

# 4N051, Module 3, Patient Care and Population Health



**Lesson 1: Customer Service Conflict Resolution**



**Lesson 2: Professional Standards and Ethics**



**Lesson 3: Legal Aspects of Patient Care**



**Lesson 4: Information Systems**



**Lesson 5: Documentation**



**Lesson 6: Advanced Directives**



**Lesson 7: Considerations for Patients with Access and Functional Needs**



**Lesson 8: Ambulance/Emergency Response Operations**



**Lesson 9: Population Health Principles (Continuum of Care)**

## Lesson 1: Customer Service Conflict Resolution

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**After completing this lesson, the student will be able to identify customer service conflict resolution in accordance with prescribed guidance and publications.**

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You have probably completed several questionnaires or surveys on everything from in- and out-processing to the quality of services in different establishments. The purpose of a survey is to collect feedback from the customers in order to serve them better.

We need the same information within the health care system. Feedback is critical and it is a great tool to evaluate whether you are meeting the standards, needs, and expectations of your customers.





The survey program was formally established in response to the National Defense Authorization Act Public Law. No. 102-484, § 724, 106 Stat. 2315, 2440 (1992) which states; the administering secretaries shall conduct annually a formal survey of persons receiving health care to determine:

- Availability of services provided, type of services received and facilities where provided
- Familiarity with availability and facilities
- Health status
- Satisfaction with system and quality provided
- Other matters as appropriate

Defense Health Agency (DHA) and Decision Support Division (DSD) health care scientists collect information to measure beneficiary and staff satisfaction and to support functions such as: strategic planning and marketing; improving quality of care/access; contractual performance; and responding to the Military Health System (MHS) and Department of Defense (DoD) requests. Surveys are benchmarked against national norms. Results are monitored to implement change as appropriate. DSD's DoD Health Care Survey Operations and Information Control provides the direction, coordination and oversight for all DoD-wide health care survey research/operations.



Thank you for taking the time to participate in the **Joint Outpatient Experience Survey**. This is your opportunity to tell the leadership of your opinions and experiences with the military health system.

Your answers will be held in the strictest confidence and you will not be identified in any release of survey data. The results of this survey will be used to improve the quality of healthcare throughout our military community.

To begin, please enter your **Survey ID** number and the eight-digit **Password** found on your letter in the fields below, then click on the "Submit" button to enter the survey.

Please press the "Submit" button only once.

Survey ID:

Password:

Joint Outpatient Experience Survey (JOES) combines and standardizes the long-standing Services outpatient surveys to focus on the beneficiary experience with care received in military treatment flights (MTFs). It will also include a separate monthly survey based on the DHA TRICARE Outpatient Satisfaction Survey (TROSS), called JOES-C (where "C" stands for Consumer Assessment of Health Providers and Systems (CAHPS- clinician and group survey)). JOES-C will continue to focus on beneficiary experience in both direct and purchase care provider offices, and will allow MHS to compare our beneficiary results to the civilian benchmark results. JOES will be managed by a tri-Service working group using a single central contract.

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Below is the Interactive Customer Evaluation (ICE) website that enables customers to rate services they have received from DoD facilities.

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**ICE DISA**



## ICE Home

The Interactive Customer Evaluation (ICE) application enables customers to find information about services offered by DoD offices and facilities or rate your experiences with services you have received. Your feedback and ratings are used to improve the products and services available to you.

**READ MORE DISA >**

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By using this website, you can identify the following areas:

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### Outstanding Satisfaction

Some questions you should ask are:

- Where was the care given?
- Who provided the care?
- How was the care given?

## **Recommended Areas of Improvement**

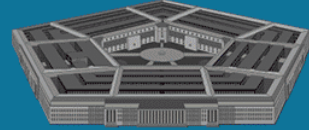
Areas of recommended improvement are divided into two categories:

- For staff
- For processes



## Welcome to ICE!

### LET YOUR VOICE BE HEARD



Search for the Base, State, or Country where you received services

The Interactive Customer Evaluation (ICE) application enables customers to find information about services offered by DoD offices and facilities or rate your experiences with services you have received.

Your feedback and ratings are used to improve the products and services available to you.

[Intended Usage Advisory](#)  
[Accessibility Statement](#)  
[External Link Disclaimer](#)  
[Privacy and Security Notice](#)

[No FEAR Act](#)  
[Freedom of Information Act](#)  
[Section 508](#)

[USA.gov](#)  
[Department of Defense](#)  
[The White House](#)  
[GSA](#)

**True or False:** The purpose of a survey is to collect feedback from the customers in order to serve them better?

☐

True



False

SUBMIT



Complete the content above before moving on.

## Conflict Resolution

Have you ever had a bad day? Have you ever noticed that the things you normally would not have given a second thought becomes a world-ending issue? On top of feeling ill or being concerned about a sick family member, patients experience crises and bad days as well. While patients (or family members) should not be rude, sometimes they are. We must remember to be polite and professional. Below are some actions to take that can help you deal with the difficult patients issues more effectively.



1

Never argue. The patient may not always be right but arguing will only worsen the situation.

2

Remain calm and professional. This is very important in case the patient complains about you; your supervisor (or a staff member) can defend you and your behavior. When you are agitated, unprofessional, or appear to be threatening to the patient, you risk corrective action. Also, keep your body language and facial expressions under control.

3

Attempt to escort the patient to a private setting (e.g. office). Doing so will remove the presence of viewers as confrontations draw attention, giving a perception of an unprofessional encounter.

4

Seek help! All conflicts will not be resolved at your level and will need to be elevated. Notify your supervisor or the patient advocate for assistance.



**Customer Service Training - Never Argue Video Transcript.pdf**  
151.6 KB



## Resolving Conflict



**Define the problem:** Listen! Don't put it off. Address it when conflict arises and deal with it right away. Have a meeting. Gather information, ask open-ended questions.

**Identify solutions:** Be impartial. Weigh the pros and cons of each side.

**Choose the best solution:** Keep emotions out of it. Work together to come up with the best solution for all parties.

**Implement the solution:** Act on it!

**Evaluate the results:** Assess the outcome and make sure you made the right solution.

Step 1

Define the Problem

1 of 5

Step 2

Identify Solutions

2 of 5

Step 3

Choose the Best Solution

3 of 5

Step 4

Implement the Solution

4 of 5

Step 5

Evaluate the Results

Re:

and

technicians about the appointment line not working and that the clinic's phone number listed online, no one is answering, and it has been four days since they sent a message to the nurse online with no response.

There are several people sitting in the waiting area who are staring and listening with concern. The front desk is unable to assist the member so they call you to come help with the situation.

With what you have just learned about conflict resolution, what initial steps would you take in order to deal with this difficult patient?

Type your answer here

SUBMIT

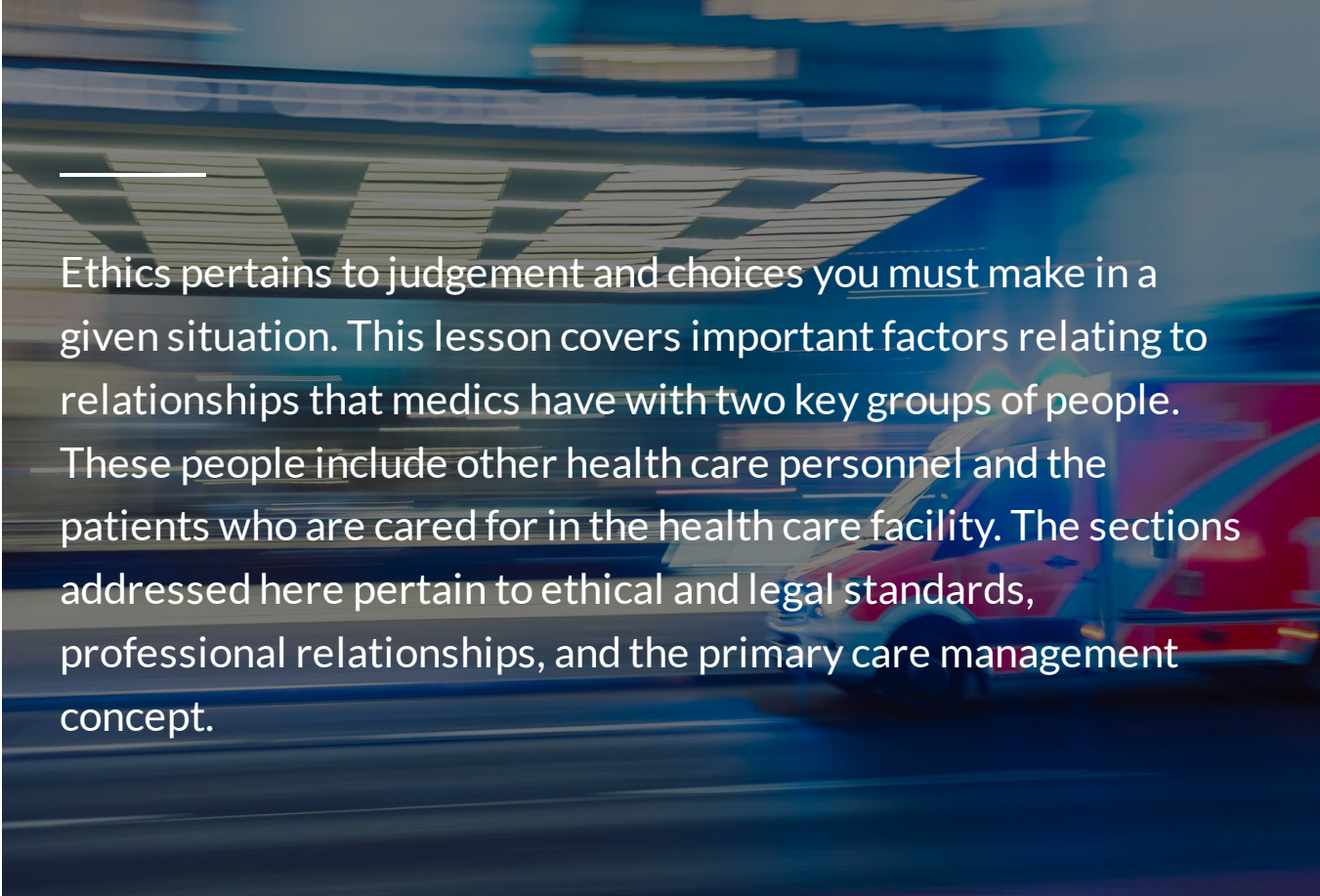
END OF LESSON

## Lesson 2: Professional Standards and Ethics

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**After completing this lesson, the student will be able to identify the professional standards and ethics principles in accordance with prescribed guidance and publications.**



Ethics pertains to judgement and choices you must make in a given situation. This lesson covers important factors relating to relationships that medics have with two key groups of people. These people include other health care personnel and the patients who are cared for in the health care facility. The sections addressed here pertain to ethical and legal standards, professional relationships, and the primary care management concept.



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Ethical judgment is making a moral decision on what should be done in a given situation. Most professions have a code of ethics that relate to the job. This code includes both rules and a standard of conduct that members of the profession are expected to follow.

What is moral character? What attributes or virtues make up a moral health care provider? The ancient Grecian traits of temperance, wisdom, courage, and fortitude were all facets of moral character. These are still valid today. Christian attitudes of faith, hope, and clarity are also still valid, as is the Puritan ethic of industriousness. Add to this list confidentiality, honesty, and compassion and you should have a good idea the conduct of a person in the medical profession is expected to be above reproach. Good moral character usually boils down to treating others as you'd like to be treated.

What is an obligation? Many philosophers agree an obligation is more than just a feeling we have. It's more of a pull to do something based on certain character traits. If you feel compelled to act a certain way, it's because your moral character pulls or tells you to act that way.

If the moral character is sound, then the moral obligations and resultant behavior will be sound; you'll perform your duties with a high standard of conduct. As we progress through life, we are continually changing our behavior based on new morals. What was acceptable before we came in the Air Force may not be acceptable now. With that in mind, our morals are influenced thus changing our behaviors. This is a good thing as we become more professional in our daily lives. It doesn't make a difference what the duty is, as long as it's performed ethically. Though many professions have a formal written code of ethics, following the guidelines should be a matter of common sense.



The American Nurses Association has a code of ethics for registered nurses (RN) and the National Federation of Licensed Practical Nurses has a code of ethics for licensed practical nurses (LPN). In the aerospace medical service specialty, the ethical standard followed includes portions of the previously mentioned standards. All stipulate that health care providers must have certain character traits and perform their duties in a moral way. Some of the traits are service above self, doing no harm, and treating all patients with compassion.

Good moral character boils down to treating others as you would like to be treated. An obligation is more of a pull to do something based on certain character traits. If the moral character is sound, then the moral obligations and subsequent behavior will be sound. It does not make a difference what the duty is, as long as it is performed ethically and with a high standard of conduct.

**Professionalism** is the **key** to standards of conduct. The **conduct** of a person in the medical profession is **expected** to be

above reproach.

Term	Definition
Autonomy	Respect for others; recognize the right of individuals to make their own decisions
Justice	Fairness
Moral principles	General philosophical concepts pertaining to morals and ethics
Moral rules	Specific guidelines applied in ethical discussions or decision-making
Non-maleficence	The duty or responsibility to do no harm. Non-maleficence is a basic ingredient for a code of ethics
Beneficence	Doing good
Fidelity	Faithful to do good. Acting in a responsible manner.
Veracity	Truthful. Veracity breeds trust



The underlying foundation for conduct is a respect for all individuals as human beings. Ask yourself, “What is the right thing to do?” The answer becomes evident in most cases. It’s all a matter of applying good moral judgment to all situations. Think service before self.

# Standards of Conduct for Patient Care



## Step 1

**Respect each person as an individual.**



Listen to your patient's needs and why they are there. Treat and help them as though they were a loved one or someone you really care about.



## Step 2

**Know the limits of your role and knowledge.**



Ensure you know your maximum capabilities. If you are instructed to do something for or to the patient and you haven't been trained or don't feel comfortable; speak up!

### Step 3

**Perform only the tasks within the legal limits of your role.**



You can only perform the tasks that are outlined and correlate with your level of training.

#### Step 4

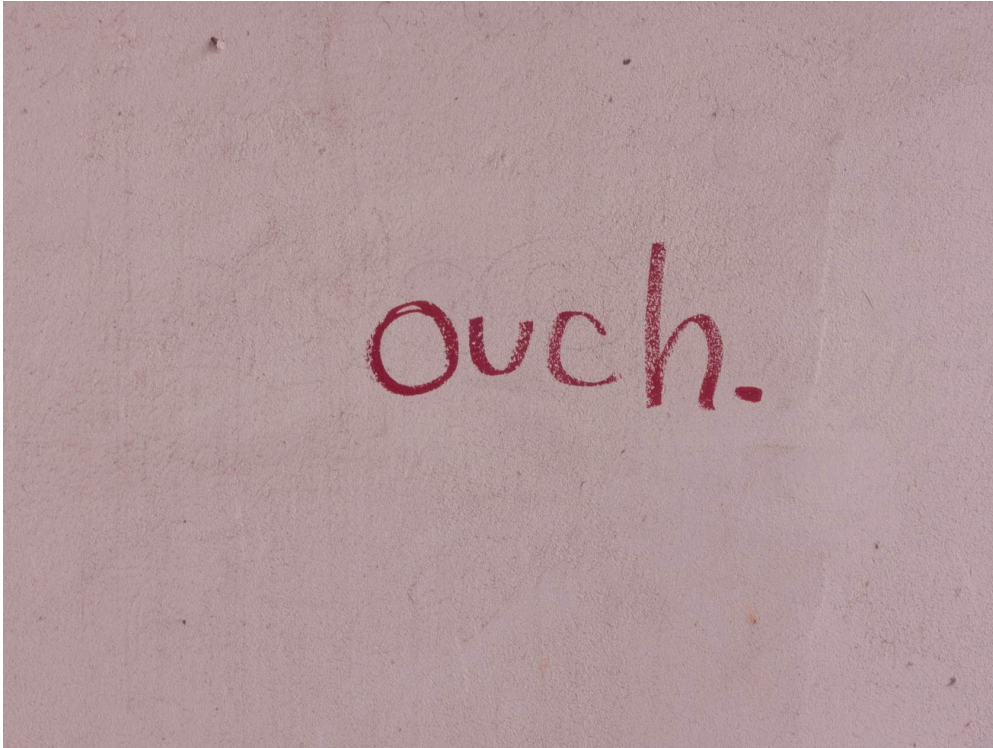
**Perform only the tasks you have been trained to do.**



Before you perform each task independently, it must be documented and signed off by your trainer.

Step 5

**Perform no act that will harm the person.**



Your actions should not cause injury or injustice to people.

## Step 6

**Follow the nurse's directions to your best possible ability.**



Clarify any directions that are unclear or do not make sense.

Step 7

**Follow unit policies and procedures.**



**Do not make up your own ways.**



Step 8

Complete each task safely.



Safety ALWAYS comes first!

Step 9

**Keep the person's information confidential.**



Information should only be shared to those who need to know.

Step 10

**Protect the person's privacy and property.**



Create an environment conducive to private conversations and personal privacy.

## Step 11

Report errors and incidents honestly and immediately.

The screenshot shows the 'Patient Safety Event Reporting Form' (PSER) interface. At the top, there are links for 'Report Event', 'Login', and 'Register'. The main heading is 'Patient Safety Event Reporting Form' with a 'Controlled Unclassified Information (CUI)' label. Below this, there are links for 'JPSR Training Resources', 'JPSR HISuite Page', 'Training Videos on HISuite', 'Joint Knowledge Online (JKO)', and 'KBA: Clear Cache and SSL State'. A red banner states: 'Reporting is anonymous unless reporter detail is completed'. Below this, there are instructions: 'A ★ indicates a required field.', 'Click the ? icon for help with a particular field.', 'Click the ? icon to view and select from the list of available options for that field.', and 'Once submitted the event report is locked. User may not save draft report.' A warning states: 'The system will time out after 10 minutes of inactivity and current information will be lost.' Below this, there is a link for 'PSR Help' and a note: 'Issues with the PSR system should be reported to the NHC Service Helpdesk. Send email to dha.jpsa.jr.mhs.mhs-service-desk@health.mil or call 1-800-400-9332.' The 'Event details' section is highlighted in blue and contains the following fields: 'Is the patient in the Patient Movement System?' (dropdown), 'Event date (mm/dd/yyyy)' (calendar icon), 'Event time (hh:mm)' (dropdown), 'Discovery Date (mm/dd/yyyy)' (calendar icon), 'MTF' (dropdown), 'Parent MTF' (dropdown), 'Market / Component' (dropdown), 'Category / Command' (dropdown), 'Department / Division / Directorate' (dropdown), 'Clinic / Service' (dropdown), 'Location Type' (dropdown), and 'Event description' (text area). A red star icon is next to each required field. A note at the bottom of the 'Event details' section states: 'Enter facts, not opinions. Do NOT enter names of people or other identifying information.'

Don't wait! It can cause further harm.

Step 12

Be accountable for your actions.



Maintain integrity with your professional relationships with patients and co-workers.

## **Summary**

The standards of conduct, as well as all statutes, regulations, guidelines, and DoD policies and procedures must be observed by everyone, including employees, medical staff, vendors and contractors. No one, regardless of position, will be allowed to compromise adherence to the standards, statutes or regulations.

Failure to comply can result in serious damage to our force, mission, standing in the community, regulatory action against the corporation and any individuals involved, and employee corrective action.



**Ethics in Healthcare - Dilemmas, Impact of Morals and Values & Moral Distress - Lecturio Nursing Video Transcript.pdf**  
150.7 KB



### Multiple Choice

\_\_\_\_\_ is making a moral decision on what should be done in a given situation.

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- ☐ Obligation
- ☐ Ethics
- ☐ Moral Character
- ☐ Professionalism

SUBMIT



Complete the content above before moving on.

**Patient rights** are designed to protect the patient, while patient responsibilities **protect** healthcare workers and other patients. All health care personnel are responsible to ensure the rights of patients are upheld.

Upholding their rights can **relieve** unnecessary stress that can hinder their healing process. In addition, patients are **responsible** to follow certain measures that assist in an effective health care process. Below are **examples** of patient rights and responsibilities.





# Patient Rights and Responsibilities

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Patient **rights** are designed to protect the patient. Some examples of patients rights are to:

- receive quality medical care consistent with available resources.
- refuse treatment and be informed of negative consequences.
- be treated with dignity and respect.
- privacy and confidentiality concerning medical care.
- be informed of the professional status and credentials of his or her health care team.
- be fully informed of his or her total health care status, medical condition, and any changes that may arise in a language he or she understands.
- include information and training about self-care and follow-up care prior to being discharged from the medical facility.
- be provided all information necessary to make a decision regarding consent for or refusal of treatments. Such information must include significant complications, risks, benefits, and available alternative treatments.
- be advised if the health care facility intends to conduct research associated with his or her treatment, and the right to refuse participation in such projects.
- voice grievances and have them solved promptly.
- receive care and treatment in a safe environment.
- be informed of facility rules and policies that relate to patient and visitor conduct.
- expect compliance with these guidelines by other individuals.

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The patient also has **responsibilities** in order to help him/her receive the best possible medical care. Some example of those responsibilities are to:

- provide, to the best of his or her knowledge, accurate and complete information about complaints, medical history, and other matters relating to their health.
- inform the primary health care provider whenever he or she does not understand explanations pertaining to treatment and other expectations.
- be considerate of the rights of other patients and health care personnel and to assist in the control of noise, smoking, and visitors in the health care facility.
- comply with all rules and policies established by the health care facility.
- respect the property of other individuals and the health care facility.
- comply with medical and nursing treatment plans, including follow-up care as recommended by the provider.
- ensure that medical records are promptly returned to the facility when in his or her possession for transportation to other appointments or consultations.
- assist in the facility's quality improvement process by informing the patient advocate of all recommendations, questions, and complaints pertaining to the health care facility.

### Multiple Response

What is an example of a patient right? Mark all that apply.

- ☐ To keep grievances to themselves so that they do not go against medical advice.
- ☐ To be advised if the health care facility intends to conduct research associated with his or her treatment, and the right to refuse participation in such projects.
- ☐ To refuse treatment and be informed of negative consequences.
- ☐ To expect compliance with these guidelines by other individuals.

SUBMIT



Complete the content above before moving on.

## Death and Dying

When it comes to death and dying, some patients may view it as a welcomed end to suffering. For others, it can be a process they refuse to accept. In either case, your role in health care is to provide consistent and appropriate care no matter the prognosis, and exhibit compassion and understanding as you would for any patient.

In addition, it is important to consider the tremendous impact it may have on the patient's family and friends.

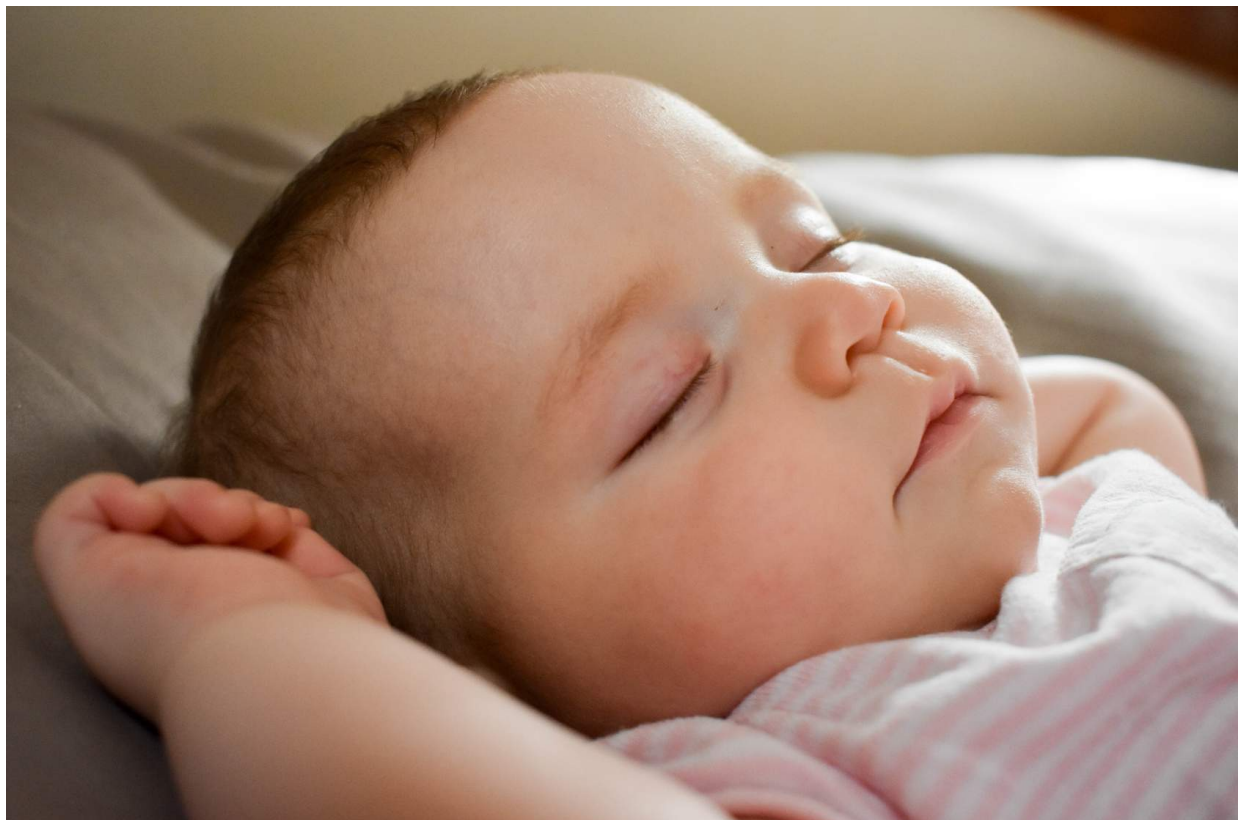


Emotional support, though provided in many forms is an invaluable factor. The most common form of support is being available as a listener; even if the patient is not saying much, your presence is plentiful.

A patient's attitude toward death is closely related to his or her religious belief. For this reason, assisting in arranging visits from clergy in his or her respective religious background can be very beneficial.

The concept of death varies with age groups, typically changing as we grow older. It is important to understand how people may react emotionally in the different age groups, for you to be better prepared to provide emotional support and be cognizant of patient sensitivity. The bottom line to remember is that everyone is different and their reaction to death is unpredictable.

### Concept by Age Group



Infant- No real concept; sense that something has changed.

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2-6 years old- Viewed as temporary; blame themselves and think of it as punishment for being bad; knows when family members or pets die. As painful as it may be at the time, the best approach is to avoid minimizing the event and being truthful.

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6-11 years old- Viewed as final with a concept of it happens to other people and not them; strong feelings that death can be avoided.

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Young adult - Most difficult reactions; experience fear toward pain and suffering associated with the dying process. Worry about the care and support of those left behind.

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Middle aged adult- Thoughts of leaving things undone, not meeting goals, and having regrets for mistakes.

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Elderly- Acceptance; welcomed freedom from pain and suffering. More experienced with death and dying. Long awaited chance to reunite with loved ones they outlived.

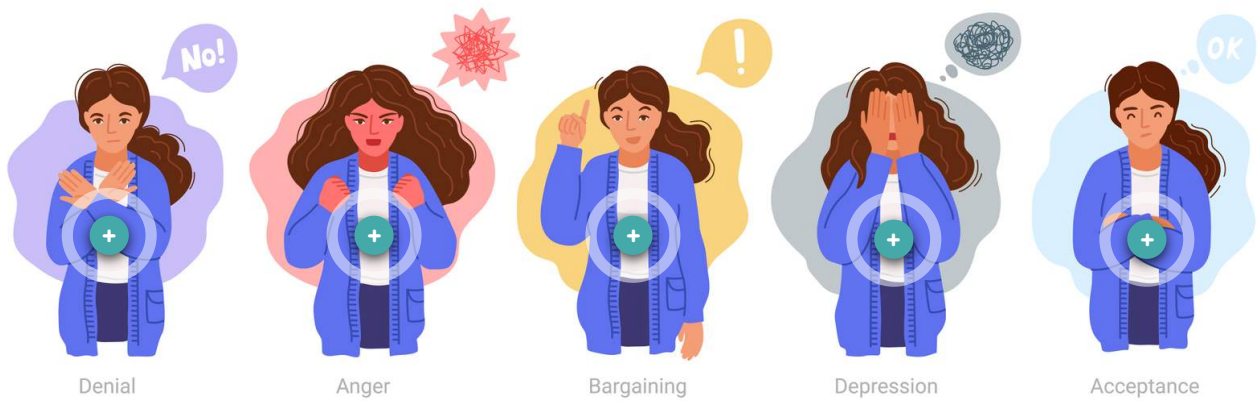
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### **Stages of Emotional Reaction**

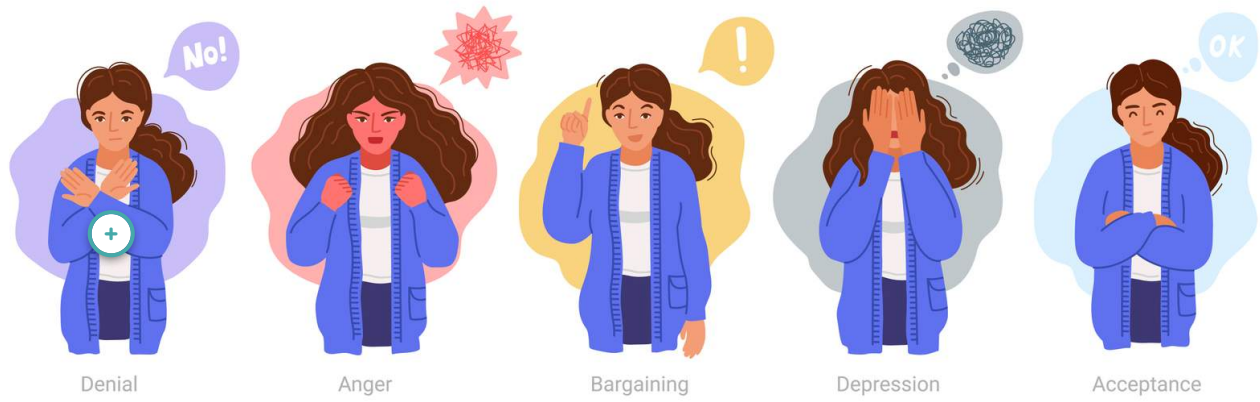
People also respond to illness in different ways and certain emotional stages are often common and noticeable. These stages of emotional reaction associated with the grieving process include denial, anger, bargaining, depression, and acceptance.

Some people may pass through each stage and some may move back and forth between stages. Also, remember that everyone, regardless of age or sex will react or respond in different ways and at different times.

**Click each hotspot** to see a brief description of each emotion.



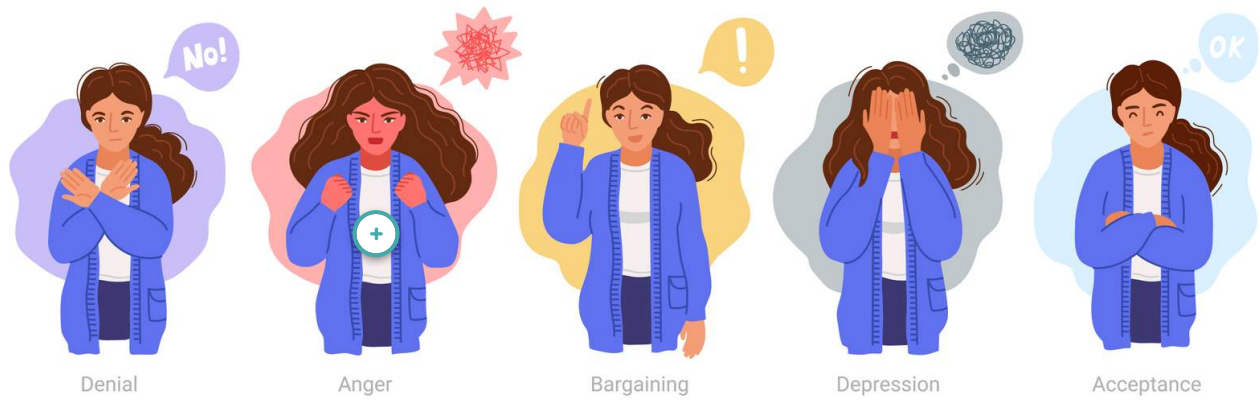




## Denial

Refuses to believe the worst. Avoid sharing in the denial; provide support and comfort.

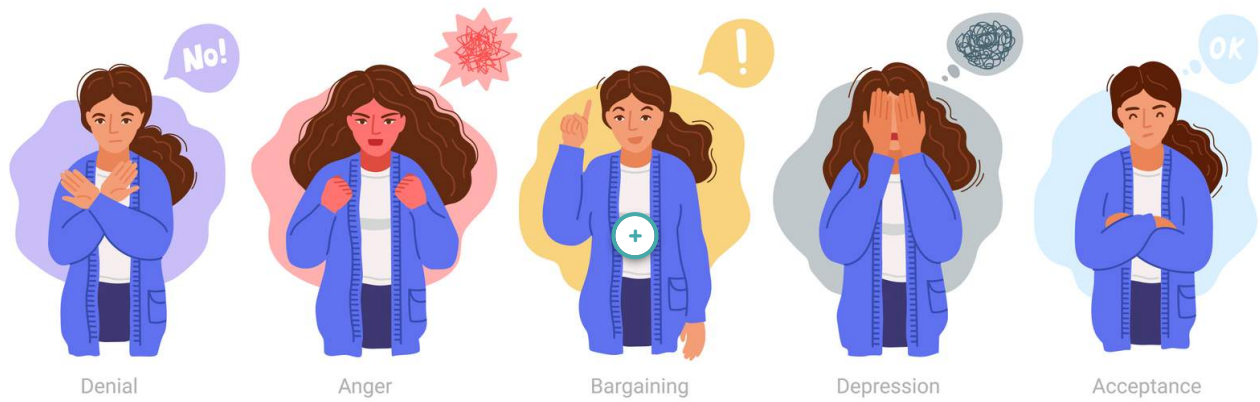




## Anger

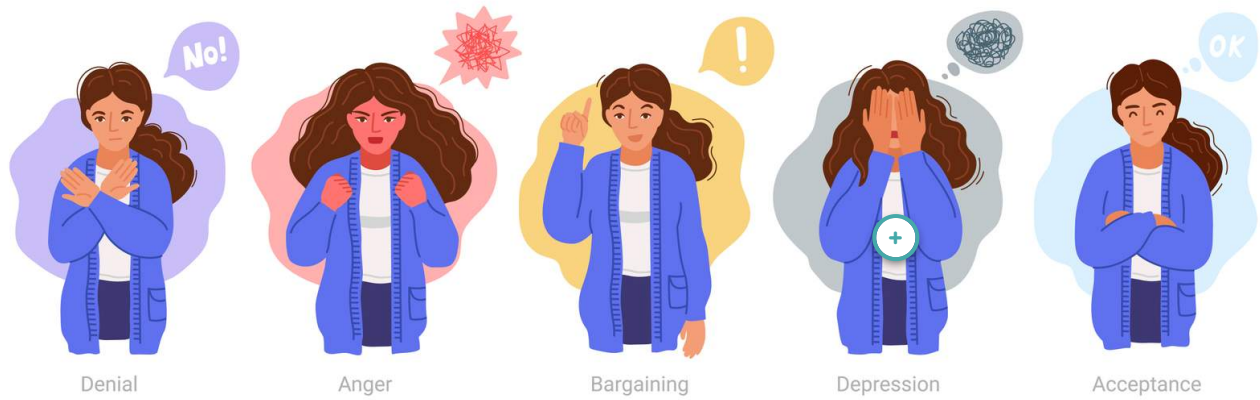
Directed toward other people (e.g. family, friends, and the health care team).

Practice self-control in order to avoid directing the anger back towards the patient or family member; help them understand anger is a normal emotion in the situation; continue providing structured and professional care.



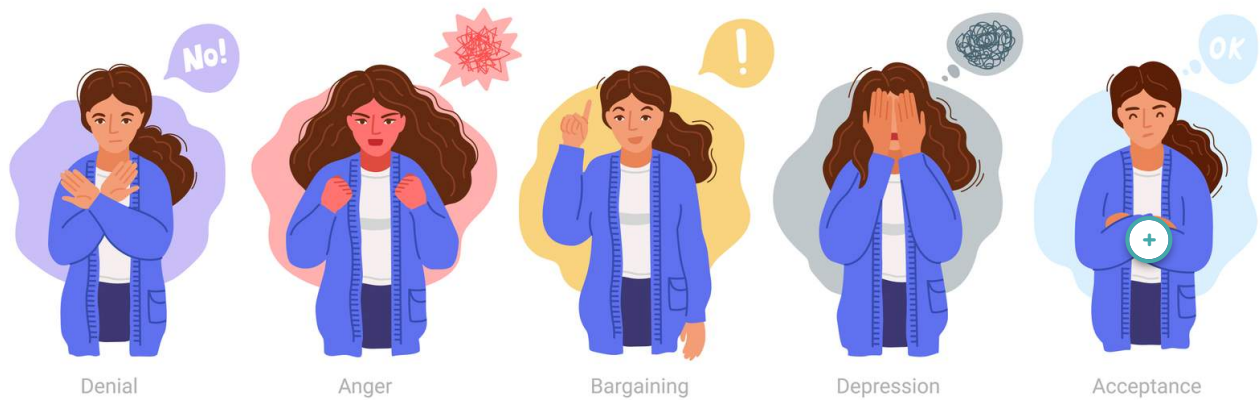
## **Bargaining**

Act of thinking, "If I just do this, then everything will be okay again"; wish for an extension of life or relief from pain. Listen and arrange external support from clergy or other counselors.



## Depression

Feel powerless to change the situation; mourn losing family, responsibilities, and possessions. Allow expressions of sadness; be a good listener; allow the patient to do most of the talking.



## Acceptance

Calm and at peace; make logical plans to adjust to the reality of the situation; withdraw from engagement of everyday interests and activities. Allow the patient time alone to adjust; involve patient and family members in the health care process.

Be aware that the health care team can be targets of the patient or family member's frustration during the death and dying process. This can be one of the most trying times associated with your job. Know that you are not to blame for what is a normal fact of life.

Your bearing must kick into high gear in these situations. A normal response might be to feel the need to "fight back" and defend yourself. However, you must remain professional and caring in spite of the circumstances. The image you present as a professional "sounding block" reflects greatly on the integrity of the medical profession as a whole.

At the same time, if you feel you are being abused in any form, and/or circumstances have become overwhelming, elevate your concerns to your health care team and leadership. Do not bury yourself in the sadness of the situation. Remember, you can lean on your peers, mentors, and support agencies if needed.

## Multiple Choice

Which emotion reaction to death and dying is where the member feels powerless to change the situation; mourn losing family, responsibilities, and possessions?

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- ☐ Bargaining
- ☐ Anger
- ☐ Depression
- ☐ Denial

SUBMIT

END OF LESSON

## Lesson 3: Legal Aspects of Patient Care

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**After completing this lesson, the student will be able to identify the legal aspects of patient care in accordance with prescribed guidance and publications.**



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**The Department of Health Human Services (DHHS) operates an alert system to facilitate a comprehensive review of healthcare providers' professional credentials. This system includes a data bank of medical malpractice payments, adverse licensure actions, adverse clinical privilege actions, adverse professional membership actions, and Medicare or Medicaid exclusion reports. This system is the National Practitioner Data Bank (NPDB) which is governed by the regulations of DHHS. Established by Congress in 1986, it is a workforce tool that prevents practitioners from moving state to state without disclosure or discovery of previous damaging performance.**

**Federal regulations authorize entities to report to and/or query the NPDB. Individuals and organizations who are subjects of these reports have access to their own information. The reports are confidential, and not available to the public. The NPDB assists in promoting quality health care and deterring fraud and abuse within health care delivery systems.**



## Home

**NPDB Guidebook** The guidebook serves as a policy manual for the NPDB. Events Learn about upcoming webcasts and watch recordings of past events. NPDB Infographics Educational guides that explain NPDB concepts in a visual, easy-to-understand format. Policy Corner A resource for your questions about the laws and regulations governing NPDB operations.

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When a report is made to the NPDB a copy of the report must be provided to the healthcare provider in question unless he

The 180-day period will begin on the day the Military Department



or she cannot be located. A copy of the NPDB report must also be forwarded to the state licensing board(s) or other certifying body of any reported providers. All reports must be documented in Centralized Credentials Quality Assurance System (CCQAS). Reports to the NPDB will be in the name of a healthcare provider each time a malpractice payment is made. A payment will be considered to be made for the benefit of any provider significantly involved in the healthcare that was the basis for the malpractice payment unless, within 180 calendar days after the Surgeon General (SG) concerned receives notice of such payment, the SG has made a final, non-delegable determination that the malpractice payment was not caused by the failure of the provider to meet the standards of care.

concerned first receives a report, through the Center for Legal Medicine, that the Department of the Treasury has notified the DoD of a paid claim. Reports to the NPDB must also include instances in which a provider's failure to meet the standard of care caused or contributed to the death or disability of a member of the uniformed services in accordance with Department of Defense Instruction, DoDI 1332.18, *Disability Evaluation System* (DES).

Once the SG concerned has rendered a final decision, the case can be closed. Upon closure of the case, the Service must update the CCQAS record and release to the Center for Legal Medicine.

**True or False:** The National Practitioner Data Bank (NPDB) is a workforce tool that prevents practitioners from moving state to state without disclosure or discovery of previous damaging performance.



True



False

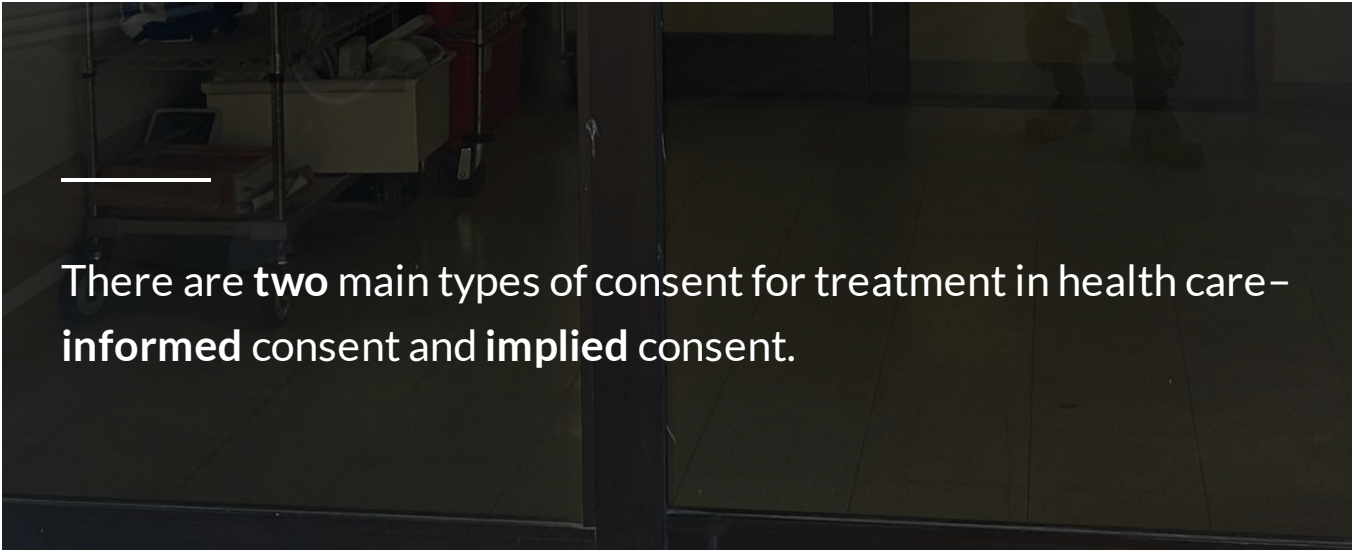
SUBMIT



Complete the content above before moving on.

## Consent for Treatment





There are **two** main types of consent for treatment in health care—**informed** consent and **implied** consent.

#### INFORMED CONSENT

#### IMPLIED CONSENT

In general, consent is “giving permission.” Patients have the right to decide whether they want an examination and treatment. Informed consent means the patient has given his or her consent only after the details of the procedure have been explained to them:

- The reason for the procedure
- How the procedure will be performed
- Who will perform the procedure
- Any possible risks associated with the procedure
- Other treatment options, if applicable
- The expected outcomes of the procedure
- Negative effects are possible if the procedure is not performed

Authorization consenting to treatment should be obtained in writing for all procedures. Consent must be obtained directly from mentally competent adults. Parents or legal guardians must give consent for minors (usually those persons under 18 years old, depending on the state). Legal guardians must also give consent for mentally incompetent patients who have been deemed incapable of giving consent for themselves.



#### INFORMED CONSENT

#### IMPLIED CONSENT

In cases where a person is temporarily unable to consent to a lifesaving treatment because of illness or injury (i.e., unconscious or incapacitated), the law provides a form of consent known as implied consent. Implied consent legally assumes that if the person were able to consent to treatment, he or she would.

This type of consent also applies to minors and mentally incompetent patients who are in need of lifesaving treatment when no parents or legal guardians are available to give consent for them.



CONTINUE

## Standards of Care

Standards of care are defined as guidelines that specify the predicted care for specific situations. These guidelines provide a detailed list of actions to take in various medical circumstances. A standard of care is established for each group of disorders that can occur. These standards are derived health care laws and evidence practice guidelines. Very often, a standard of care is reflected in a written plan known as a protocol.

The use of clinical protocols allows health care providers to offer appropriate diagnostic treatment and care services to patients, variance reports to purchasers and quality training to clinical staff. Such protocols provide a locally agreed standard to which

clinicians and the organization can work and against which they can be audited. By embedding protocols into patients' records and reporting by exception, the use of protocols may help to tackle a raft of other issues successfully such as the reduction in junior doctors' hours, and the facilitation of shared care. It may also bolster the medico-legal robustness of the health care delivered. If the protocols are sufficiently detailed, costing, coding and other resource usage information can flow directly from the clinical records. Such benefits may be maximized by using protocols within the framework of an electronic patient record system.

Protocols permit action in a situation that is recognized as a standard operating procedure for the facility, the Air Force, and/or the medical profession in general. An example of a standard of care is the procedures health care professionals are trained to perform when Cardiopulmonary Resuscitation (CPR) is necessary as established by the American Red Cross (ARC). Though these guidelines are in place, standards of care are consistently changing as medicine is updated through research. What may be the standard today may not be the standard a year from now.





END OF LESSON

## Lesson 4: Information Systems

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**After completing this lesson, the student will be able to identify the information systems used within the aerospace medical service career field in accordance with prescribed guidance and publications.**

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It's important to have a general understanding of the commonly used information systems within the medical treatment facility. These information systems are important in compiling pertinent personal and medical information on our patients.

---

The Defense Enrollment Eligibility Reporting System (DEERS) database contains information for each uniformed service member (Active Duty, retired, or a member of a Reserve Component), United States (US)-sponsored foreign military, DoD and Uniformed Services civilians, other personnel as directed by the DoD (including the patient population serviced through the Military Health Services System), and their eligible family members.

DEERS registration is required for TRICARE eligibility and enrollment. Incorrect information in the DEERS database can cause problems with TRICARE claims as well as other health care benefits, so it is critical to maintain your DEERS information.



This includes addresses and family status (marriage, divorce, birth, adoption, etc.). Mistakes in the DEERS database can cause problems with TRICARE claims, so it is critical to maintain your DEERS information. Retail network pharmacies check TRICARE eligibility through DEERS. Prescriptions will be filled only for beneficiaries who are listed as eligible in DEERS.

The following websites have further information:


- <https://milconnect.dmdc.osd.mil/milconnect/> (milConnect)
- <https://idco.dmdc.osd.mil/idco/> (ID Card Office Online)
- <https://www.tricare.mil/ContactUs/SecureLogin/AllLogins>  
(TRICARE)

---

**MHS GENESIS is the first Department of Defense-wide electronic health record to be used by all military treatment facilities. By the time that MHS GENESIS is fully implemented throughout all of the DoD, patients will be able to receive care from any military treatment facility knowing that their health records will follow them.**

**As a unified record, MHS GENESIS will simplify the safe transitions of care across military operations to include at home, in a deployed status, and during permanent change of station moves. In addition, MHS GENESIS will provide the following:**

- Key Features and Benefits
- View your health information
- Messages to your care team
- Request appointments
- Request prescription renewals
- View notes from your clinical visits

A banner for the MHS GENESIS Patient Portal. The top left features the text "MILITARY HEALTH SYSTEM" above "MHS GENESIS" in large white letters. The top right says "Patient Portal" in large white letters, with the tagline "A new way to manage your health" in smaller teal letters below it. The main visual is a person in a military uniform sitting at a desk, viewed from behind, looking at a computer monitor displaying the portal's interface. Above the monitor, five circular icons connected by dotted lines represent various features: a calendar, a document with a checkmark, a line graph, a person with a heart, and a document with a magnifying glass. To the right of the person, white text reads "You can view and download your personal health information." Below this, it says "To access your MHS GENESIS patient portal, visit: <https://patientportal.mhsgenesis.health.mil>". At the bottom right are the Department of Defense seal and the "MHS GENESIS" logo. A white bar at the very bottom contains the text "To learn more, visit [TRICARE.mil/patientportal](https://TRICARE.mil/patientportal)".

**MILITARY HEALTH SYSTEM**  
**MHS GENESIS**

**Patient Portal**  
A new way to manage your health

You can view and download your personal health information.

To access your MHS GENESIS patient portal, visit: <https://patientportal.mhsgenesis.health.mil>

To learn more, visit [TRICARE.mil/patientportal](https://TRICARE.mil/patientportal)



To create an account and access the MHS GENESIS Patient Portal, visit: <https://myaccess.dmdc.osd.mil/identitymanagement/app/login>

**NOTE: A Common Access Card (CAC) or Defense Service (DS) Logon will be required to access the site.**

## Electronic Health Records

The MHS has transitioned to MHS GENESIS, the DoD's modernized EHR system, to provide enhanced, secure technology to manage health information. While enterprise solution standards control the MHS GENESIS design across the entire MHS and are not specific to one site, the individual DHA components are responsible for ensuring proposed MHS GENESIS end users are properly trained prior to being granted access to the EHR system. Military Health System (MHS) GENESIS is the new electronic health record for inpatient and outpatient visits within the Air Force Medical Service providing a single health and dental record for beneficiaries across the entire DoD.

Below is the login link to milSuite where you can log into the MHS Genesis portal. You will need a CAC to access milSuite.



### milSuite | Login

**PURPOSE:** The purpose of milSuite is to provide a collection of social business tools for Department of Defense (DoD) personnel (Common Access Card (CAC) enabled approved) that facilitates professional networking, learning, and innovation through knowledge sharing and collaboration.

**READ MORE MILSUITE >**

**CONTINUE**

## Tri-Service Workflow Forms (TSWF)

Each military facility now uses the Ambulatory Comprehensive Intake form (pictured below) or the Ambulatory Quick Intake if they are using MHS Genesis. It now consists of multiple tabs on the left hand side where you can add in the patients preferences, vital signs, pain scale with the DVPS scale, vision screening if they have a complaint involving the eye, chief complaint, summary of everything you have talked about, requests for a same sex chaperone, and the review of systems (ROS). It also has a Military specific tab where you can input if they have a special duty indicator, if they are due for their PHA or if they are on a profile. It has an OBGYN section for females and all of the patients depression/anxiety/post traumatic stress disorder (PTSD) screenings on it as well.

All information gets documented on the Nursing View home screen when you first go into a patient's chart. This provides an infrastructure with a standard, repeatable and sustainable process. It stands on a three-pillar approach to provide frequent communication, training, and sustainment. The workflow has a direct impact upon the mission by allowing more efficient, effective healthcare and documentation by responding to a gap between the technology function and user needs.

The **Ambulatory Comprehensive Intake Form** and the **Ambulatory Quick Intake Form** provide standardized documentation entry into **MHS GENESIS** while seeing patients during the same time as appointment check in. This provides repeatable ways of documenting information resulting in **improved readability**. Clinic and

hospital specialty intakes exist and provide unique workflow forms to **capture** patient information in a standardized way.

The technician provides a standardized history to the provider. The standardized history is designed to support inspection compliance and simplified coding. Providers then take responsibility of the information on the alternate input method (AIM) form, document their work and calculate appropriate coding. After the patient has been checked into the providers template, you will then record the data onto the SF 600 worksheet also known as the *Chronological Record of Medical Care*.

**Patient Preferences and Learning Needs Assessment**

Review this information with the patient or caregiver at least annually, update more frequently as needed

Source of information for this visit: ☒ Patient ☐ Mother ☐ Father ☐ Other:

Date Last Reviewed With Patient: 09/24/2022

**Patient Preferences**

Preferred Spoken Language: English

Preferred Written Language: English

Preferred Mode of Communication: ☒ Verbal ☐ Sign language ☐ Written ☐ Assistive technology ☐ Communication device

Preferred Method of Learning: ☐ None ☒ Demonstration ☐ Printed materials ☐ Verbal explanation

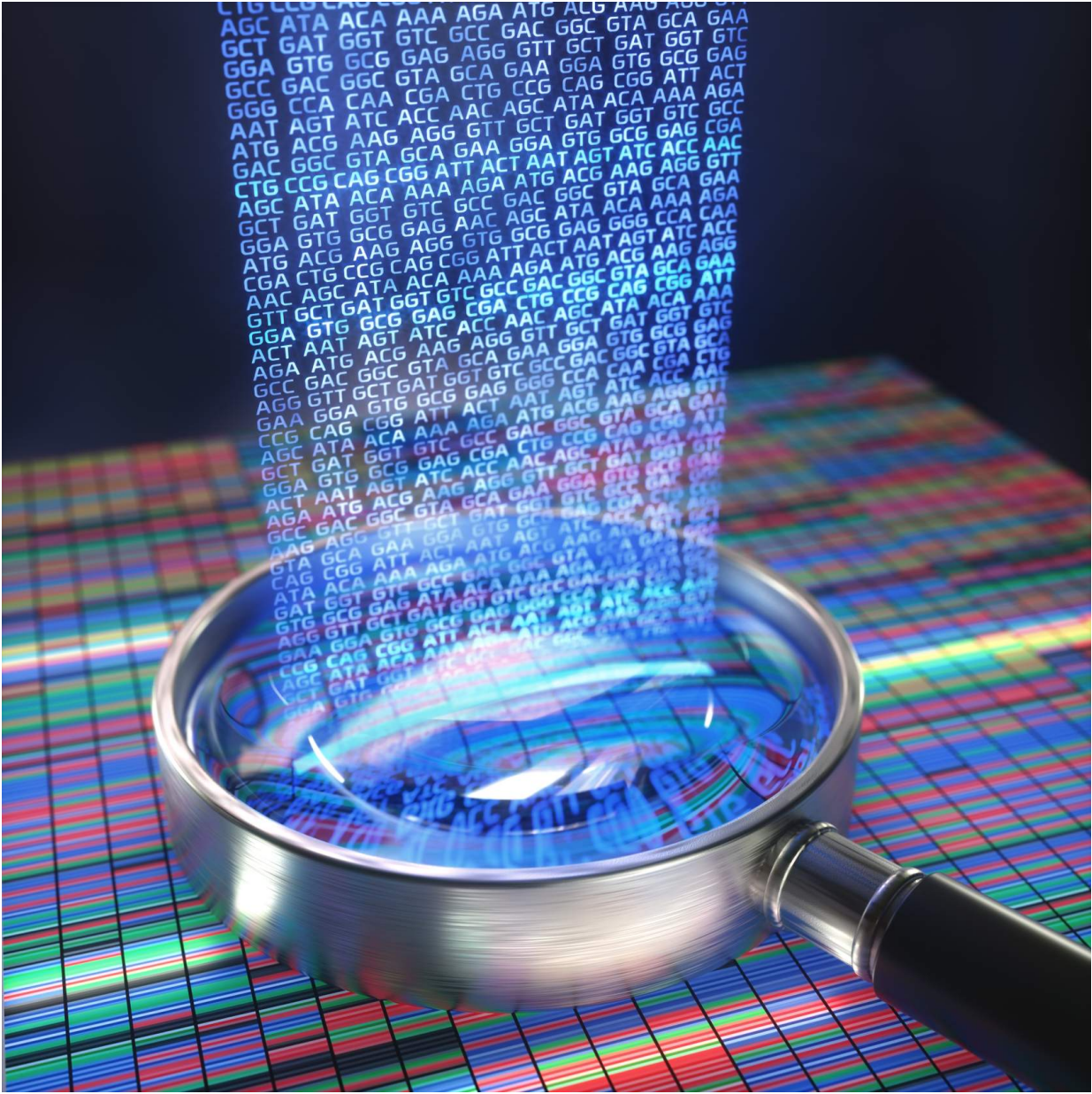
**Health Literacy Assessment**

Single Item Literacy Screener: How often do you need to have someone read instructions, pamphlets, or other written material for you? Never

Barrier(s) to Learning: ☐ None evident ☐ Aphasias expressive ☐ Aphasias receptive ☐ Acuity of illness ☐ Cognitive deficits ☐ Cultural barrier ☐ Desire/Motivation ☐ Difficulty concentrating ☐ Emotional state ☐ Financial concerns ☐ Health literacy ☐ Hearing deficit

## Ambulatory Intake via MHS Genesis





## Outpatient Coding

Coding is another way we ensure accurate and complete information on the care of our patient is documented in the patient's record. Coded data must be accurate as it is used for patient record documentation, reimbursement, staffing considerations, utilization control and program management. Diagnoses and procedures from each inpatient case are coded using diagnosis-

related groupings and an internationally recognized diagnosis and procedure classification system.

The US Department of Health and Human Services and other health care organizations publish this classification system in the International Classification of Diseases (ICD), divided into four sections coding guidelines, disease alphabetical index, disease tabular list and appendixes. The ICD is what every records technician uses to code diagnoses—utilizing a classification system broken down to the numerical code that best describes the diagnoses or procedure from the record.

Providers are solely responsible for coding their patient encounters. Providers cannot complete or sign their encounters until the encounter is properly coded. Certified coders audit the encounters to ensure applied codes are accurate and appropriate for the diagnosis. Medical coding is completed for each encounter (visit, exam, procedure, etc.) and has a corresponding numeric code for the events of the visit. The roles assigned to non-credentialed providers restrict the availability of certain aspects of documentation, including coding.

The 99211 code is a “non-count” code used by technicians, nurses, and other non-credentialed providers. “Non-count” means third party billing is not applicable. “Count” visits are performed by credentialed providers only. For example, if a nurse enters a telephone consult (T-Con) and talks directly to the patient, the nurse will have a “non-count” encounter.

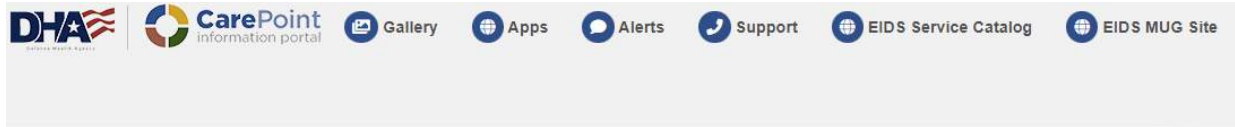


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**The Current Procedural Coding (CPT) book is utilized in the same way as the ICD. The CPT however consists of only three sections-index, tabular list and appendixes. Accurate coding is needed to reflect the scope, severity, and quantity of health care delivered within our system. Most important, it is needed to reflect the quality of health of our members, which is proven through accurate documentation and coding.**



CONTINUE



Hide

## Welcome to CarePoint!

Share ♦ Analyze ♦ Collaborate ♦ Improve

CarePoint is a Defense Health Agency (DHA) information delivery portal designed to promote self-service business intelligence, user collaboration, content delivery, and information transparency for the purpose of improving healthcare quality, access, and delivery across the Military Health System (MHS).

[Product Tour »](#)

<https://carepoint.health.mil>

## CarePoint Portal

CarePoint is a Defense Health Agency (DHA) information delivery portal designed to promote self-service business intelligence, user collaboration, content delivery, and information transparency for the purpose of improving healthcare quality, access, and delivery across the Military Health System (MHS).



### Gallery

Create and share your data, research, and analytics.

[View Gallery »](#)



### Collections

Group and share related healthcare topics that matter most to you.

[View Collections »](#)



### Sites

Collaborate with other users on shared healthcare interests.

[View Sites »](#)



### Apps

Use applications that promote better readiness, care, health, and lower cost.

[View Apps »](#)

Four types of content found on CarePoint



Please note, you will only be able to pull encounters in Carepoint's Peer Review Tracking application that are NON-Genesis encounters.

CONTINUE

### Multiple Choice

Where do retail network pharmacies check TRICARE eligibility through?

---



MHS GENESIS



DEERS



Military Personnel Data System (MilPDS)



AHLTA

SUBMIT

### Multiple Choice

Who is solely responsible for coding patient encounters?

---

- ☐ Registered Nurses
- ☐ Administration Personnel
- ☐ Insurance Agents
- ☐ Providers

SUBMIT

END OF LESSON

## Lesson 5: Documentation

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After completing this lesson, the student will be able to evaluate nursing documentation in accordance with prescribed guidance and publications.

You should remember the number one rule about documentation, “If it wasn’t documented, then it wasn’t done!”

Document Nursing Assessments

The ancillary nursing staff (LPNs, enlisted or equivalent personnel, certified nursing assistants, medical technicians, etc.) provides invaluable support to the primary care medical home (PCMH) team. They provide support activities related to patient care, patient education, documentation of chronic medical conditions, documentation of preventive services, medication reconciliation, and coordination of patient check-out and follow-up. They receive direct guidance and supervision by both the nurse and provider. At a minimum, documentation should include: patient assessment, care provided, the patient's response to the care rendered, and patient and family education. Further information of administration of medical records can be found in Air Force Manual, AFMAN 41–210, *Tricare Operations and Patient Administration*.

The patient's Primary Care Manager (PCM) is primarily responsible for maintaining, protecting and recording of all entries that reflect professional judgment or indicate specific orders regarding the patient's treatment. When documenting in a patient's record, you must use black or blue ink. If you make an error, you can correct it by simply lining through the incorrect information, write the correct information next to the lined-through information, and then initial and write the date you made the correction. Do NOT scribble or make multiple lines through the error. While medical facilities are authorized to develop local overprints to document nursing care, all forms must be approved by the facilities' medical records and form approval committee.

Any patient's record has the potential to be examined in court; the accuracy of the documentation can be the critical factor in some legal judgments. At all times make sure your documentation follows your local MTF policies and guidelines, The Joint Commission (TJC), and any other agency directing the patient care for your facility.

While all patient care documentation is completed in MHS GENESIS, unless it is not available, to include coding, some specific functions are listed here:

1

Patient registration, admission, disposition, and transfer

2

Inpatient activity documentation

Outpatient administration data

- 4 Laboratory
- 5 Drug/laboratory test interaction
- 6 Quality assurance
- 7 Radiology
- 8 Clinical dietetic administration
- 9 Pharmacy
- 10 Results reporting and order entry
- 11 Managed care



**After initial/focused assessment findings the outline is tailored to inpatient vs outpatient documentation.**

## **Inpatient Documentation**

The inpatient medical record is designed to capture all information pertaining to the care of an admitted patient. AFMAN 41-210, *Tricare Operations and Patient Administration* contains information relating to prescribed forms for inclusion in the inpatient medical record. The

## **DD Form 792, Nursing Service– Twenty-Four Hour Patient Intake and Output Worksheet**

This document consists of keeping an accurate, complete record of all fluids taken into the body and all fluids that leave the body. IV fluid therapy, urine output, drainage.



## Outpatient Documentation

SOAPP (primarily used)

1. Subjective
2. Objective
3. Assessment
4. Plan
5. Prevention

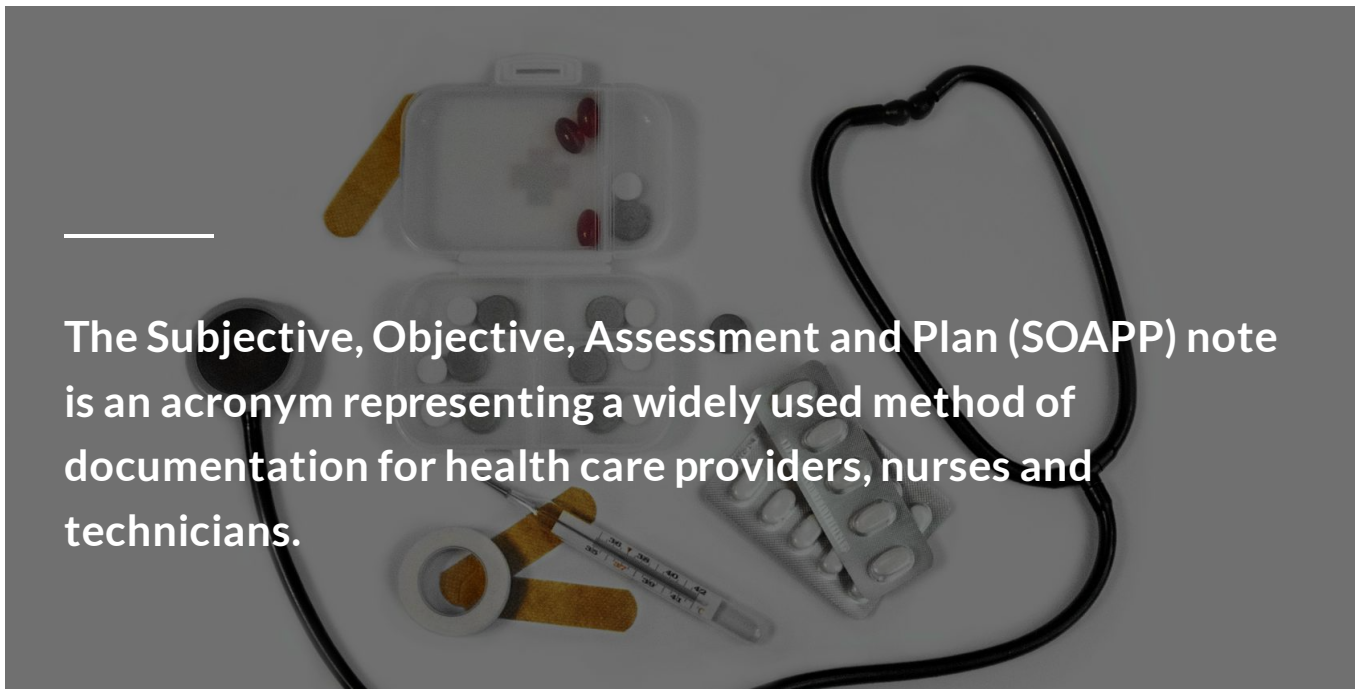


**DD Form 792, TWENTY-FOUR HOUR PATIENT INTAKE AND  
OUTPUT WORKSHEET.pdf**  
77.8 KB



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The Subjective, Objective, Assessment and Plan (SOAPP) note is an acronym representing a widely used method of documentation for health care providers, nurses and technicians.



Letter	Meaning	Explanation
<b>S</b>	<b>Subjective information</b>	This is information either stated by the patient or significant other pertaining to the patient's condition. <b>S: Patient states he started feeling sick one day ago with symptoms of body aches and chills, nausea, vomiting, and unable to keep anything down. Patient states he woke up this morning with a headache and is very tired. He denies taking any medication and states he received the flu vaccination one month ago.</b>
<b>O</b>	<b>Objective information</b>	Information that is observed by the healthcare worker. Objective data includes such things as vital signs, a description of the patient's illness or injury, and observable behavior. <b>O: 20 year old active duty male in the security forces squadron as a patrolman, came in with concern of not feeling well. Patient is lying down and shaking with chills. He stated feeling more nauseous when sitting up or standing. Vitals: Height: 72 in. Weight: 87 kg blood pressure (BP): 110/75 heart rate (HR): 60 Respirations: 12 SPO2: 97 Temperature: 102.8 Allergies: no known drug allergies.</b>
<b>A</b>	<b>Assessment</b>	Is a preliminary conclusion about the problem. This conclusion is derived from the subjective and objective information already gathered. <b>A: (Written by the Provider) P: (Written by the Provider) -- but you should be able to mirror the plan to the patient if they have any questions or need further clarification and carry out any medication administration, labs, x-rays, or other tests to verify the findings.</b>

<b>P</b>	<b>Plan</b>	Is the nursing activities or intervention that will be used to assist in resolving the problem. The plan must be a clear, concise description that specifies exactly what, when, and how the activity should be done. Plans can be diagnostic, therapeutic or educational in nature. <b>P: Before discharge, give patient a printed handout with further information regarding their diagnosis/plan of care/prevention.</b>
<b>P</b>	<b>Prevention</b>	Counsel patients (including providing printed media) on health and wellness/preventive medicine topics, based on identified health and occupational risks, and the patient's desire to change associated beliefs.

### Fill in the Blank

\_\_\_\_\_ is an acronym representing a widely used method of documentation for health care providers, nurses and technicians.

Type your answer here

SUBMIT

CONTINUE

DOCTOR'S ORDERS- (SIGN ALL ORDERS)					
For Each Set of Orders, Record the Date and Time, Sign, and Cross Out the Unused Lines					
PATIENT IDENTIFICATION			DATE OF ORDER	TIME	NURSE'S SIGNATURE
NURSING UNIT	ROOM NO.	BED NO.			
PATIENT IDENTIFICATION			DATE OF ORDER	TIME	
NURSING UNIT	ROOM NO.	BED NO.			
PATIENT IDENTIFICATION			DATE OF ORDER	TIME	
NURSING UNIT	ROOM NO.	BED NO.			
PATIENT IDENTIFICATION			DATE OF ORDER	TIME	
NURSING UNIT	ROOM NO.	BED NO.			

AF FORM 3066, 20111107

PREVIOUS EDITION WILL BE USED.

COPY- INPATIENT RECORD

Air Force Form 3066, Doctor's Orders

Document Intervention/Procedure


When a patient's electronic health record (EHR) isn't available, the physician uses AF Form 3066 to transmit written orders for the patient's care and treatment to the nursing personnel. These orders specify what initial care (diet, activity level, special treatments, etc.) is to be provided. Additionally, if the patient's condition warrants the physician may order labs or other diagnostic tests. The physician must write and sign all orders for patient treatment and care.

In an emergency situation, a Registered Nurse can accept a verbal order which the nurse writes the order in the appropriate space on AF Form 3066 and signs the physician's name followed by his or her own signature.

---

**Verbal orders must be countersigned by the physician within 24 hours. It is the nurse's responsibility to carry out these orders, although you may actually perform the task, if allowed.**

## Document Patient Education



**Patient education is designed to help the patient understand what they are about to experience so they can participate intelligently and recover more effectively from an inpatient or outpatient setting.**



The Joint Commission (TJC) sets standards for patient education requiring healthcare providers to assess patients learning needs while providing education to ultimately improve patient outcomes. While educating your patients either verbally, with a written handout, giving them a website to look over once they get home, or showing them a model or quick video, you must document this as well. Patient education is an on-going effort that can be done by all members of the team before a procedure, during a visit, and before the patient goes home. Informing the patient about their care, the procedure they are about to experience, and their after or at-home-care will not only be beneficial to the patient, but also to the health care team managing their care.

It is important to find out the patient's learning style and any learning or mental disabilities so that you can tailor your delivery and teaching method to better suit how they learn and retrieve information.

When documenting patient education, unless in electronic format, write in black or blue-black ink. Never use a pencil as the information being documented is considered a legal document. You must ensure the information cannot be erased or changed without using the proper process (lining through an error and initialing).

---

## **Educational Materials for Patients**

[https://www.cdc.gov/dhdsr/materials\\_for\\_patients.htm](https://www.cdc.gov/dhdsr/materials_for_patients.htm)

<https://www.aafp.org/pubs/afp/collections/handouts.html>



### Multiple Choice

Verbal orders must be countersigned by the physician within how many hours?

---

- ☐ 10
- ☐ 12
- ☐ 16
- ☐ 24

SUBMIT

CONTINUE



## The Standard Form 600

The standard form (SF) 600, *Chronological Record of Medical Care* is a continuous record of a patient's medical history. The SF 600 is utilized in all outpatient care when MHS Genesis is unavailable and may be utilized for emergency room (ER) documentation. This form is a permanent record of medical evaluations and treatments in a patient's health records.

The SF 600, though it can be typed must be in blue or black ink if handwritten. The providers making entries will sign the entry and include their identification information with a signature. If the back of an SF 600 is not going to be used, you will need to cross out or line through and add in the words "No further entries" on the form.

SF 600, *Chronological Record of Medical Care* includes the following information:

- Patient complaint
- Duration of illness or injury
- Physical findings
- Treatment and operations



A 'Blank SF 600' or 'SF600 with Data' can also be populated in ASIMS under a member's Individual Status.

### Multiple Choice

What is true about the SF 600, *Chronological Record of Medical Care*? Mark all that apply.

☐

Can be utilized for ER documentation.

☐

Is a permanent record of medical evaluations and treatments in a patient's health records.

☐

Is a continuous record of a patient's medical history.

☐

It can be typed and must be in blue or black ink if hand written.

SUBMIT

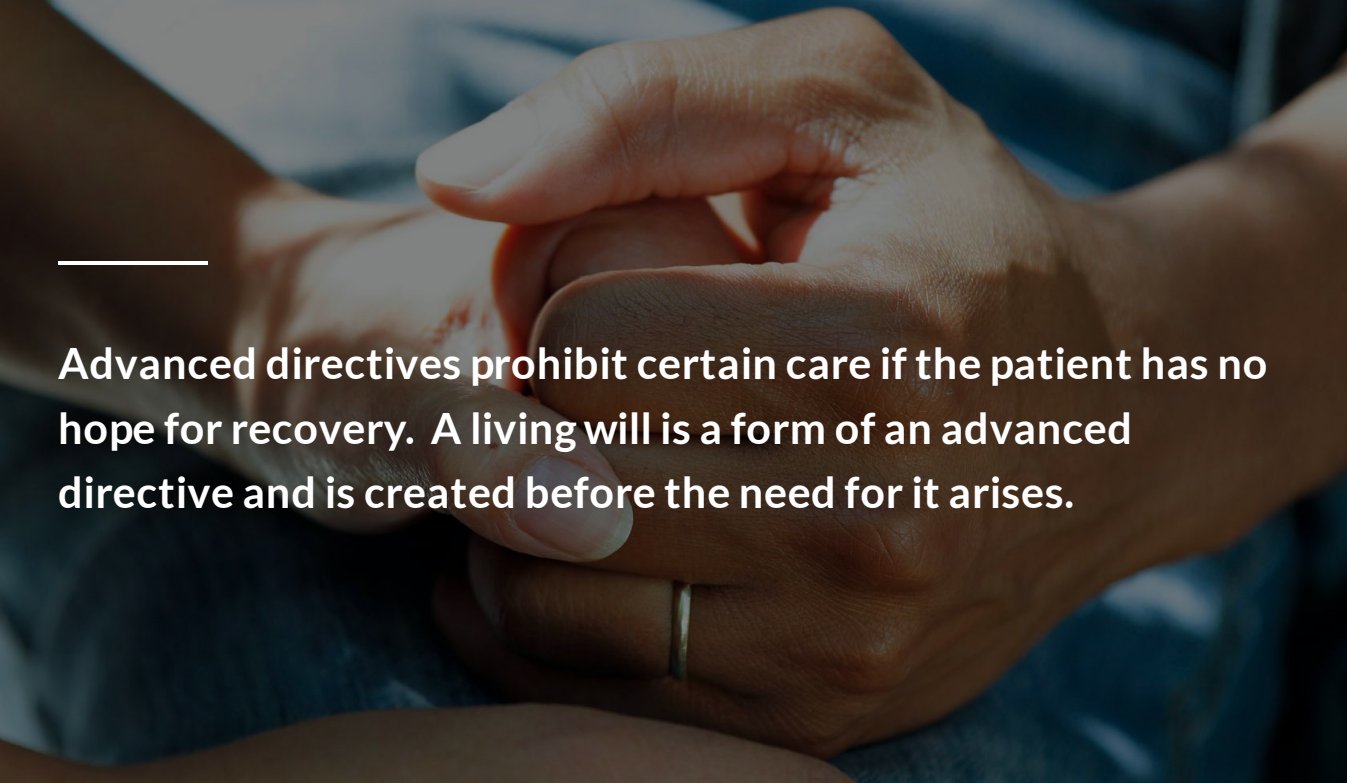
END OF LESSON

## Lesson 6: Advanced Directives

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**After completing this lesson, the student will be able to identify advanced directive principles in accordance with prescribed guidance and publications.**



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**Advanced directives prohibit certain care if the patient has no hope for recovery. A living will is a form of an advanced directive and is created before the need for it arises.**



## Living Will

This document states the medical treatment(s) the patient does or does not want performed in the event he or she is in a terminally ill condition and unable to communicate his or her desires at the time. For example, a living will may specify that the patient does not want to be kept alive on a ventilator should the situation ever occur. Another example is the “do not resuscitate” (DNR) order.

Family members and the health care team must be aware and physically have this document in order to honor it. Living wills are allowed to be maintained in the outpatient record to permit visibility if it is needed. When a patient with a living will is admitted to the hospital, the document is placed in his or her inpatient record.

**True or False:** A living will is a type of advanced directive?

☐

True

☐

False

SUBMIT

### Short Answer

This document states the medical treatment(s) the patient does or does not want performed in the event he or she is in a terminally ill condition and unable to communicate his or her desires at the time.

Type your answer here

SUBMIT



Complete the content above before moving on.



## Durable Power of Attorney

There are several types of powers of attorney, also known as forms of advanced directives. A power of attorney is a legal document designating someone other than the individual to make decisions for him or her; it starts when the patient becomes incapacitated. For example, parents often designate an alternate caregiver (their parents or a family friend) as legally permitted to make decisions for a minor, as spelled out in the agreement.

A durable power of attorney is unique in that it designates someone other than the individual as the primary decision maker on health care issues should the individual become incapacitated; it ends when the patient dies. An example is when a person is on life support, the designated agent (such as a spouse), will remain in control of the matters spelled out in the agreement. Remind patients to periodically check their advance directives as they may not expire. Check your facility's policy on how advance directives are documented.

**LIVING WILL (ADVANCE DIRECTIVE)**

This document contains two parts. Both parts are for use when you can no longer communicate your health care wishes to your doctors. You may choose to sign one or both.

Part 1: This form is called a Health Care Directive, also known as a living will. The Health Care Directive allows you to tell your health care providers your preferences for end of life care.

Part 2: This form is called a Health Care Power of Attorney. This Health Care Power of Attorney allows you to appoint another person to make health care decisions on your behalf to account your wishes.

Completed and signed on \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

**HEALTH CARE DIRECTIVE (LIVING WILL)**

To fill out this form and just wish to designate a health care agent, complete the following section)

\_\_\_\_\_, with a street address of \_\_\_\_\_, County of \_\_\_\_\_.

### Multiple Choice

You are caring for a patient that was just placed on life support. They have a power of attorney that designates their daughter to make decisions for him or her during this time. This power of attorney can also be known as a/an \_\_\_\_\_.

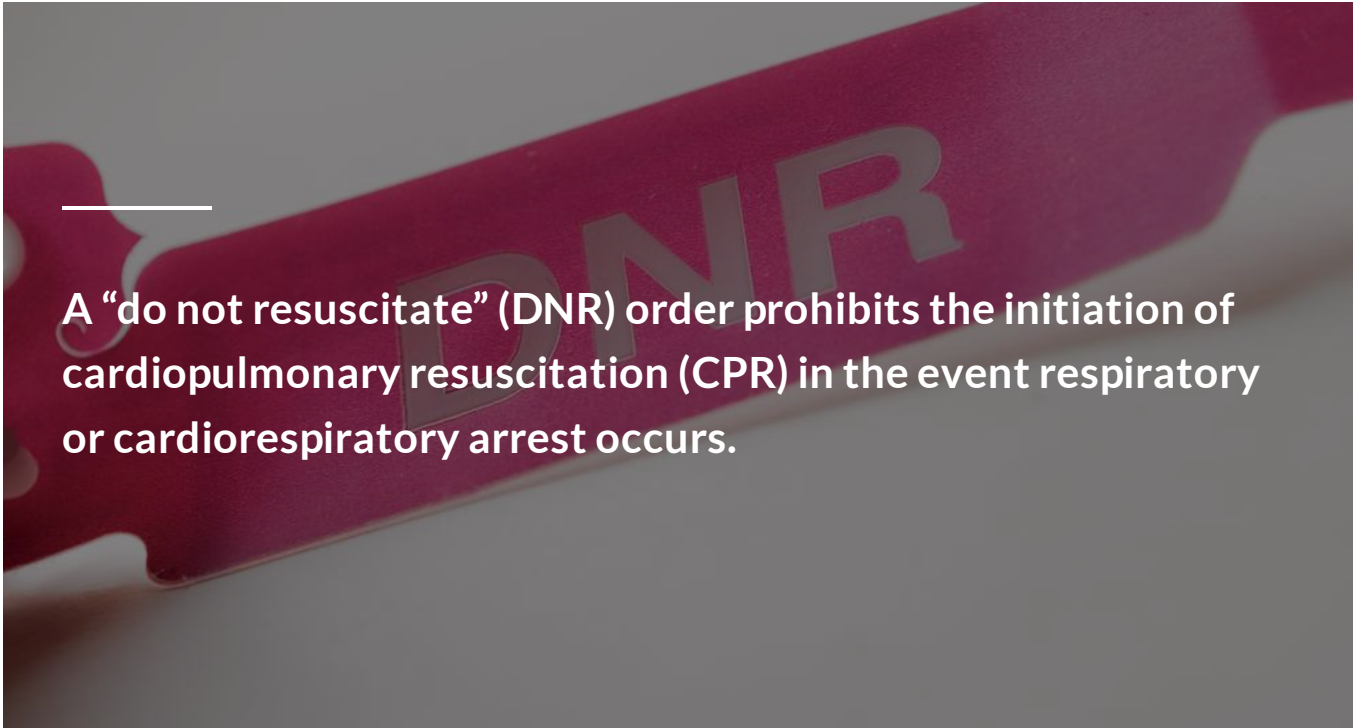
---

- ☐ Living Will
- ☐ Advance Directive
- ☐ Do Not Resituate Order
- ☐ Springing Durable Power of Attorney

SUBMIT



Complete the content above before moving on.



A “do not resuscitate” (DNR) order prohibits the initiation of cardiopulmonary resuscitation (CPR) in the event respiratory or cardiorespiratory arrest occurs.



## **Do Not Resuscitate (DNR) Orders**

It is very important for the health care team to know who will and who will NOT be resuscitated. This means that you will not perform CPR.

DNR orders are written when the patient indicates a desire to have one or after the provider consults with the patient and family in the event lifesaving interventions are needed.

When the patient is not mentally stable to make the decision, the family and provider will make it.

*You can direct your patients to the local legal office for more information and assistance in creating POAs, Advance Medical Directive and Wills, send an email to: [afloa.helpdesk@us.af.mil](mailto:afloa.helpdesk@us.af.mil), or direct them the website below.*



U.S. Air Force Legal Assistance (AFLASS)

AF



## U.S. Air Force Legal Assistance (AFLASS)

AF Chief of Legal Assistance Contact Information. This e-mail address is for questions about the website only. No legal advice will be provided by e-mail. AFLOA/JAS Helpdesk Contact Information. This e-mail address is for website technical support questions only. Welcome to the Air Force Legal Assistance Website!

**READ MORE AF >**

CONTINUE

### Multiple Choice

If a patient has a "Do Not Resuscitate" order, what will you NOT perform?

- 
- ☐ Vitals checks
  - ☐ Paperwork
  - ☐ CPR
  - ☐ Blood withdrawals

SUBMIT

END OF LESSON

## Lesson 7: Considerations for Patients with Access and Functional Needs

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**After completing this lesson, the student will be able to identify considerations for patients with access and functional needs in accordance with prescribed guidance and publications.**

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### Considerations for Patients with Access and Functional Needs



Common causes of immobility include pain, neurological damage, structural defects,

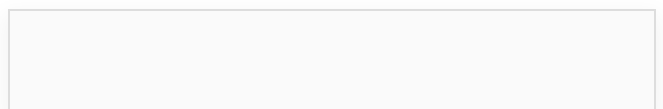
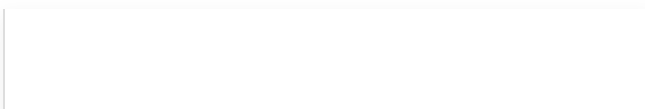


weakness, psychological problems, and rehabilitation measures.



Immobility is simply defined as the lack of movement. The degree of immobility experienced by hospitalized patients varies according to the condition of the patient. For example, patients who have a spinal injury are immobilized because they are incapable of moving or to prevent movement that might cause irreversible damage.

On the other hand, patients who recently had a heart attack are capable of movement but are bedridden to reduce strain on the heart and give the body time to heal. The reason for the immobility has a direct bearing on the outlook of the patient, the results of the immobility, and the type and amount of care you'll provide. For this topic, we'll first review common causes of immobility and then discuss the physical and psychological effects of immobility. Click the flip cards below to learn more.



1 of 6

## Neurological Damage

Pain is defined as the sensation of discomfort, distress, or agony.

Conditions that involve neurological damage include cerebrovascular accident or “stroke,” spinal cord injury, muscular dystrophy, myasthenia gravis, and other related disorders. These conditions differ in many ways, but they all impair the patient’s physical capabilities to some extent, and

2 of 6

## Structural Defects

Structural defects include conditions like scoliosis, contractures, and similar conditions. These conditions have much in common with the problems we mentioned earlier. They are usually chronic, and progression is slow and painful. Inform the patient that immobility will only aggravate

3 of 6

Weakness may be caused by

4 of 6

### Psychological Problems

inactivity, or it may be associated with some degenerative disease

Psychological problems include depression, psychosis, and other mental problems. Those who have such problems are frequently indifferent to their personal health and not concerned with the benefits of exercise or other activities. Your primary goal should be to try to develop a good rapport with

5 of 6

### Rehabilitation Measures

Several of your patients will be placed on a limited activity status called **bed rest** for rehabilitative purposes. The purpose of this limitation is to allow injured tissues to heal. Cardiac patients, patients in traction, and spinal injury patients are examples of patients who require some limitation in their activity.

6 of 6

### Multiple Choice

Which common cause of immobility includes conditions like scoliosis and contractures that are usually chronic, and the progression is slow and painful.

---

- ☐ Pain
- ☐ Rehabilitation measures
- ☐ Structural defects
- ☐ Neurological damage

SUBMIT



Complete the content above before moving on.

---

**The complications of prolonged bed rest affect the mind and every system in the body. To help you understand the need for the various activities, we'll discuss the complications in-depth.**

---

## Psychological Effects



We all feel good when we think that we are in control of our lives and careers. When we get a promotion, for example, we are on top of the world and very concerned about the

This may be extremely embarrassing and greatly

image we project. Things are very different if we don't get that promotion or if we get stuck with an assignment we don't like. We become frustrated and lose interest in our appearance or health. Such feelings are very much like the emotions that bedridden patient may experience. They are in a strange environment and have lost control over many of their basic activities.

They are usually frightened because the hospital environment is strange, they don't know what is going to happen, and they are unable to protect or even help themselves. They may also feel frustrated and angry because they are so helpless. They are forced to depend on strangers for very personal activities, such as having a bowel movement.

increases their feelings of frustration.

Communication problems and sensory deprivation increase these feelings of frustration and helplessness. Stroke patients have a great deal of difficulty communicating and may even be totally unable to communicate. This does not mean that they cannot think or hear! Basically, they're just trapped inside their bodies.

Much of our orientation and sense of time is based on what we see changing around us. We develop a sense of time by watching the sunrise and set and by watching the seasons change. Bedridden patients lose all that. There are no seasons in a hospital room and not much difference between night and day.





For bedridden patients, time drags along, and minor activities like meals and vital signs become major events. They may also suffer from insomnia because time isn't changing for them, and they don't have activities to help them become tired.

Patients react to all this in a variety of ways. Some become very depressed and totally lose interest in their appearance or condition. You'll have to re-motivate these patients. Encourage them to do as much as possible for themselves and praise any progress they make. Other patients will react by becoming angry and hostile.

Try to channel that hostility into harmless channels like verbal expression or hobbies. Allow patients to express their feelings, but do not allow patients to become physically or verbally abusive with you or anyone else. Finally, some patients respond to their condition by regressing and behaving in a child-like manner. They spend a great deal of time worrying about meals or bowel movements. They may do inappropriate things to get attention, like wetting the bed or ringing the call bell when they don't need anything.

For these patients, you'll need to reinforce appropriate behavior and provide meaningful activities to improve their self-image. Increase their sensory stimulation and relieve their boredom by providing a television or radio or simply by coming by to visit as often as possible.

CONTINUE



# Integumentary Effects

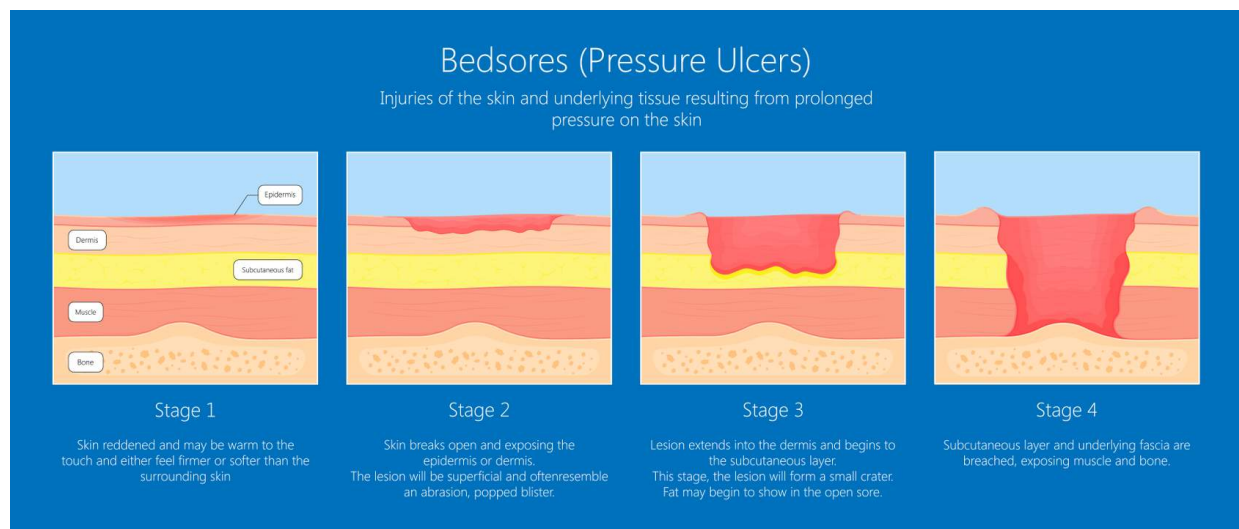
One of the most common results of prolonged immobility is decubitus ulcers (pressure sores). These ulcers are caused by impaired circulation to the skin and subcutaneous tissues in areas of the body where bones lie close to the skin surface. The mechanism for this breakdown is very simple. Circulation is cut off when these areas are compressed between the weight of the body on a bony prominence and the bed, hence the name—pressure sore. Without blood, the tissues eventually begin to die, and an area of ulceration develops. Other factors that are involved are shearing force and friction.

Shearing force is the effect produced when one layer of tissue slides over another. You can see the effect of shearing force if you slide your arm along a surface like a desktop. Part of your arm will move before your skin and subcutaneous tissues change position on the desktop. Friction holds these tissues in place while the force you are exerting is pulling your arm in another direction. Patients experience the same effect when they slide down in bed or are pulled from one position to another. On a short-term basis, shearing force and friction do not cause any damage. However, a patient's tissues may be forced apart for an extended period. This causes tissue damage and increases the effects of the pressure.

Initially, a pressure sore will appear as an area of pale skin, much like you would see if you pressed the heel of your hand firmly on a hard surface for a minute or two. After a short period of time, the area becomes red and swollen as the body tries to improve circulation to the area. If the pressure is not relieved, the skin becomes darker, or cyanotic, and begins to break down. After that, it is just a matter of how much damage is done before the pressure is relieved. The ulcer just gets bigger and deeper as time goes on.



Pressure sores are categorized according to their appearance and the amount of damage that has been done.



Hover over the image and select, to zoom in on the contents.

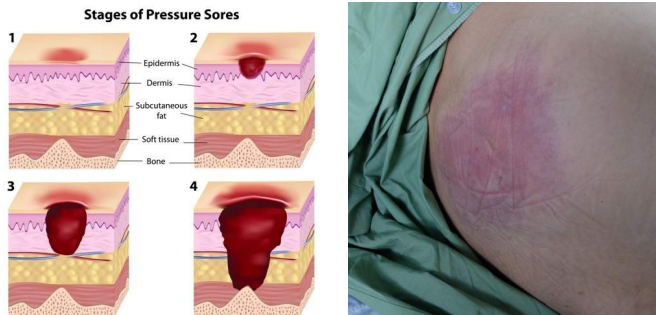
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Although a pressure sore can develop over any bony prominence, certain body areas are more susceptible. These areas include skin tissues around the sacral area, ischial tuberosities, greater trochanter (hip and thigh), heels, elbows, ankles, knees, and the back of the head. If you think about it, these areas are mostly located at points where the body is pressing against the bed when the patient is in the supine position. That should tell you that these patients are spending too much time on their backs.

Any patient who cannot move normally or has some condition that affects the supply of blood and nutrients to the tissues is susceptible to decubitus ulcers. These include elderly patients, thin and obese patients, edematous patients, malnourished patients, febrile patients, patients in pain, patients who are incontinent, and patients whose movements are restricted for any reason.

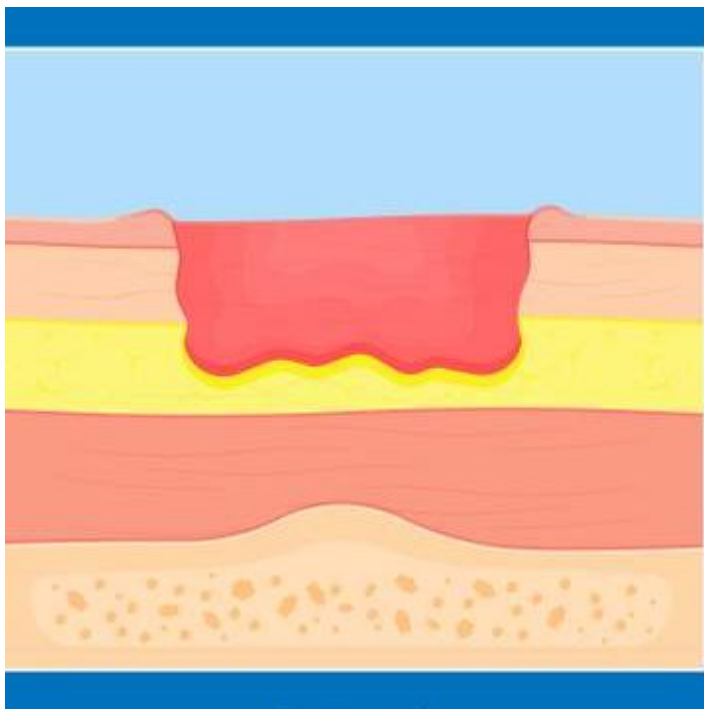
The preventive measures are simply good nursing care. They include turning patients from one position to another at least every two hours, keeping the skin dry and clean by using waterproof pads under the patients, giving frequent back rubs and skin care, keeping the sheets clean and wrinkle-free, avoiding abrasive soaps, using protective devices such as special padding, foam mattresses, and sheepskins, or pillows to support patients in various positions. If a sore does develop, it can be treated with topical agents,

surgery, heat lamps, and other remedies. The healing process will be long and difficult for the patient.



## Multiple Choice

What stage is the pressure sore pictured below at?



- ☐ one
- ☐ two
- ☐ three
- ☐ four

SUBMIT



Complete the content above before moving on.

## Musculoskeletal Effects

In addition to decubitus ulcers, bedridden patients develop quite a few musculoskeletal **disabilities** including weakness, muscle atrophy, contractures, disuse osteoporosis, and backache.



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## Muscle Atrophy

Muscle atrophy is the wasting away of muscle tissue. If muscles are not used, they begin to deteriorate or decrease in size. This deterioration causes the shrunken appearance many patients have after an extended stay in the hospital. Atrophy is associated with weakness. As muscles get weaker, they atrophy, and vice versa.

This deterioration is a result of a loss of muscle tone, which is the normal state of constant tension that body muscles exhibit. This tension is responsible for holding your body erect when you are standing, sitting, walking, or balancing. When your body is inactive, the muscles lose this “tone” and become very relaxed. Eventually, the muscles will begin to atrophy, or waste away.

Weakness is the first sign of this deterioration process. After three or four days of bed rest, patients will feel very weak and shaky when they try to stand. If the muscles are not used, they’ll continue to deteriorate, and eventually the patient will not be able to stand at all.

At the same time, the joint stiffens or becomes locked in an abnormal position. Once patients develop a contracture, they are permanently disabled.

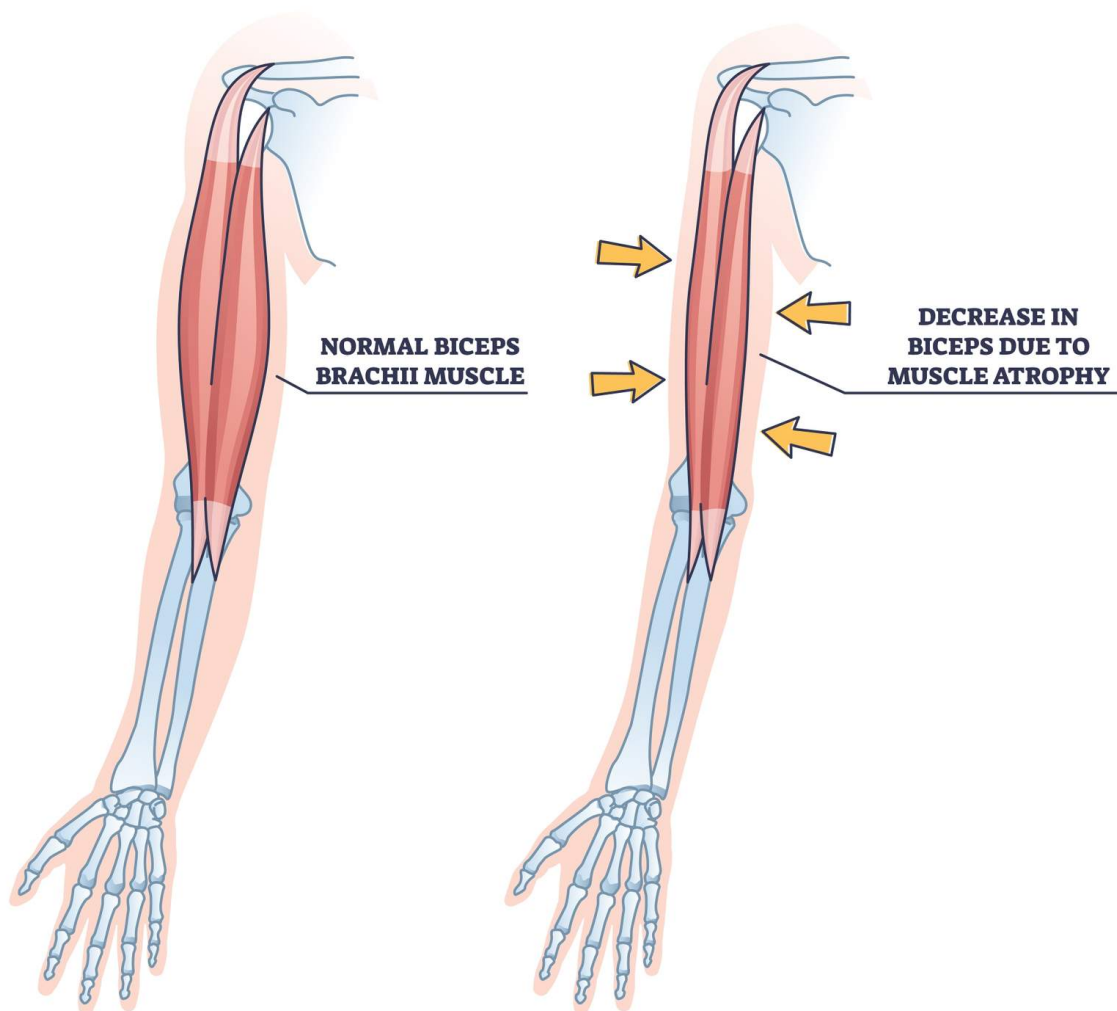
Footdrop or “plantar flexion” is one type of contracture commonly seen in immobilized patients. In this case, the muscles at the back of the leg shorten, causing the foot to become locked into a position where the toes are pointing downward.

Like muscles, bones begin to deteriorate when they are not used. Disuse osteoporosis

A contracture is a type of deformity caused by abnormal shortening of a muscle and stiffening of the joint. Eventually, the muscle becomes fixed and resists stretching.

is one type of bone deterioration. It is characterized by a disruption of the balance between bone cell production and bone cell destruction. This causes an imbalance in the inorganic (calcium) substances in the bone. The bones become more brittle and susceptible to damage.

## MUSCULAR ATROPHY





Backaches are caused by a combination of poor posture, lack of support, and stretched muscles. When a patient is lying in bed, the back and neck should be relatively straight. Sleeping in a slouched position, using large pillows, or sleeping on a mattress that is too soft will cause abnormal body alignment. As the muscles relax, they gradually stretch to accommodate this abnormal position. This stretching causes muscle strain or backache.

You can prevent these problems by simply maintaining a regular program of exercise and activity and frequent movement of the patient with the use of bed boards and other support devices, if necessary.

CONTINUE

Orthostatic Hypotension



Orthostatic hypotension is a sudden drop in blood pressure when the person stands up. It is caused by inadequate vasoconstriction, which allows the blood to pool in the lower extremities rather than pushing it through the body. Orthostatic hypotension is at least partially to blame for the dizzy and weak feeling patients have when they first stand up.

Cardiac straining refers to activities, such as straining to defecate, coughing, sneezing, or moving up in bed, that place additional strain on the heart. These activities cause fluctuations in pulse and cardiac output, which are dangerous for an already overburdened heart.

A patient with cardiovascular problems related to immobility can be treated medically or surgically, depending on the problem. However, the best treatment is still prevention. The patient is usually placed on a program of progressive activity, which must be provided strictly in accordance with (IAW) the doctor's orders.

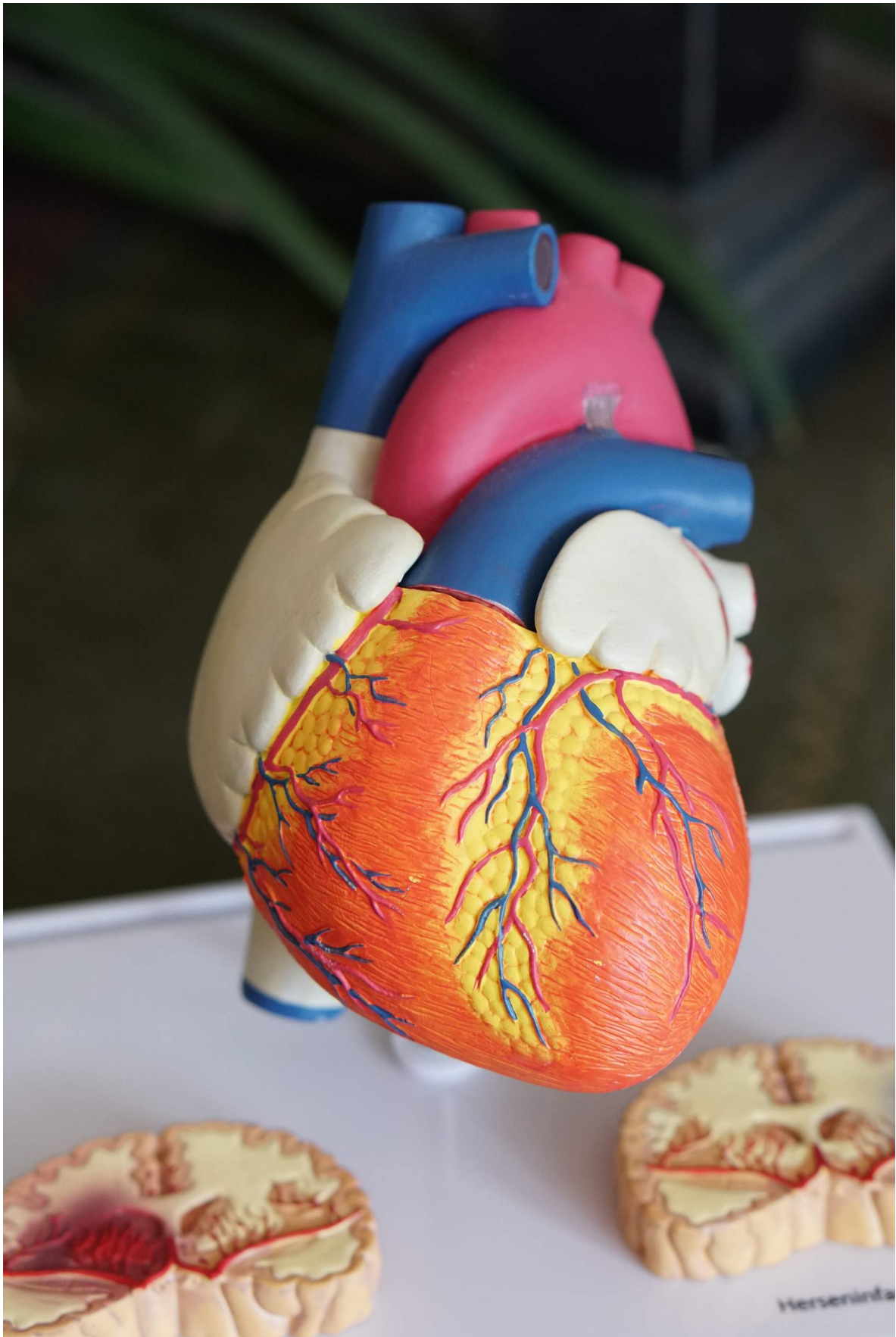
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**Cardiovascular problems that result from immobility include increased workload, orthostatic hypotension, cardiac straining, and thrombus formation. Unlike other systems in the body, the heart works harder when a person is immobile. Normal activity involves contraction and relaxation of the muscles.**

**The muscle action alternately compresses and releases the veins, helping return the blood to the heart. Immobilized patients do not have this muscle activity and the heart is forced to do extra work. All this puts additional strain on the heart.**

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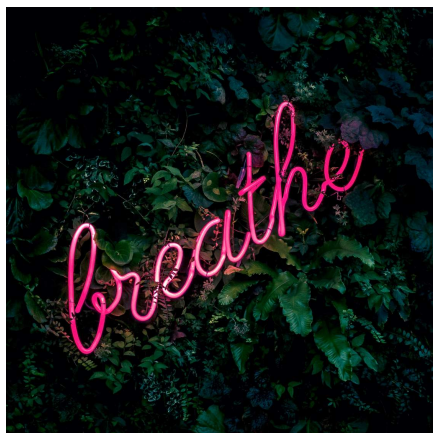




The absence of muscle activity also contributes to thrombus formation. A thrombus is a clot that forms in the veins, and one of the primary contributing factors is “venous stasis” or pooling of blood. Since the muscles aren’t helping to push the blood along, blood tends to pool in dependent areas of the body. Occasionally, clots are formed. These clots may cause inflammation (thrombophlebitis) in the veins, or they may break loose and travel through the circulation until they lodge in a blood vessel. Such clots, or embolisms as they are called, are carried to the lungs and eventually form an obstruction in one of the pulmonary blood vessels.

CONTINUE

**Respiratory effects** of immobility include loss of respiratory muscle tone, inadequate exchange of **oxygen** and **carbon dioxide**, disruption of the acid-base balance, hypostatic pneumonia, and atelectasis. Believe it or not, these **conditions** are all somewhat related.



When someone is inactive, there is a decrease in the body's respiratory demand. Also, poor posture and weakness often interfere with normal chest expansion, resulting in shallow breathing. The result of all this is the person not having an effective oxygen-carbon dioxide exchange. Carbon dioxide builds up in the blood producing an acid-base imbalance. This acid-base imbalance can lead to cardiac failure if not corrected.

While all this is going on, secretions are pooling in the patient's lungs. This pooling is also the result of the inadequate breathing and chest expansion. The secretions tend to settle in the lowest part of the lungs and provide an excellent reservoir for the growth of microorganisms.

The microorganisms cause infections, which, in turn, lead to a condition called hypostatic pneumonia. The secretions also prevent complete lung expansion by blocking the bronchioles. This causes a condition called atelectasis or collapse of alveolar tissue.

Respiratory problems can be prevented, or at least reduced, by turning the patient frequently to loosen and prevent pooling of secretions. Deep-breathing exercises will also help break up the secretions and improve oxygen exchange and lung expansion. If a patient is unable to mobilize the secretions, procedures such as postural drainage, suctioning, and mechanical ventilation may be necessary.

CONTINUE

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## Metabolic Effects



Immobility usually causes a decrease in the patient's metabolic rate. If a patient has a fever or is in pain, the metabolic rate may increase instead of decrease.

The decrease in metabolic rate reduces the body's demand for nutrition, causing a loss of appetite, or anorexia. If the patient's appetite is not stimulated, malnutrition may develop.



To prevent anorexia and all the problems associated with malnutrition, talk to your patients and try to find out their likes and dislikes. Encourage them to eat foods that are high in nutritional value, protein, and fiber. Serve small, frequent feedings and try to schedule activities that will stimulate their appetite.

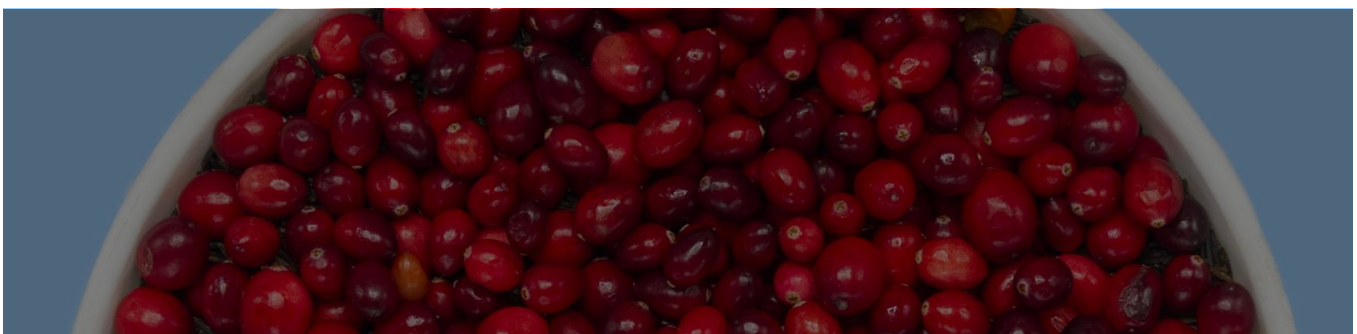
For example, exercising an hour or so before a meal will stimulate the appetite; a breathing treatment with production of mucus and so forth will kill the strongest appetite. If you can't find any foods a patient likes, arrange a consultation with a dietitian. Also, keep track of what patients eat, and notify the nurse or doctor if a patient's intake starts to drop.

**Gastrointestinal (GI) Problems.** Exercise and activity help stimulate bowel activity. When patients are immobile, this activity is reduced, and patients frequently become constipated.

**Anorexia**, as we just mentioned, is also a common GI problem.

A **tasteful, well-balanced diet** that is high in fiber will go a long way toward resolving both problems. Small, frequent **feedings** also help because the patient does not have a great mass of food processing at any one time.

CONTINUE



A top-down view of a white bowl filled with numerous bright red cherry tomatoes. The tomatoes are densely packed, filling the bowl. A small white horizontal line is positioned above the text on the left side of the image.

## Urinary Problems

The urinary system is the last problem area we'll discuss here.  
Urinary problems are related to a slowdown in the system.

Like everything else in the body, exercise promotes function. When the urinary system slows down, blood is not filtered properly. Toxic materials float around the body causing problems. The urinary slowdown also causes urinary stasis or pooling. This stasis contributes to the formation of kidney stones and urinary infections.

As a combination of psychological and physical problems occur, many patients have a great deal of difficulty voiding or defecating while they are in bed. Not only are bedpans awkward and difficult to use, but we have also been taught not to do that sort of thing while we are in bed. Activity is not the only solution to this problem. In many cases, both problems will be eliminated if you encourage patients to drink plenty of fluids and allow them to use the bedside commode (with the doctor's permission, of course). Studies have shown that the commode is safer than the bedpan because it eliminates the straining we mentioned earlier. If patients are unable to get out of bed, provide for patient privacy.



## **Nursing Care for the Visually Impaired**





The nursing care provided for visually impaired patients is simple. Knock on their door, address them by their name, tell them your name and that you are their caregiver. Explain to them why you are there, and never touch them before they know you are present. When orientating them to their room, if they are walking, take them around the room and let them feel the walls; describe where chairs, beds, doors, bedside table, restroom, and where their personal belongings are kept. If they are bedridden, show them how to find the call light.

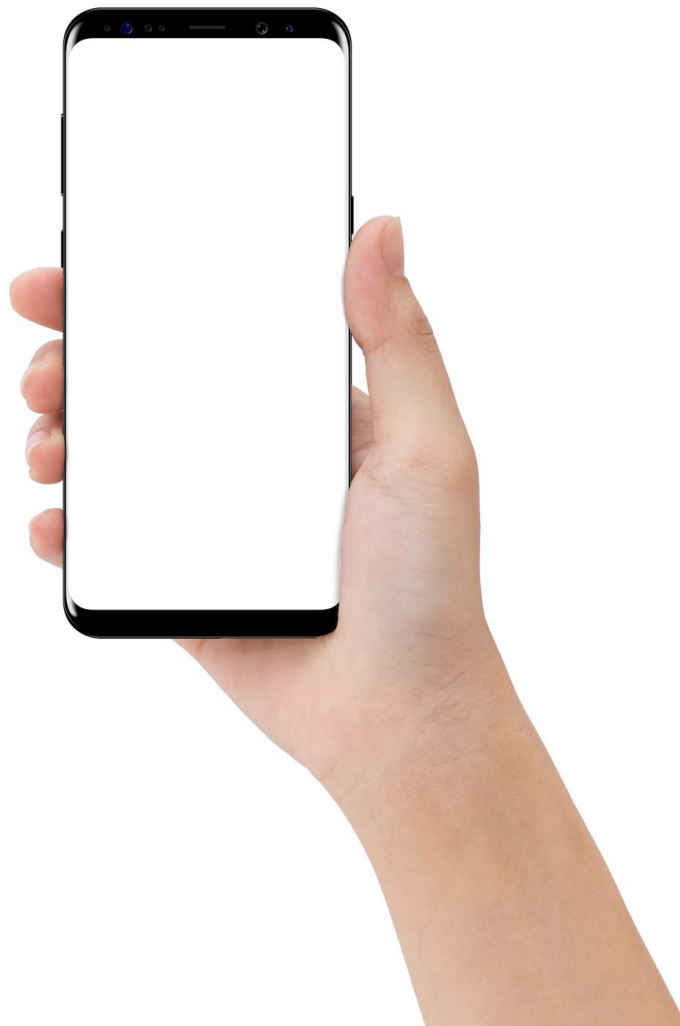
When walking with a visually impaired patient, place his or her hand in the crook of your arm, walk slightly ahead of him or her in an unhurried pace, and describe where you are going. Inform him or her of narrow hallways, doors, tables, chairs, steps, or inclines.

Another important aspect of the care is providing for their psychological needs. Accomplish this by taking the time to stop and talk with the patient. Provide diversional activities such as radio, Braille books, talking books, visitors, and television to help pass the time. It is also important to mention the day of the week, date, and time of day when talking to the patient.

## **Nursing Care for the Hearing Impaired**

Communication can be a major concern when caring for the hearing-impaired patient. If the patient can read lips, face the person as directly as possible when speaking. Do not chew gum, smoke, or have candy in your mouth when talking. Speak slowly and distinctly.

If there is any doubt about the patient understanding your directions, write down your instructions on paper. If the patient utilizes sign language, you may have to call for an interpreter.



**Diabetic Patients**

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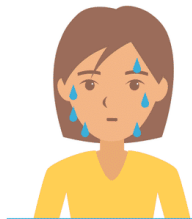
Diabetic patients may require care directly for their diabetes or it may be a disease that you need to be aware of when caring for a patient in your clinic or inpatient unit.

It is estimated that one of the most common, treated emergencies is due to diabetes and that approximately 3 percent of the population has diagnosed or undiagnosed diabetes mellitus.

Diabetic emergencies usually arise from patients who are noncompliant with their diets and insulin management or due to children whose control of their disease is unstable.

Diabetic Emergencies

## HYPOGLYCEMIA SYMPTOMS



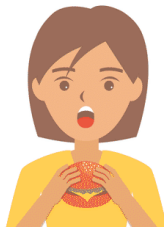
SWEATING



PALLOR



IRRITABILITY



HUNGER



LACK OF  
COORDINATION



SLEEPINESS

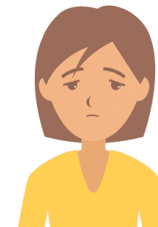
## HYPERGLYCEMIA SYMPTOMS



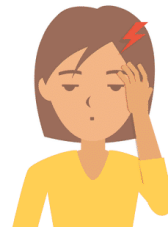
DRY MOUTH



INCREASED  
THIRST



WEAKNESS



HEADACHE



BLURRED  
VISION



FREQUENT  
URINATION

Diabetes mellitus is a disease in which the pancreas does not release enough insulin or none at all. Insulin is the key that unlocks the cellular door that allows the glucose to enter. Without insulin, glucose cannot enter the cells. No matter how much the patient eats, the glucose circulated in the blood system is unable to be absorbed.

There are two types of emergencies related to diabetes —**hypoglycemia** and **hyperglycemia**.

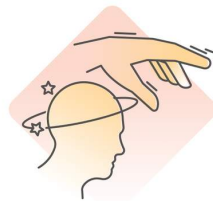


## Diabetic Diseases

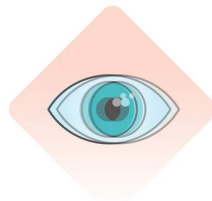
### Hypoglycemia

Hypoglycemia (low blood sugar) is the most common type of diabetic emergency. This condition is caused by too much insulin or not enough glucose. This can happen if the patient has not eaten enough food, has overexerted himself or herself through exercise, has an illness producing a fever, and/or vomiting.

## LOW BLOOD SUGAR WARNING SIGNS



Shaky or Dizzy



Blurry Vision



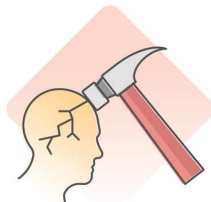
Sweaty



Weak or Tired



Upset or Nervous



Headache



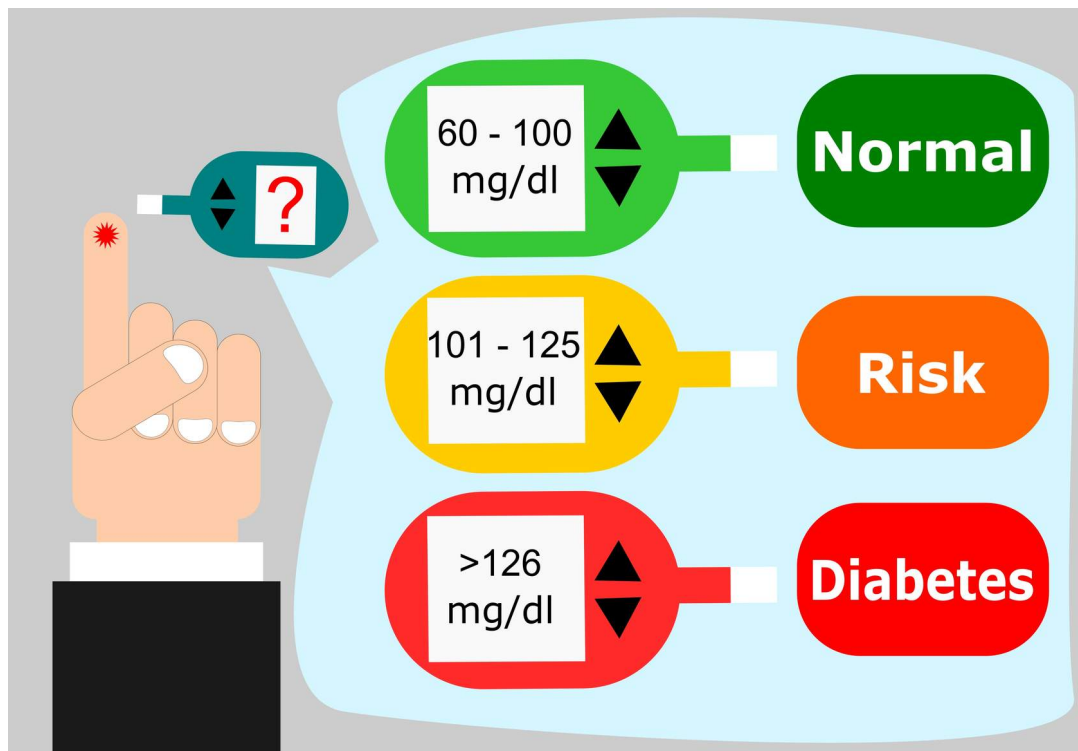
Hungry

## Diabetic Diseases

### Hyperglycemia

Hyperglycemia means too much glucose in the blood. This situation occurs due to not enough insulin in the circulating blood stream. It can happen because the patient forgot to take his or

her insulin, did not take enough insulin, overate, or has an infection that upset his or her insulin/glucose balance.



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Distinguishing between hyperglycemia and hypoglycemia is not necessary in the field. Therefore, the **treatment** for both is the **same**. Glucose for everyone is the rule. Giving glucose helps the hypoglycemic patient by getting needed sugar into the bloodstream and to the brain.

Although the hyperglycemic patient already has **too** much **sugar** in his or her **blood**, the extra dose of glucose does not have time to cause damage in the **short time** before he or she reaches the hospital and is diagnosed.

Once **admitted** or in a medical facility, a provider will direct the treatment for a patient experiencing a diabetic emergency.

### Special Precautions

Working in a clinic or inpatient unit, you will likely encounter patients with diabetes. There are three categories of diabetes:

1

**Insulin dependent (Type I).** This form is most common in children and young adults and has a sudden onset. The pancreas does not produce insulin and normally requires daily insulin injections.

2

**Noninsulin dependent (Type II).** This form of diabetes usually develops after age 40 and is hereditary. The pancreas secretes some insulin, but the amount secreted is not sufficient to meet the body's needs. It can generally be treated and controlled with diet and exercise. Patients with this form of diabetes are often overweight—another reason to stay fit to fight!

3

**Gestational diabetes.** As the name depicts, it develops in some women during pregnancy and normally goes away after the baby is born. However, women who experience gestational diabetes are at risk for Type II later in life.

## Effects of Diabetes

Uncontrolled diabetes can cause many problems including but not limited to:

- 1 Retinal changes leading to blindness
- 2 Kidney disease
- 3 Nerve damage- Circulatory disorders such as: stroke, heart attack, slow wound healing, hypertension

CONTINUE



# Nursing Interventions

Caring for patients with diabetes can be challenging. Many patients refuse to make the required lifestyle change(s) or may be in denial about their medical problem. A priority for Type I diabetics is to regulate their insulin levels. You may be assisting with this process by taking frequent blood sugars and monitoring the patient. You may also be involved in assisting the patient with his or her diet; be aware that the patient may express concerns over diet changes. Someone from nutritional medicine may be requested to speak to the patient.

A very important part of your job will be to inspect the condition of the patient's skin surface, especially pressure points and their feet, daily for admitted patients and routinely for clinical patients. Because of circulatory and healing problems, diabetic patients must be monitored closely for bruises and wound healing. It is very easy for a diabetic to have an injury or wound without knowing it, and they are at high risk for dangerous infections of the lower extremities; severe cases often lead to amputations of the toes, foot, or limb. Monitoring of body weight and blood glucose levels on a routine basis is also common for admitted patients.

Report any problems promptly and be ready to listen and provide emotional support, especially for young adults who may not understand why they have the disease and are afraid of how it will impact their life.



As discussed above, care and observation of the feet of diabetic patients are extremely important. The feet should be cleaned at least daily or according to the provider's orders. You should first look for any damaged skin (report if found) and then press on with hygiene care. Foot care, to include nail care, is explained; however, technicians should not perform nail trimming/care due to the high risk of complications.

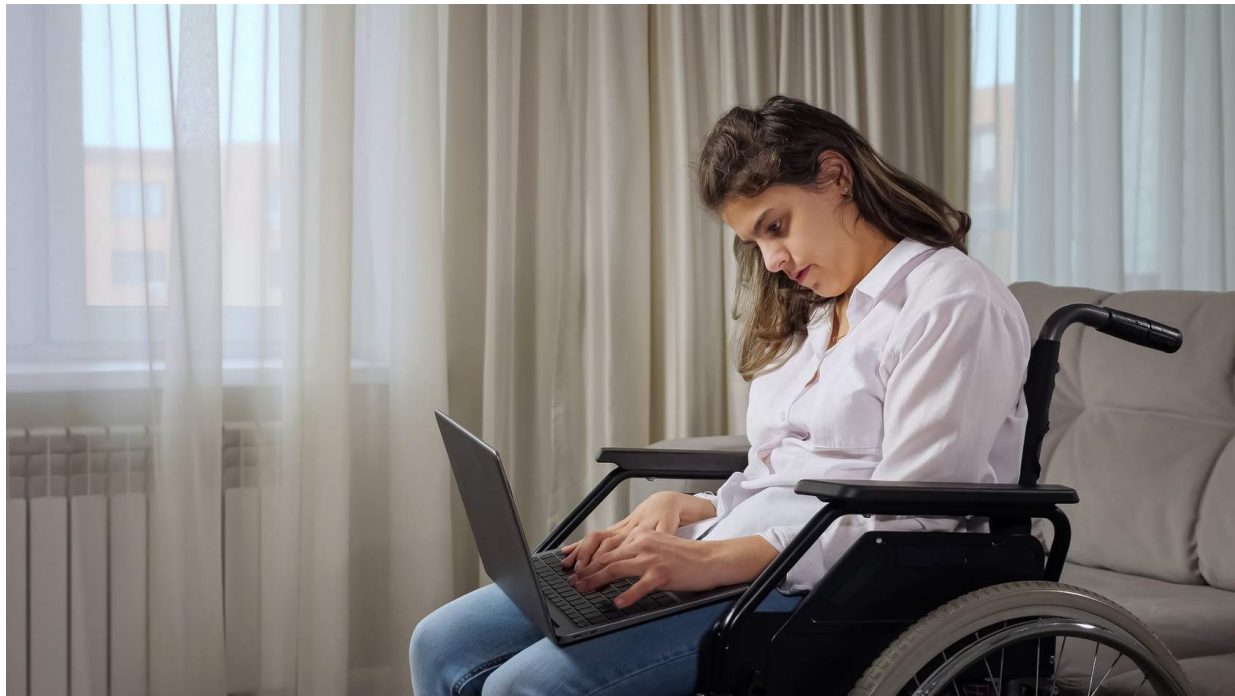
Most providers will perform nail care themselves because of the high risk. Here are a few tips so you know what to expect when you assist:

- 1 Technician or patient can perform foot care at bath time during hygiene routine.
- 2 Nail care includes regular trimming, cleaning and cuticle care.
- 3 Wash feet in warm water; do not soak—this could cause drying.
- 4 Push cuticles back gently on fingernails with plastic applicator to prevent hangnails.
- 5 Clip the nail straight across to prevent hangnails.
- 6 Toenails are clipped straight across preventing ingrown nails.
- 7 Toenails of a diabetic or one with circulatory disease should not generally be clipped by a technician.
- 8 Toenail clippings of a diabetic or one with circulatory disease requires a doctor's order and performed by a nurse or physician.

CONTINUE

Paralysis





Paralysis is the loss of sensation and/or the ability to move a part of the body. The causes of paralysis include trauma, spinal cord tumors, disease, infections, and congenital defects. There are also different types of paralysis. Quadriplegia is paralysis of the legs, trunk, and arms. Hemiplegia is paralysis of one side of the body.

Paraplegia is paralysis of the lower trunk and legs. Each individual patient, whether paralyzed due to spinal cord trauma or cerebral vascular accident (CVA), will have a unique care plan. We can only touch on the subject within this text.

### **Spinal Cord Injury**

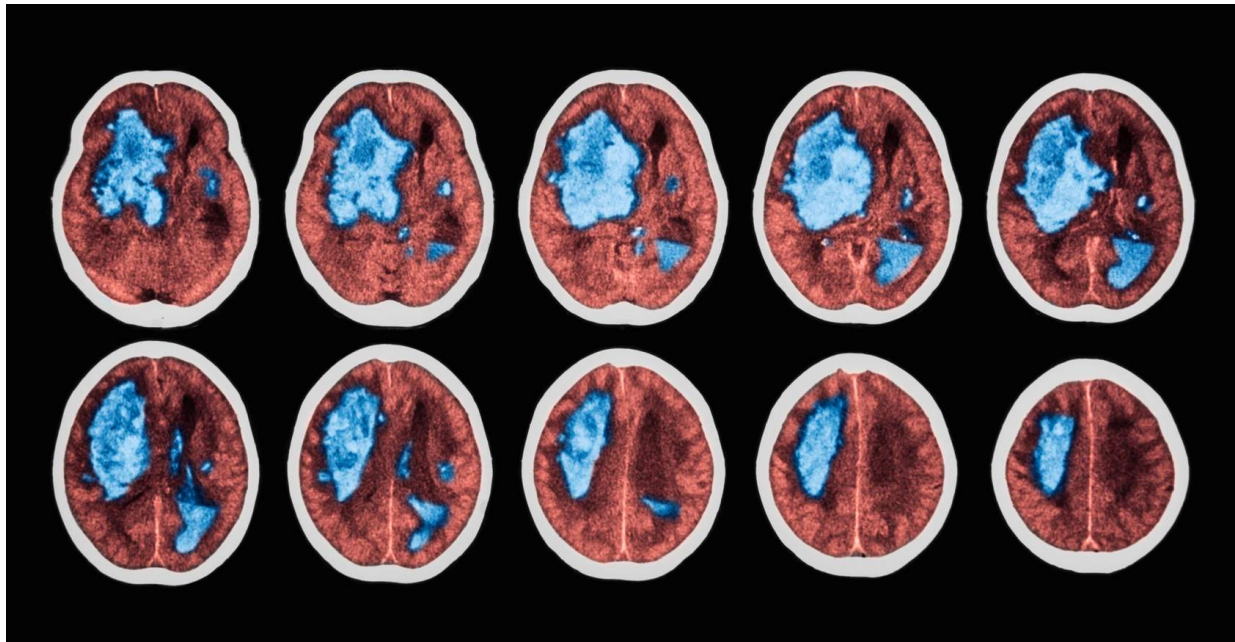
Complete immobilization and proper alignment of a patient with suspected spinal cord injury is imperative. Death can result from improper transportation techniques. Once in the ER, the patient receives a complete neurological examination and x-rays to determine the extent of injury. You must carefully monitor respiratory, cardiac, and GI functioning during this crucial period. During the first 48 hours after injury, swelling can increase the risk of complications.

The patient is then placed in skeletal traction by a surgeon to immobilize the cervical spine and reduce the fracture. Once skeletal traction is applied, the patient is placed on a

special bed to help prevent pressure sores, cardiorespiratory complications, muscle atrophy, and urinary complications. One such bed is the Stryker frame. Turning must be accomplished slowly to prevent cardiac arrest due to a vagal response.

Rehabilitation is a lifelong process for a patient with a spinal cord injury. The physiological and psychological rehabilitation is complicated and complex. Many of the physiological functions of daily living, such as bladder and bowel control, must be relearned. Psychologically, a mourning process is experienced until the adjustment period is reached.





## Stroke

CVA, or stroke, is a term used to describe the rapid onset of neurological deficits that result in difficulty with thought processes and sensory and motor disability. Physiologically, a stroke can occur due to ischemia or hemorrhage in the brain. The side of the brain in which the ischemia or hemorrhage occurred determines which side of the body is affected. During the acute stage of the stroke, the primary goal is to sustain life. Monitor the airway to ensure it remains patent. Have airway and suction equipment readily available.

In some cases, an airway adjunct may be used to hold the tongue in place to maintain an open airway. Increases in intracranial pressure can also occur after a stroke. Monitor neurological functioning closely and report any abnormal findings to the nurse or physician immediately. Perform neurological checks for level of consciousness, pupil reactions, hand-grip strength, and foot strength. In addition, monitor vital signs and I&O measurements for fluid retention. Fluid retention or overload can cause swelling in the brain and further neurological damage.



After the acute stage of a stroke, special nursing measures must be taken to increase mobility and prevent contractures and further deformities. Some of the equipment used includes footboards, wrist splints, trochanter rolls (used to prevent external hip rotation), and hand rolls. Proper body alignment is important to prevent deformity. Physical therapy is started and is important in helping the patient gain mobility. Rehabilitation for a stroke patient is a life-long process.

Helping the patient achieve as much independence as possible is one goal of rehabilitation. Other challenges the patient must learn to compensate for are communication (aphasia), altered thought processes, bladder control, and coping with sensory deficits. The patient needs support from the nursing staff, family, and friends during this stressful time. As with spinal cord trauma, a grieving period is usually experienced by a stroke patient.

## Multiple Choice

What is the loss of sensation and/or the ability to move a part of the body?

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- ☐ Paralysis
- ☐ Geriatrics
- ☐ Nerve damage
- ☐ Hyperglycemia

SUBMIT



Complete the content above before moving on.

## Geriatrics

The term geriatrics refers to the study of aging and its physiological and pathological effects on mankind. Because age influences nursing needs, it must be considered when planning patient care. Diseases are not necessarily a part of the aging process, although they are frequently associated with it. Diseases can become less frequent after maturity. However, a group of chronic and degenerative disorders usually becomes increasingly

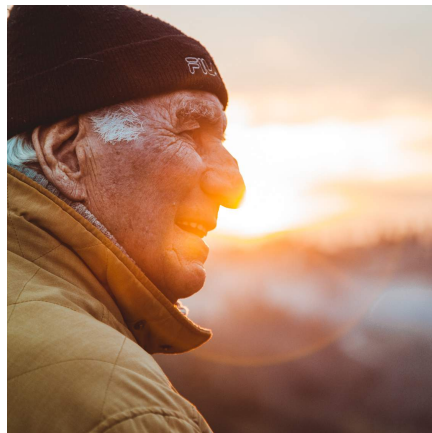
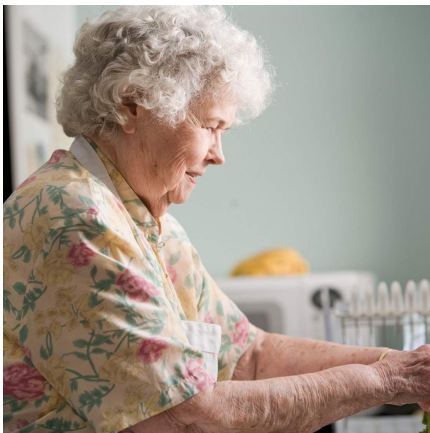


common. Caring for the elderly patient is basically different only in that you are working with older patients. The objectives of nursing care are the same for all patients regardless of age.

While working with the elderly patient, much of your time is spent meeting problems and needs. Each patient, regardless of age and diagnosis, has needs related to his or her physical and emotional welfare. Study each patient carefully so that you can plan for that patient's individual care. Physical changes that occur with age may make it necessary to alter or adapt nursing care techniques, treatments, and procedures.

Among the physical needs of the geriatric patient are the following:

- Personal Hygiene
- Rest and Sleep
- Elimination
- Nutrition
- Exercise



PERSONAL HYGIENE	ORAL HYGIENE	HAIR AND NAILS	SHAMPOOS	
<p>Personal hygiene is an important aspect of nursing care. However, it becomes more important when you care for the geriatric patient. Aging brings with it atrophy of the skin. Tissue nourishment is diminished, and the skin becomes dry. It loses its elasticity, presents a wrinkled appearance, and is far more susceptible to infection.</p> <p>Daily skin care, frequent position changes, and a bed free of wrinkles help keep the skin intact and free of infection and bed sores; such care also stimulates circulation. However, keep in mind that the skin of older patients is thin, delicate, and sensitive to trauma. Use a mild or superfatted soap, if available, and a mild lotion for back rubs. Do not use alcohol because it tends to further dry the skin.</p>				

PERSONAL HYGIENE	ORAL HYGIENE	HAIR AND NAILS	SHAMPOOS	
<p>The mouth acts like a freeway for bacteria to enter the body. Failure to clean it permits bacteria to grow and may result in a severe mouth infection. Frequent cleaning removes food particles; thus reducing the growth media for bacteria, and it also refreshes the patient and stimulates the appetite.</p>				

PERSONAL HYGIENE	ORAL HYGIENE	HAIR AND NAILS	SHAMPOOS	
<p>Care of the hair and nails are also an essential part of personal hygiene. Neatly combed, brushed, or trimmed hair contributes to the appearance and morale of the older patient. Unless the nails are properly trimmed and cleaned, they become brittle, thicken, and eventually curl inward against the</p>				



flesh, exerting pressure on the nail beds. This also opens a pathway for pathogens to enter the body and can cause pain for the patient.

PERSONAL HYGIENE	ORAL HYGIENE	HAIR AND NAILS	SHAMPOOS	
<p>The frequency of shampoos depends on the patient. Some patients can go a few days, and some need their hair washed daily; it depends on their activity level and the amount of sebum their hair secretes.</p> <p>How the hair is washed also depends on the activity level ordered by the physician or the strength of the patient. If the patient is confined to bed, a washing trough and bucket can be brought to the bed—the procedure you learned in technical school. Other methods include placing the patient on a stretcher and taking him or her to the sink or taking the patient to the sink in a wheelchair.</p> <p>When assisting a patient with a shampoo, you'll need to wet the hair first, apply a small amount of shampoo, and massage the shampoo into the scalp. Use only your finger pads and not your fingernails. You don't want to cause scratches on the scalp. Rinse the hair well, being careful to remove all shampoo. Comb and dry thoroughly.</p>				

PERSONAL HYGIENE	ORAL HYGIENE	HAIR AND NAILS	SHAMPOOS	
<p>You may also be required to shave the male patient. To avoid cutting the patient, many facilities only use electric razors. Check the razor to be sure that it is clean and the cord is not frayed. Shave the patient, being careful not to get too close to the skin, causing skin irritation.</p> <p>If you use a razor blade, be sure you have a new blade. Apply a warm, moist towel to the face for a few moments, then soften the hair with shaving cream or lotion. Pull the skin taut and shave in the direction of hair growth. Do not try to get too close. When you finish, rinse and dry the patient's face. Apply aftershave or cologne as desired by the patient.</p>				

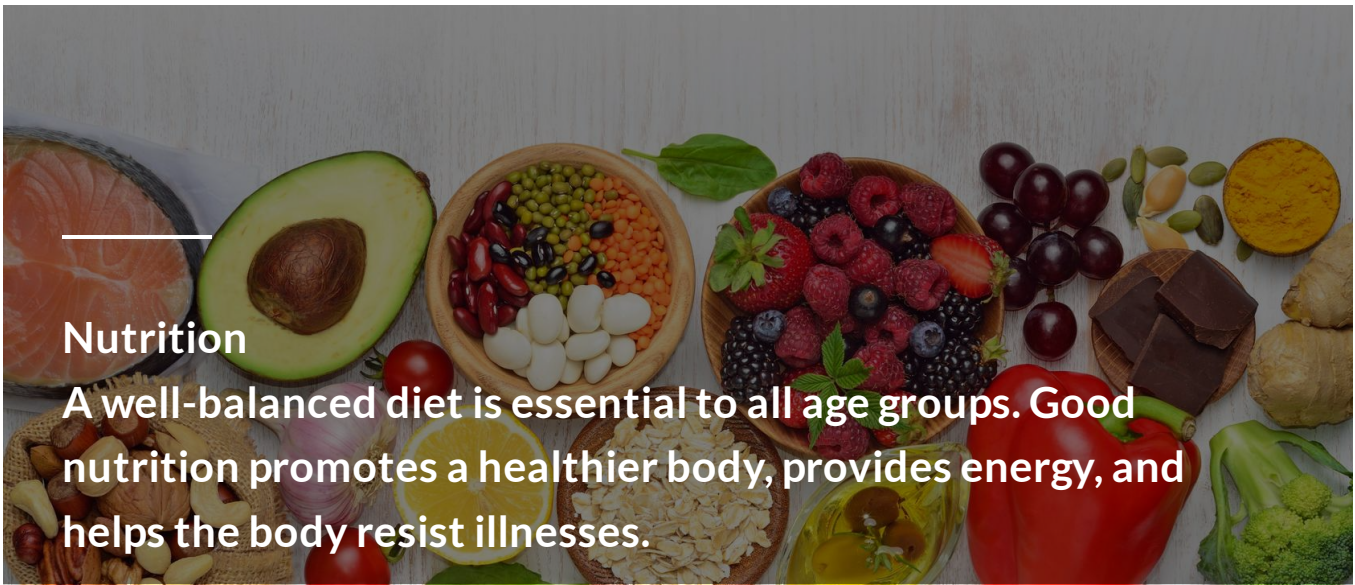
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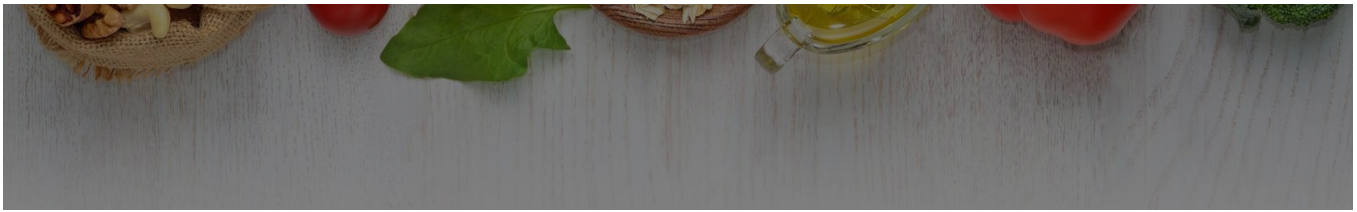
PERSONAL HYGIENE	ORAL HYGIENE	HAIR AND NAILS	SHAMPOOS	
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Rest and sleep are essential, although older people seem to need less sleep. They seldom sleep soundly throughout the night, and early rising is a common practice. Some patients may not sleep well because they “nap” during the day. To some the midday nap is a necessity, while to others it is a habit. The physician will advise you as to whether you should try to keep the patient interested or busy in some hobby or activity throughout the day so as to increase the need for sleep during the night.

Rest is just as important as sleep. The older the patient gets, the more rest and relaxation are needed. Rest is one way in which the body replenishes energy. In fact, rest is a basic treatment for many illnesses. However, rest is possible only when the patient is free of physical discomfort and mental disturbances. There are several ways to help the patient achieve both mental and physical rest.

To help eliminate much of the patient’s worry and fear, explain treatments, examinations, and procedures. Physical rest is greatly enhanced by making the patient comfortable. Routine procedures, such as a back rub, clean linen, and oral hygiene contribute to physical rest. Other aids to rest include proper elimination and protection from excess noise.





The nutritional needs of the geriatric patient are much the same as those of any other age group. However, as activity decreases, the body's need for calories also decreases, and the energy requirements of the body diminish. Still, a person must have certain amounts of specified foods each day to maintain a proper state of nutrition.

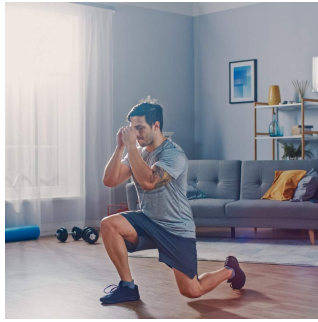
The appetite of an elderly patient must also receive your attention. Remember, several factors influence the patient's nutritional status. The patient may not eat because of a dislike for certain foods, the way they are prepared, or the environment in which they are served. Or, the patient may have a diminished appetite due to less body activity. Probably the greatest stimulant (or deterrent) to the appetite of the elderly patient is the way in which the meal is served. Serving an attractive meal with consideration for the individual likes and dislikes and catering to the patient's personal customs does wonders for the appetite. Small and frequent feedings may also be helpful and necessary.

CONTINUE

Exercise



Elimination



Exercise

## Elimination

A lack of proper exercise, reduced muscle tone in the GI tract, and less roughage and fluid in the diet can contribute to some difficulty in regular bowel eliminations. Other contributing factors leading to constipation include excitement, pain, and a lack of privacy. Fecal impaction is a complication of untreated constipation.

In caring for the patient, you must pay special attention to elimination habits. Observe the frequency of bowel movements, amount, color, and presence of blood, mucus, pus, or undigested food. Report any discomfort, excess straining, presence of flatus, or any other marked changes in normal bowel habits. Remember, malignancies of the lower bowel may be discovered because of your observations and reports.

## Exercise

Exercise is a normal activity. It improves the functioning of the different parts of the body and improves posture. However, for the elderly patient, exercise must be regulated by the physician. The physician prescribes the type of exercise that is beneficial and within the limits of the patient's physical capacity. The exercises depend on the patient's particular disease or disorder.

Any special exercise program will probably be supervised by a physical therapist. However, teaching good posture and instructing the patient in deep-breathing exercises is part of the daily nursing care given any patient. Your team leader and the nursing-care plan will guide you in the type, amount, and frequency of any exercise program.

CONTINUE

Emotional Needs





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## Emotional Needs

**You know that all patients, regardless of their age or diagnosis, exhibit emotional needs that must be cared for. All patients show varying degrees of fear, anxiety, apprehension, and tension.**

The greatest cause for these characteristics is the uncertainty of the future or the prognosis of the disorder. Illness is a personal experience, and the degree of reaction depends upon past experiences, cultural background, and economic status. Each patient reacts differently and must necessarily be considered separately and individually.

To satisfactorily meet emotional needs, first know something about the patient. The chart and medical records contain vital information for your use. Other information is obtained from your relationship with the patient. Observe the patient, noting facial expressions, tone of voice, and gestures. Attentive listening and skillful questioning often uncover many of the patient's anxieties and concerns.

Create an environment that allows self-expression. A smile, a helpful word, and an explanation—all tend to increase the patient's confidence. Show respect for each patient. Address each patient by last name and title. Acquaint patients with the hospital routine and prepare them for what to expect; it's the unknown that causes much anxiety and fear. Encourage each patient to participate in some degree of self-care. Most patients enjoy doing so, and when they can participate in procedures, such as coughing, muscle exercises, and so forth, they feel that they are contributing to their own recovery.

We discussed some of the physical and emotional needs of the elderly patient. As our population continues to grow older, care of the elderly will be an important priority to our society.

CONTINUE

## Infant/Child/Adolescent Illness Coping Stressors

How each child copes depends greatly on his or her developmental stage. Children coping with their illness depends greatly on the significance of individual stressors that include separation, loss of control, bodily injury, and pain. Let's briefly look at each of these stressors, how they affect most children, and what you can do to help minimize them.

For children from middle infancy throughout the preschool years, separation anxiety is a major stressor.

Separation anxiety can be divided into **three** phases:

1

**Protest phase**- Consists of crying, screaming, and refusing attention from anyone.

2

**Despair phase**- Child stops crying and is grieving or mourning being left alone.

3

**Detachment phase**- There is an apparent acceptance of the separation from the parent.





Both the protest and despair phases are normal, but when the detachment phase is carried out for abnormally long lengths of time, it can become abnormal. When caring for the young, be aware of these phases and realize that the child is not just being a “bad child” but that these are typical reactions to separation from a loved one.

To minimize separation, the ideal situation would be “rooming-in” where the parent can stay with the child 24 hours a day. When separation is avoided, this seems to give the child the ability to cope with the other stressors involved with hospitalization. If the parent must leave, you should stay with the child, providing physical support even if the child is rejecting your comfort. Once again, realize this is normal. Parents should never sneak out; this only creates more problems. The child soon realizes that leaving also constitutes the parent’s return. You can also ask the parents to leave a favorite home article with the child, such as a stuffed animal, blanket, or toy. The item may provide the child with comfort and reassurance that the parent will surely return for it. For an older child, family pictures, a radio, or even a favorite pair of pajamas can help.

CONTINUE



## Loss of Control

Physical restrictions, altered routines, and dependency can create a sense of “loss of control” for a child. This is made obvious when a toddler meets an obstacle and throws a temper tantrum. Restraining children on their backs and limiting their movement is usually met with resistance.

To provide a child with a sense of control, establish daily rituals and routines. These rituals include eating, sleeping, bathing, toileting, and playing. Of course, hospitalization can disrupt these needed routines. Older children can also be affected by this loss of control due to rigid hospital schedules and rules.

To minimize the child's loss of control, keep physical restrictions to a minimum. This is done by first gaining the child's cooperation. For infants and children, once again, rooming-in can help prevent having to use restraints. Parents can remain with the child during most procedures that prevent the use of undue restraint. If restraining is necessary, periodic removal is necessary to allow supervised freedom.

As for altered routines, the admission history provides the necessary guidelines for nursing personnel to help maintain as much of the child's routine as possible. Keep in mind, when a child loses his or her sense of control, regression is a normal, adaptive mechanism. In some cases, time structuring can help provide the child with some control. This involves preparation of a schedule by the child, nurse, and family of the daily activities that are written down and left with the child. Of course, the older child who can tell time benefits most from time structuring.

CONTINUE



### **Fear of Bodily Injury**

Any child that is beyond the infant stage will normally fear bodily injury either from mutilation, bodily intrusion, body image change, disability, or death. Although their fears differ greatly from infancy through adolescence, as a medic taking care of children, you must realize that these fears are real to children at any age. A toddler may react as intensely to a painless procedure as he or she does to a painful one. This may be due to the previously mentioned stressors of separation from parent, restraint, or their parent's reactions to the situation. Preschoolers, although their concept of body integrity is limited, are very vulnerable to threats of bodily injury. For example, they fear their insides may leak out because of an injection.

As the child matures, fear of bodily harm increases. Due to developing cognitive abilities, school-age children are more aware of health and illness concepts than the younger child. The school-age child fears disability, uncertain recovery, and death rather than



pain. As for the adolescent, his or her appearance is of the utmost of importance; therefore, the fear of change in bodily image is of great concern.

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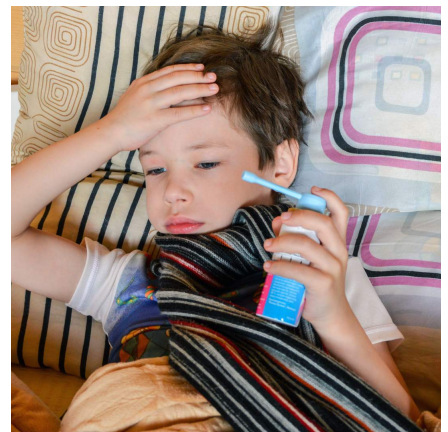
What can we do as medics to help **alleviate** these fears?

Preparing the child for the procedure helps decrease perceived fears. It is also **very** important to use a language appropriate for the child's age.

Maintaining parental contact and quickly performing procedures are also beneficial. The use of Band-Aids and bandages also helps decrease the child's fear of bleeding or the leaking out of his or her insides.

CONTINUE

## Pain



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Reactions to pain vary from infancy through adolescence. Infant facial expressions are indicators of pain.

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For example, an open mouth, eyes tightly closed, and flaring nostrils are the most typical, along with loud crying. Toddlers and preschoolers react very emotionally to pain. Behaviors include grimacing, clenching of teeth and lips, and aggressiveness to include kicking, biting, and hitting. The school-age child has learned passive methods of dealing with pain, such as clenching fists or teeth, and attempting to act brave. This age group also has the ability to verbally communicate the location, intensity, and description of their pain. The adolescent displays self-control during painful situations. Most adolescents in pain demonstrate limited movement, excessive quietness, or irritability.

As the primary care giver, your assessment of the child's pain is important to the comfort and well-being of the child. According to Whaley and Wong, "Health professionals, including nurses, tend to underestimate the existence of pain in children." Some reasons children are undertreated include the difficulty of assessing pain, especially in the very young. Let's study some methods to help you assess your pediatric patient's pain.

Here are some suggestions to help enable you to better make an assessment of your pediatric patient's pain.

First, ask the child questions regarding his or her pain, such as "Do you have a boo-boo?" or "Do you have an owie?" Ask the child to show you where it (pain) hurts. The child may even be able to show you using a doll as to where the pain is located. Another useful method is the use of a pain scale. This scale consists of six cartoon faces ranging from a very happy, smiling face for "no pain", to increasingly less happy faces, to final sad, tearful face for "worst pain." Using the "Wong-Baker face pain scale," ask the child

to point to the face that describes how he or she feels. Another important observation you can make is the child's behavior. You must report physiologic changes to the nurse.

Physiological changes include the following:

- Pulse
- Respiratory rates
- Blood pressure



It is also important to involve the parents; the child may not want to tell you if and when he or she is in pain. Once you determine that the child is in pain, report all your observations to the nurse for prompt action.

## Pain Scale



## Multiple Choice



You are caring for a child who has been in the hospital for a few days and they are crying, screaming, and refusing attention from anyone. What phase are they in?

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- ☐ Protest
- ☐ Despair
- ☐ Detachment

SUBMIT



Complete the content above before moving on.

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## Pediatric Vital Signs

As with adults, vital signs are important physiologic measurements that indicate the proper functioning of the body. When taking infant vital signs, respirations are counted first. This is because taking the pulse and

temperature may disturb and irritate the infant, causing the infant to cry. Next, take the pulse and then the temperature.



## Respirations

These are counted for a full minute, closely observing the diaphragm or abdomen. The following chart has normal respiratory rates for children.

Normal Child Respiratory Rates	
Age	Respirations (per minute)
Newborn	30–80
Infant (1 year)	20–40
Child (3 years)	20–30
Adolescent	16–20

## Pulse

Until a child reaches the age of two, apical rates are auscultated over the apex of the heart. The apical rate is taken for one full minute to ensure accuracy.

If the child is crying, annotate your observations in the patient's record.

Normal Heart Rates for Infants and Children		
Age	Resting beats/minute (awake)	Resting beats/minute (sleeping)
Newborn	100–180	80–160
1 week to 3 months	100–220	80–200
3 months to 2 years	80–150	70–120
2 years to 10 years	70–110	60–90
10 years to adult	55–90	50–90



# Temperature

Younger children may bite the thermometer (very dangerous if using a glass thermometer) or may not be able to keep the thermometer under their tongue.

Rectal temperatures are frightening for most children. Rectal temperatures are not taken on newborns (possible rectal perforation), anyone who has had rectal surgery, or children receiving chemotherapy that affects the mucosa. To take a rectal temperature, place the child in a supine, prone or side-lying position. Place a lubricated, rounded bulb thermometer approximately one inch into the rectum.

Axillary temperatures are usually the easiest method of temperature assessment for children. Length of time used for axillary temps is five minutes unless you are using an electronic thermometer.

Most hospitals use various electronic equipment for taking temperatures. These methods are quick, easy, and the least frightening for the child.

CONTINUE

# Blood Pressure

To accurately measure the blood pressure of a pediatric patient, the most important factor is selection of an appropriately sized cuff. A cuff that is too small causes high readings in children as well as adults. If the correct size is not available, it is better to use a cuff that is a little oversized than one that is undersized. You should always make the effort to find the correct size blood pressure cuff for the patient, but if it is not available, ensure that you document the size cuff you used.

This will aid providers in the assessment and follow up of the patient. The technique for taking a blood pressure is the same as it is for an adult. The main difference is in preparing the child for the

procedure. You must explain each step of the procedure, especially for the preschool-age child and above. There are many ways to explain to the child how a cuff will feel.



For example, explain that the cuff will feel tight, or the cuff is going to give your arm a hug. There are many other ways to interact with your patient in a way that is fun and less likely to scare the child. Some examples include phrases like, “Let’s see how strong your muscle is,” or “Let’s watch the hand on the dial.” You should also use a pediatric stethoscope that helps you hear blood pressure sounds in young children and infants. The chart below references blood pressures in children.

Quick Reference Guide for Blood Pressure in Children	
Use the following formula to approximate the average systolic blood pressure for children:	Use the following formula to approximate the average diastolic blood pressure for children:

Quick Reference Guide for Blood Pressure in Children	
1 to 7 years: age in years + 90	1 to 5 years: 57
8-18 years: 2x age in years +83	6-18 years: age in years +52





## Bathing

In most cases, infants and children can be given a tub bath on the unit unless, of course, their condition dictates otherwise. When bathing an infant, safety should be your top priority.

### **NEVER LEAVE INFANTS OR SMALL CHILDREN UNATTENDED IN A BATH TUB!**

To bathe an infant, hold the infant with one hand securely supporting the head and neck. This leaves your other hand free to wash the infant's body. Children who can sit alone need to be closely supervised and given assistance with bathing details. Areas that need more attention are the ears, between skin folds, the neck, back, and genital area. It is also suggested that a towel or nonslip pad be placed on the bottom of the tub to prevent slipping.

Children who are critically ill or debilitated may need bed baths. For infants and children, a simple towel method can be used. Take two towels and immerse them in a diluted soap solution and wring damp. With the child in a supine position on a dry towel, place one damp towel on top of the child and gently clean the body, then dry the child. Place the child in a prone position, place the second damp towel over the body, gently clean, and then dry the child.

## Feeding

A sick child, in most cases, has a decrease in appetite (anorexia). Therefore, allowing the child to determine his or her own need for food is suggested. Forcing a child to eat can only cause nausea and vomiting. A primary concern during episodes of nausea, vomiting, and diarrhea is dehydration.

One intervention is to offer small amounts of flavored fluids at frequent intervals. Some other well-tolerated foods include gelatin, diluted clear soups, carbonated drinks, popsicles, dry toast, crackers, and hard candy. Although these foods are not nutritious, they provide necessary fluids and calories. The following are some suggestions to encourage a child to improve eating habits:



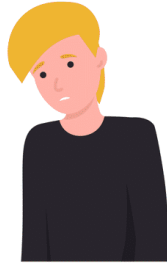
- 1 Encourage parents to be present at mealtime.
- 2 Using a dietary history, provide a child's favorite food or drink.
- 3 Offer nutritious snacks.
- 4 Provide praise for what the child eats; do not punish a child for not eating.
- 5 Allow parents to bring food from home.

After the child has eaten, record food intake and any behavior associated with eating well or not eating well.

# HEAT STROKE SYMPTOMS



Headache



Weakness & Lethargy



Vertigo & Dizziness



Nausea & Vomiting



Redness of the skin



High fever

## Temperature Elevations

There are two causes of temperature elevations in children, fever and hyperthermia.

Fever is a common symptom of illness in the child. It can be reduced by the administration of an antipyretic agent or environmental intervention. Environmental intervention includes the use of less clothing, exposing the skin to air, cooling the air, circulation of room air, and cool moist compresses to the skin.

Hyperthermia is caused by external conditions, such as heat stroke, aspirin toxicity, or hyperthyroidism. The main goal with hyperthermia is lowering the body's core temperature. Therefore, cooling measures are the primary source of relief. There are various methods used to reduce hyperthermia, such as commercial cooling blankets and mattresses, cool applications applied in a tub or bed, and tepid baths.

### Multiple Response

What are the symptoms of heat stroke? Mark all that apply.

---

☐

High fever

☐

Headache

☐

Dizziness

☐

Chills

SUBMIT



Complete the content above before moving on.

## **Tepid Bath**

A tepid bath starts with warm water, then cool water is added until a water temperature of 98.6°F (37°C) is reached. This allows the child to be accustomed slowly to the change in temperature of the water. With the child in the tub of tepid water, squeeze water from the washcloth or sprayer bottle over the back and chest. Keep the child in the bath for 20–30 minutes.









## **Sponge Bath**

If the child is too sick to be placed into a bathtub, a sponge bath can have the same effect. With the child in bed, place cool washcloths or towels on the forehead and in the axilla and groin areas. Then sponge off each extremity separately. Give the sponge bath for 30 minutes.

Regardless of the method you are using, do NOT allow the patient to shiver. Shivering is caused by muscles twitching and contracting, causing an INCREASE body temperature. Cover the skin with a light cloth to limit the amount of skin exposed to air. If the patient is in a bath, you may need to warm the water slightly. If in doubt, remove the patient from the water, cover with a lightweight cloth or towel, and notify the provider for further instructions.

## **Pediatric Restraints**

The use of restraints with children is necessary to ensure safety, facilitate exams, or to carry out procedures. Restraints are never used as a substitute for observation or as a punishment measure. There are rules regarding the use of restraints and a few of the more commonly seen methods of restraints for children.

Always give the child and parents an explanation as to why the restraint is necessary. Show parents how to remove and reapply the restraint. Restraints must be checked hourly. You will ensure that it is secured and properly functioning, and that it is not impeding with the patient's circulation, sensation, or integrity of their skin. Remove the restraint every two hours; use alternative methods as much as possible. Alternative methods include distraction techniques, holding the child for short periods, or placing him or her in a highchair near the nurses' station.

There are two common types of restraints used with pediatric patients and they are the jacket and elbow restraint.



### *Mechanical Restraint*

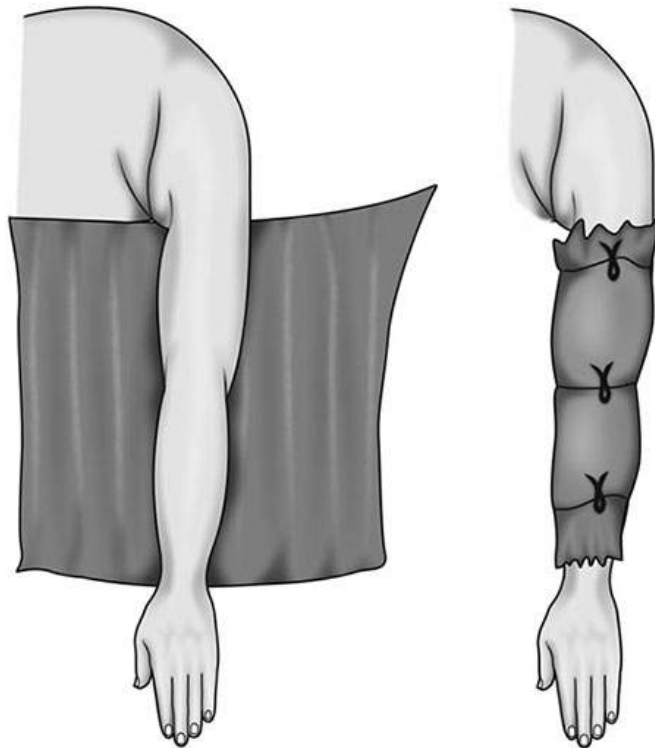
#### **Jacket Restraint**

A jacket restraint is used to prevent the child from climbing out of bed or chairs. The jacket is put on so the long ties are in the back. The long ties are then fastened under the bed or crib where the child cannot reach them.

### *Mechanical Restraint*

#### **Elbow Restraint**

The elbow restraint is used to prevent the child from reaching his or her face or head or to prevent the child from scratching. The elbow restraint is designed to fit comfortably from under the arm to the wrist. Tongue depressors are placed in the pockets; the restraint is then wrapped around the child's arm and secured to the t-shirt sleeve to prevent slipping.



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Watch the video below to learn more about elbow immobilizers.

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## ELBOW IMMOBILIZERS



**Elbow Immobilizers Video Transcript.pdf**  
130.5 KB



CONTINUE

## Developmental Delays

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Chronic **neurodevelopment** disorders are detected at different stages of childhood. This group of disabilities consist of cerebral palsy, mental retardation, autism, learning disabilities, communication disorders, anxiety disorders, and attention deficit disorders.

You or the nurse may be the first person to recognize a type of developmental delay in a child, followed by informing the parent and/or pediatrician. It is important for the child to start **receiving medical care** from providers who specialize in developmental delays, to receive an accurate evaluation and diagnosis, and the right care plan moving forward.

When caring for these patients, support from the family is critical. Maintain communication with both the child and parent/caregiver.

## Post-Traumatic Stress (PTS)

Post-traumatic stress, by definition, not only affects veterans but a wide variety of the patient population. Most of which account for veterans returning from a war zone who either self-identify or later become aware of problems associated with military conflicts. Proper awareness of its symptoms not only helps the affected population but also helps improve patient outcomes. Below are some basic facts about post-traumatic stress disorder (PTSD) and how you can recognize the symptoms.

## Combat Exposure —

It appears that the Iraq War entailed a more stereotypical exposure to warfare experiences, such as firing a weapon, being fired on (by enemy or potential friendly fire), witnessing injury and death, and going on special missions and patrols that involve such experiences, than the ground war offensive of the Persian Gulf War, which lasted three days.

Clinicians who have extensive experience treating veterans of other wars, particularly Vietnam, Korea, and World War II, should be aware of the bias this may bring to bear when evaluating the significance or impact of experiences in modern warfare. Namely, clinicians need to be careful not to minimize reports of light or minimal exposure to combat. They should bear in mind that in civilian life, for example, a person could suffer from chronic PTSD as a result of a single, isolated life-threat experience (such as a physical assault or motor vehicle accident (MVA)).





## Aftermath of Battle —

Veterans of the Iraq War will no doubt report exposure to the consequences of combat; including observing or handling the remains of civilians, enemy soldiers, US and allied personnel, or animals; dealing with prisoners of war (POW); and observing other consequences of combat, such as devastated communities and homeless refugees. Veterans may have been involved in removing dead bodies after battle.

They may have seen homes or villages destroyed, or they may have been exposed to the sight, sound, or smell of dying men and women. These experiences may be intensely demoralizing for some. It also is likely that memories of the aftermath of war (e.g., civilians dead or suffering) are particularly disturbing and salient.





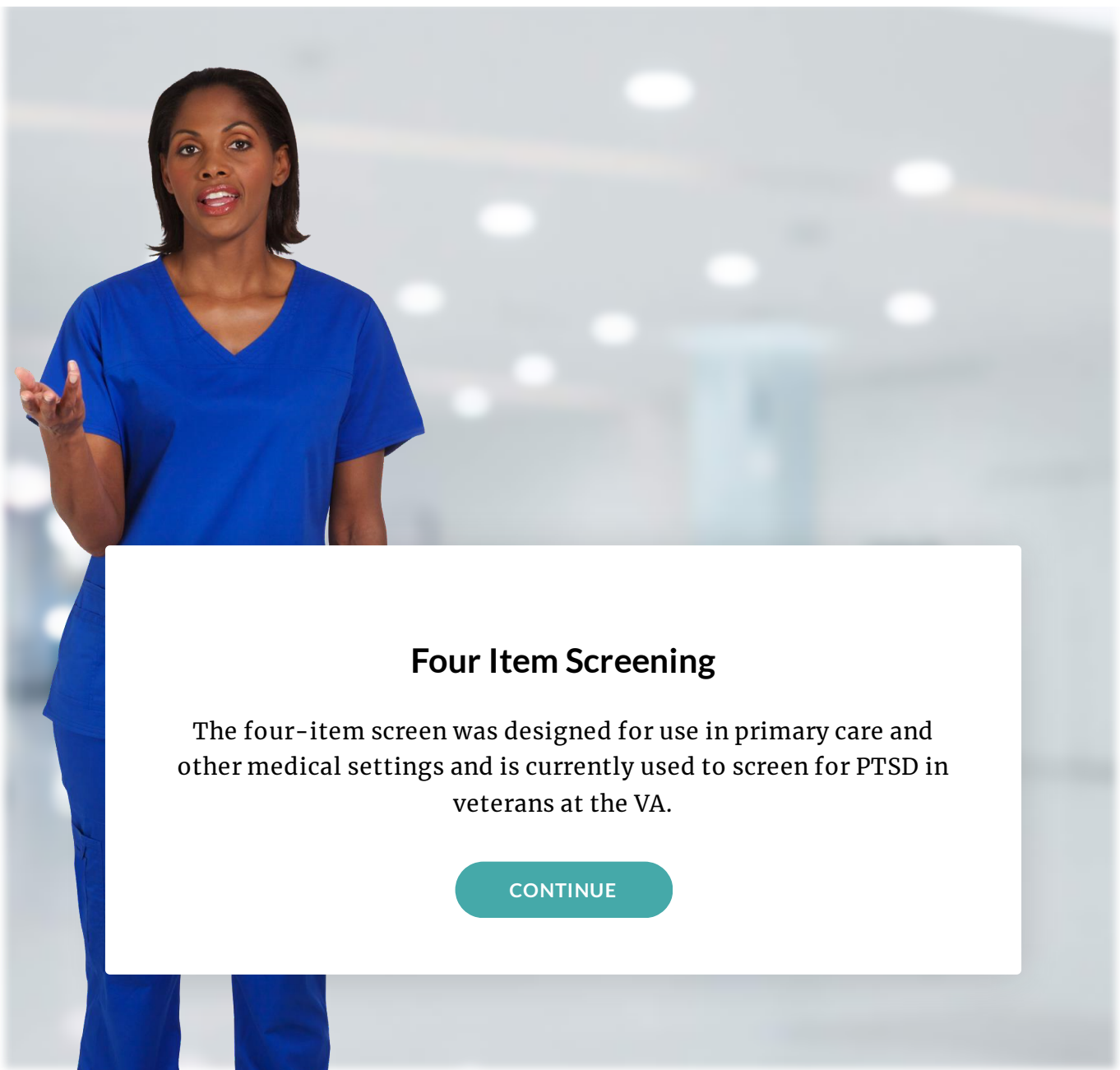
### **Difficult Living and Working Environment**

These low-magnitude stressors are events or circumstances representing repeated or day-to-day irritations and pressures related to life in the war zone. These personal discomforts or deprivations may include the lack of desirable food, lack of privacy, poor living arrangements, uncomfortable climate, cultural difficulties, boredom, inadequate equipment, and long workdays.

These conditions are obviously non-traumatizing, but they tax available coping resources, which may contribute to post-traumatic outcomes.



Below is a list of PTSD screens, that is, brief questionnaires that may identify people who are more likely to have PTSD. A positive response to the screen does not necessarily indicate that a patient has PTSD. However, a positive response does indicate that a patient may have PTSD or trauma-related problems, and further investigation of trauma symptoms by a mental health professional may be warranted.



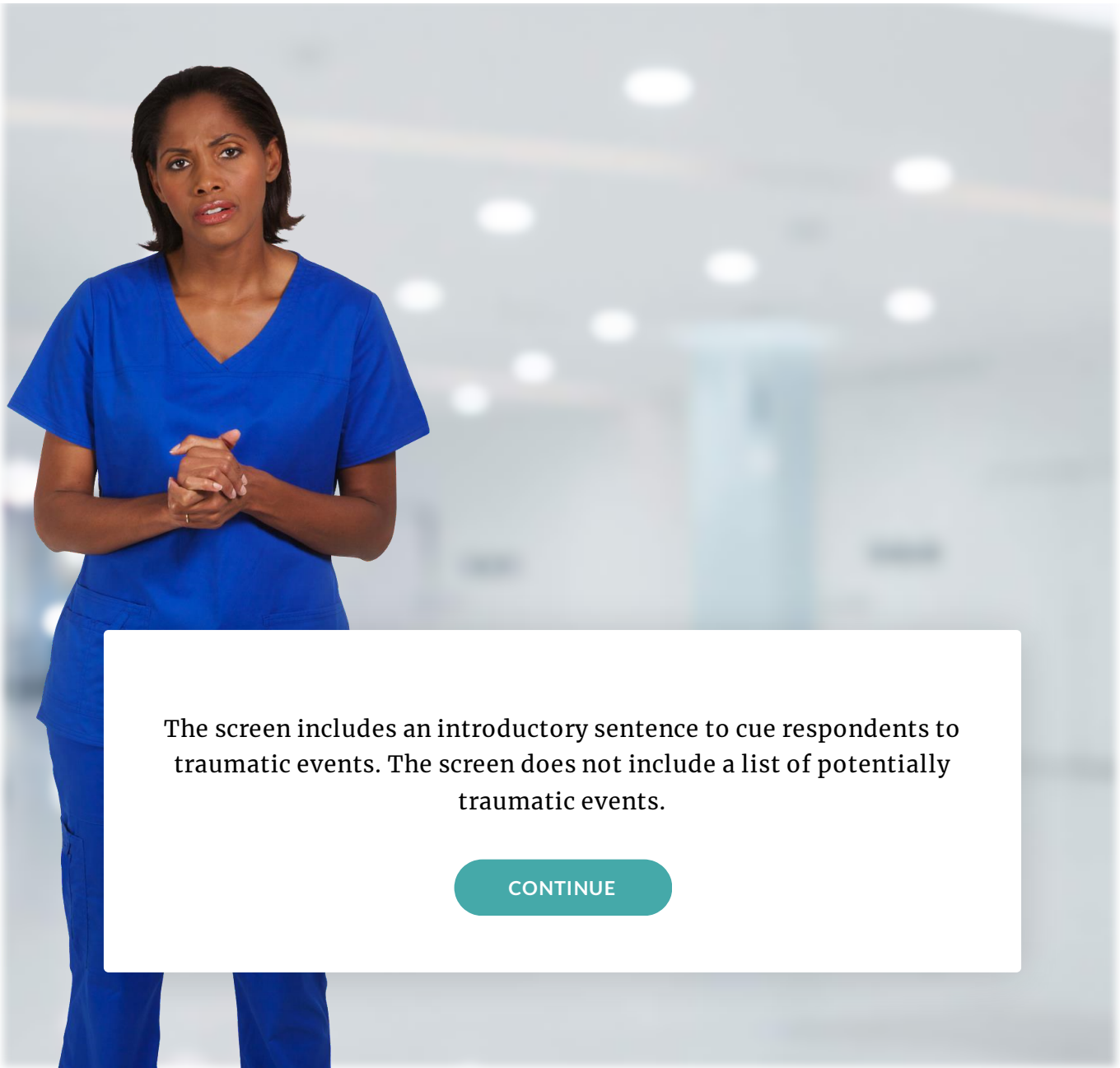
## Four Item Screening

The four-item screen was designed for use in primary care and other medical settings and is currently used to screen for PTSD in veterans at the VA.

CONTINUE

### Scene 1 Slide 1

Continue → Next Slide

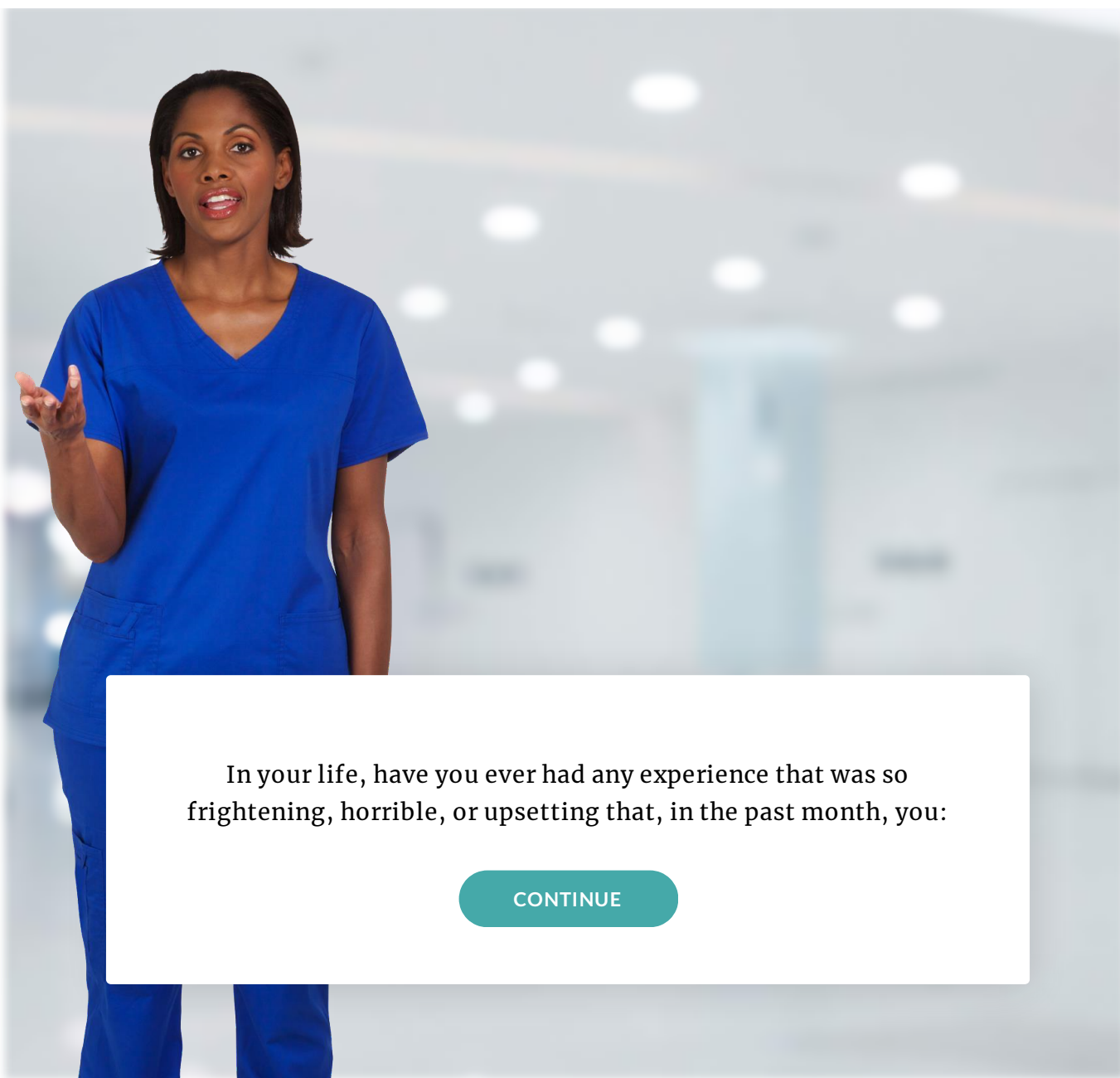


The screen includes an introductory sentence to cue respondents to traumatic events. The screen does not include a list of potentially traumatic events.

CONTINUE

## Scene 1 Slide 2

Continue → Next Slide

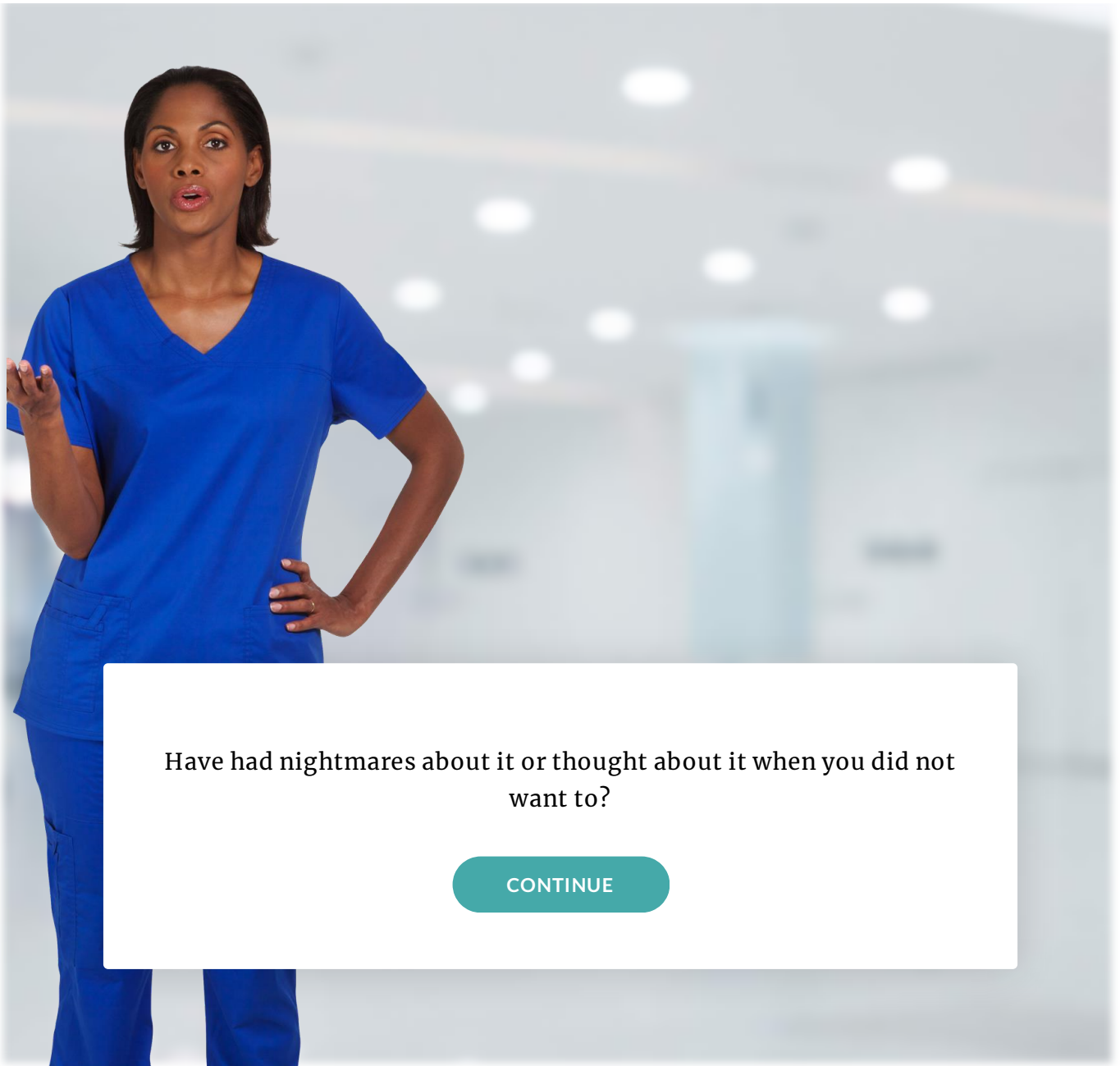


In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, in the past month, you:

CONTINUE

### Scene 1 Slide 3

Continue → Next Slide



Have had nightmares about it or thought about it when you did not want to?

CONTINUE

## Scene 1 Slide 4

Continue → Next Slide





Tried hard not to think about it or went out of your way to avoid situations that reminded you of it?

**Scene 1 Slide 5**





Were constantly on guard, watchful, or easily startled?

**Scene 1 Slide 6**



Felt numb or detached from others,  
activities, or your surroundings?

**Scene 1 Slide 7**



Current research suggests that the results of the questionnaire should be considered "positive" if a patient answers "yes" to any 3 items. A positive screen should be assessed with an VA interview.

START OVER



## Scene 1 Slide 8

Continue → End of Scenario

Those screening positive should then be assessed with a structured interview for PTSD. Given that a full range of psychological responses may be seen and given that multiple

symptoms (and comorbid disorders) may be present, one challenge to the clinician during the assessment process is to prioritize targets of potential treatment. A few general rules of thumb can be helpful:

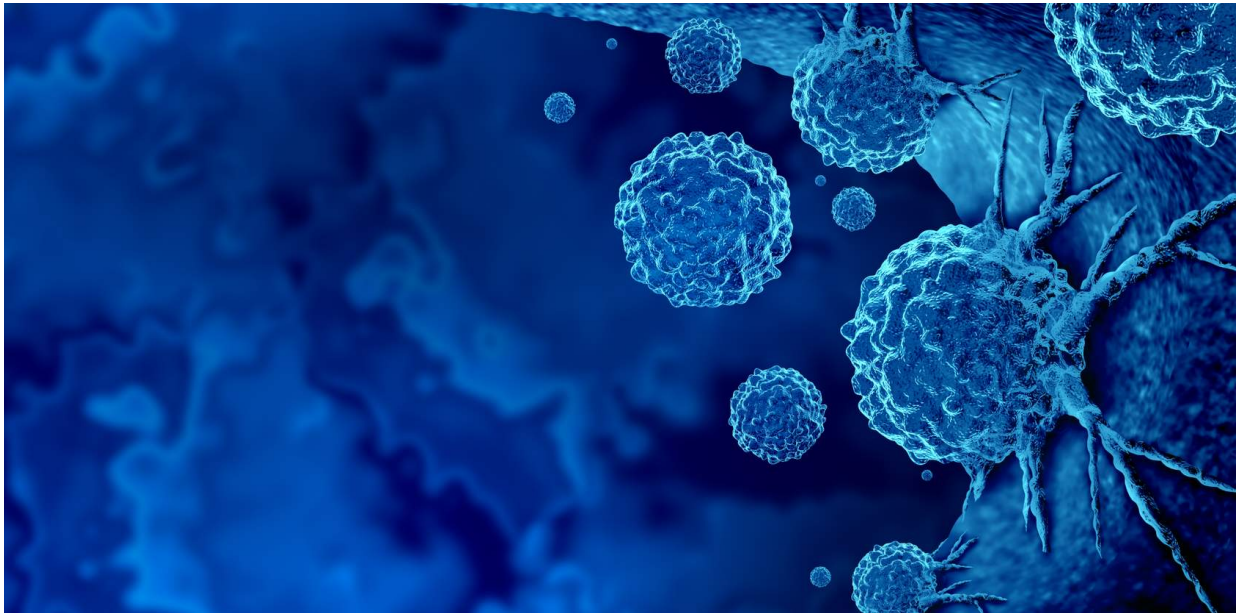
- First, one must immediately attend to symptoms that may require emergency intervention, such as significant suicidal or homicidal ideation, hopelessness, self-injurious behavior, and/or acute psychotic symptoms.
- Second, it is useful to address symptoms that are most disruptive to the veteran, which should be evidenced by a careful assessment of psychosocial functioning.
- Finally, the best way to develop a treatment plan for a veteran with diverse complaints is to develop a case formulation to functionally explain the potential relationship between the symptoms in order to develop a comprehensive treatment plan. Substance abuse, disordered eating, and avoidance of trauma-related cues may all represent attempts to avoid thoughts, feelings, and images of trauma-related experiences. Thus, developing an intervention that focuses on avoidance behavior per se, rather than on specific and diverse symptoms of avoidance, may be a more effective treatment strategy.

CONTINUE

## Cancer

Cancer is a group of diseases characterized by the rapid growth of abnormal cells. If these abnormal cells continue to grow without treatment, they spread (metastasize), invading vital organs, eventually leading to death. It is important to remember, many cancers can be cured if discovered early and treated promptly.

Cancer can start in any body organ and treatment varies accordingly. We will focus on the types of treatment used: surgery, chemotherapy, radiation, and immunotherapy.



## Surgery —

Once an accurate diagnosis is made, surgery, if elected by the physician and patient, is done to remove all or a portion of the primary tumor and areas of regional disease.



## Chemotherapy —

Chemotherapy is the use of chemical agents to destroy cancer cells. Most of the agents used destroy neoplastic cells by somehow affecting their deoxyribonucleic acid (DNA). The various drugs used can destroy the rapidly producing cancer cell at various times in its reproductive cycle. Of course, other normal cells of the body are also being destroyed. This is the main reason for the side effects of hair loss, bone marrow depression, nausea and vomiting, mucositis, and sterility.

Most chemotherapeutic agents can be given to the patient by the oral, IV, or intramuscular routes. If the IV route is used, the nurse has the primary responsibility of hanging and monitoring this medication. As an aerospace medical service journeyman, you can help make the patient comfortable and report possible problems to the nurse. One very serious problem when the IV route is used is extravasation. Extravasation is the leakage of chemotherapy from the vein into the surrounding tissues during infusion. This can cause tissue damage or necrosis if this infiltration occurs. If extravasation occurs, stop the infusion immediately and notify the nurse.

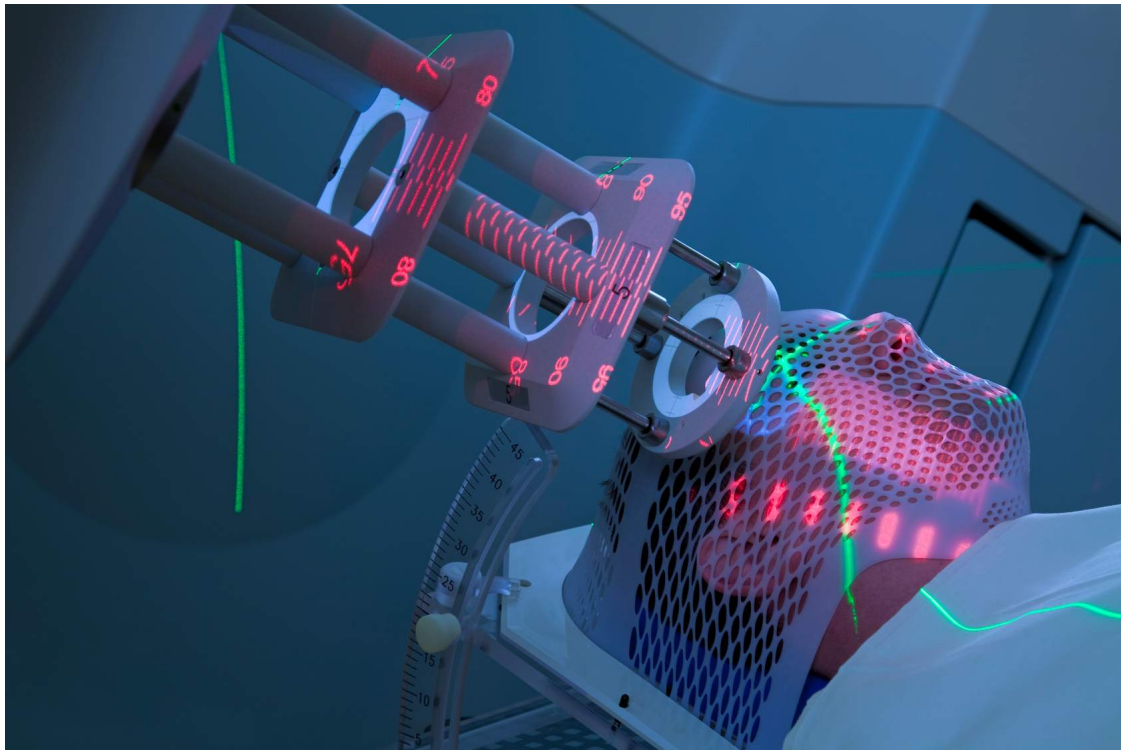




## Radiation Therapy —

Radiation therapy is another method used to kill cancer cells. The radiation causes damage to the DNA, thereby preventing the cell's ability to grow and divide. Chemotherapy may also be used along with radiation in the treatment of cancer.





## Immunotherapy —

A relatively new form of treatment for cancer, immunotherapy is the manipulation of the immune system to fight cancer cells. One example of immunotherapy is the use of interferon.



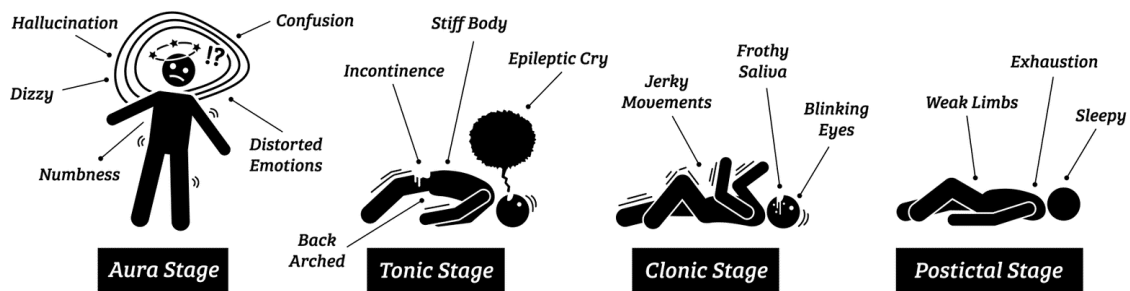
CONTINUE

## Seizure

Seizures, or convulsions, are violent and sudden contractions or tremors of muscle groups. It is an uncontrolled movement caused by an abnormality in the brain. Seizures are triggered by head injuries during birth or after trauma, high fever, brain tumors, poisoning, nervous disorders or infections, and lack of blood flow to the brain.

## Introduction

# Stages of a Seizure



There are three major types of seizures: partial seizure, generalized tonic-clonic seizure, and generalized absence seizure.

## Step 1

### **Partial Seizure**

Affects one part of the brain. A body part may jerk or the patient may have a hearing or vision problem, or stomachache. The patient is still conscious.

## Step 2

### Generalized Tonic-Clonic Seizure

Also known as the grand mal, this seizure has two phases, tonic and clonic. The tonic phase presents with a loss of consciousness, falling (if the patient is standing or sitting), and body rigidity due to all the muscles contracting simultaneously.

The clonic phase follows with the muscles contracting and relaxing, causing jerking and twitching movements, and the possibility of incontinence. The patient may fall into a deep sleep, then wake up with a headache and confused.

### Step 3

## Generalized Absence Seizure

Petit mal is another name for this seizure and it usually lasts a few seconds. The patient will lose consciousness, his or her eyelids will twitch, and it will seem like the patient is staring. First aid is not necessary; however, you must guide the patient away from dangers (e.g., stairs).

Seizures can't be stopped and movements can't be controlled, but you can protect the patient from injury.

1. Call for help.
2. Guide the patient to the floor. This will minimize the patient from falling.
3. Track the time the seizure started.
4. Place a soft item under the patient's head to prevent it from hitting the floor.
5. Remove glasses and loosen items that may be around the patient's neck.
6. Turn the patient on his or her side.

7. **DO NOT** place anything in the patient's mouth.
8. Move any surrounding objects from around the patient.
9. Track the time the seizure ends.
10. Make sure the patient is clear of food or fluids, to include saliva.
11. Provide CPR if the patient is not breathing.

CONTINUE

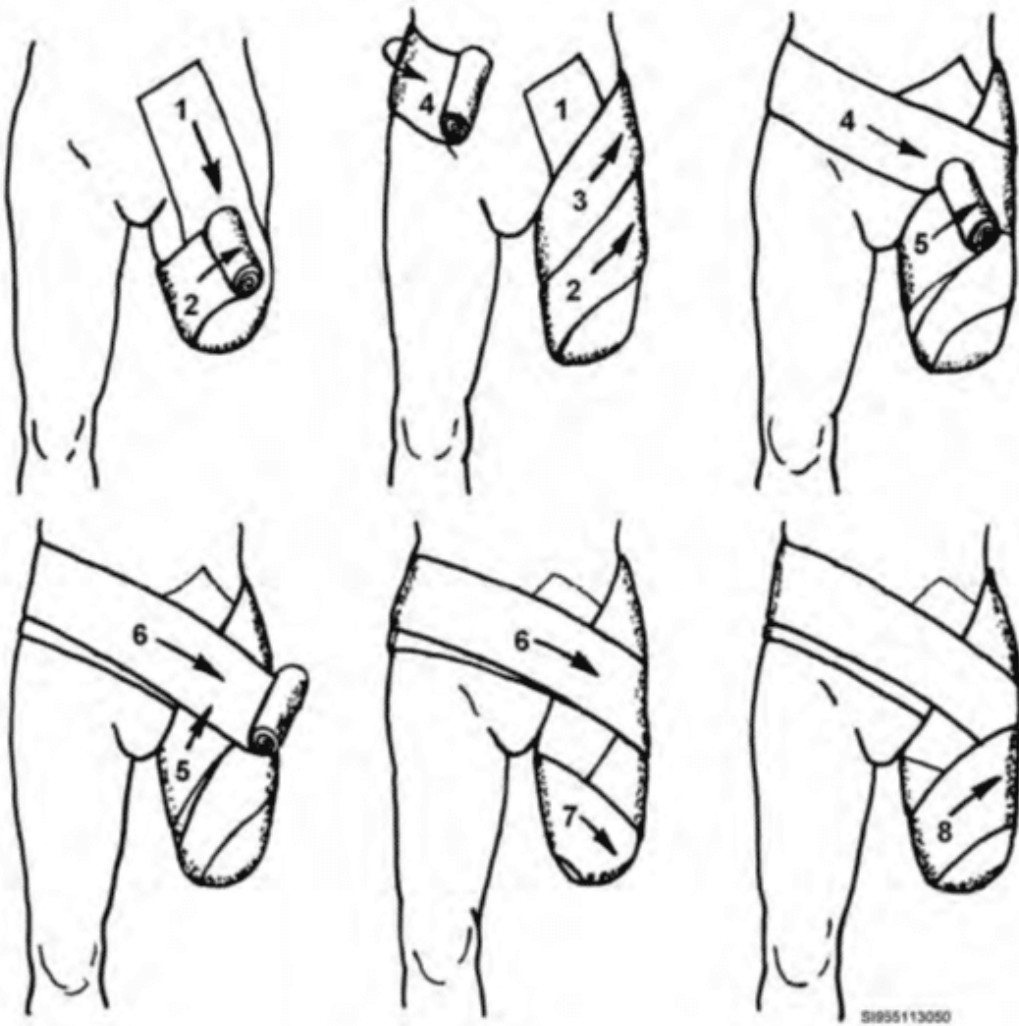
Amputees





An amputation is the surgical removal of all or part of an extremity. The need for amputation is usually due to trauma or disease to the limb. In the civilian setting, most upper limb amputations are due to trauma, while lower limb amputations are due to disease. In a wartime situation, the number of amputations of lower extremities, due to trauma, significantly increases.

This increase in lower extremity trauma is attributed primarily to improvised explosive devices (IED) or other explosion injuries. When caring for the amputee, keep in mind the psychological and social impact this surgery has on the patient. The nursing team's goal is to help the patient attain the highest possible level of independence. In today's world, with the many prosthetic devices available, full recovery and independence can be attained.



## Psychological and Social Impact

The patient's psychological impact can be lessened by good preoperative preparation. The patient must be prepared for the grieving process that will occur postoperatively. After an amputation, due to the disruption in body image, the patient may grieve for the limb as if a death had occurred. This brings about depression, which is normal. The patient should also be aware of the possibility of phantom limb pain or phantom limb sensations.

Phantom limb pain is mostly experienced by the patient who was experiencing pain prior to surgery. This pain can be described as a feeling of coldness, cramping, shooting, burning, or crushing pain. Phantom limb sensations are described as a feeling of aching, tingling, or itching in the missing limb. Ensuring the patient is aware of these potential problems prior to surgery certainly helps the person through this traumatic experience.

## Postoperative Care —

Prevention of hemorrhage, infection, and contractures are immediate postoperative goals. The postoperative bandage must be closely monitored for excessive bleeding. Also monitor the patient's vital signs for any indications of shock or hemorrhage. It is a must to have a tourniquet available for emergencies. The prevention of contractures of the hip, stump, or knee is also important. The development of contractures can delay rehabilitation.

With a physician's order, range-of-motion (ROM) exercises are usually performed three times daily to prevent contractures. The potential for infection is also an immediate concern. Some of the signs to be aware of are increased pain at the site, redness and tenderness, increased swelling, and purulent drainage. Report any of these signs immediately to the nurse or physician. Above is the proper method of wrapping a stump of an above-the-knee amputation.

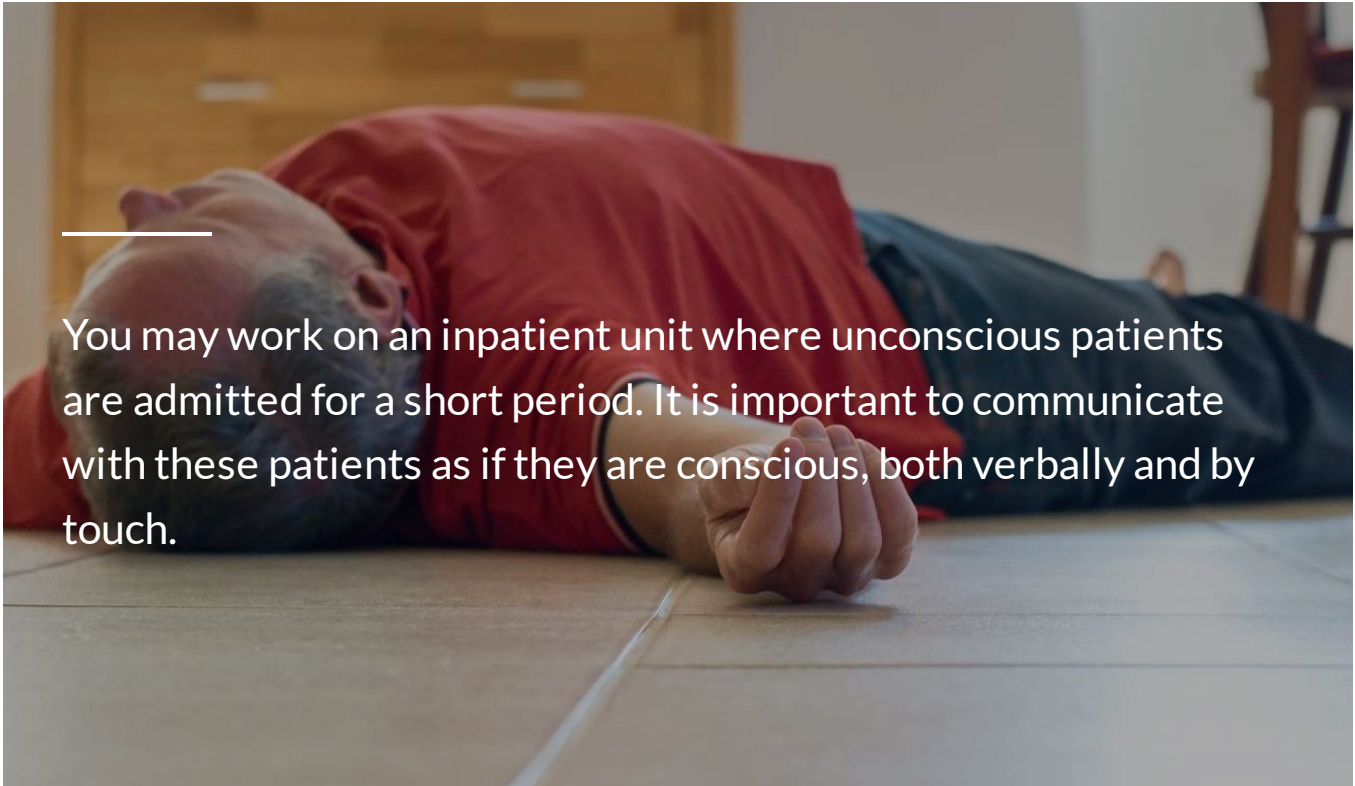
## Rehabilitation —

During the recovery stages, rehabilitation begins immediately. The physician determines if the patient is to have an immediate prosthetic fitting or a delayed prosthetic fitting. With the immediate fitting, the patient will hopefully have less edema of the stump and be encouraged to ambulate early.

A delayed fitting is usually chosen by the physician to ensure that healing has occurred without further complications. Full recovery of the patient may not be seen during the initial postoperative period. It may take months of rehabilitation for the patient to gain his or her full independence.

CONTINUE

Unconscious

A photograph of a patient lying on their side on a light-colored tiled floor. The patient is wearing a red long-sleeved shirt and dark pants. Their head is resting on the floor, and their right hand is clenched into a fist near their face. The background is slightly blurred, showing a wooden door and a chair.

You may work on an inpatient unit where unconscious patients are admitted for a short period. It is important to communicate with these patients as if they are conscious, both verbally and by touch.

Approach the patient by his or her name, explain all procedures and sensations, and keep him or her informed of place and time. Avoid conversing about the patient to others in his or her presence.

Oral care for these patients is important. Some may be breathing on their own (with their mouth open) or receiving oxygen. Both can cause dry mouth and crusting on the tongue and mucous membranes.

Oral hygiene keeps the mouth clean and moist, and helps to avoid infection. Keep in mind that the patient cannot swallow. Protect the patient from choking or aspirating by turning his or her head to the side so the fluid can run out. Also, use small amounts of fluid. Use a padded or plastic tongue blade to assist you with holding the patient's mouth open. DO NOT insert dentures as they are not worn for an unconscious patient.

Follow the patient's care plan when providing oral hygiene. It may be required every two hours.

CONTINUE

## Immunodeficiency Disorder

An immunodeficiency disorder describes any condition that weakens the body's ability to fight off infection. This disorder can be present at birth (genetic), such as severe combined immunodeficiency. It may also be acquired, such as acquired immunodeficiency syndrome (AIDS).

A person who has one of these disorders is prone to developing frequent infections that often become severe. AIDS, for example, is caused by a virus that can be spread by transfusion of contaminated blood, sexually, or by using contaminated needles. The risk of acquiring AIDS following blood transfusion has decreased due to routine testing of all blood products.

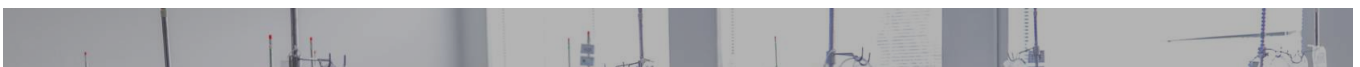
## **Signs and Symptoms**

The symptoms present depend on the type of immunodeficiency disorder. The one thing all such disorders have in common is frequent infections. These infections may occur anywhere in the body. A history of repeated or unusual infections can be the cause of one of these disorders. A healthcare provider

## **Treatment**

Aggressive antibiotic treatment is needed to control most infections. However, there may be no treatment for the underlying disorder. Most of these disorders are long-term problems. Frequent treatment for infection and monitoring are needed.

**CONTINUE**







**Kidney Dialysis** is a procedure used to relieve the symptoms of renal failure. There are two types:

### **Peritoneal**

Peritoneal dialysis is performed by instilling a special solution called a dialysate into the patient's peritoneal cavity (abdomen) via a special catheter. The dialysate is instilled and allowed to remain within the peritoneal cavity for an exchange period, and then drained. The length of this process and



## **Hemodialysis**

Hemodialysis is a process by which the patient's blood is diverted via a shunt, dialyzer, or artificial kidney, which removes impurities, and recirculates the blood back into the patient.

Most patients receive dialysis on an outpatient basis. As a medic, your involvement is before or after treatment. Some aspects you need to be aware of are the signs and symptoms of uremia, shunt care and protection, prevention of infections, and the patient's dietary restrictions.

### **Signs and Symptoms of Uremia**

Uremia is a term that means "excess urea and other waste products in the blood." This occurs due to a loss of kidney function. It can be sudden or take days to occur. Signs and symptoms include oliguria, which is a urine output of less than 400 milliliter (mL), fluid and electrolyte imbalances, anorexia, nausea, vomiting, diarrhea or constipation, stomatitis, memory loss, tremors, convulsions, and eventually coma.

### **Shunt Care and Protection**

The arteriovenous shunt needs meticulous care and protection. Cleanse the area around the shunt and change the dressing with each dialysis treatment or as necessary to prevent infection. If the patient has an external cannula or shunt, do not use scissors

around the dressing site; this prevents any accidental cutting of the shunt. Be prepared for emergency measures. Place clips or clamps on the dressing in case of accidental separation of the cannula or shunt. Observe the shunt area for redness, swelling, or drainage.

Monitor the patient for fever or chills. It is important to teach the patient not to sleep on the arm with the shunt or permit anyone to take blood pressures or blood from the arm. Do not give medications or infusions into the arm with the shunt.



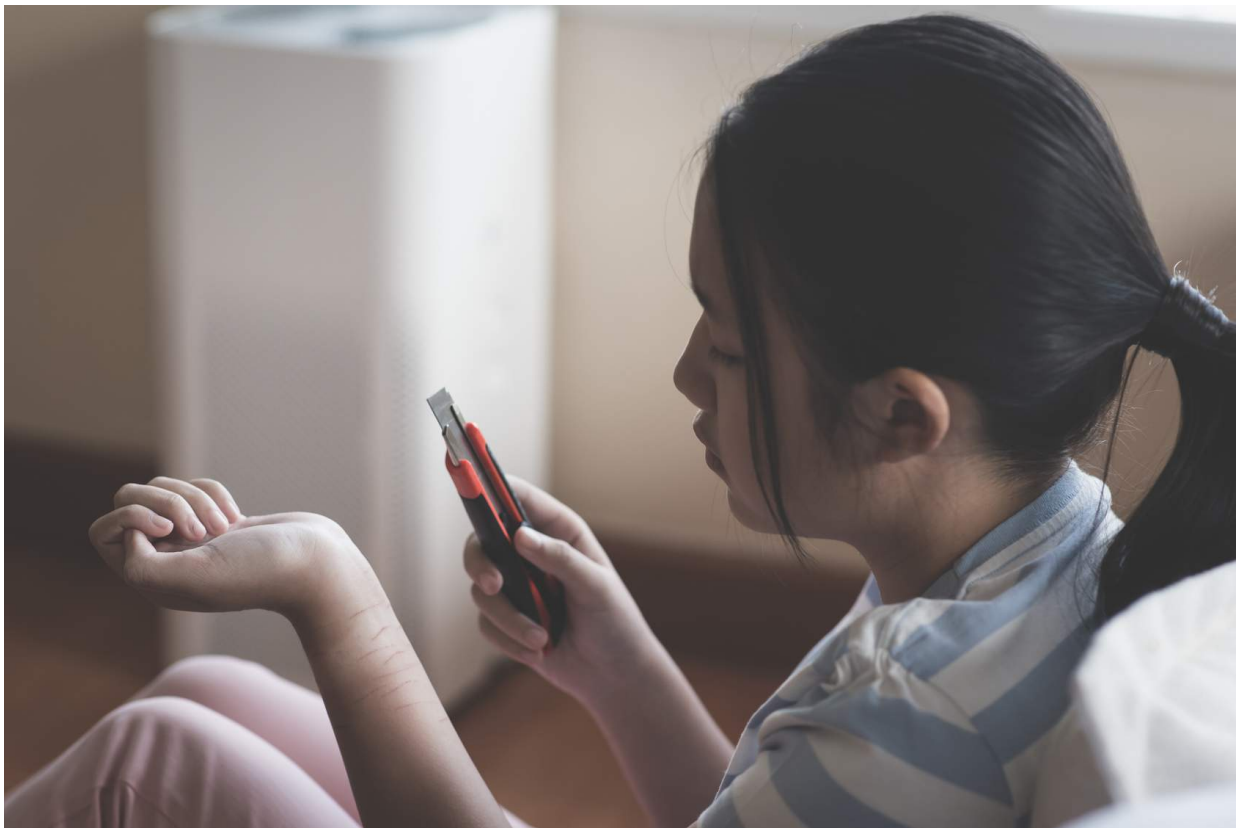
The patient usually receives a 2,000-to 2,500-calorie-a-day diet that is low in protein. Some patients have sodium and potassium restrictions that are individually modified.

CONTINUE

### Abusive/Self Abusive

You must be particularly mindful of the tendency toward suicide on the part of some mentally ill patients. Sharp objects, drugs, and other obviously dangerous items should never be left in the room with these patients. They may hide such things or use something that appears to be harmless in their attempts to commit suicide.

If you discover a patient has tried to commit suicide, it is necessary to repair the physical damage as well as overcome any antagonistic tendencies on the part of the patient. This is particularly true if the patient is still conscious.



Slashing the wrists or the throat is another method of suicide. When you find a patient is bleeding:

1. Stop the bleeding with pressure or a tourniquet.
2. Send for help.
3. Treat the patient for shock, if necessary.



If you find that a patient cannot be aroused, assume the patient has taken some type of drug or poison, and take these steps:

1. Start resuscitative procedures.
2. Notify the physician.
3. Try to locate the type and amount of drug or poison, if possible.



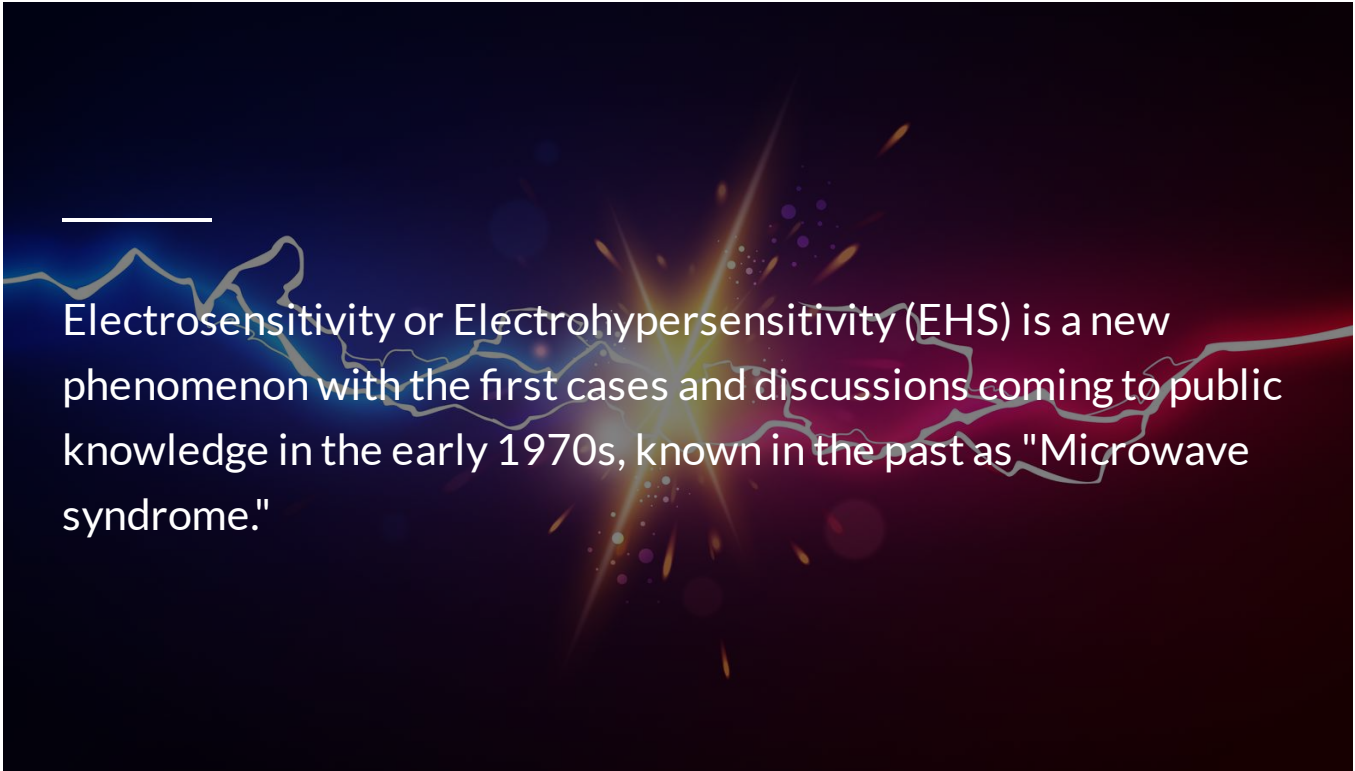
Follow this course of action for patients who have tried to hang themselves:

1. Relieve the pressure.
2. Start resuscitative procedures.
3. Send for help.

CONTINUE

Electrosensitivity





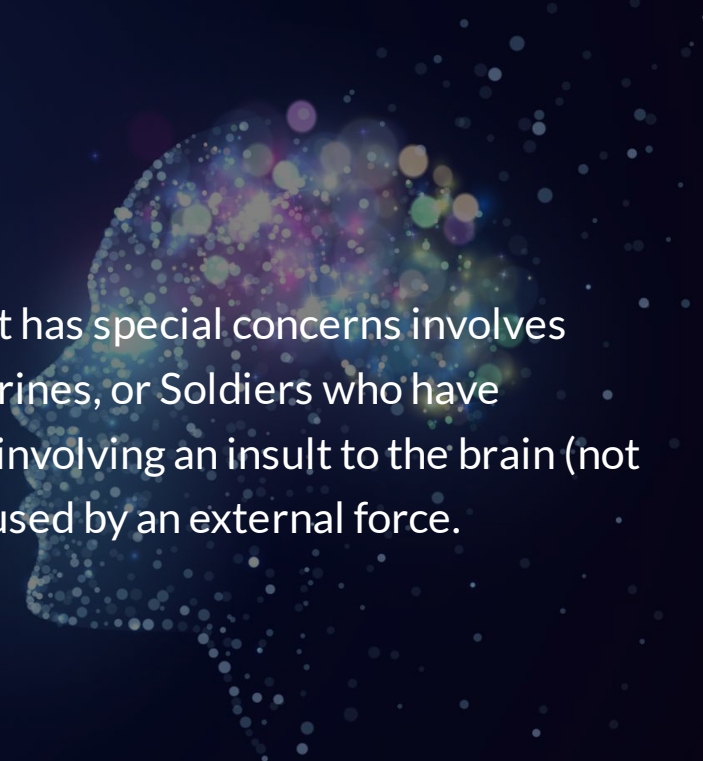
Electrosensitivity or Electrohypersensitivity (EHS) is a new phenomenon with the first cases and discussions coming to public knowledge in the early 1970s, known in the past as "Microwave syndrome."

Normally the first signs of electrical sensitivity are experienced as minor irritations when exposed to electrical impulse-emitting equipment, such as cardiac monitors, computers, televisions, cell phones, household appliances and so forth. One of the most frequent initial symptoms is a warm or burning sensation in the face like a sunburn. Other symptoms may include headache, vertigo, fatigue, brain fog, tinnitus, rash, palpitations, tingling in extremities, and insomnia. Normally, symptoms occur when exposed to electromagnetic fields (EMF) and electromagnetic radiation (EMR) and subside after moving away from the fields. If your patient suspects sensitivity, they should limit their exposure immediately.

As a medical technician you must be aware of this potential event, especially if your patient is attached to a cardiac monitor, pulse oximeter, or any other required device. If you suspect that your patient is electrosensitive, notify the physician.

**Traumatic Brain Injury**

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Another patient population that has special concerns involves Airmen, Guardians, Sailors, Marines, or Soldiers who have experienced a traumatic event involving an insult to the brain (not degenerative or congenital) caused by an external force.

This type of injury, traumatic brain injury (TBI), has the following characteristics:

- May or may not produce diminished or altered state of consciousness.
- Results in the impairment of cognitive abilities or physical functioning.
- Can result in the disturbance of behavior or emotional functioning.
- Impairments are temporary or permanent and cause disability or psychosocial maladjustments.

TBI is classified according to severity as listed in the following table and description below

GCS: Glasgow Coma Scale

AOC: Alteration of consciousness

LOC: Loss of consciousness

PTA: Post-traumatic amnesia

Severity	GCS	AOC	LOC	PTA
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Mild	13–15	<24 hours	0–30 min.	<24 hours
Moderate	9–12	>24 hours	>30 min. <24 hours	>24 hours <7 days
Severe	3–8	>24 hours	>24 hours	> 7 days

Domain	Response	Score
Eye opening	Spontaneous	4
	To speech	3
	To pain	2
	None	1
Best verbal response	Oriented	5
	Confused	4
	Inappropriate	3
	Incomprehensible	2
	None	1
Best motor response	Obedying	6
	Localizing	5
	Withdrawal	4
	Flexing	5
	Extending	3
	None	1
Total score	Deep coma or death	3
	Fully alert and oriented	15

#### Glasgow Coma Scale

☐

Mild, moderate, or severe—According to clinical presentation with the most influential factors being loss and alteration of consciousness and duration of post-traumatic amnesia.

☐

Mild: Possible LOC, alteration of consciousness, and/or post-traumatic amnesia, headache, irritability, fatigue, dizziness, confusion, ringing in ear.

☐

Moderate to Severe: Symptoms are usually to a greater degree:

- Alteration of consciousness (AOC), loss of consciousness (LOC), and post-traumatic amnesia (PTA).
- Nausea and vomiting (repeated).
- Slurred speech.
- Incoordination.
- Seizures or convulsions.

☐

High or low velocity—According to trauma (high = motor vehicle accident (MVA), low = blow from a blunt object).

☐

Local or diffuse:

- Local—Hemorrhage, contusion, or laceration.
- Coup-contrecoup—Bouncing of brain impacting the cranium in two or more locations.
- Diffuse axonal injury—Shearing of axons as brain moves about in cranium. Related to high-velocity trauma and result is more severe symptoms; seen predominately with injuries involving the brain rotating upon impact with the cranium.

☐

CONTINUE

## Impairments



Physical Impairments



Cognitive Impairments

### Physical Impairments

- Motor deficits (tone changes, hemiparesis/paraparesis, ataxia, and dysphagia).
- Sensory processing impairments.
- Proprioception: sense that lets you know where your body parts are and how they move without looking at them
- Cranial nerve related—Sight, hearing, vestibular, touch, taste and smell.
- Lack of proprioception and vestibular input can result in dizziness.
- Sleep disturbances—Common symptom of all TBI severities. May affect the presentation of other symptoms.
- Continuance of headaches.

### Cognition Impairments

- Alteration of consciousness (comatose, sleepy, delirious, delayed/slow response).
- Memory deficits.
- Orientation deficits.
- Attention-span deficits.

- Perseveration (repeated task or word).
- Communication impairments (expressive or receptive aphasia).
- Impaired safety awareness.
- Behavioral or mental health impairments (depression, anxiety, personality changes, aggression, acting out, and social and sexual inappropriateness).

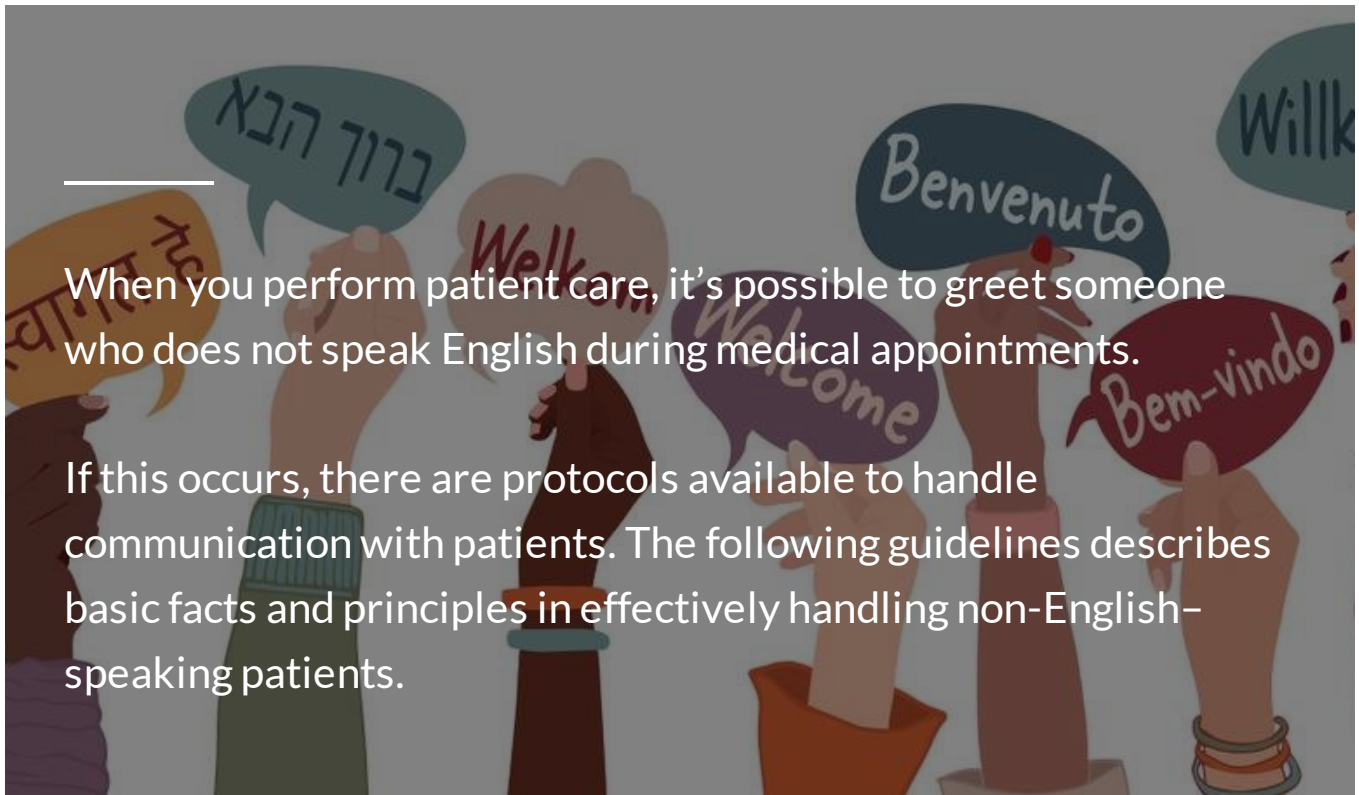
For outpatient scope of practice, TBI treatment involves following the USAF Aerospace Medical Technician 4No Emergency Medical Services (EMS) protocols. During inpatient care, follow local protocols that pertain to clinic/hospital policies.

CONTINUE

## Non-English Speaking

When you perform patient care, it's possible to greet someone who does not speak English during medical appointments.

If this occurs, there are protocols available to handle communication with patients. The following guidelines describes basic facts and principles in effectively handling non-English-speaking patients.





## Guidelines

Language barrier can affect timely treatment of illness or injuries. Awareness of current patient population is essential to utilizing existing facility protocols. Here are a few facts in the table below that pertain to different communication languages among various nations of origin.

Nations of Origin	Language
Asia, China, Hawaii, Philippines, Korea, Japan, Southwest Asia	National language, dialects
Africa, West Indian Islands, Haiti, Jamaica	National dialect, Pidgin, Creole, Spanish, French
Europe	National language, English use common
American Indian	Tribal
Hispanic countries	Spanish or Portuguese

To properly assess if there is a language barrier due to cultural differences, use these principles:

- Determine which language the patient speaks at home.
- Determine whether the patient has a name preference.
- Be an active listener.
- Be comfortable with silence.



- Ensure that the interpreter is available, if needed.
- Speak slowly and clearly and repeat information if asked.
- Provide written materials in the patient's preferred language.
- Explain the rationale for asking questions.
- Address the patient formally, unless told otherwise.
- Avoid rushing the patient.
- Observe the use of touch among family members.
- Allow the patient and family members the opportunity to decide where they want to sit for comfort.

CONTINUE

## Terminally Ill



The terminally ill patient has many needs that are basically the same as those of other patients: spiritual, psychological, cultural, economic, and physical. What differs in these patients may best be expressed as the urgency to resolve most of these needs within a limited timeframe.

People view death from their individual and cultural value perspectives. An individual's personal perception of death often affects his or her moral and religious attitude toward it. Many people find the courage and strength to face death through religious beliefs. These patients and their families often seek support from representatives of their religious faith. In some cases, patients who previously could not identify with a religious belief may indicate a desire to talk with a spiritual representative.

There are also patients who throughout the whole dying experience neither desire nor need spiritual support and assistance. In all these cases, it is the responsibility of the healthcare provider to be attentive and perceptive to the needs and provide the required support personnel. Since you are the healthcare provider at the patient's bedside, an understanding of the psychological stages of the dying process can be beneficial.



### Psychological Stages of the Dying Process

As discussed previously, according to studies conducted by Kübler-Ross, a person facing death goes through five emotional stages:

**Denial** – Refuses to believe the worst; allows hope to exist.

**Anger** – Feel rage, resentment, and envy; directed toward other people.

**Bargaining** – Wish for an extension of life or relief from pain.

**Depression** – Feel powerless to change the situation, death is inevitable; defense mechanisms no longer work, and anguish and sadness occur.

**Acceptance** – Calm and at peace; wants to be left alone.



These stages may not occur in sequence. The stages may overlap or appear to be mixed. The patient may seem to go back and forth emotionally through the different stages.

CONTINUE

Abused/Neglected



Family Advocacy in the Air Force includes child abuse, child neglect, spouse abuse, and exceptional family members who have special needs. Child abuse and neglect are issues that tug at the “heart strings” of almost everyone. It is important for you to be in touch with your own feelings about family violence and monitor your response to the Family Advocacy patient and family.

Most people are horrified that a child could be abused or neglected or that a spouse could be beaten. The most common initial response is to be angry with the abuser. To work effectively, respond not only to the injured child with sympathy but also to the abusing parents or spouse abuser with empathy. Be courteous, caring, and supportive to all our patients, regardless of how they come to be our patient.

## Child Abuse

Child abuse includes physical injury, sexual maltreatment, emotional maltreatment, deprivation of necessities, or combinations of all in which the child’s welfare is harmed

or threatened. Child abuse is as old as mankind. It has no boundaries; it is found at all socioeconomic levels, including all ranks in the military, all nationalities, and all religious groups. It would surprise you to find that most abusers are model Airmen, non-commissioned officers (NCOs), or officers who are conscientious and hard-working individuals. In most cases parents abuse their children because they know of no other way to cope with the situation at hand.

These parents often lack the skills and abilities necessary to provide emotionally for themselves. Therefore, they have trouble coping with anger, fear, or frustrations and react instead with violence. Most of the abusive parents love their children and simply do not realize this type of treatment is not socially acceptable. It is only in recent years that states enacted laws to protect children from abuse and neglect.

The following are categories or examples of child abuse:

- Physical abuse examples—Beating, burning, scalding, throwing, or dropping the child
- Emotional abuse examples—Overly harsh parents; very critical parents; parents who demand excessive academic, athletic, or social performance from their child
- Sexual abuse examples—Fondling, touching of genitals, exploitation of children, oral, anal, or vaginal penetration
- Physical neglect examples—Failure to provide the necessities, such as food, clothing, shelter, and supervision
- Emotional neglect examples—Withholding physical and verbal contact, lack of interest in the child's success and failures, and failure to provide necessary guidance and praise

**Your initial contact with the abused or neglected child may be in the ER or an inpatient unit. Remember, it is the law that all suspected cases of child abuse must be reported.**

There are many signs of child abuse including the following:

- Information obtained from family members about the accident conflicts
- Delay in seeking medical care
- Parent has an apparent lack of concern or excessive concern about the child's condition
- Parent is critical of the child and blames the child for being careless
- Cause of accident conflicts with the developmental age of the child
- Child does not respond to pain, is fearful about being touched, and has a lack of separation anxiety
- Physical evidence, such as burns, bruises, rashes, or sores
- Child is listless, depressed, or unresponsive
- Child may be aggressive or impulsive

As your patient, the child is now in a protected environment. While in the hospital, you are caring for the child's injuries and mental health. Abused and neglected children tend not to trust others. You must show consistency in your care. Showing acceptance and tenderness toward the child is very important.

**Multiple Choice**

A 5 year old child comes into the hospital with a large cut on their elbow from a bicycle accident earlier that afternoon. You notice large bruises on both legs and the child seems to be depressed. The child's parents are very critical and are upset with the child for not paying more attention while riding their bike outside. When you go to take look at the child's elbow, they jump in fear.

What should be your next course of action?

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- ☐ Agree with the parents and explain to the child that they need to pay more attention when riding their bike. They are lucky that they did not get hit by a car!
- ☐ Care for the child's elbow, fill out at home care paperwork and discharge. There is nothing unusual about this case.
- ☐ Report suspected child abuse to law enforcement and keep child at the hospital until they arrive.
- ☐ Confront the parents of abusing their child. This will build trust with the patient so they will open up to you.

SUBMIT





Complete the content above before moving on.

## Spouse Abuse

Spouse abuse occurs in all economic categories, races, and religions. It is a fact that both men and women abuse their spouses. Although no one has the right to abuse his or her spouse, this physically and demeaning type of violence occurs in the best of families. The abuse usually occurs time after time, in a predictable cycle.

This cycle is precipitated by a build-up of tension and stress within the family. Stress and abuse have a definite correlation. Especially in a military environment, stress is caused by a change in assignment, family separation, financial pressure, cultural difference, and living overseas. After the build-up stage of stress or tension, the abuse begins. The third stage is often referred to as the “honeymoon stage” or “loving phase.” The abuser usually feels very sorry for his or her actions and insists that it will never happen again. Medical technicians first meet the victim of spouse abuse in the ER. He or she is often afraid to divulge the truth as to how the injury occurred.

The abused almost always feels that the abuse is his or her fault; he or she displays feelings of failure, helplessness, and powerlessness. Returning to the home situation, the abused feels he or she can improve personally to satisfy the spouse and that the abuse will not happen again. With abuse being a learned behavior, it always happens again unless the abuser receives help.

Abusers received inadequate love and support from their parents. They were constantly criticized and belittled. Their parents placed high demands upon them as children either academically or athletically, and they received harsh punishments when not attaining the required potential. When interacting with others, abusers display distrust, isolate themselves from others, will not ask for help in a crisis, and do not offer anyone else help. Personality characteristics include a poor self-image, immaturity, use of drugs or alcohol to help handle difficulties, and a lack of confidence in handling stressful

situations. To resolve or break the cycle of abuse, as mentioned, abusers need counseling. Along with medical treatment, the abused also needs therapy.



Your facility has a set protocol for handling cases of child abuse, neglect, and spouse abuse. Ensure that you know what to do if a family violence case happens on your shift. Another important factor to keep in mind is the family's privacy. Sound ethical, moral, and professional standards are needed when dealing with this controversial subject.

## CONTINUE

### Sexual Abuse

Sexual abuse is a difficult subject to discuss and extremely difficult to understand when children are involved. However, you may encounter a patient in your clinic or inpatient unit that is a victim of sexual abuse. When a patient discloses sexual abuse, we must respond with a nonjudgmental attitude. Our attitudes are one of the most significant barriers to medical personnel successfully working with these patients.

It is estimated that **4.8 million women** are physically assaulted and raped, and **2.9 million men** are assaulted, each year by intimate partners.

For children, it is estimated that **125,000–500,000** are sexually abused each year. It is likely that the patient will not admit to being abused with the abuser present. Try to speak with the patient privately. If you are unable to, ask generalized questions that can help you suspect abuse. For example, “Are you in a relationship in which someone is hurting you?” or “Have you been forced to have intercourse when you did not want to?”

When dealing with children, it is important to remember that children generally do not lie about sexual abuse. If they are exhibiting sexual behavior that is beyond their expected developmental stage, they learned it somewhere. It must always be explained to the child that the abuse was not his or her fault; the abuser is always the person responsible. Care provided to these children includes those discussed in the topic on abused and neglected

children. Be aware that the sexually abused child may exhibit signs of post-traumatic stress.

When you can recognize sexual abuse, report it to the nurse or physician. The patient's safety is important.

Experts in the field describe three degrees of sexual abuse:

- 1 Starting with the least traumatic, third-degree sexual abuse consists of nudity, disrobing, genital exposure, observation of the victim in a state of undress, intimate kissing of a victim, fondling, and pornography.
- 2 The second degree of sexual abuse consists of masturbation, both in front of the victim and between victim and abuser, fellatio (oral contact with the penis), and cunnilingus (oral contact with the female genitalia).
- 3 First-degree sexual abuse involves digital penetration or penile penetration of the vagina or anus or "dry intercourse." The latter term is a slang expression that describes an interaction where the abuser rubs his or her genital area against the victim's genital-rectal area, inner thighs, or buttocks.

CONTINUE

Burns



Burns to the skin can be more severe than soft-tissue injuries. Burn injuries can involve structures below the skin, including muscles, bones, nerves, and blood vessels. It can also affect multiple body systems, for example, a patient's eyes can be injured beyond repair and a patient can go into respiratory arrest.

Burns are injuries to body tissues from exposure to heat, chemicals, electricity, or radiation. They are one of the most difficult types of injury to treat. They cause disfigurement, loss of body function and earning power, social problems, and worst of all, loss of life. Burns are one of the most frequent causes of home injury and serious injury.

The effects of a burn depend on the type, duration, and intensity of the causative agent. Any burn involving more than 20 percent of the body surface endangers life, and a burn of more than 30 percent is generally fatal in the absence of adequate medical treatment. The mortality rate is high in facial burns since such burns are usually accompanied by injuries to the respiratory tract.

You are faced with many problems when you are caring for a burn victim. The fire or substance that caused the burn may have to be extinguished or removed. The patient may be in shock or have

respiratory difficulty and may have associated injuries, such as fractures or lacerations. He or she may be in a hazardous environment (e.g., fire or radiation materials), and you need to determine how to help him or her without risking yourself in the process.



## Classifying and Evaluating the Burn

The process of patient assessment includes classifying and evaluating the burn. There are three ways in which to assess the burn victim:

- 1 By agent and source
- 2 By depth
- 3 By severity



# Agent and Source of Burns

Heat is the most common cause of burns. Heat may be either moist or dry, derived from such sources as boiling liquids, flame, hot metals, and steam. Chemical burns are caused by contact with strong chemicals, such as acids and alkalis (e.g., dry lime). Electrical burns are caused by contact with a live electrical wire.

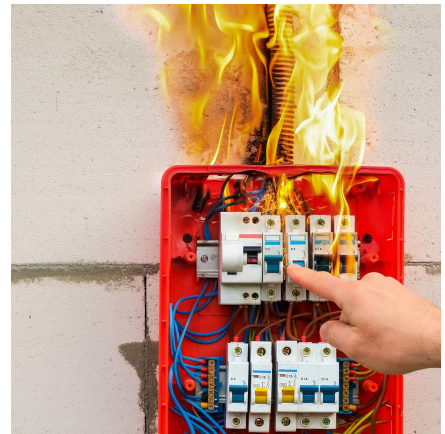
The extent of an electrical burn depends on amperage and voltage of the current, and the burn may be of any size and depth. Electrical burns usually injure tissue far removed from the original contact point. Radiation burns may be caused by exposure to x-rays, radium, ultraviolet rays, and fissionable materials, such as occur in nuclear materials.



Heat



Chemical



Electrical

## Depth of The Burn

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A superficial (**first-degree**) burn involves damage to the epidermis. This burn causes localized areas of redness due to dilation and hyperemia of the blood vessels in the skin. Pain, tenderness, and temperature elevation of the affected area are also present. Superficial burns usually heal rapidly without



A partial-thickness (**second-degree**) burn results in damage to the epidermis with possible damage to the dermis and its appendages. There is usually severe pain because the nerve endings are injured and exposed. A partial-thickness burn is followed by the appearance of vesicles or blisters, possible



A full-thickness (**third-degree**) burn involves destruction of all layers of skin and its appendages. Nerves, muscles, and bones may also be involved. Regeneration is impossible, and the area becomes scar tissue or must be covered with skin grafts. A full-thickness burn results in a charred and coagulated or white

## Analyzing Burns

### Severity of the Burn —

When considering the severity of a burn, you must consider the following factors: the agent or source of the burn, body regions burned, depth of burn, extent of burn area, age of patient, and any other illnesses or injuries. Location of the burn can also be used to determine that the burn is severe. Burns to the face and upper airway, hands, feet, or genitalia are severe.

### Agent or Source —

First determine the source or agent. Was the burn caused by electricity or chemicals? With an electrical burn, suspect internal injuries. With a chemical burn, consider that the agent may continue to burn, possibly for days and finally reach the blood stream.

## Body Regions Burned —

Burns to the face pose a significant threat to airway and possibly damage to the eyes. Burns to the hands and feet can cause disability. Burns to the groin, genitalia, buttocks, or medial thighs are at high risk for bacterial contamination. Circumferential burns can seriously cause circulation impairment to the distal extremity making healing difficult.

## Depth of Burn —

Are the burns superficial, partial, or full thickness burns?

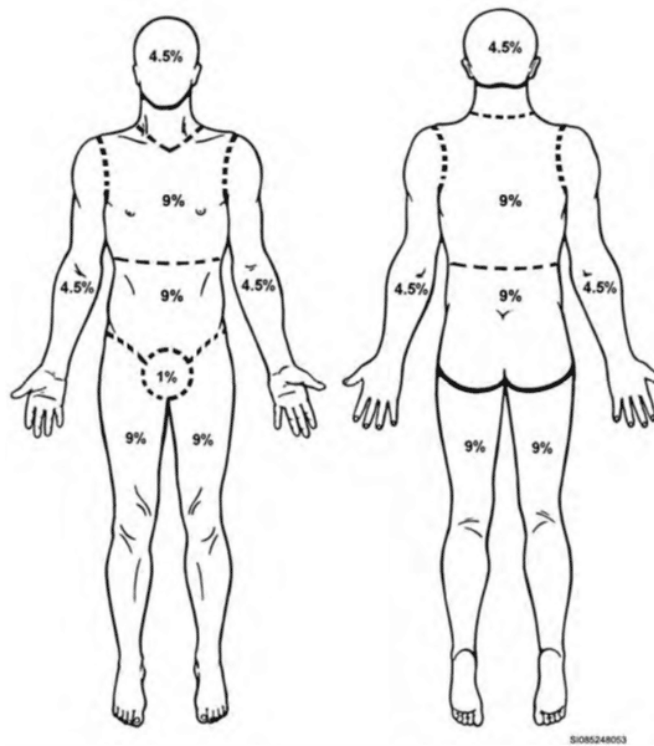
## Extent of Burn Area —

The system used to estimate the extent of the surface area involved is called the “rule of nines”. The percentage of body area burned is determined by the size of the patient’s hand which is equal to 1 percent BSA (body surface area).

This percentage system is used in what is called the rule of nines; it breaks down each body part into a predetermined number of percentage points.

They are as follows:

- Adult: Head and neck—9 percent, Each upper extremity—9 percent, Anterior trunk— 18 percent, Posterior trunk—18 percent, Each lower extremity—18 percent, and Genitalia— 1 percent.
- Infant: Head and neck—18 percent, Each upper extremity—9 percent, Anterior trunk— 18 percent, Posterior trunk—18 percent, Each lower extremity—14 percent, and Genitalia— 1 percent.

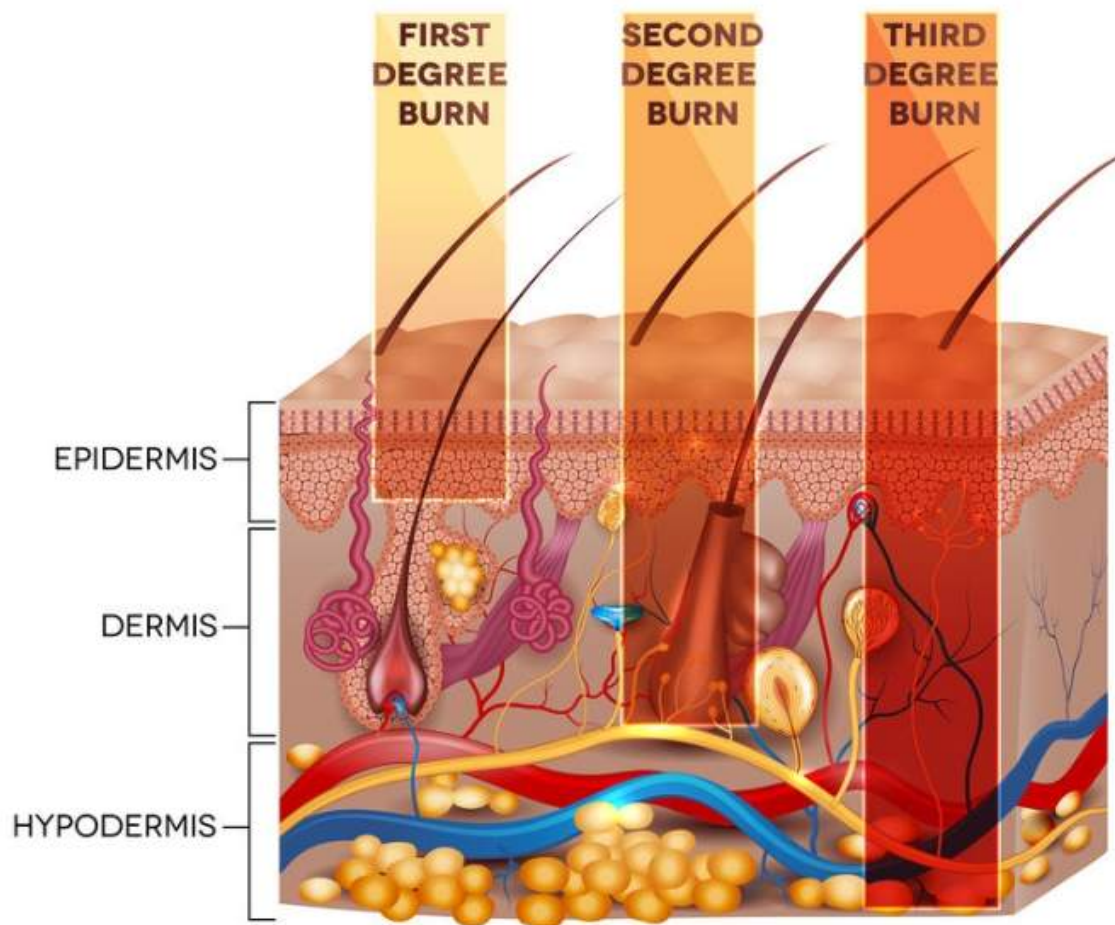


## Age of Patient

Children under the age of 5 and adults over the age of 55 have the most severe reactions to burns. With the younger child, serious burns can cause a large amount of fluid loss. For the older adult, serious burns are more difficult to heal due to aging tissue.

## Other Illnesses or Injuries

Patients with respiratory and heart disease or diabetes have a more serious reaction to burns than the otherwise healthy person. All of the above must be determined to help you prioritize the situation. The following chart helps you classify the severity of burns.



## Treatment of Thermal Injuries

In caring for thermal injuries due to scalding liquids, steam, contact with hot objects, flames, and flaming liquids and gases, take the following steps:

1

Stop the burning process and prevent injury. Wet down flames, smother, then remove clothing. For grease, tar, or wax; cool with water, do not remove the substance.

2

Ensure the patient has an open airway and assess breathing.

3

Assess the burned patient for signs of airway injury, such as soot deposits, burnt nasal hair, and facial burns.

4

Complete the initial assessment.

5

Treat for shock and provide high-concentration oxygen.

6

Evaluate burns for depth and severity (use rule of nines).

7

Remove any clothing and jewelry, but do not attempt to debride wounds or burns.

8

Wrap burns with a dry sterile dressing. For thermal burns to the eyes, apply sterile gauze pads to both eyes. For chemical burns to eyes, flush eyes for 20 minutes en route to hospital.

CONTINUE

Management of Chemical Burns



Chemical burns occur when caustic substances (acids, alkalis, etc.) come in contact with the skin, eyes, or respiratory tract (fumes). The basic treatment for this type of injury is to stop the burning process. The chemical is usually removed from the skin (or eyes) by flushing the area with massive amounts of water. Do not use forceful streams because you may add mechanical injury to the burn itself. Remove clothing as the area is flushed. To protect yourself from the chemical agent, don gloves and flush the burn site for at least 20 minutes, even if the patient claims the pain is gone. Many chemicals have a delayed reaction and continue to burn even after the sensation is gone. After the flooding is completed, cover the area with a dry, sterile dressing and transport the patient to the hospital.



Certain chemicals become activated when they are exposed to water. If you are caring for a patient who was exposed to such chemicals, brush the chemical away (dry chemicals) or follow local protocol. Otherwise, remove the patient's clothing, cover, and transport as before.

If the patient inhaled toxic fumes, he or she will probably complain of dyspnea and exhibit other signs of respiratory distress. Administer oxygen and transport the patient promptly to the hospital. Be prepared to provide respiratory support as necessary.

CONTINUE

## Management of Electrical Burns

Electrical burns are caused by contact with high- or low-voltage electricity or by lightning. Such burns are associated with two major dangers. First, the amount of tissue injury is usually far more extensive than is evident from the appearance of the skin wound. Second, the electricity may disrupt the electrical currents in the heart causing cardiac arrest.

For electricity to cause damage to the body, it must enter at one point and exit at the other. The current usually follows an erratic path as it travels through the body and destroys tissues as it passes through.

Follow the steps below for care:

1

Size up the scene. Make certain that you and the patient are not in contact with any electrical source and outside the area where downed or broken wires or other sources of electricity can reach you.

- 2 Provide airway care; assess airway and breathing.
- 3 Provide CPR, if needed, for cardiac arrest.
- 4 Treat for shock and administer high-concentration oxygen.
- 5 Provide care for spinal injuries, head injuries, or fractures.
- 6 Evaluate the burn; look for entry and exit indications. Provide care for these areas as you would a thermal burn.
- 7 Apply dry sterile dressings to the burn sites.
- 8 Transport as soon as possible; keep in mind, electrical burns cause internal injury.



**NOTE:** If you are outside a facility at an accident scene, your first priority is to protect yourself from the electricity. If the patient were burned by a high power line that is still live, stay away until the power is turned off. Do not attempt to extricate the patient until this is done. You won't be able to help the patient much if you are lying dead beside him or her! Lightning burns do not pose any risk for you. Once the lightning is gone, the current is also gone and the patient can be safely handled.

### Multiple Choice

A very large thunderstorm hit your hospital and there are power lines down everywhere. Your hospital is running on generator power. You are leaving the building for your lunch break when you notice a man laying down in a ditch next to the road with a downed power line near him.

What is your next course of action?

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- ☐ Run over to him, check vitals, and begin CPR.
- ☐ Call 911 and wait for the paramedics to arrive.
- ☐ Run back inside the hospital and notify your supervisor.
- ☐ Call the Fire Chief and wait for further instructions.

SUBMIT



Complete the content above before moving on.

## Management of Radiation Burns

Radiation burns are caused by exposure to ultraviolet radiation (sunlight), nuclear explosions, or radioactive materials. Sunlight is produced by atomic explosions in the sun. Some of the ionizing radiation produced by these explosions passes through the

ozone layer and can cause a burn injury. Burn injuries are usually caused by too much exposure to the sun and are usually first-degree. They are painful but usually do not require any definitive medical care. If a large percentage of the skin is involved, the patient may experience severe discomfort and systemic reactions. Transport such patients to the hospital for definitive care.

You'll learn how to deal with burns associated with nuclear explosions and radioactive materials in your medical readiness training. Be aware, however, that such patients need to be isolated from other patients and staff, and that decontamination precautions should be followed after any contact with the patient.



CONTINUE

## Burn Debridement

Another form of wound care you will be associated with is burn debridement. You will assist the physician during this process. Aseptic technique will be utilized to prevent and control infections.

The below table explains the procedure.

Burn Debridement	
Step	Action
1	Assemble equipment. Don personal protective equipment (PPE).
2	Identify and explain the rationale and procedures to patient/family.
3	Open sterile towel using sterile technique.
4	Open packages of 4x4s using aseptic technique and place on sterile field.
5	Using sterile technique, the physician gently picks up any loose eschar (scab or dry crust) with forceps and will cut off with scissors. Eschar is not to be debrided to the point that bleeding occurs.
6	Apply the prescribed topical agent after debridement is completed.
7	Debridement may be done while patient is in a tub or immediately following a bath or in the patient's room for evening or frequent dressing changes. <b>NOTE:</b> The patient will not be allowed to remain in the tub for longer than 15–20 minutes for debridement. If this does not allow sufficient time, the patient is removed from the tub. The procedure may be completed while the patient is on the stretcher before returning to his or her bed.
8	Document on the appropriate form the date, time, area debrided, appearance of area, person doing procedure, and patient response.

END OF LESSON

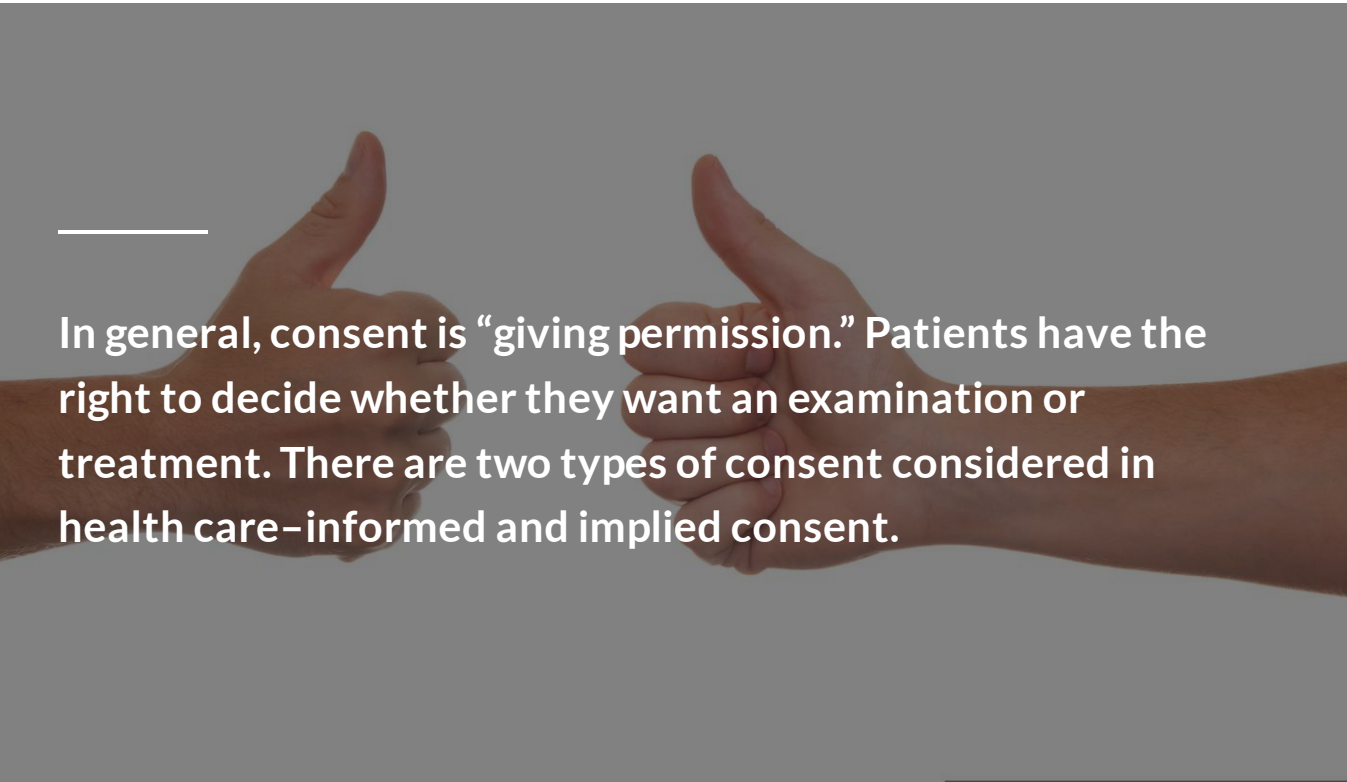
## Lesson 8: Ambulance/Emergency Response Operations

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**After completing this lesson, the student will be able to apply ambulance/emergency response vehicle operation procedures in accordance with prescribed guidance and publications.**

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A photograph of two hands, one from the left and one from the right, both giving a thumbs-up gesture. The hands are positioned in the center of the frame, with the thumbs pointing upwards. The background is a solid, light gray color. The image is slightly faded, making it a subtle background for the text.

**In general, consent is “giving permission.” Patients have the right to decide whether they want an examination or treatment. There are two types of consent considered in health care—**informed and implied consent.****



## Consent for Treatment

### Informed

The patient has given their consent after the details of the procedure have been explained.

- Authorization
- Mentally competent patient
- Parent/legal guardian must sign for mentally

incompetent/minor (defined

### Implied

The patient legality role assumes that if the person were able to consent to treatment, he or she would.

Authorization-temporarily unable to consent to a lifesaving treatment because of illness or injury.

CONTINUE



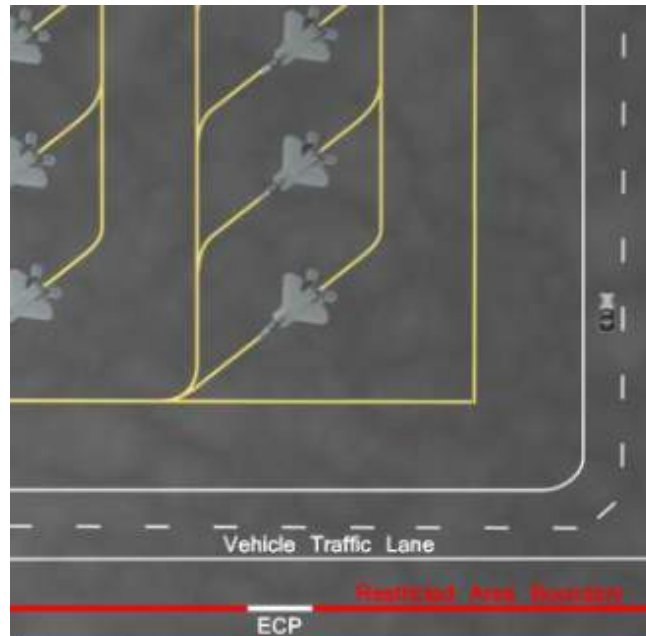
Rules governing the operation of emergency vehicles are determined by Air Force regulations and instructions, state laws, and local policy.

### Flight Line Operations

In addition each medical facility publishes rules and regulations governing the safe operation of an emergency vehicle while driving on the flight line to include a locally derived Airfield Driving Training Program (ADTP) specific to your installations flight line. Flight line training consists of a color vision exam, written test and day/night driving for familiarity purposes. After completion of the administrative portion you can then receive your flight line driver's license. Airfield Management Operations (AMOPS) control and manage the flight line.

They are typically located on the flight line and close to the air traffic control tower and/or fire department. They manage everyone who has flight line access and issue the

driver's license. You must have radio access and permission prior to driving on the flight line or taxiways. Failure to comply is a major violation.



### Airfield Markings

**Vehicle traffic lanes**, are routes marked with solid white lines on the edges and a dashed white center line. They are used to guide airfield vehicle operators on the apron.

**Restricted area boundary**, a Restricted Area is identified by a solid red line used to identify the boundary. Don't cross this line ("Break RED") under any circumstance.

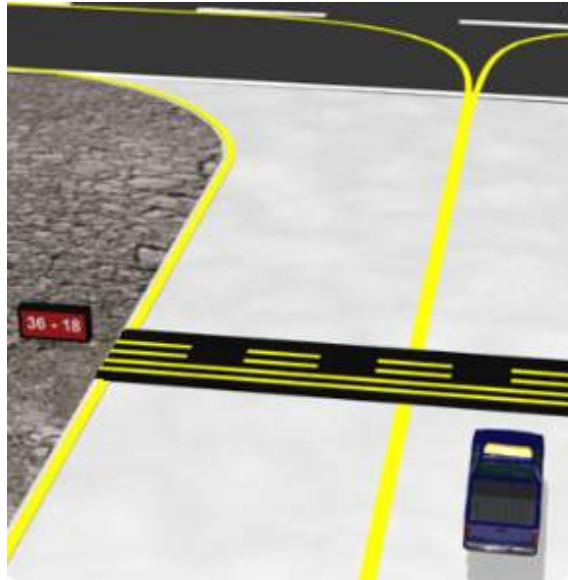
**The entry control point (ECP)**, is where vehicles may enter and exit a restricted area.

### Airfield Signs & Markings

**Mandatory signs** and associated pavement markings are provided when an instruction or procedure must be followed. An example is a holding position marking and sign which requires permission from air traffic control tower to cross. If mandatory signs are ignored incursion incidents occur and death or material destruction is distinctly possible.

**Runway hold position signs** have a red background and white legend. In this example, they are co-located with a visual flight rule (VFR) hold position taxiway marking at runway 36-18. VFR hold line (runway hold line) markings mark the boundary of the runway area.

These markings are two solid yellow lines and two double dash lines that run across the width of the taxiway from edge to edge. The double dash lines are on the runway side of the hold line and are a minimum of 100 feet from edge.

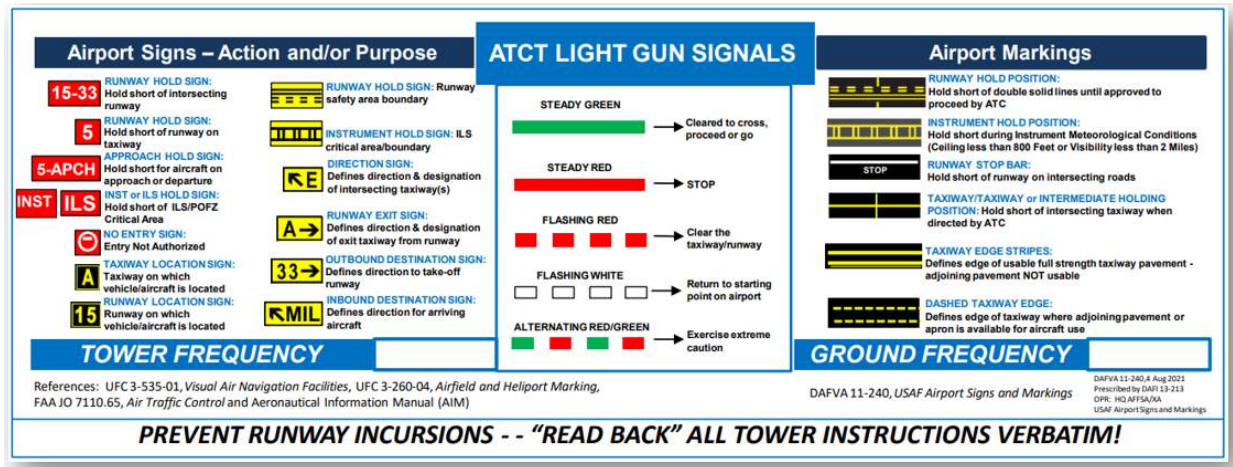


**TIP:** When approaching the runway, two solid lines mean you can not pass unless you have been granted permission by the control tower, whereas dashed double lines means you can exit (cross) and then let the control tower know you have exited the runway at whichever taxiway you got off the runway at. Sometimes we can get disoriented on a runway, especially if you are not there a lot, this will help you remember if you should ask for permission before crossing the hold line.



**Warning:** Entering the runway without clearance from the tower controller is strictly forbidden and can cause an extremely hazardous condition. Unauthorized access to the runway constitutes a **RUNWAY INCURSION** and may interfere with an aircraft on approach or take-off. You shall "Hold Short" (STOP), and receive permission from the

tower prior to entering this area, and notify the tower when you exit the area.



## DAFVA 11-240, USAF Airport Signs and Markings / Comm Outage Signals

Below are the **phonetic alphabet** along with the requirements needed to acquire your **flight-line driving license**, and the **phonetic numbers** that you need to use when transmitting over the radio.

A	ALPHA	N	NOVEMBER
B	BRAVO	O	OSCAR
C	CHARLIE	P	PAPA
D	DELTA	Q	QUEBEC
E	ECHO	R	ROMEO
F	FOXTROT	S	SIERRA
G	GOLF	T	TANGO
H	HOTEL	U	UNIFORM
I	INDIA	V	VICTOR
J	JULIETT	W	WHISKEY
K	KILO	X	X-RAY
L	LIMA	Y	YANKEE
M	MIKE	Z	ZULU

- ☐ CBT
  - Minimum passing criteria is 80%
- ☐ Runway Incursion Prevention test
  - Minimum passing criteria is 100%
- ☐ Communications Test
  - Minimum passing criteria is 100%
- ☐ Airfield Diagram/Layout Test
  - Minimum passing criteria is 100%
- ☐ Daytime Familiarization Driving
- ☐ Nighttime Familiarization Driving
- ☐ Practice Driving check ride
  - Must possess:
    - ☐ Normal Color Vision
    - ☐ Valid Driver's License
    - ☐ GOV Driver's License

Zero	ZEE-R
One	WUN
Two	TOO
Three	TREI
Four	FOW-I
Five	FIFE
Six	SIX
Seven	SEV-E
Eight	AIT
Nine	NIN-E
Hundred	HUN-DI
Thousand	TOU-SA

Click on the photo to see the phonetic alphabet.

Click on the photo to see flight-line driving requirements.

Click on the photo to see phonetic numbers.

# NATO Alphabet and #s

A- Alpha	B- Bravo	C- Charlie	D- Delta	
E- Echo	F- Foxtrot	G- Golf	H- Hotel	
I- India	J- Juliett	K- Kilo	L- Lima	
N- November		O- Oscar	P- Papa	Q- Quebec
R- Romeo	S- Sierra	T- Tango	U- Uniform	V- Victor
W- Whiskey	X- X-Ray	Y- Yankee	Z- Zulu	
1- Wun	2- Too	3- Tree	4- Fower	5- Fife
6- Six	7- Seven	8- Ait	9- Niner	0- Zeero



What is the NATO Phonetic Alphabet - Alpha, Bravo, Charlie, Delta....  
Video Transcript.pdf

139.5 KB



Reference update: AFMAN 11-2AE Volume 3 para 13.3





What Is Said:	What It Means:
Acknowledge	Let me know you have received and understand this message.
Advise Intentions	Let me know what you plan to do.
Affirmative	Yes.
Correction	An error has been made in the transmission, and the correct version follows.
Go Ahead	Proceed with your message only. <b>Note:</b> Use of this phrase does not authorize requestor to "Go Ahead" with, or carry out, their request.
Hold/Hold Short	Phrase used during ground operations to keep a vehicle or aircraft within a specified area or at a specified point while awaiting further clearance from air traffic control.
How do you hear me?	Question relating to the quality of the transmission or to determine how well the transmission is being received.
Immediately or without delay, Expedite	Phrase used by Air Traffic Control when such action compliance is required to avoid an imminent situation.
Negative	"No" or "permission not granted" or "that is not correct."
Out	The radio conversation is ended, and no response is expected.
Over	My radio transmission is ended, and I expect a response.
Read Back	Repeat my message to me.
Roger	I have received all of your last transmission.
Stand By	The controller or pilot should pause for a few seconds, usually to attend to other duties of a higher priority. Also means to wait as in "stand by for clearance." The caller should reestablish contact if a delay is lengthy.
Unable	Indicates inability to comply with a specific instruction, request, or clearance.
Verify	Request confirmation of information.
Wilco	I have received your message, understand it, and will comply with it.



Yokota Tower, Med 1, on Taxiway Delta, request to cross runway tree six, to taxiway hotel

Flight line operations is to account for vehicle movements and you must not exceed 15 miles per hour to maintain safety. Approaching, passing, or otherwise coming near an aircraft, the maximum speed of any vehicle must not exceed 5 miles per hour (mph). Just as driving, parking comes with its own rules of engagement as well.

Vehicles parked on the flight-line will remain unlocked with the key in the ignition. If the vehicle driver does not remain in the driver's seat after parking, the ignition must be turned off and the parking brake applied. In addition, the gear lever will be placed in a gear on vehicles with standard transmission, park for vehicles with automatic transmissions.

CONTINUE

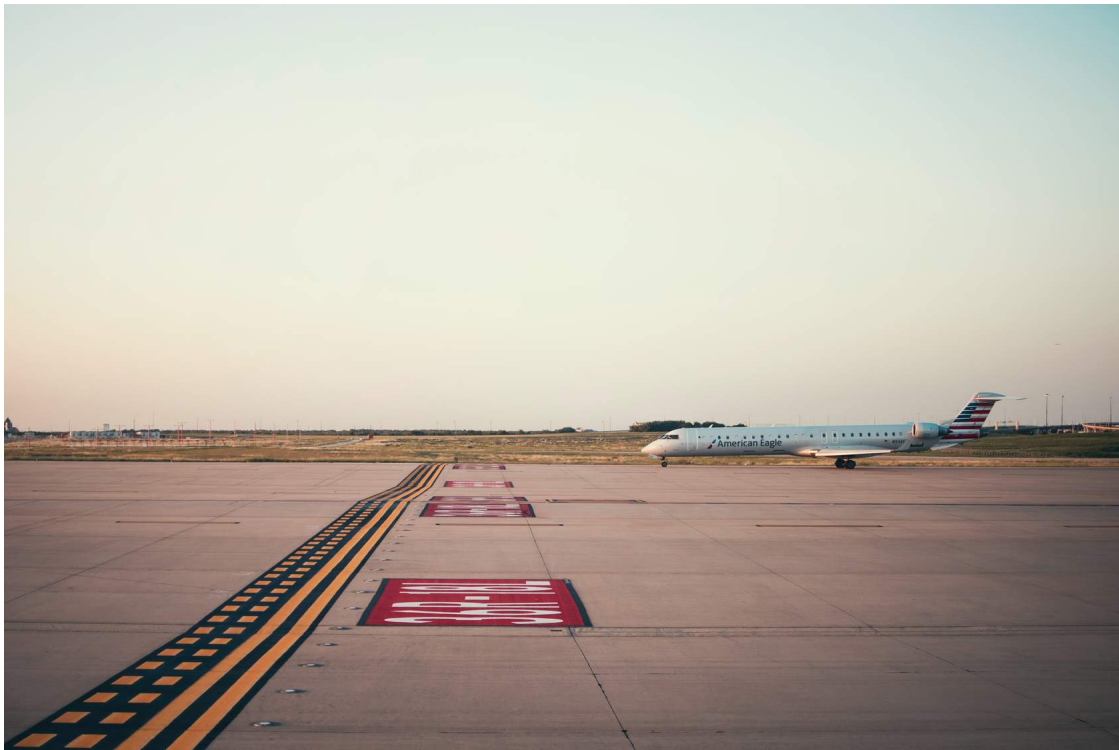
#### FLIGHT LINE DRIVERS LICENSE

#### FLIGHT LINE OPERATIONS/DRIVING

#### PARKING

You will need to have the following in order to receive your flight-line drivers license:

- Color vision
- Written exam
- Day/night flight line training



#### FLIGHT LINE DRIVERS LICENSE

#### FLIGHT LINE OPERATIONS/DRIVING

#### PARKING

Two rules to keep in mind are:

- Do not exceed 15 mph
- Do not exceed 5 mph approaching aircraft
- Always ensure you have permission to enter/cross the runway from the control tower.
- Always have your flight-line drivers license on your person while driving on the airfield.



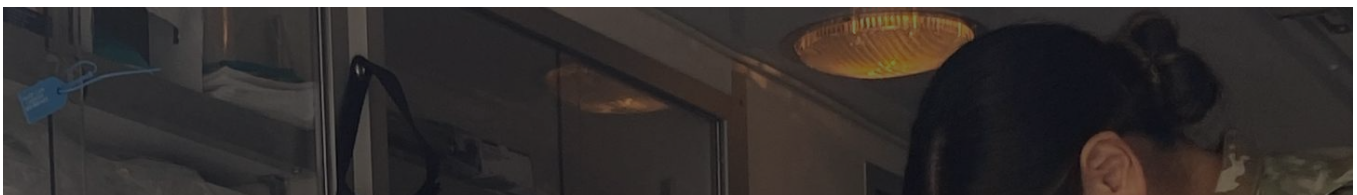
FLIGHT LINE DRIVERS LICENSE

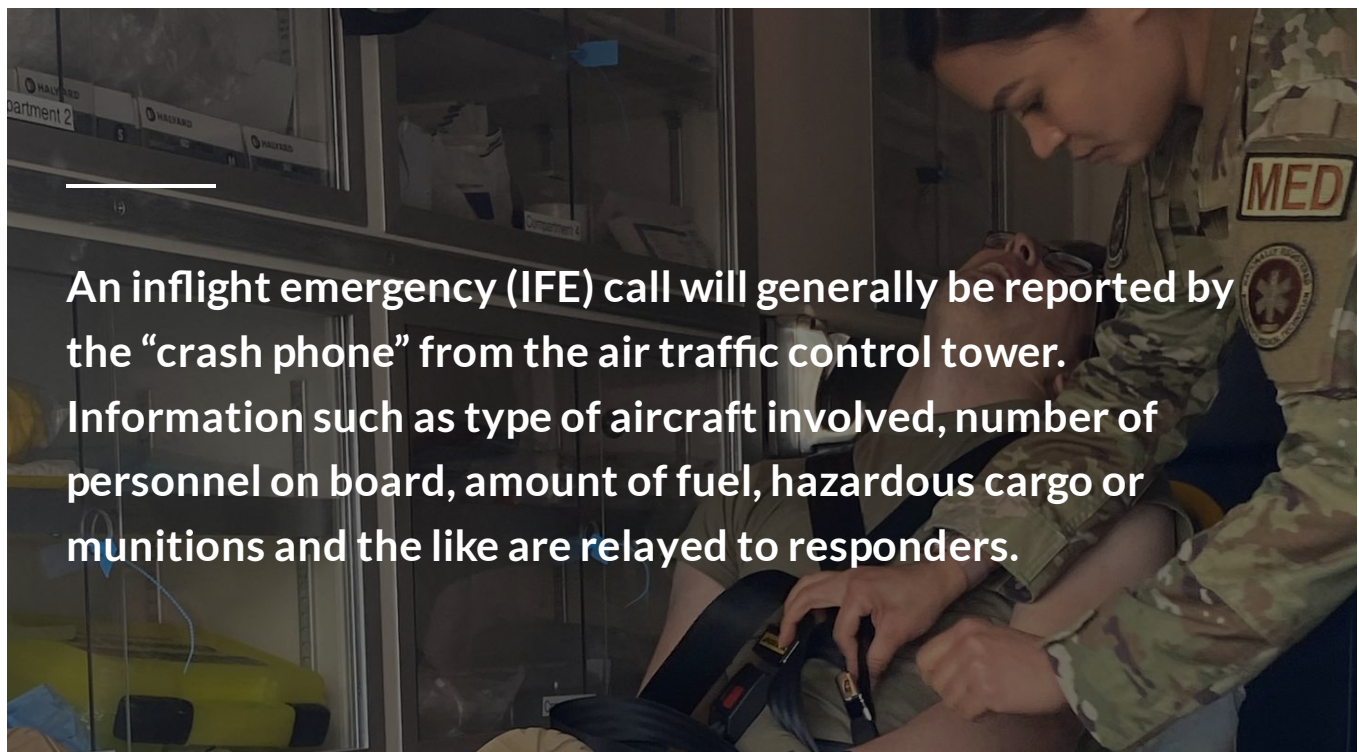
FLIGHT LINE  
OPERATIONS/DRIVING

PARKING

When parking the vehicle always:

- Remain unlocked with key in ignition
- Chocks for parked vehicles





**An inflight emergency (IFE) call will generally be reported by the “crash phone” from the air traffic control tower. Information such as type of aircraft involved, number of personnel on board, amount of fuel, hazardous cargo or munitions and the like are relayed to responders.**

Additionally, estimated time of arrival, location and current wind conditions are given. If responding to an on-base crash, you must let the fire chief know the direction of your arrival to avoid any hazard such as smoke or fumes.

All flight line operations apply when responding to an IFE.

As learned previously, while driving on the flight line, you must not exceed 15 miles per hour. As you approach, pass, or otherwise come near an aircraft, the maximum speed of any vehicle must not exceed 5 miles per hour. You will notify the Fire Chief direction of travel when you arrive on scene. The following are the steps you will take during an IFE notification:

- Answer crash phone.
- Write down all pertinent information (type of aircraft, number of personnel, amount of fuel).

- Notify on-call ambulance team.



**Reference update: AFMAN 11-2AEV3 CL-1 Section V**

## AIRCRAFT IN-FLIGHT EMERGENCY (IFE) CHECKLIST

DATE: \_\_\_\_\_ TIME: \_\_\_\_\_ TECH INITIALS: \_\_\_\_\_

INFLIGHT

GROUND

EXERCISE

CALL SIGN: \_\_\_\_\_

TYPE AIRCRAFT: F-15/KC-135/OTHER: \_\_\_\_\_

NATURE OF EMERGENCY: \_\_\_\_\_

### IF PHYSIOLOGICAL EVENT CONTACT AMDS COMMANDER & PHYSIOLOGIST

BARRIER ENGAGEMENT: YES/NO

PILOT'S DESIRES: \_\_\_\_\_

PRESENT LOCATION: \_\_\_\_\_

ETA: \_\_\_\_\_ RESPONSE CREW: \_\_\_\_\_

RUNWAY: 08/26 (D) \_\_\_\_\_

WINDS: \_\_\_\_\_ @ \_\_\_\_\_ KNOTS (T) \_\_\_\_\_

FUEL REMAINING IN TIME/LBS: \_\_\_\_\_

SOULS ON BOARD: \_\_\_\_\_ FORWARD: \_\_\_\_\_ AFT: \_\_\_\_\_

ARMAMENT STATUS: \_\_\_\_\_

FLIGHT SURGEON NOTIFIED: \_\_\_\_\_ TIME: \_\_\_\_\_ TECH INITIALS: \_\_\_\_\_

GRID COORDINANCE: \_\_\_\_\_

NET EXPLOSIVE WEIGHT: \_\_\_\_\_

TIME ON SCENE @: \_\_\_\_\_ HRS

IFE TERMINATED @: \_\_\_\_\_ HRS

TAIL #: \_\_\_\_\_

NOTES: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

This is an example of an IFE checklist you may use when documenting information that is being relayed from the primary crash phone.

---





The primary crash phone

---





# EMERGENCY CHECKLIST

DATE: 13 Jan 22 TIME: 0822 TECH'S INITIALS: JAL

INFLIGHT

GROUND

EXERCISE MSG

CALL SIGN: G11

TYPE AIRCRAFT: F-22 / C-17 / C-12 / E-3 (AWACS) C-130 / HELO / OTHER: \_\_\_\_\_

NATURE OF EMERGENCY:

Fuels leaking

NAME OF FS NOTIFIED: KONOLD TIME: 0824 TECH INITIALS: JL

ETA: 0846

CREW: (FS) \_\_\_\_\_

RUNWAY: 06/24 OR 34/16

(D) \_\_\_\_\_

WINDS: \_\_\_\_\_ @ \_\_\_\_\_ KNOTS

(T) \_\_\_\_\_

FUEL REMAINING IN TIME: \_\_\_\_\_

SOULS ON BOARD: 1 FORWARD: \_\_\_\_\_ AFT: \_\_\_\_\_

BARRIER ENGAGEMENT: YES (NO)

RUNWAY CONDITION: Clear

ORDINANCE: \_\_\_\_\_

HAZARDOUS CARGO: TYPE: \_\_\_\_\_

NET EXPLOSIVE WEIGHT: \_\_\_\_\_

GRID COORDINATE: \_\_\_\_\_

TERMINATED @: \_\_\_\_\_ HRS

**Fill out as much information as you can. Whatever information is given, write down.**

## **Organization and Functions**

The MTF Medical Contingency Response Plan (MCRP) supports an Installation Emergency Management Plan (IEMP) in accordance with AFI 10-2501, Emergency Management Program, and AFMAN 10-2502, Air Force Incident Management System (AFIMS) Standards and Procedures.

Flight and Operational Medicine Clinic (FOMC) personnel will be familiar with the MCRP and their roles within the plan. Note: Not all ARC units will have their own MCRP, but must be familiar with their role to support their host MCRP.

## **Essential Functions**

The FOMC will maintain emergency responder capability supporting installation flying operations and coordinate with other available first response capabilities.

First responders provide initial on-scene command. The most experienced medical responder will coordinate with fire or police commanders or Incident Commander (IC) as the Medical Advisor (MA) and be clearly recognizable.

Further medical personnel arriving on scene should report to the MA for instructions if not previously communicated. The MA should be the most experienced aeromedical provider (usually the most senior) medical person on-scene. The role of the MA should be transferred upon the arrival of a more experienced medical responder depending on the circumstances of the incident and the expertise required.





Response Bags



Aviators Mask Bag



Ambulance Response

## Transportation

FOMCs support airfield operations responding to a variety of IFEs and airfield incidents. Vehicle configuration and response plans should be tailored to the type of aircraft assigned and the spectrum of aircraft that visit the airfield. Installation location, mutual-aid response capability, and proximity to definitive care are factors that should be considered. These parameters form the basis of a risk assessment conducted by the SGP to determine level and adequacy of emergency medical response. Emergency Transport response time should meet the requirements in DoDI 6055.06, DoD Fire and Emergency Services (F&ES) Program.

A transport vehicle must be able to transport a minimum of two first responders, one aeromedical provider, and medical equipment supply packs to any crash site within a 10 mile radius of the airfield over rough terrain.

Medical vehicle drivers responding to IFEs and airfield incidents should have a valid flight line drivers permit and be proficient with flight line driving during both day and night operations in accordance with AFI 13-213, Airfield Driving.



## **Specialized Response**

Aeromedical providers provide medical oversight and emergency response to physiological and/or medical incidents resulting from hypoxia (e.g., altitude chamber or reduced oxygen breathing device) and/or centrifuge training as applicable for units with this training mission. During all scheduled training events, a designated aeromedical provider must be able to continuously respond by telephone and get to the training facility in the timeliest manner possible.

Flight and Operational Medicine Technicians (FOMT) must have correctly fitting personal protective equipment (PPE) and individual protective equipment appropriate for their specific team responsibility.(T-3).Prior to responding, they are required to have experience wearing the equipment while performing their duties.

**Disaster Response.** FOMTs should develop relationships and demonstrate familiarity with all disaster response plans. This includes coordination with local emergency services and an understanding of integration with these agencies to support their missions under the IEMP and MCRP. Familiarity with the National Incident Management

System (NIMS) methodology is fundamental in coordination with civilian agencies and aligns with AFI 10-2501 and AFMAN 10-2502.

**Aircraft Mishap Response.** FOMTs should review AFI 91-204 and the Aircraft Mishap portion of the MCRP. This will ensure they are able to execute their responsibilities per IEMP and MCRP.

Critical elements include:

### Chemical, Biological, Radiological, Nuclear, Explosive and Hazardous Materials Response —

FOMC personnel must have correctly fitting personal protective equipment (PPE) and individual protective equipment appropriate for their specific team responsibility. Prior to responding, they are required to have experience wearing the equipment while performing their duties.

### Disaster Response —

FOMCs should develop relationships and demonstrate familiarity with all disaster response plans. This includes coordination with local emergency services and an understanding of integration with these agencies to support their missions under the IEMP and MCRP. Familiarity with the National Incident Management System (NIMS) methodology is fundamental in coordination with civilian agencies and aligns with AFI 10-2501 and AFMAN 10-2502.

### Aircraft Mishap Response —

FOMCs should review AFI 91-204 and the Aircraft Mishap portion of the MCRP. This will ensure they are able to execute their responsibilities per IEMP and MCRP. Critical elements include:

**Initial Response:** Includes site safety, treatment of injured, initial collection and preservation of evidence. Note: Strongly consider sending an aircrew member who has undergone an ejection seat



sequence to a local Emergency Room or Trauma Center despite his/her minimization of injuries.

Evidence preservation and collection is directed by the Interim Safety Board (ISB) President, usually a member of Wing Safety. Obtain required toxicology and other relevant tests in accordance with AFI 91-204. Extent of testing depends on the nature of the mishap. Consult Chief of Aerospace medicine (SGP)s, Armed Forces Medical Examiner System, and the AF Safety Center Flight Surgeon (FS)s as needed.

Identify an aeromedical provider for the ISB, per base plan. The aeromedical provider's primary duty is based on ISB requirements until released.

Sequester associated hardcopy healthcare records (medical, dental, mental health) and preserve a certified copy of the EHR until requested by the ISB or follow on safety investigation board.

Obtain 72-hour and 14-day histories from each aircrew member involved in the mishap.

The FOMC ensures proper aeromedical dispositions are accomplished for mishap personnel on fly or Special Operational Duty (SOD) status.

## **In-Flight Emergencies** —

Aeromedical providers should be familiar with the management of routine IFEs, especially physiologic incidents. Aeromedical providers must meet aircraft after IFEs with a physiologic incident to identify causes of symptoms and assess and document the need for aircrew examination and/or treatment.


An aeromedical provider must be available (On-Call) for IFE coverage during scheduled flying hours. They must respond to IFEs when requested by fire chief, wing safety, and supervisor of flying.

Aeromedical providers should respond where there is a risk for physiologic incident. Examples of physiologic incidents include G-induced loss of consciousness, hypoxia, aircrew disorientation, altered mental status, loss of cabin pressure at >18,000 ft., rapid decompression, smoke and fumes, or other physical symptoms or injuries reported by the aircrew. ARC units without local full time aeromedical provider support may need to send the patient for civilian evaluation if there is no aeromedical provider available to evaluate the member. ARC aeromedical providers should be notified if a patient is transferred to a civilian institution for evaluation.

First responders must be trained and equipped for immediate response to expected hazards and environmental conditions.

## Undersea and Hyperbaric Medicine (UHM)

Brooke Army Medical Center (BAMC) undersea & hyperbaric medicine (UHM) service shall: provide subject matter expertise to the AFMS regarding the treatment of suspected decompression sickness (DCS) and arterial gas embolism. BAMC will also provide guidance for other illnesses considered amenable to hyperbaric therapy. The BAMC UHM service shall be consulted in all cases or suspected cases of DCS or arterial gas embolism if the treating provider is not privileged in the UHM. The BAMC UHM hyperbaric physician will be consulted as soon as practicable, ideally prior to the initiation of any hyperbaric oxygen therapy.

**Hyperbaric Medicine**

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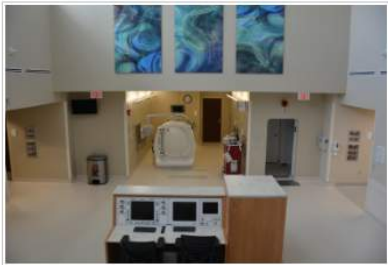
Hyperbaric Medicine

KxCP Sites to migrate to Azure GovCloud in spring 2023, click here for more information.

SiteDocumentsDiscussionsBlog

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# USAF Undersea & Hyperbaric Medicine






### World-wide 24/7 Emergency Consultation: (DCS, AGE, CO)

Duty hours (0700 – 1600 CST): Call the BAMC Hyperbaric Medicine Department at **210-539-8000 (DSN 389-8000)**

After duty hours (1600 - 0700 CST and weekends/holidays): Contact the **BAMC Call Center** at **210-916-2500 (DSN 429-2500)**, request the Hyperbaric physician on call



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CONTINUE



## Radio Communications

All transmissions made over the radio are heard by numerous people including the command post, ER, and security police. Do not compromise the patient's privacy by transmitting inappropriate information over the radio. When transmitting patient information, limit to patient's age/sex, chief complaint, brief medical history, physical findings, summary of treatment and estimated time of arrival to the hospital. For radio communications always utilize clear speech. Professionalism is paramount.

Medics must ensure they understand local radio transmission procedures. Each medic with a radio is assigned a combination of words and phonetics (letters and/or numbers) used to identify his or her identity.

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These call signs simplify, clarify, and make communications more protected.

Procedure words such as break or say again are used in radio/telephone communications to shorten transmissions and facilitate message reception.

---

**True or False:** When driving on the flight line during an inflight emergency, you are able to drive onto the runway without permission from the control tower?

---

☐

True

☐

False

SUBMIT



Complete the content above before moving on.

---

Courtesy is assumed, so there is no need to say “please,” “thank you,” and “you’re welcome.”

The utilization of phonetic alphabet occurs accurate communication is critical. Transmit words that are normally difficult to understand in radio communication, abbreviations, and groups of letters using the phonetic alphabet. Duress signals or words, often referred to as codes, are designed for transmission in a manner that is not noticed by an untrained person but alerts a security forces member receiving the signal. Lastly when using the radio, users should know Federal Communications Commission (FCC) prohibited practices.

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## Radio Communication Steps

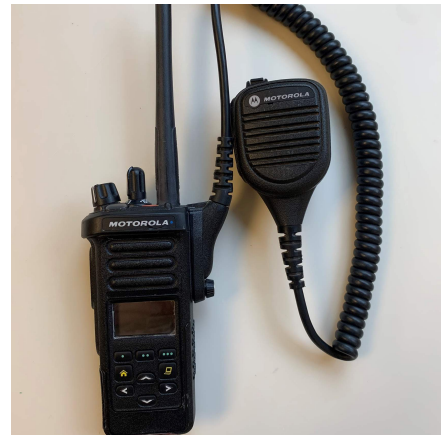


Make sure the radio is on and volume is adjusted.

Reduce background noise.

Press the push to talk (PTT) button and wait one second before speaking. This prevents cutting off the first few words of your transmission.

Speak with your lips 2-3 inches from microphone.





### **Call signs**

It is a combination of words and phonetics. An example is when contacting another post the calling station first identifies the station being called. Followed by their call sign; "Medic One, this is control."



**Procedure Words**

Shorten transmission

CONTINUE

## 9 Line Medical Report

You're in the middle of a war zone when the unthinkable happens...Your buddy next to you gets shot in the arm, and needs to be evacuated pronto. In the chaos of war, it's not as easy as just picking up the phone and calling 911 for help. There are rounds going off nearby, it's loud, and you can't hear anything. But you need to get him out of here fast...

**This is where a 9 line medevac call comes in...**

1

Line 1: Location of pick-up site

2

Line 2: Radio frequency

- 3 Line 3: # of Patients by precedence
- 4 Line 4: Equipment
- 5 Line 5: Total # of patients
- 6 Line 6: Security at pick-up site
- 7 Line 7: Method of marking pick-up location
- 8 Line 8: Patient nationality
- 9 Line 9: NBC Contamination

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**Each one of the nine lines provides vital information that's used to transmit from how many patients there are, the mechanism of injury, necessary equipment to bring, the location, and the possible hostile/non-hostile scenarios that could have manifested. It's extremely important for you to get them right the first time.**



**CMC 76 - 9 Line MEDEVAC MIST Report Tactical Field Care Video  
Transcript.pdf**  
183.8 KB



Click through the flip cards below for more information about each of the 9 lines.

A specific location is given in  
coordinates. It would be

**Line 1: Location of pick-up site**

1 of 9

communication in the form of latitude and longitude. This is where

**Line 2: Radio Frequency**

This is going to be the channel you're going to go to.

2 of 9

**Line 3: Number of Patients by Precedence**

- **Urgent:** This is where the patient needs to be evacuated in order to save life or limb. Patient needs to be aerial lifted as soon as possible—within two hours.
- **Urgent Surgical:** Same as Urgent, only Urgent Surgical requires transportation to a

3 of 9

A – **None:** Basically, no special

### Line 5: Number of Patients

equipment is required; just safely land the helicopter for

A – **Litter**: How many litters are going to be on there? Support unit will need to compensate with a carousel. This structure allows for multiple patients to be stacked securely for evacuation, so Medevac team needs to know how many litters there are.

B – **Ambulatory**: Patients are listed as ambulatory if they can

### Line 6: Security at Pick-up Site

This information informs the Medevac team whether the area has been secured or will require an escort.

**N** – No enemy combatants are at the pick-up site.

**P** – This is where potential enemies may be in the area, so use cautionary escort support in case of possible RPG or troop

**A – Panels**: This provides

7 of 9

**Line 8: Patient Nationality & Status**

information to what color the panels are going to be. Panels

**A** – Patient is a US American troop

**B** – Patient is a US civilian noncombatant

**C** – Patient is a non-American, United Nation Armed Forces

**D** – Patient is a local national

**E** – Patient is an enemy prisoner of war (EPW)

8 of 9

**Line 9: NBC Contamination**

Is there a contamination at the site? Will Haz-Mat suits be required? This information will provide Medevac team with potential threat to containment inside of the helicopter. This is information that will lead to possible imminent infection or possible lethal exposure.

N – Is it nuclear in nature? If so,

9 of 9

Below is an example of how to write a 9 line report.

**Line 1:** We gave coordinates in Upper Kandahar where the extraction was needed.

**Line 2:** We changed comms three times and ended up doing our route call to CDC at Bastion because it was closest to us. We comm checked the frequency and continued our 9 line.

**Line 3:** 2 urgent and 1 was deceased.

**Line 4:** We needed two IV suspensions. I needed a body splint for the 1 marine because he had multiple breaks in his upper and lower extremities and his bones were pretty much mush. I had already put 1 King in and bagging him. I needed a special ventilator.

**Line 5:** 2 non-ambulatory (litters needed) and 1 body bag.

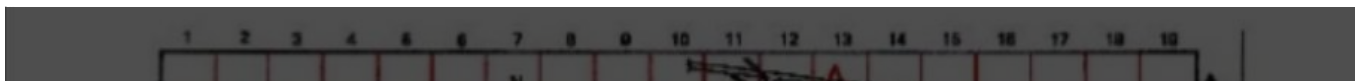
**Line 6:** E – Hostiles in the area. We had not yet secured the single sniper we were receiving fire from and we were requesting definite escort.

**Line 7:** Green smoke can. We requested immediate River City status.

**Line 8:** A – All three patients were U.S. Marines.

**Line 9:** No detected NBC at this time.

CONTINUE





## Plotting on a Grid Map

A grid map is simply used to identify location.

By dividing a map into squares, you can quickly and accurately find an area by locating the square it is in. Emergency responders should have a grid map of the base and local area on hand at all times. The grid coordinate system uses vertical coordinates labeled with numbers at the top and bottom of the map and horizontal coordinates labeled with letters on the sides. The coordinates of a location are obtained by reading across the map from left to right for the number and reading from the bottom to the top for the letter.

The number and the letter combined are the grid coordinates. Grid maps can be subdivided into smaller grids to better identify a location. A widely recognized aid to plotting on a grid map is the grid-map overlay. The purpose of a map overlay is to increase your accuracy and save time when plotting locations. A grid-map overlay is normally constructed of clear plastic sheeting and is made to the scale of the map used and divides the block into 10-line increments.

Watch the video below for more information on how to plot coordinates on a grid map.

## SOLDIER'S MANUAL OF COMMON TASKS - WARRIOR TASK LEVEL 1



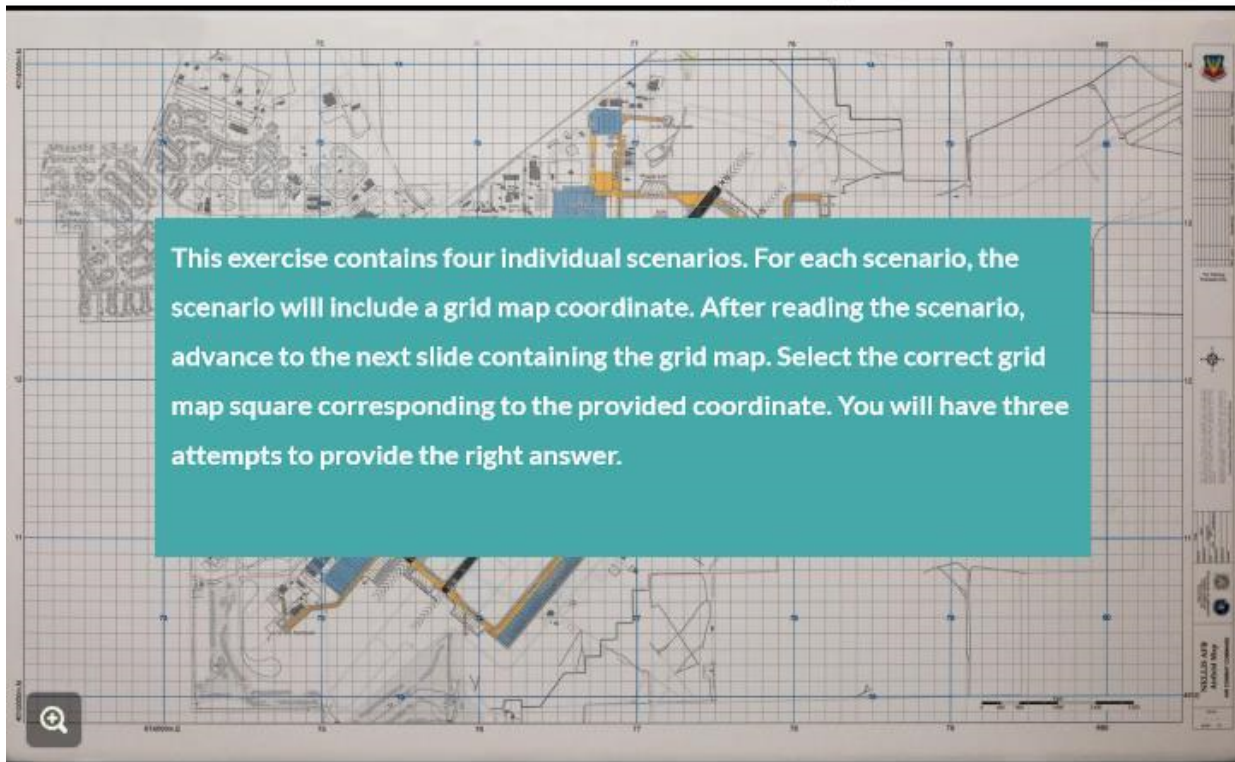
**Grid Map Video Transcript.pdf**  
172.7 KB



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Now it is time to practice your skills at plotting coordinates on a grid map. Complete the grid map interaction below.

# Nellis AFB Grid Map



Please select Next to continue

END OF LESSON

## **Lesson 9: Population Health Principles (Continuum of Care)**

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**After completing this lesson, the student will be able to recall the basic facts about population health management (continuum of care) in accordance with prescribed guidance and publications.**



**Case management** is a collaborative process under the population health continuum that assesses, plans, implements, coordinates, monitors, and evaluates options and services to meet an individual's health needs through communication and available resources to promote quality, cost-effective outcomes.

The healthcare system incorporates case management as a component of a comprehensive medical management. These strategies involve supporting patients through transitions of care, patient safety, education and self-determination by establishing an active partnership with patients and medical team to achieve optimal healthcare outcomes.

---

## **Disease Management**

**While disease managers provide the medical care needed for the patient's specific disease, the handoff to case managers supports coping and management strategies as patients strive to improve quality of life. The purpose of disease management is to improve clinical outcomes for individuals by preventing or minimizing the impact of a disease or chronic condition.**

**This purpose is accomplished by activities such as implementing more standardized care and improving patients' ability to care for themselves. Disease management is focused on optimizing health in specific populations subject to a specific condition, disease, or two or more coexisting medical conditions (e.g., the metabolic syndrome associated with diabetes, hypertension, and hyperlipidemia).**





CONTINUE

## Utilization Management

The purpose of utilization management within the Medical Treatment Facility (MTF) is to identify, monitor, evaluate, and resolve issues that may result in inefficient healthcare delivery or that may have an impact on resources and services. Utilization management is a methodology that addresses the issue of managing the use of resources in the delivery of health care, while also measuring the quality associated with the delivery of that care. It is the process of evaluating the medical necessity, appropriateness and efficiency of healthcare services. Utilization review is the process of determining whether all aspects



of a patient's care, at every level, are medically necessary and appropriately delivered. The difference between the two is that utilization review examines past history while utilization management concentrates on current and future processes.



# Referral Management

A referral is the process of directing a patient from one healthcare provider to another within the direct care system or to a network (preferably) or non-network (as necessary) civilian provider. A referral request is expected however, in some circumstances a preauthorization may be required. A consult report, known as a clearly legible report is the primary method used to close out a referral.

Referral management is the process of managing and tracking internal/external patient referrals within the MTF, to another MTF or to network specialists (i.e., to the permanent change of station). Referral Management provides a mechanism for determining patient access to specialty clinics, durable medical equipment and network inpatient admissions that use evidence-based criteria and predetermined clinical outcomes. The goals are to promote continuity of care, timely intervention, and access to care while providing a clear capability to minimize costs for care referred to the network.

This process involves **two** components—**clinical** and **administrative**.

## CLINICAL

The clinical component includes performing an utilization review for medical necessity of specialty referrals and determining the appropriateness of care. With the application of the approved clinical practice guidelines, staff are able to identify and refer patients for case management or disease management.

## ADMINISTRATIVE

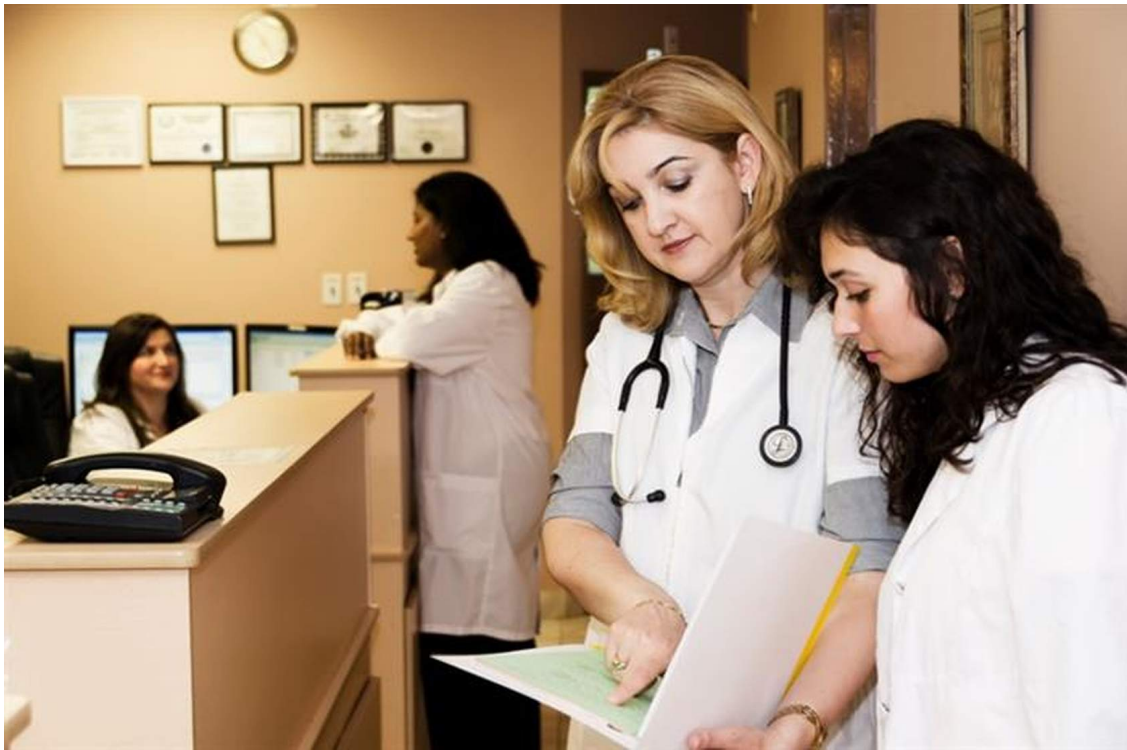


#### CLINICAL

#### ADMINISTRATIVE

The administrative component of referral management relates to managing the electronic transmission of specialty referral requests from the MTF to the care support contractors, to include ensuring referrals meet access and continuity of care standards.

The administrative staff closely monitors and track the return of referral results. Tracking of referrals encompasses monitoring, timeliness of result return, and legibility.



### Multiple Choice

Which component of referral management relates to managing the electronic transmission of specialty referral requests from the MTF to the care support contractors, to include ensuring referrals meet access and continuity of care standards.



Clinical

☐ Administrative

☐ General

☐ Procedural

SUBMIT



Complete the content above before moving on.

### Health Care Integrator (HCI)

The health care integrator (HCI) leads assigned teams in population health initiatives that integrate all aspects of care along the health continuum. HCIs ensure acuity-based enrollment is completed with oversight provided by the senior medical physician, in coordination with the group practice manager (GPM) and flight leadership.

The HCI provides training to the patient centered medical home teams on how to obtain actionable lists of patients and populations of patients at risk for chronic conditions and mentor the teams on management of those patients. The HCI ensures proactive patient care meetings occur routinely, care coordination meetings occur as needed, and the medical management staff members interact with teams to provide for proactive patient care.







END OF LESSON