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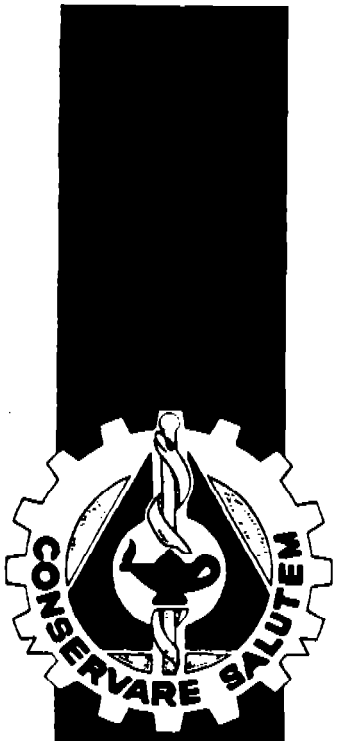

UNITED STATES ARMY ENVIRONMENTAL HYGIENE AGENCY

ABERDEEN PROVING GROUND, MD 21010-5422

A E H A

GUIDE FOR DEVELOPING MEDICAL DIRECTIVES FOR OCCUPATIONAL HEALTH NURSES

Approved for public release; distribution unlimited.

GUIDE FOR DEVELOPING MEDICAL DIRECTIVES FOR OCCUPATIONAL HEALTH NURSES

CONTENTS

DEPARTMENT OF THE ARMY
U. S. ARMY ENVIRONMENTAL HYGIENE AGENCY
ABERDEEN PROVING GROUND, MARYLAND 21010-5422

REPLY TO ATTENTION OF

HSHB-MO-O

July 1989

GUIDE FOR DEVELOPING MEDICAL DIRECTIVES FOR OCCUPATIONAL HEALTH NURSES

CHAPTER I
INTRODUCTION

1-1. AUTHORITY. AR 40-5, Preventive Medicine.

1-2. PURPOSE. This guide is designed to assist the physician and nurse in the development of medical directives to be used by occupational health nurses (OHN's) to provide health care to workers.

1-3. REFERENCES. The publications used in this guide are listed in Appendix A.

1-4. BACKGROUND. Legal and ethical considerations require that a physician be delegated the responsibility to direct the services relating to medical care of employees. Whether the medical direction of the occupational health service is on a full-time, part-time or consultative basis, it is the responsibility of the physician to define procedures consistent with the health services to be provided and the preparation and qualifications of the nursing staff. Written medical directives specify the treatment procedures to be followed and serve as authorization for a professional OHN to provide treatment for illness and injury within the legal framework of usual occupational health nursing practice in the absence of a physician.

1-5. RESPONSIBILITY FOR PREPARATION. Medical directives should be prepared by the physician responsible for the occupational health service in coordination with the OHN-in-charge. They must be in writing, dated, and signed by the physician. It is also recommended that they be co-signed by the OHN who cooperated in the development and/or review of the directives. Clinical guidelines require periodic review and revision as medical knowledge increases and other changes occur. As a minimum, annual review, and revision if needed, is required.

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*This Technical Guide supersedes the January 1978 publication.

1-6. CONTENT.

a. Medical directives should be specific to the particular installation in that they are specific instructions on treatment procedures to be followed by the OHN in providing health care for all civilian employees at that installation. They should take into account (1) the types of injuries and illnesses that might be expected to occur at the installation, (2) the availability and accessibility of the physician and other medical resources, (3) the preparation and competence of the nursing staff, and (4) existing relevant laws and regulations. The nurse should not be called upon to function beyond the limits of her/his education, training, and licensure. Conversely, the nurse should be allowed and expected to function fully within the scope of her/his preparation, ability and licensure.

b. In addition to medical procedures and policies, the directives should include the telephone numbers and addresses of (1) the physician and health clinic staff, as well as (2) emergency and nonemergency community resources such as ambulance service, hospitals, and clinics (Appendix B).

1-7. FORMAT AND DISTRIBUTION.

a. Sample directives for problems of both emergent and nonemergent nature commonly encountered in the occupational health setting are found on pages 2-3 to 2-86. It is not intended that the examples cited are complete and/or applicable for every installation or that treatments are arranged in order of priority. However, they can be used as a guide to prepare medical directives that should be tailored to each installation. It is the responsibility of the physician supervisor to alter the guidance as appropriate and to indicate at what point a physician should be called.

b. The format used to develop these medical directives for specific problems/conditions includes Introduction, Assessment and Treatment/Plan. The Introduction provides a brief description of probable causes and pertinent aspects of such a problem/condition; the Assessment provides guidance on subjective data (history taking) and objective data which may include such data as observations, vital signs, and blood pressure; and Treatment/Plan which is guidance on therapeutic interventions, referrals, employee education and followup as appropriate. This format allows for easy translation into the SOAP format for documentation in the medical record. SOAP represents the four parts of the recording for a specific problem and each letter is defined as follows:

S - Subjective data. A description of a symptom or problem as stated by the employee, supervisor or coworker.

O - Objective data. Observations made by the nurse pertaining to the problem, e.g., clinical findings, laboratory data or vital signs.

A - Assessment. An analysis or interpretation of the data and employee's knowledge regarding the illness or injury. This is the nursing diagnosis.

P - Plan. A proposed solution to the assessment. It includes care provided, employee education, followup and consulting with other health care providers.

c. A cover sheet should precede the directives and must be dated and co-signed by the physician and nurse initially and annually to indicate the directives have been approved and are current. A sample cover sheet is provided on page 2-2.

d. Place directives in a looseleaf notebook or folder with one problem or disease per page.

e. Tab or otherwise mark important pages for rapid reference.

f. Appendices should include additional information that is necessary to provide occupational health care and treatment.

g. Copies of the directives should be placed at convenient locations throughout the occupational health facility for ready use by staff, and the location should be made known to all nursing personnel.

1-8. PRIVILEGES. Granting of privileges by the medical treatment facility is generally not required for the OHN to administer over-the-counter medications for the treatment of acute minor illnesses (palliative care) of employees when the treatment is according to current definitive comprehensive medical directives signed by the physician supervisor. This function is considered to be within the usual scope of occupational health nursing practice.

1-9. GENERAL POLICIES. Emergency care of injury or illness during working hours will be provided within the capabilities of the health service staff and facility and in accordance with local medical directives and appropriate regulations.

a. Occupational Injury and Illness. An employee sustaining an illness or disease proximately caused by the employment, or an injury while in the performance of duty, whether or not disability has arisen, will be furnished necessary care and treatment. Army medical treatment facilities are authorized to provide this care to employees who are beneficiaries of the Office of Workers' Compensation Program (OWCP) (AR 40-3). Cases which require treatment beyond the capabilities of the installation will be referred as beneficiaries of OWCP, to another Government medical treatment facility, or to any duly qualified physician or hospital.

b. Nonoccupational Injury and Illness. Care of these cases by the occupational health service is limited to:

(1) In an emergency, the employee will be given the attention required to prevent loss of life or limb, or relieve suffering until placed under the care of a private physician. Such care will be given in accordance with the medical directives to assure proper handling of emergencies by the health service staff.

(2) For minor disorders, first aid or palliative treatment will be given if the condition is one for which the employee would not reasonably be expected to seek the attention of his personal physician and if it would enable the employee to complete his current work shift. Employees requesting repetitive treatment for nonoccupational disorders should be instructed to see their personal physician. To assure continuity of care, appropriate communication between the employee's personal physician and the occupational health physician and/or nurse should be maintained.

(3) Health maintenance is primarily the responsibility of the individual and consequently it is not within the scope of the Army Occupational Health Program to furnish civilian employees' medical or dental services for nonoccupational diseases or injuries which should properly be rendered by civilian physicians or dentists in the community.

c. Personal Health Information. Specific information relating to an employee's known medical problems, medications, or special health care needs should be documented in the employee's health record. This will enable better management of emergency situations arising as a result of, or in conjunction with, chronic diseases such as diabetes, asthma, epilepsy, or cardiovascular disease. Anticipatory written orders may be obtained from the personal physician by the employee, or by the health service physician or nurse with the consent of the employee.

d. Employee Request for Treatment Prescribed by Personal Physician. Employee requests for the nurse to administer simple treatments or services prescribed by their personal physician may be honored subject to availability of resources, providing the request is in writing with complete instructions, signed by the requesting physician, and approved by the occupational health physician. Any medications ordered are to be provided by the employee. A careful allergy history should be obtained and documented before any medication is administered.

1-10. SPECIAL OCCUPATIONAL HEALTH HAZARDS. Installations that have major potential health hazards, such as toxic chemical agents or nuclear reactors, should clearly define specific emergency procedures for all such hazards. All personnel concerned should be thoroughly trained in these procedures and should have refresher training and/or practice in the procedures at regular intervals. These procedures should be included in the Medical Directives. An inventory of health hazards should be used as a resource to identify specific health hazards in the work area.

1-11. ADMINISTRATION OF DRUGS. Army regulations and local policies determine the type and usage of drugs in the occupational health service. In general, the following will apply to all OHN's except those who have had specialized formal preparation such as nurse clinicians and practitioners who have been privileged and function under protocols signed by their physician proctor.

a. It is not within the realm of usual occupational health nursing practice to prescribe or dispense prescription drugs.

b. Each occupational health clinic should obtain and maintain a current list of nonprescription or over-the-counter drugs that have been authorized by the local Therapeutic Agents Board (TAB). Only the drugs included on this list should be specified in the medical directives when a nonprescription drug is the treatment of choice.

c. Under written medical directives, the OHN can administer a one time dose of noncontrolled pharmaceuticals.

1-12. DOCUMENTATION. All entries in the health record must be clear and concise with sufficient detail to establish the purpose of the visit, an assessment, a disposition and a plan for further care. Each completed entry must be dated, legible and signed by the health care provider (AR 40-66, para 3). The SOAP format is an organized and efficient means of data entry (para 1-7).

CHAPTER II

SAMPLE DIRECTIVES

COVER SHEET

The medical directives that follow constitute the orders that have been prepared by the undersigned in accordance with AR 40-5, para 5-7c, for use by the occupational health nursing staff at _____

APPROVED:

_____ _____ M.D./D.O.
DATE

_____ _____ R.N.
DATE

Reviewed and modified as indicated.

_____

_____

APPROVED:

_____ _____ M.D./D.O.
DATE

_____ _____ R.N.
DATE

Reviewed and modified as indicated.

_____

_____

APPROVED:

_____ _____ M.D./D.O.
DATE

_____ _____ R.N.
DATE

Reviewed and modified as indicated.

_____

_____

MEDICAL DIRECTIVES

GENERAL PROCEDURES APPLICABLE TO ALL EMERGENCIES TO BE INITIATED IMMEDIATELY WHENEVER INDICATED:

1. MAINTAIN AN OPEN AIRWAY, RESTORE BREATHING [A, B, C FORMAT-BASIC CPR (APPENDIX C)] AND RESTORE CIRCULATION.

2. CONTROL BLEEDING.

3. PREVENT AND TREAT FOR SHOCK.

4. PREVENT INFECTION AND FURTHER INJURY.

5. ARRANGE FOR FOLLOWUP CARE, PROVIDING AS MUCH HISTORY AND INFORMATION AS POSSIBLE TO THOSE RESPONSIBLE.

ABDOMINAL INJURY, ACUTE:

I. Introduction: Two basic types of abdominal injury occur; penetrating and blunt trauma. Blunt trauma may result in injury to underlying organs with little evidence of damage.

II. Assessment:

A. Obtain history to include:

1. Circumstances of injury (how, when, where).

2. Location and severity of pain.

3. Nausea, vomiting, faintness.

B. Determine nature of injury; type, location and severity.

C. Take pulse, respirations and blood pressure.

D. Observe skin for color, diaphoresis.

E. Observe for restlessness, anxiety and weakness.

III. Treatment/Plan:

A. Keep flat and quiet.

B. Control bleeding and cover wounds.

C. If internal organs are exposed, cover with sterile bandages moistened with sterile saline solution.

D. DO NOT remove any penetrating objects.

E. Give nothing by mouth.

F. Treat for shock (See page 2-73).

G. Arrange for medical care and immediate transportation.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

ABDOMINAL PAIN:

I. Introduction: Acute abdominal pain, with or without other symptoms, may be indicative of acute inflammatory conditions such as, but not limited to, appendicitis, cholecystitis, pancreatitis, and in females, tubal pregnancy.

II. Assessment:

A. Obtain history to include:

1. Details of onset, interval events and current status.

2. Location, duration and severity of pain.

3. Diarrhea, constipation, black or bloody stools.

4. Nausea or vomiting.

B. Take temperature, pulse, respirations and blood pressure.

C. Observe skin for color and diaphoresis.

D. Observe for vomiting.

III. Treatment/Plan:

A. Nothing by mouth.

B. Advise against use of cathartics.

C. Do not give pain medication.

D. Refer to physician.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

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AMPUTATION

I. Introduction: In case of partial or complete amputation, make every effort to preserve the severed part.

II. Assessment:

A. Obtain history to include:

1. Circumstances of injury (how, when, where).

2. Nausea, faintness.

B. Nature of injury.

C. Take pulse, respirations, blood pressure.

D. Observe skin for color, temperature, diaphoresis.

E. Observe for restlessness, anxiety, weakness.

III. Treatment/Plan:

A. Severed part should be cleansed of gross debris, wrapped in steriletowel or gauze moistened with sterile saline, and placed in a sterile plastic bag. (If available, transport the amputated part in an insulated cooling chest filled with crushed ice, being careful not to freeze the part). Any amputated part should be transported with patient.

B. Control bleeding and prevent shock.

C. Support with splint if indicated.

D. Administer intravenous fluids if indicated in additional instructions.

E. Arrange for medical care and immediate transportation.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

ANIMAL BITES/SCRATCHES:

I. Introduction: Bites and scratches by animals, particularly wild animals, can cause a variety of local and systemic infections. Rabies can be transmitted to man by a scratch if a rabid animal has licked its paws with infected saliva.

II. Assessment:

A. Obtain history to include:

1. Circumstances of injury (how, when, where).

2. Animal species and description, wild or domesticated, present location of animal and if pet, name of owner.

3. Determination of tetanus immunization status.

B. Nature of injury: type, location and severity.

III. Treatment/Plan:

A. Remove saliva from wound by thorough cleansing with soap and flushing with water. Do not probe puncture wounds.

B. Apply _____ and dressing.
(Antiseptic)

C. Bring tetanus immunization status up-to-date as indicated in additional instructions.

D. Refer severe wounds, as delineated in additional instructions, to hospital emergency room.

E. Report to Provost Marshal or the local police and/or other agencies as required by local law.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

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ASTHMA:

I. Introduction: Paroxysmal dyspnea accompanied by wheezing may be triggered by viral respiratory infection, exercise, emotional upset, nonspecific factors (e.g., changes in humidity), inhalation of cold air, or irritants such as fumes or cigarette smoke, and exposure to specific allergens.

II. Assessment:

A. Obtain history to include:

1. Details of onset, duration and severity of symptoms, e.g., anxiety, wheezing, shortness of breath, tightness or pressure in chest, productive or nonproductive cough.

2. Frequency of past attacks.

3. Under care of physician and medication taken.

B. Take temperature, pulse, respirations, blood pressure.

C. Observe for cyanosis, confusion, lethargy.

III. Treatment/Plan:

A Encourage patient to take clear liquids orally and to cough.

B. Administer oxygen if indicated in additional instructions.

C. Administer intravenous fluids if indicated in additional instructions.

D. Contact or refer employee to personal physician or hospital emergency room.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

ATHLETE'S FOOT:

I. Introduction: A fungal infection of the skin, usually of the foot, which causes itching, blisters and cracks. Although usually seen between the toes, the fungus can also invade the skin on other parts of the body. The organism thrives on warmth and dampness. It is seldom more than an uncomfortable nuisance, although secondary infection is a real danger.

II. Assessment:

A. Obtain history to include:

1. Details of onset, duration and severity of symptoms.

2. What medications used or using and who prescribed medications.

B. Nature of condition, location, extent.

C. Secondarily infected, minor or severe. Observe for vesicles, oozing, general inflammation, red streaks.

III. Treatment/Plan:

A. Keep feet dry and open to air when possible and safe.

B. Apply antifungal foot ointment or powder if instructed in additional instructions.

C. Instruct employee to dry feet carefully, wear clean white socks--change daily, and alternate pairs of shoes (leave foot powder in boots/shoes when they are not being worn).

D. Refer to personal physician if red streaks, vesicles or oozing fluid noted.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

BACK INJURIES AND BACK COMPLAINTS:

I. Introduction: Back injuries vary from slight muscular strains to fracture or dislocation of the spine with cord damage and partial or complete motor and sensory paralysis.

II. Assessment:

A. Obtain history to include:

1. A past history of back problems/injuries.

2. Location, onset and duration of pain.

3. Any recent incident of trauma to back (how, when, where).

4. Chronic or recent urinary tract complaints, e.g., dysuria, hematuria.

5. Activities precipitating or accompanying pain.

B. Nature of injury: location, abrasions, contusions of skin.

C. Take temperature.

D. Examine for neurological deficit or tenderness. Any examination of a suspected spinal injury must be carried out without movement of the patient's spine.

E. Examine for muscle spasm.

F. Examine for range of motion of back for back pain without a recent history of trauma.

III. Treatment/Plan:

A. If neurological deficit or severe pain is present, transport patient using a semi rigid cervical collar and a spine board to physician or emergency room (See Fractures and Dislocations, page 2-50).

B. Refer patient to physician for:

1. Neurological deficit.

2. Severe pain.

3. Limited range of motion in the back.

4. Muscle spasm.

5. History of recent trauma.

6. Fever over 100F (37.7C), dysuria, hematuria, (refer to private physician if not associated with a work-related injury/illness).

C. For minor back pain not associated with trauma and unaccompanied by other symptoms, administer medication and/or treatment as directed in additional instructions.

D. Instruct employee in proper body mechanics.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

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BLISTERS:

I. Introduction: A collection of fluid below or within the epidermis is frequently caused by physical trauma such as friction, although it can also be caused by allergic contact dermatitis, chemical exposure, a burn, insect bite or viral infection.

II. Assessment:

A. Obtain history to include:

1. Details of exposures, onset of symptoms and duration, pain - type.

2. Previous or current treatment.

B. Nature of injury: size and location of blisters, intact or ruptured.

C. Observe for generalized inflammation, red streaks, purulent drainage.

d. Take temperature if signs of inflammation.

III. Treatment/Plan:

A. Gently clean with soap and water.

B. Do not open - apply dry sterile dressing if indicated.

C. If ruptured, debride dead skin using sterile technique.

D. Apply _____ and sterile dressing.
(Ointment)

E. Refer to physician for:

1. Blister that may have been caused by occupational exposure.

2. Purulent drainage.

3. Red streaks.

4. Foot blisters so numerous that wearing shoes or boots is impossible.

F. Recommend patient check for proper fit of boots/shoes and use bandaids or moleskin on any areas affected by friction to prevent blisters.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

BOILS AND LOCAL SKIN INFECTIONS:

I. Introduction: A boil is a localized swelling and inflammation of the skin resulting from infection. It contains purulent matter which is ultimately expelled or reabsorbed.

II. Assessment:

A. Obtain a history to include:

1. Details of onset and duration of infection, and pain symptoms.

2. Past history of boils.

3. Type of work done by employee, e.g., patient care worker, food handler.

B. Nature of problem, location, degree of swelling, redness.

C. Take temperature.

D. Examine lymph nodes.

E. Palpate boil to determine degree of fluctuation.

III. Treatment/Plan:

A. Apply hot soaks for 20 minutes and/or instruct employee to use hot soaks at home as directed in additional instructions.

B. If draining, apply a sterile dressing.

C. Refer patient to physician if:

1. Boil is fluctuant.

2. Patient's temperature is above 100F (37.7C).

3. Lymph nodes are enlarged.

4. Extensive inflammation is present.

5. History of diabetes.

6. Recurrent problem.

D. Restrict employee from work in accordance with local policy and procedure regarding food handlers and patient care workers. Have employee return to work through the Occupational Health Clinic.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

BURNS:

I. Introduction:

A. General: Tissue injury can result from thermal, chemical, electrical or ultraviolet agents. With any burn, shock must always be anticipated regardless of exposure.

B. Thermal Burns: The upper airway is extremely susceptible to obstruction as a result of exposure to superheated air. The burn patient may initially present with few signs of airway distress.

C. Chemical Burns: Chemicals that cause burns are usually acids, such as sulfuric or nitric acid; and alkalies, such as caustic soda and anhydrous ammonia. The alkali burns are generally more serious than acid burns, because the alkalies penetrate more deeply.

D. Electrical Burns: These burns result from a source of electrical power making contact with the body. Electrical burns frequently are more serious than the surface appearance indicates. As the current passes through the body, destruction of muscles, nerves and blood vessels may occur. First aid treatment of the burned area (see Thermal Burns, page 2-17), is usually secondary to care of possible serious effects on the heart and respiratory center (see Electric Shock, page 2-77).

II. Assessment:

A. Obtain history to include:

1. Circumstances of injury, source and duration of exposure, and if chemical, the concentration and amount of agent.

2. Mental status (may be impaired).

3. Determine tetanus immunization status.

4. Chronic diseases.

B. Determine nature of injury - location, extent and severity of burn. Facial burns, singeing of the eyebrows and nasal hair, and carbonaceous sputum are suggestive of acute inhalation injury.

C. Take pulse, respirations and blood pressure.

D. Observe for hoarseness, coughing, choking, inspiratory stridor, dyspnea or wheezing.

E. Observe skin for color, diaphoresis, swelling, blisters.

F. Observe for restlessness, anxiety, weakness.

III. Treatment/Plan:

A. Thermal Burns - Minor.

1. Immerse in cold or ice water immediately until burning sensation does not reoccur on exposure to air (10-15 minutes).

2. Wash gently with normal saline or solution indicated in additional instructions taking care not to rupture blisters if present.

3. Apply sterile dressings as needed.

4. Give tetanus immunization as indicated in additional instructions.

5. Instruct employee in care of the burn.

6. Arrange for followup care as needed.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

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B. Thermal Burns - Major [Third degree burns or burns that involve 5 percent or more of body surface area (BSA)].

1. Arrange emergency transportation and transport to hospital immediately.

2. Treat for shock (page 2-73) and respiratory/cardiac arrest (page 2-72, 2-21, Appendix C) as required.

3. Remove all clothing to stop burning process. Synthetic fabrics ignite, burn rapidly at high temperatures and melt into hot plastic residue which continue to burn the patient.

4. Using aseptic technique, cover entire burned area with sterile dressing or a sterile sheet.

5. Do not break blisters, apply an antiseptic agent or attempt any treatment of burns.

7. NO FLUIDS BY MOUTH.

8. Administer intravenous fluids if directed in additional instructions.

9. Administer pain medication if directed in additional instructions.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

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D. Chemical Burns.

1. Flush contaminated are with copious amounts of water 20-30 minutes. Alkali burns require longer irrigation.

2. Rapidly remove chemical-soaked clothing with large scissors during the flushing process.

3. Treat as thermal burns (page 2-17) after area has been completely and adequately cleansed.

4. Arrange emergency transportation to hospital if severe (5 percent or more of BSA).

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

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E. Electrical Burns.

1. Initiate CPR (see Appendix C for a review of procedure) if required (also see Electric Shock, page 2-77).

2. Arrange emergency transportation to the hospital.

3. Initiate EKG monitoring if available.

4. Administer intravenous fluids if directed in additional instructions.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

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F. Ultraviolet Ray Burns (Sunburn).

1. If extensive or severe, refer to private physician. May apply sterile dressing to relieve discomfort until seen by own physician.

2. For minor sunburn apply _____.
(medication, frequency)

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

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Cardiac Emergencies.

I. Introduction:

A. Emergencies which could be caused by cardiac disorders present a wide range of signs and symptoms which may vary from mild to severe and may appear gradually or suddenly. Many of these simulate other conditions.

B. Signs and symptoms which may indicate cardiac disorders:

1. Pain, originating in the chest, or behind the sternum and radiating into the left shoulder, down the left arm, up the neck or to the back. This pain is steady and is not changed by movement of the body, by breathing, breath holding or swallowing. This pain in frequently described by the individual as "pressing," "squeezing," or "choking."

2. Indigestion.

3. Cyanosis or pallor.

4. Difficulty in breathing - often aggravated by lying down.

5. Palpitations or some indefinable complaint in the chest.

6. Weak, rapid or unusually slow, or irregular pulse.

7. Weakness, faintness, cold, clammy skin, or shock.

C. The following are Severe Cardiac Emergencies requiring IMMEDIATE action.

1. Cardiac arrest.

2. Serious respiratory distress.

3. Sudden severe and/or persistent chest pain.

4. Shock and coma of possible cardiac origin.

II. Assessment:

A. Obtain a history to include:

1. Nature, location, time of onset, duration and severity of pain. Does the pain radiate to neck, jaw or down left arm?

2. Activities that make pain worse and what relieves the pain.

3. Past history of similar episodes of pain.

4. If under care of a physician for this condition - name of physician.

5. List of medications currently taking.

B. Take temperature, pulse, respirations, blood pressure.

C. Observe for diaphoresis, weakness, pallor or cyanosis, cough or shortness of breath.

III. Treatment/Plan:

A. If the patient is in cardiac arrest:

1. Begin CPR (see Appendix C for a review of the procedure).

2. Instruct someone else to call an ambulance to transport patient to the hospital.

3. Continue CPR until relieved by authorized personnel.

B. For sudden severe and/or persistent chest pain:

1. Allow patient to assume the position that is most comfortable.

2. Maintain open airway.

3. Give oxygen if directed in additional instructions.

4. If appropriate, treat for shock (see page 2-73).

5. Start intravenous fluids if directed in additional instructions.

6. Give pain medication if directed in additional instructions.

7. Tranport patient to hospital emergency room via ambulance.

8. Take an EKG, if possible, pending arrival of the ambulance. Transport takes priority.

C. For mild chest discomfort:

1. Arrange for immediate medical care and transportation via ambulance.

2. Do not allow a person with a suspected heart attack to drive a vehicle or walk up or down steps or exert himself in any way.

3. Take an EKG pending arrival of ambulance if directed in additional instructions.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATION:

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NOTE: Pamphlets/posters showing CPR can be obtained from the American Heart Association or the American Red Cross.

CEREBROVASCULAR ACCIDENT (STROKE):

I. Introduction: The occlusion or rupture of an artery in the brain can give any one or combination of neurological signs or symptoms including coma, confusion, local or general weakness, tingling or changes in sensations. A transient ischemic attack (TIA) produces symptoms similar to those for the completed stroke. However, the symptoms associated with a TIA reverse spontaneously, usually within minutes to hours. A TIA should be treated like a stroke.

II. Assessment:

A. Obtain a history to include:

1. Circumstances of incident, including duration and onset of symptoms, and employee's activity.

2. Any headache, paresthesia or changes in sensation.

B. Take blood pressure, pulse and respirations.

C. Determine level of consciousness; assess for confusion.

D. Check for local or general weakness or paralysis.

E. Check for unequal pupils.

F. Check for visual disturbance.

G. Check for speech disturbance.

H. Check for diaphoresis.

III. Treatment/Plan:

A. Arrange for ambulance and transport to emergency room.

B. Keep patient quiet.

C. Elevate head and shoulders.

D. Maintain open airway.

E. Administer oxygen if directed in additional instructions.

F. Notify physician.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

CHEST WALL INJURIES:

I. Introduction: Blow and compression injuries can result in rib fractures, traumatic asphyxia, hemothorax, simple pneumothorax, massive atelectasis, or damage to the heart.

II. Assessment:

A. Obtain a history to include:

1. Circumstances of the injury (how, when, where).

2. Nature and location of pain or discomfort.

3. Assessment for nausea, faintness.

B. Take blood pressure, pulse, respirations.

C. Determine extent of chest wounds.

D. Observe for shortness of breath, paradoxical respirations (flail chest), deformities of the rib cage.

E. Observe skin for color, temperature, diaphoresis, bruising.

F. Observe for restlessness, anxiety, weakness.

III. Treatment/Plan:

A. Maintain open airway.

B. If there is a sucking chest wound, cover the injury with an occlusive dressing, such as vaseline gauze or plastic wrap, large enough to overlap the wound's edges and tape securely on THREE sides. (The fourth side is an escape valve).

C. Place individual on the injured side if practical, taking care to prevent further injury.

C. Give oxygen if directed in additional instructions.

D. Start EKG monitoring if directed in additional instructions.

E. Give nothing by mouth.

F. Give NO pain medications.

G. Treat for shock (see page 2-73).

H. Arrange transportation as soon as possible to emergency room.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

COLD INJURIES (FROSTBITE):

I. Introduction: There is a wide variation in the ability of individuals to tolerate cold. The chances of injury to low temperature are increased by lack of experience and preparation, advanced age, poor general physical condition, anoxia (as in high altitudes or in aviation) and previous trauma, especially cold injury. Non-caucasians are generally believed to be more susceptible.

II. Assessment:

A. Obtain history to include:

1. Exposure to cold including temperature, humidity (if known), duration, and protective clothing used.

2. Previous cold injuries.

3. Pain, tingling, numbness, itching.

4. Any known complicating factors.

B. Extent of injury, frozen tissue, body parts affected.

C. Observe skin for color, vesicle formation.

D. Observe for shivering.

III. Treatment/Plan:

A. After the injured person has reached a safe place where there will be no chance of refreezing, rapidly thaw frozen part in water bath CAREFULLY CONTROLLED at 104F (40C) to 109F (42C). A deep burgundy color and return of sensation indicate thawing. It is better to leave the part frozen than to thaw the part and have it refreeze, e.g., during transport. Rapid rewarming should not continue after thawing is complete, and not be instituted if thawing has already occurred.

B. Warming above 98F (37C) is not recommended for nonfreezing cold injuries.

C. Treat all individuals with cold injuries of lower extremities as litter patients.

D. Do not massage or rub area. Do not break blisters.

E. After circulation and temperature are restored, encourage range of motion exercises for affected part to prevent contractures.

F. Prohibit smoking in all types of cold injury.

G. Do not give alcoholic beverages or drinks which contain caffeine. Warm drinks such as soup may be given.

H. Administer intravenous fluids if directed in additional instructions.

I. Refer to physician.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

COMMUNICABLE DISEASES:

I. Introduction: Diseases caused by infectious agents may be transmitted directly or indirectly from one individual to another.

II. Assessment:

A. Obtain history to include:

1. Known exposure to a communicable disease.

2. Location, duration and severity of symptoms.

B. Take temperature, pulse, respirations.

c. Observe location and severity of signs of infectious disease.

III. Treatment/Plan:

A. Use references to assess incubation periods, etc. (Appendix A,7).

B. Prevent exposure to other personnel as indicated.

C. Refer to physician. Employee should present note from local medical doctor when cleared for duty.

D. When employee has been definitively diagnosed, instruct patient, and coworkers if necessary, on measures to prevent the spread of the disease.

E. If reportable disease, report to appropriate department or agency, e.g., RCS MED -16 (R4), see AR 40-400, Chap 6.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

CONTUSION (BRUISE):

I. Introduction: A bruise is a soft tissue injury to the body not involving boney structures or broken skin.

II. Assessment:

A. Obtain history to include:

1. Circumstances of injury (how, when, where).

2. Associated pain.

3. Vasospastic conditions (e.g., Raynaud's disease), hemorrhagic disorders or sensory deficit.

B. Observe for discoloration, swelling.

III. Treatment/Plan:

A. Refer to physician for anything other than a simple contusion or as directed by local physician.

B. If simple contusion:

1. Apply cold packs for 15-20 minutes up to 2-4 hours during first 24-48 hours post injury.

2. After 48 hours post injury, apply moist heat for 20-30 minutes four times daily.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

CONVULSIVE DISORDER (SEIZURE):

I. Introduction: Paroxysms of involuntary muscular contractions and relaxations in adults can be caused by: trauma (head injuries), idiopathic causes (epilepsy), metabolic abnormalities, effects of drugs/chemicals (e.g., drug overdose/withdrawal, alcohol, camphor, cyanides, strychnine, lead, etc.), toxemias of pregnancy, vascular conditions (intracranial bleeding), and neoplasms.

II. Assessment:

A. Obtain history if possible to include:

1. Time of onset and duration.

2. Did convulsion start in a specific area of the body or was it generalized?

3. Type of contractions.

4. Was an injury incurred, did patient strike head or any other body part?

5. Any seizure history.

6. Any exposure to toxins.

7. Medications currently used.

8. Pregnancy status if applicable.

III. Treatment/Plan:

A. DO NOT put anything between the teeth.

B. Let the seizure run its course, protecting the patient from self-injury by gentle restraining or moving objects away. If seizure continues for more than 10 minutes, transport via ambulance to emergency room.

C. Refer to physician.

D. If employee is known to have a convulsive disorder:

1. Make sure employee's medical record folder is properly tagged, and the medical record includes information about the condition, name of physician, and current medications.

2. Help arrange for safe job placement as indicated.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

DERMATOSES:

I. Introduction: Any disease of the skin evidenced by itching and various skin lesions. Inflammation may or may not be present. In an occupational setting, dermatoses may be caused by primary chemical irritants which may affect any individual upon one or many contacts with the materials, or by sensitizing agents which affect only a susceptible individual following repeated contacts over a period of time. Primary chemical irritants include acids, alkalis, solvents such as turpentine, gasoline, acetone, and certain oils and mineral greases. Sensitizing agents include various dyes, fabrics, rubber, insecticides, cosmetics, oils, resins, plants, woods, and sunlight. Nonoccupational sensitizing agents include foods such as shellfish or drugs.

II. Assessment:

A. Obtain a history to include:

1. Current job exposures.

2. Previous skin trouble and treatment.

3. Exposures from hobbies and work other than present job.

4. If symptoms clear after being away from work for a few days.

5. Symptoms of pain or itching.

B. Determine location, nature and severity of problem.

C. Observe skin for rash, inflammation, blisters, pustules.

D. If secondary infection is present, take temperature, pulse and respirations.

III. Treatment/Plan:

A. Prevent further exposure to irritant or sensitizer, if known.

B. Remove any irritants with soap and water.

C. Apply topical medication if directed in additional instructions.

D. Counsel employee on good personal hygiene practices and use of protective equipment.

E. Refer to occupational health physician if there is any question of a potential occupational cause. Otherwise, refer all cases that need medical management to employee's personal physician.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

DIABETIC EMERGENCIES:

I. Introduction: The following conditions directly related to diabetes may require emergency care: hyperglycemia, diabetic ketoacidosis, and hyperinsulinism (insulin shock or reaction). Signs and symptoms of these conditions follow:

A. Hyperglycemia.

1. Signs and symptoms may include:

a. Sugar in urine.

b. Excessive thirst.

c. Urinary frequency.

d. Craving food.

B. Ketoacidosis.

1. Signs and symptoms may include:

a. Ketones in urine.

b. Indigestion, abdominal pain, vomiting.

c. Hypotension.

d. Dry flushed skin.

e. Shortness of breath, sweet fruity odor of breath.

f. Rapid, feeble pulse.

g. Extreme weakness.

h. Drowsiness to unconsciousness.

C. Hyperinsulinism (insulin shock or reaction).

1. Signs and Symptoms may include:

a. Irritableness, confusion, or unconsciousness.

b. Headache.

c. Cold, wet skin.

d. Hunger.

e. Trembling, nervousness and fear.

f. Blurring of vision.

g. Skin pallor.

II. Assessment:

A. Obtain history to include:

1. Known diabetes and current medications.

2. Food recently eaten, craving for food.

3. Excessive thirst, urinary frequency.

4. Headache, irritability, nervousness, fear.

5. Vision problems.

6. Indigestion, vomiting, abdominal pain.

7. Extreme weakness.

8. Recent infections or other illnesses.

B. Take temperature, pulse, respirations and blood pressure.

C. Assess level of consciousness/orientation.

D. Observe skin color and dryness or clamminess.

E. Smell breath for sweet fruity odor.

F. Observe for trembling, extreme weakness.

G. If available, test for level of glucose and ketones in urine or blood.

III. Treatment/Plan:

A. <u>For early hyperglycemia</u>:

1. Call employee's physician for instructions.

B. For ketoacidosis:

1. Transport employee to hospital via ambulance immediately.

2. Administer intravenous fluids if directed in additional instructions.

C. For hyperinsulinism (insulin shock or reaction):

1. Give juice, coke, candy, etc., if reasonably alert.

2. If no response to 1 above, call personal physician.

3. Arrange for transport to hospital if severe.

4. If patient is unresponsive and cannot take glucose p.o., administer intravenous glucose if directed in additional instructions.

D. General for known diabetics:

1. Assist employee in following physician's orders and recommendations.

2. Obtain and use written orders from employee's personal physician to give emergency care to the employee.

3. Tag medical records of diabetics to indicate the disease.

4. Document current medications in the employee's medical record.

5. Evaluate job safety factors.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

DIZZINESS (VERTIGO):

I. Introduction: A sensation of spinning or unstableness may be caused by a variety of entities including occupational exposures; middle ear disease; toxic conditions such as those caused by salicylates, alcohol or streptomycin; sunstroke; postural hypotension; or toxemia due to food poisoning or infectious diseases.

II. Assessment:

A. Obtain history to include:

1. Onset and frequency of problem: is it intermittent or constant?

2. Does it occur at a specific time of day?

3. Relationship to position, drugs, menses, upper respiratory infections, or ear infections.

4. Tinnitus or visual disturbances.

5. Current occupational exposures.

6. Bright red rectal bleeding or black, tarry stools.

7. Any other symptoms occurring during dizziness episode.

8. Recent head injury.

B. Take temperature, pulse and respirations.

C. Take postural blood pressures and pulses.

D. Observe for weakness, paresthesia, paralysis.

III. Treatment/Plan:

A. If acute, have patient lie down until dizziness is gone.

B. Refer to a physician:

1. If dizziness persists or is recurrent.

2. If the patient loses consciousness.

3. If patients develops nausea or vomiting.

3. If patient has other neurological signs or symptoms during the dizziness episode.

4. For fever above 100F (37.7C).

5. For blood pressure above _____, below _____, or a difference in postural blood pressures of _____.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

_____
_____
_____

DYSMENORRHEA:

I. Introduction: Pain in association with menstruation is thought to be a significant cause of absence from work among menstrual-age women.

II. Assessment:

A. Obtain a history to include:

1. Location, duration and severity of pain.

2. Any associated symptoms such as vomiting or diarrhea.

3. Medications used.

4. If under care of a physician, has employee had a recent pelvic examination?

5. Frequency of problem, ever lose time from work due to problem?

6. Possibility of being pregnant.

B. Take temperature, pulse and respirations.

III. Treatment/Plan:

A. Give pain medication as directed in additional instructions.

B. If cramps are severe and not accompanied by fever, vomiting or diarrhea, have the employee lie down with heat to the abdomen for 30 minutes.

C. If the patient is not able to return to work in one hour, she should be sent home.

D. Refer to a personal physician:

1. If fever, vomiting or diarrhea are present.

2. If menstruation is abnormal in frequency, duration or flow, or if bleeding between periods.

3. If dysmenorrhea is a frequent cause of absence from work.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

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_____

_____

EARACHE:

I. Introduction: Pain in the ear can originate in the auricle, the external ear canal, the middle ear, or the inner ear.

II. Assessment:

A. Obtain a history to include:

1. Onset of symptoms, location and duration of pain.

2. Frequency of occurrence.

3. Previous treatment for earache.

B. Examine for drainage, redness, bulging or ruptured drum, wax or foreign bodies.

C. Take temperature.

III. Treatment/Plan:

A. Refer to private physician for signs or symptoms of infection, with or without drainage.

B. For heavy wax buildup, gently irrigate affected ear with a solution of half hydrogen peroxide and half warm water. Do not irrigate ears if signs of ruptured drum or infection are present.

C. Give pain medication if directed in additional instructions.

D. For inflamed ear canals:

1. Instruct not to wear earplugs until healed.

2. Give medication if directed in additional instructions.

3. Provide an approved substitute type of hearing protection, such as muffs, until healed.

4. When ears are healed, properly fit ear plugs and instruct employee in their care and use.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

EAR INJURY:

I. Introduction: The ear is often subject to injuries such as lacerations and burns. In addition, foreign bodies in the ear (bugs, pebbles, welding slag, etc.) may result in injury.

II. Assessment:

A. Obtain a history to include:

1. Circumstances of injury (how, when, where).

2. Any pain, alteration in hearing, tinnitus.

3. Tetanus immunization status.

B. Observe for bleeding, lacerations, burns, foreign bodies.

C. Assess for head injury.

D. If no evidence of head injury, visualize the ear canal and drum.

III. Treatment/Plan:

A. For bleeding from ears following head injury:

1. Apply a loose, sterile dressing over the ear. DO NOT attempt to visualize the canal or drum.

2. Arrange for immediate transportation to the hospital.

B. For foreign bodies in the ear:

1. Refer to a physician.

C. For lacerations of the auricle:

1. Apply a loose, sterile dressing over the ear.

2. Update tetanus immunization status if directed in additional instructions.

3. Refer to physician.

4. Arrange for transportation if physician not assigned to occupational health clinic.

D. For small burns of the auricle or canal:

1. Apply medication if directed in additional instructions.

2. Update tetanus immunization status if directed in additional instructions.

E. Refer all ruptured drums to a physician immediately.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

EYE INFECTION:

I. Introduction: Two common infections of the eye are: hordeolum (sty), an acute localized inflammatory swelling of one or several glands of the eyelid; conjunctivitis, inflammation of the lining of the eyelids and/or eyeball.

II. Assessment:

A. Obtain a history to include:

1. Onset and duration of infection.

2. Previous infections.

3. Any pain, photophobia or visual changes.

4. Previously diagnosed as having diabetes, valvular heart disease, resistant infections or immuno-deficiencies.

B. Examine for redness, tearing, discharge (type) and swelling.

C. Indicate location of sty.

III. Treatment/Plan:

A. Sty.

1. Apply hot compresses 10-15 minutes four times daily as heat may help localize the infection.

2. Return for followup in 3-5 days.

3. Refer patient to a physician if patient has a history of diabetes, valvular heart disease, resistant infections, or immuno-deficiencies.

B. Conjunctivitis. Refer all cases of conjunctivitis to a physician/optometrist.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

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_____

EYE INJURIES:

I. Introduction: Common eye injuries include foreign body, corneal abrasion, corneal laceration, and chemical and thermal burns. Trauma to the eye calls for special evaluation and often treatment by an ophthalmologist/optometrist. If the employee reports that he was suddenly struck by a foreign body, but no foreign body is visible, consider the possibility that a particle may have penetrated the eyeball, especially if vision is reduced or if the pupil is not round. Thermal burns may be due to heat exposure, hot scale or sparks in the eye, or contact with other hot objects. Flashburns (ultraviolet actinic conjunctivitis) are frequently caused by arc welding. The symptoms are almost always bilateral; a one-eyed flashburn is extremely rare. Chemical burns may be caused by vapor, dust, particles or liquid. Chemicals are acid or alkali. Alkali exposures are much more damaging to the eye than acid exposures.

II. Assessment:

A. Obtain a history to include:

1. Circumstances of injury (how, when, where, and materials exposed to).

2. Location, nature and severity of pain or discomfort.

3. Any alteration in vision.

4. Wearing eye protection and what type.

5. Wearing contact lenses, soft or hard.

B. In all cases of suspected eye injury, measure visual acuity in each eye if feasible before detailed examination or treatment.

C. Examine eyes for displaced contact lenses if applicable.

D. Test for pupillary response with penlight.

E. Examine for inflammation, tearing, swelling, photophobia or foreign material.

III. Treatment/Plan:

A. Corneal Abrasion. For suspected corneal abrasions, refer to ophthalmologist/optometrist.

B. Foreign Body (Not Chemically Active):

1. For perforating, protruding, or deeply embedded foreign bodies:

   a. Do NOT manipulate the eye in any way or instill any medication.

   b. Tape an eye shield or dixie cup over the affected eye.

   c. Immobilize patient and transport by ambulance to ophthalmologist at once.

2. For a foreign body that is not perforating, protruding or deeply embedded:

   a. Have patient remove contact lenses.

   b. Locate foreign body by everting lid and using bright illumination, and/or as specified in additional instructions.

   c. Once the foreign body is located, instill topical anesthetic drops as directed in additional instructions.

   d. Attempt to remove by irrigation with a forcible stream of saline or ophthalmic irrigating solution. Do not use eye cup.

   e. After the foreign body is removed from the cornea, apply antibiotic ointment as directed in additional instructions, apply a tight patch and have patient return in 24 hours for removal of patch.

   f. Foreign body is considered embedded if it is not removed with irrigation. If embedded, do not attempt further removal techniques. Apply antibiotic ointment as directed in additional instructions, apply a tight eye patch (so the eye cannot be opened), and refer to ophthalmologist/optometrist.

   g. If foreign body cannot be located, refer to ophthalmologist/optometrist.

C. Burns.

1. Thermal Burn: Refer all thermal burns to ophthalmologist/optometrist.

2. Chemical Burn.

a. In addition to on-site irrigation, irrigate immediately for a total irrigation time of at least 20 minutes (30 minutes for alkali). Preferably normal saline solution should be used in the clinic. Be sure all parts of the eyes, including inner and outer canthus and under lids, are irrigated thoroughly. DO NOT TRY TO NEUTRALIZE CHEMICAL.

b. During irrigation, observe all areas of the eye for foreign objects or precipitates. Attempt to irrigate these objects out of the eye.

c. Refer to ophthalmologist/optometrist after irrigation is performed. Do not patch eye(s).

d. In the case of alkali exposures, continue irrigation if possible during transport to ophthalmologist.

3. Arc Welding Flashburn:

a. Use no anesthetic unless it is impossible to inspect the eye.

b. Refer to physician.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

FAINTING (SYNCOPE):

I. Introduction: Transient loss of consciousness due to insufficient blood to the brain is not in itself a serious condition unless the patient is injured in falling. However, syncope can be a warning of more serious cardiovascular or neurologic disease.

II. Assessment:

A. Obtain a history to include:

1. Duration of loss of consciousness and symptoms prior to onset.
2. Fever, nausea, vomiting diarrhea.
3. Headache.
4. Palpitations.
5. Blood in stool.
6. Complicating illness/conditions present.
7. Currently taking any medications.
8. Pain - onset, duration and severity.
9. Toxic exposures or environmental factors, e.g., heat.
10. Recent dietary intake.

B. Take postural blood pressure and pulse.

C. Observe skin for color and diaphoresis.

D. Examine for other injuries.

III. Treatment/Plan:

A. Have employee lie flat or with the head lower than the body.

B. Maintain open airway.

C. Loosen clothing.

D. Refer to physician.

E. Follow appropriate guidelines for additional injuries/conditions.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

FRACTURES AND DISLOCATIONS:

I. Introduction: A sudden breaking of a bone or temporary displacement of a bone from its normal position in a joint requires control of pain and shock.

II. Assessment:

A. Obtain a history to include:

1. Circumstances of injury (how, when, where).

2. Location and description of pain, tenderness.

3. Any nausea, faintness.

B. Examine affected part. Determine if deformity, exposed fragments, swelling, ecchymosis or loss of use is present.

C. Take pulse, respirations and blood pressure.

D. Examine skin for color, diaphoresis.

E. Observe for restlessness, anxiety, weakness.

F. Examine for pulses distal to fracture.

III. Treatment/Plan:

A. If appropriate, treat for shock (see page 2-73).

B. Immobilize the part before moving the employee.

C. If a compound fracture, control the bleeding, and cover with a loose sterile dressing to prevent contamination.

D. Splint the deformed neck or back in the position of deformity unless the airway is compromised. If spinal fracture is suspected, transport the patient on a long backboard or special stretcher without bending or twisting the spine in any direction.

E. Arrange for immediate medical care and transportation.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

GASTROINTESTINAL COMPLAINTS:

I. Introduction: Gastrointestinal upsets and complaints can be an indication of serious illness. For example, symptoms suggestive of indigestion could be related to cardiac disorders; nausea and/or vomiting may accompany a head injury; nausea and/or vomiting and/or diarrhea associated with abdominal pain could be symptoms of acute appendicitis. Each case will need to be carefully evaluated. Employees who have recurring gastrointestinal symptoms should not be given repeated medication, but should be encouraged to see their personal physician.

II. Assessment:

A. Obtain a history to include:

1. Symptoms (fever, nausea, vomiting, diarrhea), onset and duration.

2. Location and severity of discomfort or pain.

3. Recent abdominal or head injury.

4. Relation of symptoms to oral intake.

5. Assess for bloody or coffee ground emesis, bloody or tarry stools.

B. Take temperature, pulse, and blood pressure.

C. Observe for pallor, diaphoresis, abdominal distention.

III. Treatment/Plan:

A. Do not give any medication to a pregnant employee unless previously approved by her personal physician.

B. For mild diarrhea and/or nausea/vomiting without other symptoms:

1. Recommend clear liquids for 24 hours.

2. Administer medication as directed in additional instructions.

3. Advise seeing personal physician if symptoms worsen.

C. For mild indigestion symptoms which have been determined to be a simple gastrointestinal upset:

1. Administer medication as directed in additional instructions.

2. Advise seeing personal physician if symptoms are not relieved.

D. Refer to physician:

1. For temperature above 100F (37.7C).

2. If head or abdominal trauma has occurred within 72 hours.

3. For severe pain.

4. If associated with bloody or coffee ground vomitus or black or bloody stools.

5. If patient is pregnant.

6. If symptoms have lasted over 3 days.

7. If there is any question of potential complications.

E. Food service workers, child care workers and patient care providers with severe, acute diarrheal illness (i.e. accompanied by other symptoms such as fever, abdominal cramps, or bloody stools; or lasts longer than 24 hours) should be restricted from providing direct services pending evaluation by a physician.

F. Instruct food service, child care and patient care workers who have been absent from work to check with the occupational health service before returning to work.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

_____

_____

_____

HEADACHE:

I. Introduction: Acute or chronic pain in different areas of the head are commonly classified as tension, vascular or inflammatory headaches. The majority of headaches encountered in the work setting will be related to tension. However, headaches may be caused by exposure to toxic substances in the work environment.

II. Assessment:

A. Obtain a history to include:

1. Location and nature of pain.

2. Nausea, vomiting, tingling, photophobia or blurred vision.

3. Onset and duration of symptoms.

4. Recurrence and frequency of symptoms.

5. Recent trauma to head.

6. Workplace exposures.

7. Any associated symptoms/other illnesses.

B. Examine for inability to touch chin to chest.

C. Observe for confusion, drowsiness or vomiting.

D. Take temperature, pulse, respirations and blood pressure if indicated.

E. Examine for pain caused by digital pressure applied to face.

III. Treatment/Plan:

A. Refer to physician for:

1. Temperature over 100F (37.7C).

2. Blood pressure above _____.

3. Headache accompanied by one or more of the following: nausea/vomiting, visual disturbances, intolerance to light, numbness/tingling/weakness in the face or limbs, unilateral tearing, pain upon digital pressure to the face.

4. Any sudden, severe headache.

5. History of trauma.

B. If headache is not accompanied by other symptoms or questionable toxic exposures, one of the following may be given:

1. _____
(Medication, dosage and frequency)

2. _____
(Medication, dosage and frequency)

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

_____
_____
_____

HEAD INJURY:

I. Introduction:

A. An injury to the head resulting from a sudden and forceful impact is often accompanied by other trauma. If the employee sustained a fall or blow to the head and has any period of unconsciousness, suspect and handle as a head injury.

B. Signs and symptoms of a head injury follow:

1. Restlessness and confusion or unconsciousness.

2. Unequal pupils.

3. Elevated blood pressure and slow pulse.

4. Bleeding from ears, nose or mouth that is not caused by open wounds.

5. Pain.

6. Nausea, vomiting.

7. Unequal hand grasp or extremity weakness/paralysis.

II. Assessment:

A. Obtain a history to include: (if employee is incapacitated, obtain history from coworkers).

1. Circumstances of injury (how, when, where).

2. If unconscious at any time, how long.

3. Location, nature and severity of pain.

4. Nausea, vomiting.

5. Faintness, amnesia.

6. Status of tetanus immunization if skin broken.

B. Take blood pressure, pulse, respirations if signs of head injury are present.

C. Examine for scalp lacerations, unequal pupils, unequal hand grasp or extremity weakness/paralysis.

D. Observe for bleeding from the nose, ears or mouth that is not caused by open wounds.

E. Observe level of consciousness.

F. Observe for vomiting.

III. Treatment/Plan:

A. Maintain an open airway.

B. Bedrest with neck stabilized until evidence of cervical fracture or dislocation is medically evaluated.

C. If indicated, control bleeding with sterile pressure dressings.

D. Avoid stimulants, sedatives or pain medication.

E. Administer oxygen if indicated in additional instructions.

F. Monitor pulse, respirations and blood pressure every 10 minutes.

G. Give nothing by mouth.

H. Ice pack for contusions.

I. Arrange for medical evaluation and appropriate transportation. Guidance for minor injuries without signs or symptoms of a head injury should be indicated in additional instructions.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

_____

_____

_____

HEAT EXPOSURE EMERGENCIES:

Heat exposure emergencies are progressive, ranging from minor heat cramps to life threatening heat stroke.

HEAT CRAMPS:

I. Introduction: Acute painful spasms of the voluntary muscles usually following strenuous exercise in a hot environment without adequate fluid and salt intake. Body temperature is usually normal.

II. Assessment:

A. Obtain a history to include:

1. Recent physical activity.

2. Environmental conditions.

3. Fluid intake.

B. Observe for muscle cramps, primarily in the legs and abdomen.

C. Take temperature, pulse and respirations.

III. Treatment/Plan:

A. Place the individual in a cooler environment.

B. Give sips of a PO salt solution (1/4 tsp salt/one 8-oz glass water) at 5-30 minute intervals until cramping stops.

C. Administer intravenous solution if indicated in additional instructions.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

HEAT EXHAUSTION:

I. Introduction: A state of weakness produced by inadequate fluid intake to compensate for loss of fluid through sweating.

II. Assessment:

A. Obtain a history to include:

1. Recent physical activity.

2. Environmental conditions.

3. Fluid intake.

4. Assess nausea.

5. Headache.

B. Take temperature, pulse, respirations, and blood pressure (temperature may be normal or subnormal; pulse rapid, weak and thready; respirations slow and shallow).

C. Observe for pallor, diaphoresis, cool skin, contracted muscles, and weakness.

D. Observe for dilated pupils.

III. Treatment/Plan:

A. Place individual in a cooler environment, air-conditioned area if possible. Sponging with water and fanning may help cool the patient.

B. Loosen clothing.

C. Have individual lie down and elevate feet.

D. Give sips of a PO salt solution (1/4 tsp salt/one 8-oz glass water) at 5-30 minute intervals if no nausea present. If patient cannot tolerate salt solution and cramps are not present force fluids with plain water as tolerated.

E. Administer intravenous fluids if indicated in additional instructions.

F. Arrange for transportation to the hosptial.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

HEAT STROKE:

I. Introduction: Heat stroke is a life threatening emergency. Its mechanism of production is poorly understood, but it is important to lower body temperature immediately. Unconsciousness may occur.

II. Assessment:

A. Obtain a history to include:

1. Recent physical activity.

2. Environmental conditions.

3. Fluid intake.

B. Take rectal temperature, pulse, respirations, blood pressure (temperature may be extremely high, pulse strong and rapid and respirations labored).

C. Observe for hot, dry, flushed skin.

D. Assess level of consciousness and reaction of pupils to light.

III. Treatment/Plan:

A. Move to a cooler place, undress individual.

B. Have individual lie down with feet elevated.

C. Monitor temperature every 10 minutes and do not allow to fall below 100F (37.7C). Reduction of temperature to 102F (rectal) is vital.

D. For rectal temperature above 105F (40.6C), immerse in cool (60-70F or 15.6-21C) water.

E. For rectal temperature below 105F (40-6C), spray water on the body and fan for evaporative cooling.

F. Administer intravenous fluids as indicated in additional instructions.

G. Arrange for emergency transportation to the hosptial, continuing cooling measures during transport.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

HEMORRHAGE:

I. Introduction: Hemorrhage is an abnormal internal or external discharge of venous, arterial, or capillary blood. Internal hemorrhage is generally manifested by shock indicators rather than visible bleeding.

II. Assessment:

A. Obtain a history to include:

1. Circumstances of injury (how, when, where) or illness (onset, duration).

2. Nausea or vomiting.

3. Pain, location and severity.

B. Take temperature, pulse, respirations, blood pressure. Observe for weak and rapid pulse; low blood pressure; slow and shallow respirations.

C. Examine for any wounds and external bleeding.

D. Observe skin for pallor and diaphoresis.

III. Treatment/Plan:

A. Arrange for emergency transportation to the hospital.

B. Give nothing by mouth.

C. If open wound, remove loose surface foreign matter.

D. Treat for shock (see page 2-73).

E. Administer intravenous fluids if directed in additional instructions.

F. Administer oxygen if directed in additional instructions.

G. Control bleeding by:

1. Pressure dressings.

a. Use sterile technique.

b. Elastic bandages over 4 X 4's work well.

2. Direct pressure: If bleeding continues, use a hand to apply more pressure over the dressing.

3. Pressure points (should stop bleeding distal to the pressure point). The following are common pressure points:

   a. Brachial artery-inner aspect of arm midway between elbow and axilla.

   b. Carotid artery - neck.

   c. Facial artery - jaw hinge (when direct pressure is not possible and there is not damage to the bones of the upper jaw).

   d. Temporal artery - temple.

   e. Femoral artery - groin.

4. Tourniquets:

   a. USED ONLY IF OTHER MEANS DO NOT CONTROL BLEEDING.

   b. Tourniquets should only be used on hopelessly injured extremities.

   c. Amputations (see page 2-6).

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

HERNIA EMERGENCY (STRANGULATED HERNIA):

I. Introduction: A hernia so tightly constricted that gangrene results if surgery does not relieve it. Not reducible by ordinary means.

II. Assessment:

A. Obtain a history to include:

1. Details regarding the exact muscular effort when pain was felt (how, when, where).

2. Onset, duration and severity of pain.

3. Previously diagnosed as having a hernia and location.

B. Examine for swelling in the abdominal/groin area.

C. Observe affected area for color.

D. Observe for swelling to disappear when individual lies supine.

III. Treatment/Plan:

A. Place the individual on the bed in a supine position.

B. Give nothing by mouth.

C. If the swelling spontaneously disappears while in the supine position, apply a compression bandage and arrange for the individual to see a physician.

D. If the swelling does not disappear while in the supine position, arrange for immediate ambulance transportation to the hospital.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

HERPES SIMPLEX (FEVER BLISTERS/COLD SORES):

I. Introduction: Vesicles commonly in and around the mouth or lips are usually the result of an acute viral infection. Vesicles of this type are generally recurrent and very painful.

II. Assessment:

A. Obtain a history to include:

1. Onset and duration of eruptions.

2. Onset, location, duration and severity of pain.

3. Prior history of eruptions, frequency and location.

B. Take temperature.

C. Observe location, type and extent of lesions.

D. Observe for inflammation and swelling.

III. Treatment/Plan:

A. Apply medication if directed in additional instructions.

B. Multiple lesions, recurring lesions, lesions occurring other places than the mouth or lips, and vesicles oozing pus should be referred to the physician.

C. Counsel the patient about communicability and home care.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

INSECT STING OR BITE:

I. Introduction: Insect bites and stings are usually characterized by pain, local swelling, and redness. However, a systemic allergic reaction can occur and may lead to anaphylaxis.

II. Assessment:

A. Obtain history to include:

1. Past reactions.

2. Identification of insect.

3. Circumstances of incident, (when, where).

B. Observe for respiratory distress (wheezing, shortness of breath).

C. Observe skin for hives.

D. Examine for localized swelling, redness, stinger in wound.

III. Treatment/Plan:

A. If in an acute allergic crisis, proceed as in "Shock, Anaphylactic" (page 2-75).

B. Remove any stinger or biting apparatus left in the wound and cleanse with soap and water.

C. Apply ice or cold compresses to area of bite for 15-20 minutes.

D. Administer medication if directed in additional instructions.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

MISCARRIAGE (SPONTANEOUS ABORTION):

I. Introduction: Sudden spontaneous termination of pregnancy at any time before the fetus has attained extrauterine viability.

II. Assessment:

A. Obtain a history to include:

1. Onset and amount of vaginal bleeding.

2. Onset, location, type and intensity of pain.

3. Nausea or weakness.

4. Expected date of confinement.

B. Take blood pressure, pulse and respirations.

C. Observe skin for pallor and diaphoresis.

D. Observe vaginal bleeding for amount and character, and any products of conception.

E. Assess for anxiety, restlessness, dizziness.

III. Treatment/Plan:

A. Place individual in bed (flat or with legs elevated).

B. Notify individual's personal physician if possible.

C. Arrange for ambulance transportation to the hospital.

D. Send any products of conception with the individual to tthe hospital.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

NOSEBLEED (EPISTAXIS):

I. Introduction: Sudden onset of bleeding from the nose usually resulting from direct trauma, hypertension, reaction to toxic chemical substances, or secondary to inflammatory conditions of the upper respiratory tract.

II. Assessment:

A. Obtain a history to include:

1. Onset, duration and amount of bleeding.

2. Trauma to nose.

3. Toxic workplace exposures.

4. Past episodes and frequency.

5. Related illnesses, e.g., hypertension etc.

B. Observe amount of bleeding.

C. Take blood pressure and pulse.

D. Observe skin for color and diaphoresis.

III. Treatment/Plan:

A. Have individual sit erect. Loosen collar if it is constricting the neck.

B. Advise the individual to breathe through the mouth, not to breathe or blow through the nose.

C. Apply cold packs to the affected side of the nose.

D. Tightly squeeze the nostrils between the thumb and forefinger for a period of 3 minutes without release of pressure. At the end of 3 minutes, release pressure very slowly.

E. Follow procedure for shock (page 2-73) if indicated.

F. Refer to a physician if:

1. Nosebleed is associated with a head injury.

2. History of frequent attacks.

3. Bleeding cannot be controlled.

4. Blood pressure is excessively high (_____) or low (_____).

5. Symptoms of shock.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

_____

_____

_____

PARONYCHIA:

I. Introduction: Acute inflammation involving the folds of tissue surrounding the fingernail.

II. Assessment:

A. Obtain a history to include:

1. Onset, location and duration of inflammation.

2. Type of work employee performs.

3. Severity of pain and tenderness.

B. Observe for red streaks, swelling, or purulent pockets around the area involved.

C. Take temperature.

III. Treatment/Plan:

A. Hot soaks or compresses for 30 minutes three times daily for acute inflammation.

B. Refer to physician for red streaks, purulent pockets or swelling of the digit.

C. Counsel patient on good hygiene practices and recommend appropriate protective covering for the affected finger.

D. Consult physician and consider restriction of work when indicated if worker is food handler or health care provider.

E. Instruct employees who are food handlers and health care providers to check through the occupational health clinic before returning to work after an absence from work due to an infection.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

PRECIPITOUS DELIVERY:

I. Introduction: A delivery occurring suddenly or unexpectedly with insufficient time to transport the woman to the hospital. If delivery is imminent, prepare for an emergency delivery of the baby.

II. Assessment:

A. Obtain a history to include:

1. Onset, frequency, length and intensity of contractions.

2. Rupture of membranes.

3. Bloody show.

4. Months of gestation.

5. Name of obstetrician and hospital.

6. Parity.

B. Examine for crowning.

C. Feel contractions for intensity, and time for frequency and length.

D. Take blood pressure, pulse, respirations.

III. Treatment/Plan:

A. DO NOT attempt to delay delivery.

B. Call the woman's personal physician, and an ambulance for immediate transport to a hospital.

C. If the baby begins to emerge from the vagina, with each contraction use gloved hands to apply gentle pressure against the head so that the infant is delivered slowly and steadily.

D. When the baby's head is delivered, determine whether the umbilical cord is wrapped around the neck. If it is, try to gently slip the cord over the baby's head. If the cord is tightly wrapped around the neck, clamp the cord with two clamps placed 2 inches apart and then cut the

cord between the clamps. Suction nose and oral pharynx of baby with a bulb syringe. Delivery of the anterior shoulder is accomplished by gentle but firm downward traction on the infants' head toward the floor. With the anterior shoulder delivered, the posterior shoulder is delivered with vertical traction upward on the fetal head toward the ceiling. Grasping the infant around the back of the neck, the remainder of the infant is delivered. Keep baby's head downward to facilitate drainage of secretion.

E. Place two clamps on the cord 2 to 3 inches apart and about 6 to 8 inches from the umbilicus. Use sterile scissors to cut the cord between the two clamps. Place a cord clamp or tie between the remaining clamp and the umbilicus (one inch from the remaining clamp).

F. Place the baby on its side with the head lower than the body.

G. Remove blood and mucus from the facial area with a sterile gauze sponge. Suction the nostrils and mouth with a rubber bulb syringe.

H. When the placenta is expelled, place it in a plastic bag and send to the hospital with the mother. DO NOT pull on the cord to speed expulsion of the placenta. Do not delay transport for expulsion of the placenta.

I. Gently massage the uterus to control heavy vaginal bleeding prior to and during transport to the hospital.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

RESPIRATORY ARREST/FAILURE:

I. Introduction: Respiratory failure or arrest may be caused by airway obstruction, choking, drowning, respiratory depression from medication or toxic exposure, or cardiac arrest. Untreated respiratory arrest leads to cardiac arrest.

II. Assessment:

A. Obtain a history to include:

1. Circumstances of condition (how, when, where).

2. Workplace exposures.

3. Activity when incident occurred.

4. Current medications.

B. Remove from toxic exposure.

C. Examine for foreign body blocking airway.

D. Take pulse and respirations.

III. Treatment/Plan:

A. Immediately attempt to restore breathing by using quickest, simplest, most effective method. Continue until spontaneous respiration is established or employee can be transported to hospital.

1. Heimlich Maneuver (First Aid for Choking) (see procedure in Appendix D), or

2. CPR (see procedure in Appendix C).

B. Use suction as needed.

C. Administer oxygen if indicated in additional instructions.

D. Arrange for transportation to hospital by ambulance.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

SHOCK:

I. Introduction: Shock is an abnormality of the circulatory system that results in inadequate organ perfusion. The main types of shock are hypovolemic, neurogenic, cardiogenic, anaphylactic, and septic. Certain signs and symptoms are common to all types of shock and the same emergency measures apply to both the prevention and treatment of most types. Anaphylactic shock presents special signs and symptoms and requires immediate intervention, thus it is discussed separately.

II. Assessment:

A. Obtain a history to include:

1. Circumstances (illness or injury) preceding collapse (how, when, where). If patient is unconscious, obtain history from coworker present at the time of collapse.

B. Take blood pressure, pulse, respirations.

C. Observe for signs of shock:

1. Restlessness and anxiety.

2. Pale, moist, cool skin.

3. Rapid, weak pulse.

4. Pulse pressure (difference between systolic and diastolic blood pressure) of 30mm Hg or less.

5. Blood pressure below 90/50.

6. Shallow, labored and rapid respirations.

7. Weakness or faintness.

8. Dull or glazed appearing eyes.

9. Nausea or vomiting.

10. Capillary blanching of the nailbeds with blood return greater than 2 seconds.

III. Treatment/Plan:

A. Maintain open airway.

B. Initiate CPR if appropriate (see procedure in Appendix C).

C. Give emergency treatment for underlying cause, including control of bleeding.

D. Maintain body warmth without overheating.

E. In general, keep the patient lying down with feet elevated and head low. DO NOT lower head and elevate feet in the following cases:

1. Head injury.

2. If breathing difficulty is thereby increased.

3. Patient complains of pain when it is attempted.

F. Take and record the vital signs every 5 minutes.

G. Administer oxygen if indicated in additional instructions.

H. Administer intravenous fluids if indicated in additional instructions.

I. Arrange for emergency transportation to the hosptial.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

_____

_____

_____

SHOCK, ANAPHYLACTIC:

I. Introduction: Anaphylaxis occurs when an individual who has become sensitized to a substance by previous contact, reacts violently to a subsequent dose or contact. Anaphylactic reactions can occur in minutes following contact with allergens. Obvious disturbances in the skin, respiratory system and circulation result. Some common allergens are: insect bites, vaccines and drugs. Treatment must be immediate.

II. Assessment:

A. Obtain a history to include:

1. Precipitating event.

2. Known allergies.

3. Medications taken.

4. Feeling of apprehension, faintness, abdominal cramps, nausea.

5. Difficulty breathing, pain in chest.

6. Itching.

7. Sensation of "lump in throat".

B. Take blood pressure, pulse, respirations.

C. Observe for difficulty in breathing.

D. Observe for scratching (especially of hands, feet or groin).

E. Observe skin for erythema, flushing, urticaria, edema, diaphoresis.

F. Observe patient for sneezing, rhinorrhea, hoarseness, difficulty in speaking.

G. Observe for vomiting, diarrhea, tachycardia.

H. For additional signs of shock, see page 2-73.

III. Treatment/Plan:

A. At the first sign of shock, call a physician and arrange for emergency transportation to the hospital.

B. Maintain an open airway.

C. Initiate CPR as appropriate. (See procedure in Appendix C).

D. Place in a recumbent position and elevate the legs.

E. Inject 0.01 ml per kg up to 0.3 ml Aqueous Epinephrine 1:1000 intramuscularly into the upper arm and massage site. This may be repeated in 5 to 10 minutes while carefully monitoring blood pressure; pulse and respiration if indicated in additional instructions.

F. Administer oxygen if directed in additional instructions.

G. Administer intravenous fluids if directed in additional instruction.

H. If reaction is in response to an injection or insect bite, a constricting band tight enough to stop superficial venous and lymph flow should be placed close to the bite or above the first joint proximal to it. The arterial flow must not be stopped (ore should be able to insert a finger between the constricting band on the limb).

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

SHOCK, ELECTRIC:

I. Introduction:

A. Usually caused by contact with low voltage circuits and is characterized by ventricular fibrillation and respiratory paralysis.

B. Do not directly touch victim until he has been removed from contact with the electric current. Shut off the current, if possible. If not possible, use a dry stick, rope, belt or other nonmetallic, dry object to free the victim from electrical contact.

II. Assessment:

A. Obtain a history (from coworker, if patient unable to communicate) to include:

1. Circumstances of accident (how, when, where).

2. Location and severity of pain.

3. Respiratory distress, difficulty breathing.

B. Take carotid pulse, respirations and blood pressure.

C. Determine level of consciousness.

D. Evaluate for fibrillation.

III. Treatment/Plan:

A. Administer CPR (Appendix C) if indicated.

B. Call physician and arrange for immediate ambulance transportation to hospital.

C. If directed in additional instructions:

1. Defibrillate if indicated by evaluation.

2. Start intravenous fluids.

3. Initiate EKG monitoring.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

SNAKE BITE:

I. Introduction: Venom is injected into a human by strikes or thrusts with the open mouth of a snake. A bite usually consists of a pair of well defined punctures 1/2 to 1 inch apart. Every attempt should be made to ascertain whether or not the snake is poisonous. Use caution if dead snake is handled since the head of an apparently dead snake can deliver a venomous bite for up to one hour after being severed. If identification of the snake is not possible, treat as though poisonous until lack of symptoms demonstrate otherwise (several hours). It is important to start first-aid procedures immediately.

II. Assessment:

A. Obtain a history to include:

1. Description of circumstances of injury (how, when, where).

2. Description of type of snake, if possible.

3. Location, type and amount of pain present.

4. Any nausea or increased thirst.

B. Take blood pressure, pulse, respirations.

C. Observe for swelling and discoloration of skin at the bite site.

D. Observe for rapid weak pulse, diaphoresis, vomiting and difficulty breathing.

III. Treatment/Plan:

A. Have the victim lie down immediately. Immobilize the bitten limb in a dependent position, and reassure the victim.

B. Apply a broad, firm constructive bandage such as crepe or an ace bandage (not a tourniquet) immediately over the bitten area and around the limb, bandaging as much of the limb as possible.

C. Treat shock if present according to instructions (page 2-73).

D. Arrange for emergency transportation to the nearest hospital as soon as possible.

E. Remove all jewelry from affected limb.

F. Continually reassure and calm the victim.

G. Do not give stimulants such as coffee, tea, cola or alcohol.

H. Antivenin should be administered within the hospital setting.

I. If the snake is known to be definitely nonpoisonous, treat as a puncture wound (page 2-85).

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

SPLINTER (SLIVER):

I. Introduction: A slender, sharp piece of material piercing or imbedded in the skin. (For slivers in the eye, see Eye Injuries, Page 2-45).

II. Assessment:

A. Obtain a history to include:

1. Circumstances of injury (how, when, where).

2. Type of material of splinter (wood, metal, thorn, etc.)

3. Amount and severity of pain.

4. Tetanus immunization status.

B. Examine to determine depth and size of object.

C. Observe for redness, swelling, and purulent drainage if splinter is not a new injury.

III. Treatment/Plan:

A. Cleanse area with soap and water.

B. If foreign body is small and lodged superficially, remove using aseptic technique.

C. Bring tetanus immunization status up-to-date as indicated in additional instructions.

D. Refer to a physician for:

1. Large, deeply lodged foreign bodies.

2. Redness, swelling, or purulent drainage.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

SPRAIN:

I. Introduction: Trauma to a joint can produce injuries ranging from tearing of a few fibers of a ligamentous structure to complete severance and loss of support. There is rapid onset of swelling, warmth, pain and discoloration. Avulsion fractures are often associated with sprains. The present concept in the treatment of sprains is to prevent swelling, support the joint, and preserve the range of motion without inducing further tearing of the tendon.

II. Assessment:

A. Obtain a history to include:

1. Circumstances of injury (how, when, where).

2. Any vasospastic conditions (e.g., Raynauds disease), cold hypersensitivity, hemorrhagic disorders or sensory deficit.

3. Location, severity of pain.

B. Examine for swelling, tenderness to touch, obvious deformity andlimitation of motion.

C. Observe for discoloration of skin.

III. Treatment/Plan:

A. If the patient has no complicating conditions, apply cold packs.

B. Elevate the extremity.

C. Apply an elastic bandage.

D. Refer to a physician.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

TOOTHACHE:

I. Introduction: Pain in or around a tooth.

II. Assessment:

A. Obtain a history to include:

1. Onset and location of pain.

2. Is pain caused by heat, cold or consumption of sugar.

B. Observe the gums for swelling or discoloration.

C. Determine any sensitivity to percussion of teeth.

D. Examine tooth for obvious cavity.

III. Treatment/Plan:

A. Give analgesics as directed in additional instructions.

B. Refer employee to a dentist.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

UPPER RESPIRATORY INFECTION OR IRRITATION:

I. Introduction: An imprecise term for almost any kind of infectious disease process involving any or all airways.

II. Assessment:

A. Obtain a history to include:

1. Symptoms, location and onset.

2. Anyone sick at home.

3. Current occupational exposures which could produce upper respiratory irritation.

4. Chronic disease such as asthma, diabetes mellitus.

5. Hobbies.

B. Take temperature, pulse, respirations, blood pressure.

C. Examine throat if affected.

D. Observe for productive cough.

E. Observe skin for diaphoresis, flushing or cyanosis.

F. Observe for runny eyes and nose.

III. Treatment/Plan:

A. Encourage patient to drink liquids.

B. Counsel regarding rest and diet.

C. Refer to a physician if:

1. Temperature is above 100F (37.7C).

2. Throat appears to be infected.

3. Occupational exposures may be the source of the problem.

4. Employee has frequent, recurring infections.

5. Preexisting medical conditions such as asthma or diabetes mellitus.

D. If a physician referral is NOT needed, one of the following medications may be given:

1. Common cold symptoms:

a. _____.
(medication, dosage, frequency)

b. _____.
(medication, dosage, frequency)

2. Cough:

a. _____.
(medication, dosage, frequency)

b. _____.
(medication, dosage, frequency)

3. Sore throat:

a. _____.
(lozenges)

b. Warm saline gargles.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

_____

_____

_____

WOUNDS:

I. Introduction: An injury to the body resulting in a break of the skin to include but not limited to abrasions, avulsions, lacerations and punctures.

II. Assessment:

A. Obtain a history to include:

1. Circumstances of injury (how, when, where).

2. Pain - location, severity.

3. Tetanus immunization status.

B. Examine wound for location, depth, bleeding, foreign material such as dirt, embedded foreign bodies and torn skin flaps.

C. Examine for deeper structure involvement such as tendon lacerations. Check for impaired movement.

D. Observe surrounding skin for color, temperature, swelling and purulent drainage.

III. Treatment/Plan:

A. Thoroughly cleanse wound using soap and water. Make sure all foreign materials such as dirt and cinders are removed.

B. Control bleeding with pressure bandages if needed.

C. Apply sterile dressing to wound.

D. Apply butterfly closure and sterile dressing to lacerations that can be adequately closed with butterflies.

E. Caution patient to keep wound clean and dry.

F. Bring tetanus immunization status up-to-date as indicated in additional instructions.

G. Refer to physician for:

1. A laceration which cannot be closed with a butterfly dressing due to extent, location or nature of injury.

2. Deeper structure involvement, e.g., tendon.

3. Embedded foreign bodies.

4. Redness, purulent drainage, pain.

5. Impaired movement.

ADDITIONAL INSTRUCTIONS AND/OR MEDICATIONS:

APPENDIX A

REFERENCES

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APPENDIX B

HEALTH RESOURCES

I. INSTALLATION MEDICAL AND NURSING PERSONNEL

A. Medical Officers for Occupational Health Service.

1. Name _____
   Address _____
   Phone, Office _____
   Phone, Home _____

2. Name _____
   Address _____
   Phone, Office _____
   Phone, Home _____

B. Occupational Health Nurse(s)

1. Name _____
   Address _____
   Phone, Home _____

2. Name _____
   Address _____
   Phone, Home _____

3. Name _____
   Address _____
   Phone, Home _____

C. Other Occupational Health Personnel

1. Name _____
   Address _____
   Phone, Office _____
   Phone, Home _____

2. Name _____
   Address _____
   Phone, Office _____
   Phone, Home _____

D. Radiation Protection Officer

1. Name _____
   Address _____
   Phone, Office _____
   Phone, Home _____

II. CONSULTANTS

A. Audiologist
   Name _____
   Address _____
   Phone, Office _____
   Phone, Home _____

B. Ophthalmologist
   Name _____
   Address _____
   Phone, Office _____
   Phone, Home _____

C. Orthopedic Surgeon
   Name _____
   Address _____
   Phone, Office _____
   Phone, Home _____

D. Radiologist
   Name _____
   Address _____
   Phone, Office _____
   Phone, Home _____

E. Other
   Name _____
   Address _____
   Phone, Office _____
   Phone, Home _____

III. HOSPITAL AND CLINIC FACILITIES

Name	Phone	Notes

IV. AMBULANCE SERVICES

Name	Phone	Notes

V. COMMUNITY HEALTH AGENCIES

A. Local Public Health Department

_____

B. American Lung Association

_____

C. American Cancer Society

_____

D. American Heart Association

_____

E. Alcoholics Anonymous

_____

F. Other

_____

APPENDIX C

CARDIOPULMONARY RESUSCITATION (CPR)

I. CPR is administered when someone's breathing or pulse, or both, stop. When both stop, the victim has suffered sudden death.

II. CPR is a simple procedure, as simple as A-B-C: Airway, Breathing, and Circulation. The procedure follows:

A. One Rescuer:

1. Determine unresponsiveness. Gently shake the shoulder and shout, "Are you okay?" Call out for help if victim doesn't respond. The victim must be supine on a flat, firm surface.

2. Open the airway. Use the head tilt/chin lift method by gently lifting up on the chin while pushing down on the forehead. Look for chest movement, listen for breath sounds, and feel for breath on your cheek. If breathing is absent give 2 full breaths (1 to 1-1/2 seconds per breath).

3. Determine pulselessness. After giving the two full breaths, locate the victim's carotid artery pulse to see if the heart is beating. To find the carotid pulse, take your hand that is supporting the chin and locate the adam's apple (voice box); slide the tips of your fingers down into the groove beside the adam's apple; feel for the pulse for 5-10 seconds. If pulse is absent, activate the emergency medical system (EMS) system by calling local emergency number.

4. External chest compressions.

   a. Artificial circulation is provided by external chest compression. To perform external chest compression properly, kneel at the victim's side near the chest. With the middle and index fingers of the hand nearest the legs, locate the notch where the bottom rims of the two halves of the rib cage meet in the middle of the chest which is the xiphoid process. Place the heel of one hand on the sternum above the xiphoid process next to the fingers that located the notch. Place your other hand on top of the one that is in position. Be sure to keep your fingers up off the chest wall.

b. Bring your shoulders directly over the victim's sternum as you compress downward, keeping your arms straight. Depress the sternum about 1-1/2 to 2 inches for an adult victim. The rate should be 80-100 compressions per minute. For one rescuer CPR, the proper ratio is 15 compressions to 2 breaths. After four cycles of compressions and ventilations, reevaluate the victim for 5 seconds.

c. Continue rescue breathing or CPR until the victim is revived, other trained professionals arrive, a lay person trained in CPR arrives, or you as the rescuer are too exhausted to continue.

B. Two rescuers should perform the following sequences:

1. IF CPR is in progress by one rescuer, the logical time for entrance of the two-professionals rescuer team is immediately after the first rescuer has completed a cycle of 15 compressions and two breaths:

2. One rescuer moves to the head, opens the airway, and checks for a pulse, while the other rescuer locates the area for external chest compressions and finds the proper hand position. This should take 5 seconds.

3. If there is no pulse, the ventilator gives one breath and the compressor begins external chest compressions at the rate of 80 to 100 per minute, counting "one-and, two-and, three-and, four-and, five."

4. At the end of the fifth compression a pause should be allowed for the ventilation (1 to 1-1/2 seconds per breath). The compression-ventilation ratio for two rescuers is 5:1.

5. If no CPR is in progress and both rescuers arrive on the scene at the same time, both must determine what needs to be done and start immediately, without wasting time. One rescuer should ensure that the EMS system is activated. If this person leaves the area, the other person should institute one-person CPR.

6. If both persons are available, one rescuer should go to the head of the victim and proceed as follows:

a. Determine unresponsiveness.

b. Position the victim.

c. Open the airway.

d. Check for breathing.

e. If breathing is absent, say "No breathing" and give two ventilations.

f. Check for pulse. If there is no pulse, say "No pulse."

7. The second rescuer should simultaneously:

a. Find the location for external chest compressions.

b. Assume the proper hand position.

c. Initiate external chest compressions after the first rescuer states "No pulse."

8. The victim's condition should be continuously monitored to assess the effectiveness of the rescue effort.

APPENDIX D

HEIMLICH MANEUVER
(FIRST AID FOR CHOKING)

Choking can result in unconsciousness and cardiopulmonary arrest. Prompt recognition and proper management can save lives.

The Heimlich maneuver (subdiaphragmatic abdominal thrusts) is the recommended procedure to remove an object obstructing the airway. The pressure exerted by these thrusts elevates the diaphragm, forces air from the lungs, and expels the object obstructing the airway. (Procedure below.)

This procedure can result in internal injuries even when properly performed. Therefore, all victims should be evaluated by a physician after the obstruction is cleared.

If no help is near, victims should attempt to perform the Heimlich maneuver on themselves by pressing their own fist upward into the abdomen as described.

VICTIM STANDING OR SITTING (CONSCIOUS)

Ask: "Are you choking?"

If the victim cannot speak, cough, or breathe, stand behind the victim and wrap your arms around his waist.

Place your fist, thumb-side against the victim's abdomen, slightly above the navel and well below the tip of the xiphoid process.

Grasp your fist with your other hand and press into the victim's abdomen with quick upward thrusts.

Repeat as necessary.

When the victim is sitting, the rescuer stands behind the victim's chair and performs the maneuver.

VICTIM SUPINE (UNCONSCIOUS)

Determine unconsciousness. Gently shake the victim and shout "Are you okay?" Call out for help if patient is unresponsive. Administer CPR (Appendix C).

If unable to ventilate, reposition the head using the chin lift/head tilt method.

If still unable to ventilate, kneel astride the victim's thighs.

With one hand on top of the other, place the heel of your bottom hand on the abdomen slightly above the navel and well below the tip of the xiphoid process.

VICTIM STANDING OR SITTING (CONSCIOUS)

VICTIM SUPINE (UNCONSCIOUS)

Press into the victim's abdomen with 6-10 upward thrusts.

Open the mouth and perform finger sweep.

Attempt to ventilate.

Repeat 6-10 thrusts.

Continue the sequence as long as necessary.