of object
- Objects w/ little resistance (e.g., copper wire) allow maximum current to flow
Electrical Safety (cont.)

- Objects w/ high resistance (e.g. rubber tubing) allow minimal or no current to flow
- Current represents greatest danger when electrical shorts occur
- Current is reported in **amperes**; resistance is reported in **ohms**
Electrical Safety (cont.)

- Harmful effects of current depend on:
  - Amount of current flowing through body
  - Path it takes
  - Duration current is applied
- High currents passing through chest can cause ventricular fibrillation, diaphragm dysfunction, & death
High currents that pass through the chest can cause all of the following, except:

A. Death
B. ventricular fibrillation
C. diaphragm dysfunction
D. atelectasis
Electrical Safety (cont.)

- Electrical devices have “hot” wire & “neutral” wire
  - Neutral wire completes circuit by taking current to ground
- Ground is low-resistance pathway to point of zero voltage
Electrical Safety (cont.)

[Diagram showing a practitioner touching an instrument with a defective ground or other undergrounded metal surface, leading to a pacemaker. A pacer wire is connected to the heart of a patient, while a monitor grounds the right leg of the patient. A plug labeled as 'Ground' is also shown.]
Electrical Safety (cont.)

- Preventing Shock Hazards
  - Most shock hazards are caused by inadequate grounding
  - All electrical equipment should be connected to grounded outlets w/ three-wire cords
  - All electrical equipment used for patient care must be checked by qualified expert on regular basis
Most shock hazards are caused by what?

A. inadequate grounding
B. caregiver neglect
C. faulty wiring
D. oxygen leakage
Fire Hazards

- 1980: about 13,000 fires were reported in health care facilities in U.S.
- By 2000: number dropped to 2,000
- Dramatic decrease due to education & strict fire-code enforcement
Fire Hazards (cont.)

- Most hospital fires start in kitchen
- About 15% of hospital fires occur in patient care areas & are often related to smoking
- Hospital fires cause approximately $9 million in damage
- Fires in areas where oxygen is being used are especially dangerous
Fire Hazards (cont.)

- Fires in oxygen-enriched atmospheres (OEAs) are larger, more intense, faster burning, & more difficult to extinguish
- Hospital fires are more serious b/c evacuation of critically ill patients is difficult
What makes hospital fires more serious than those at other non-medical facilities?

A. the amount of people in the hospital
B. not enough emergency exits
C. the amount of nitrogen dioxide in use
D. the evacuation of critically ill patients is difficult
3 conditions must exist for fire to start:
- Flammable material must be present
- Oxygen must be present
- Flammable material must be heated above its ignition temperature

Oxygen is not flammable, but:
- It can greatly accelerate rate of combustion
- Oxygen supports combustion
Fire Hazards (cont.)

- Flammable material should be removed from vicinity of oxygen use
- Ignition sources, such as cigarette lighters, should not be allowed in rooms where oxygen is in use
- Children should not play with toys that may create spark when oxygen is in use
Fire Hazards (cont.)

- PASS – fire extinguisher training
  
  P – pull pin
  A – aim nozzle
  S – squeeze handle
  S – sweep nozzle across base of fire
Fire extinguisher training includes learning which acronym?

A. RACE
B. NBRC
C. CBC
D. PASS
Fire Hazards (cont.)

- RACE – core fire plan
  
  R – Rescue patients in immediate area of fire.
  A – Alert other personnel to fire.
  C – Contain the fire; shut doors to prevent spreading of fire.
  E – Evacuate other patients & personnel.
General Safety Guidelines

• Direct patient environment should be:
  ➢ Free of impediments to care
    • Beware of anything creating direct fall risk
  ➢ RTs responsibility to position equipment: tubing & treatments out of way of potential risk

• Disaster preparedness includes: transport & transfer of critically ill, & preparation for loss of electricity

• Magnetic resonance imaging (MRI) safety
  ➢ No metal components or objects allowed in MRI suite!
  ➢ MRI compatible ventilators, oxygen supplies, & ancillary equipment.
General Safety Guidelines (cont.)

- Medical gas cylinders:
  - Proper storage & handling to prevent fire risk
    - Explosive release of high pressure cylinders
  - Toxic effects of some gases

- National Fire Protection Association (NFPA)
  - Regulates storage of medical gases
  - Monitoring by The Joint Commission (TJC)
    - Hospital accrediting organization
What is the role of the RT when it comes to the patient’s direct environment?

A. to position the equipment, tubing and treatments out of the way as much as possible.
B. to keep the patient in supine position at all times
C. hold the patient’s arm while they are walking
D. to make sure their nurse wears special shoes so as not to trip over the tubing
Communication in Health Care

- Communication has 5 basic components:
  - Sender, Message, Channel, Receiver, & feedback
- Success as RT depends on your ability to communicate well with patients & other members of team.
- Poor communication can:
  - Limit your ability to treat patients
  - Work well with others
  - Find satisfaction in your employment
Elements of Communication

Sender
- Communication skills
- Attitudes
- Experience
- Culture
- Self-concept

Message
- Elements
- Structure
- Content
- Treatment
- Coding

Channel
- Seeing
- Hearing
- Touching
- Smelling
- Tasting

Receiver
- Communication skills
- Attitudes
- Experience
- Culture
- Self-concept

Feedback
Effective communication: most important aspect of safe patient care.

TJC’s goals for 2010, improve:

- Accuracy of patient identification
- Communication of critical test values among caregivers
  - Should include “Read-back” scenario verifying accurate reporting & recording of test values.
Communication in Health Care (cont.)

- All healthcare personnel must use “two patient identifier” before initiating care, which includes:
  - Patient name
  - Birth date
  - Medical record number

- Factors affecting communication
  - Verbal & Internal qualities (e.g., values, experiences, etc.) of sender & receiver
  - Nonverbal communication skills of sender
Factors Influencing Communication

INTERNAL FACTORS
- Previous experiences
- Attitudes, values
- Cultural heritage
- Religious beliefs
- Self-concept
- Listening habits
- Preoccupations, feelings

SENSORY/EMOTIONAL FACTORS
- Fear
- Stress, anxiety
- Pain
- Mental acuity, brain damage, hypoxia
- Sight, hearing, speech impairment

ENVIRONMENTAL FACTORS
- Lighting
- Noise
- Privacy
- Distance
- Temperature

VERBAL EXPRESSION
- Language barrier
- Jargon
- Choice of words/questions
- Feedback, voice tone

NONVERBAL EXPRESSION
- Body movement
- Facial expression
- Dress, professionalism
- Warmth, interest

INTERNAL FACTORS
- Previous experiences
- Attitudes, values
- Cultural heritage
- Religious beliefs
- Self-concept
- Listening habits
- Preoccupations, feelings
- Illness
Effective Communication

Box 3-1  Basic Purposes of Communication in the Health Care Setting

- To establish rapport with another individual, such as a colleague, a patient, or a member of the patient’s family
- To comfort an anxious patient by explaining the unknown
- To obtain information, such as during a patient interview
- To relay pertinent information, as when charting the results of a patient’s treatment
- To give instructions, as when teaching a patient how to perform a lung function test
- To persuade others to take action, as when attempting to convince a patient to quit smoking
Improving Communication

- Share information rather than tell it
- Seek to relate to people rather than to control them
- Value disagreement as much as agreement
- Use effective nonverbal communication techniques
Improving Communication (cont.)

- The Practitioner as Listener
  - Work at being good listener
  - Stop talking; avoid interrupting speaker
  - Resist distractions; tune them out
  - Keep your mind open; be objective
  - Hear the speaker out before making evaluation
  - Maintain composure; control emotions
Improving Communication (cont.)

- Providing feedback
  - **Attending**: involves use of gestures & confirming remarks
  - **Paraphrasing**: repeating others’ response in one’s own words
  - **Requesting clarification**: should be nonjudgmental in nature
Improving Communication (cont.)

- Providing feedback
  - **Perception checking;** done by confirming or disproving more subtle components of communication interaction
  - **Reflecting feelings;** provide opportunity for patients to express & reflect on their emotions
By allowing the patient to reflect their feelings, you are:

A. providing them the opportunity to express and reflect on their emotions
B. repeating their response in your own words
C. clarifying any miscommunication
D. comforting an anxious patient by explaining the unknown
Conflict and Conflict Resolution

- **Sources of Conflict**
  - Poor communication is primary source of conflict in organizations
  - Structural problems occur more often w/ larger organizations & when employees have little control over their work
Sources of Conflict (cont.)

- Personal behavior; various personalities & beliefs can create conflict in workplace
- Role conflict occurs when employee is pulled in different directions by individuals with different expectations
Conflict Resolution

There are 5 basic strategies for handling conflict:

1. **Competing**: represents assertive & uncooperative conflict resolution strategy (e.g., boss uses his or her authority to settle dispute)

2. **Accommodating**: represents opposite of competing; conflict settled by “giving in”

3. **Avoiding**: both parties do not pursue their concerns; may lead to unresolved issues

4. **Collaborating**: involved parties try to find mutually satisfying solutions to conflict

5. **Compromising**: middle-ground strategy that combines assertiveness & cooperation
Conflict Resolution (cont.)

- Deciding which type of conflict resolution strategy to use requires insight into context of problem
Recording Keeping

- Medical record or chart provides written statements of occurrences pertaining to patient
- Medical records are strictly confidential & are protected under Health Insurance & Portability Act (HIPPA)
- Includes confidential health insurance or billing information
- Records represent legal document & could be used in court
Recording Keeping (cont.)

- Federal government would like all medical recordkeeping done electronically by 2014
- Electronic medical record (EMR) is new way practitioners can document care
- Record keeping is major significant duty you perform
General Rules for Record Keeping

- Entries should be printed or handwritten
- Do not use ditto marks
- Do not erase
- Record each patient interaction & sign entry
- Document patient complaints
General Rules for Record Keeping (cont.)

- Do not leave blank lines
- Use standard abbreviations only
- Use present tense
- Use proper spelling
- Document all important conversations
- Be accurate
General Rules for Record Keeping (cont.)

- Each health care facility has its own specification for keeping medical records
- Documentation flow sheets are designed to:
  - Briefly report data
  - Decrease time spent in documentation
- Use standardized terms & abbreviations
- TJC has published a “Do Not Use” abbreviation list developed to reduce potential errors (see Table 3-2 in text)
# Documentation Form

<table>
<thead>
<tr>
<th>Current Ventilator Settings</th>
<th>Spont. Resp. Mechanics</th>
<th>Pre-wean ABG</th>
<th>Post-wean ABG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mode</strong></td>
<td><strong>Min. Volume (V&lt;sub&gt;1&lt;/sub&gt;)</strong></td>
<td><strong>pH</strong></td>
<td><strong>pH</strong></td>
</tr>
<tr>
<td><strong>Resp. Rate</strong></td>
<td><strong>Res. Rate</strong></td>
<td><strong>PaCO&lt;sub&gt;2&lt;/sub&gt;</strong></td>
<td><strong>PaCO&lt;sub&gt;2&lt;/sub&gt;</strong></td>
</tr>
<tr>
<td><strong>Tidal Volume</strong></td>
<td><strong>Tidal Volume</strong></td>
<td><strong>PaO&lt;sub&gt;2&lt;/sub&gt;</strong></td>
<td><strong>PaO&lt;sub&gt;2&lt;/sub&gt;</strong></td>
</tr>
<tr>
<td><strong>Peak Pressure</strong></td>
<td><strong>Max. Inp. Pressure</strong></td>
<td><strong>HCO&lt;sub&gt;3&lt;/sub&gt;</strong></td>
<td><strong>HCO&lt;sub&gt;3&lt;/sub&gt;</strong></td>
</tr>
<tr>
<td><strong>FiO&lt;sub&gt;2&lt;/sub&gt;</strong></td>
<td><strong>Vital Capacity</strong></td>
<td><strong>BE</strong></td>
<td><strong>BE</strong></td>
</tr>
<tr>
<td><strong>PEEP</strong></td>
<td><strong>1/V&lt;sub&gt;e&lt;/sub&gt; ratio</strong></td>
<td><strong>SaO&lt;sub&gt;2&lt;/sub&gt;</strong></td>
<td><strong>SaO&lt;sub&gt;2&lt;/sub&gt;</strong></td>
</tr>
<tr>
<td><strong>PSV</strong></td>
<td><strong>Static Comp.</strong></td>
<td><strong>PaO&lt;sub&gt;2&lt;/sub&gt;/FiO&lt;sub&gt;2&lt;/sub&gt;</strong></td>
<td><strong>PaO&lt;sub&gt;2&lt;/sub&gt;/FiO&lt;sub&gt;2&lt;/sub&gt;</strong></td>
</tr>
<tr>
<td><strong>AutoPEEP</strong></td>
<td><strong>Plateau Pressure</strong></td>
<td><strong>FiO&lt;sub&gt;2&lt;/sub&gt;</strong></td>
<td><strong>FiO&lt;sub&gt;2&lt;/sub&gt;</strong></td>
</tr>
</tbody>
</table>

No Spontaneous Mechanics due to: 
- Hemodynamic instability
- ICP
- Paralytic
- Sedation
- Other

No Weaning due to: 
- Hemodynamic instability
- ICP
- Paralytic
- Sedation
- Poor Spont Mechanics
- Other

## Weaning Mode Guidelines

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Rapid Vent &lt;5 days</th>
<th>Slow Vent &gt;5 days</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>Vent adjustment Q 30 mins</td>
<td>Vent adjustment Q 1 hour</td>
</tr>
</tbody>
</table>

## Weaning Guideline

- Reduce PSV to 75%, 50%, 25% of initial setting
- Pressure Support: Rapid PSV <5 cm H<sub>2</sub>O x 2 hrs → extubate
- Slow PSV <5 cm H<sub>2</sub>O x 4 hrs → extubate

## Extubation Guidelines

<table>
<thead>
<tr>
<th>Time</th>
<th>Duration</th>
<th>PSV Level</th>
<th>PSV/Spont. V&lt;sub&gt;e&lt;/sub&gt;</th>
<th>V&lt;sub&gt;e&lt;/sub&gt;</th>
<th>RR</th>
<th>HR</th>
<th>SpO&lt;sub&gt;2&lt;/sub&gt;/SaO&lt;sub&gt;2&lt;/sub&gt;</th>
<th>BP</th>
<th>MAP (mm Hg)</th>
<th>PEEP</th>
<th>FiO&lt;sub&gt;2&lt;/sub&gt;</th>
<th>RCP</th>
</tr>
</thead>
</table>

Total Weaning Time: __________ Last successfully weaned PSV level: __________ cm H<sub>2</sub>O

## Weaning Failure Guidelines

1. MAP change ≥ 20 mm Hg?
2. HR change ≥ 20 bpm?
3. PaCO<sub>2</sub> ≥ 50 by 10 ~ 20 min H<sub>2</sub>O and is 10 over pl. projected baseline?
4. PaO<sub>2</sub> ≥ 50? by 10 ~ 20 min H<sub>2</sub>O despite FiO<sub>2</sub> ≥ 40?
5. pH < 7.30?
6. RR > 30 ~ 35 bpm?
7. SpO<sub>2</sub> < 90% on FiO<sub>2</sub> ≥ 50?
8. V<sub>e</sub>/V<sub>e</sub> > 105?

## Actions

- Successful wean? Yes No [If No, comment]
- Extubated? Yes No [If No, comment]
- Practitioner #1: ________________________  Loma Linda University Medical Center
- Practitioner #2: ________________________  Loma Linda University Community Medical Center
- Department of Respiratory Care
Problem-Oriented Medical Record

- POMR: documentation format used by some health care institutions
- POMR has 4 basic parts
  1. Database
  2. Problem list
  3. Plan
  4. Progress notes
Problem-Oriented Medical Record

- POMR progress notes use SOAP format:
  S = Subjective (patient’s complaints)
  O = Objective (results of physical exam, lab tests, ABGs, chest radiograph, etc.)
  A = Assessment (What is problem?)
  P = Plan (How is problem to be treated?)
### SOAP

**Subjective**

| Vital signs: RR ___ HR ___ BP ___ |
| Temp. ____ On antipyretic agent? □ Yes □ No |
| Chest assessment: |
| Insp. ______ |
| Palp. ______ |
| Perc. ______ |
| Ausc. ______ |
| Radiography ______ |
| Bedside spir.: PEFR ___ P ___ Tx |
| SVC ___ FVC ___ NIF |

**Objective**

| Cough: □ Strong □ Weak |
| Sputum production: □ Yes □ No |
| Sputum char. ______ |
| ABG: pH ___ PaCO₂ ___ HCO₃⁻ |
| PaO₂ ___ Sao₂ ___ SpO₂ |
| Neg. O₂ transport factors ______ |
| Other: ______ |

**Assessment**

| PRESENT PLAN |

**Plan**

| PLAN MODIFICATIONS |
When documenting notes in POMR, what format should be followed?

A. RACE  
B. PASS  
C. SOAP  
D. NBRC