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ENLISTED MEDICAL PERSONNEL SOAP MANUAL

PURPOSE: To develop guidelines for teaching enlisted medical personnel SOAP format. This method can only be utilized by medics after they have completed ADTMC. Medical officers must demonstrate their involvement in the case by reviewing the chart and counter signing it, or by having the case presented to him by the medic and annotating his findings.

SCOPE: All healthcare specialist personnel

OBJECTIVES:

1. Permit maximum utilization of enlisted personnel in the health care delivery system

2. Enhance physical examination skills of enlisted personnel by incorporating basic and appropriate objective data in to the standard screening process

3. Provide a standard medical reference for enlisted medical personnel in the Battalion Aid Stations (BAS) as well as the Health and Troop Medical Clinics (HMC) (TMC)

INTRODUCTION: Patients report to the BAS/TMC with a wide variety of complaints and symptoms. Many of these complaints can be managed by enlisted medical personnel. Recognizing that medial skills vary greatly among medical personnel, this reference manual is designed to allow maximum utilization of highly trained and experienced enlisted medical personnel and to develop the skills of entry level personnel. It will also enhance quality assurance by providing guidelines for timely referrals and consultations with supervising medical officers. This reference manual provides the means for the medic to become a more valuable member of the health care delivery team in medical operations, and provides a foundation for building those physical examination assessment and treatment skills necessary to **CONSERVE THE FIGHTING FORCE** during combat operations.

A. GENERAL PROCEDURES

Patients reporting to the BAS/TMC will follow accepted routine designed to enhance both the efficiency and quality of medical care. Upon arrival the patient will proceed to front desk where he will present a valid ID card and sick call slip (DD 689). The soldier's data will be entered in the sick-call log in accordance with SOP. The medical record clerk will retrieve the patient's records from the file room. The patient will be directed to the appropriate waiting or screening area. Patients will generally be seen in order of arrival. It is extremely important for all personnel working in the BAS/TMC to be able to recognize those patients who require immediate care. In such cases the supervising Medical Officer will be notified immediately. Routine sick-call patients will have their vitals taken and their complaint(s) reviewed by qualified enlisted medical personnel IAW with ADTMC. The screener may continue with the patient's interview and follow the procedures as outlined in this text. Screens must realize their own personal limitations and seek assistance from the medical officer whenever any doubt exists. All patients may request to be seen by a medical officer.

B. RECORDING PATIENTS IDENTIFICATION AND ADMINISTRATIVE DATA

The recording of patient identification and administrative data should be accomplished by the front desk or medical records clerk. Upon retrieval of the patient's medical record from the file the clerk/screener should ensure that there is a 5181 in the patient's chart. The clerk must insure that accurate, legible and complete data is entered. The following entries are mandatory

Patient Identification

Name (LAST, First, MI) SEX SSN (complete 9 digits) Rank Unit Unit Phone number

Administrative Data

Date TMC/BAS Stamp/Identification Arrival Time

C. VITAL SIGNS

Vital signs which are accurately obtained and properly recorded are the foundation of quality medical care. All patients reporting for treatment will have vital signs taken and recorded in their charts for each visit to a TMC or BAS. It is generally accepted practice during peak periods of sick-call to assign one medic to obtain and record designated vital signs. This practice allows for the centralization of equipment and the efficient use of manpower but may be

modified to fit local situations and circumstances.

Vital signs should be recorded in the designated area. Abnormal vital signs may be the first clue to serious illness or injury. The medic assigned to take vital signs must be aware of their significance and adhere to the following guidelines.

TEMPERATURE: Temperature should be taken by using a properly cleansed glass thermometer/disposable probe from an electric thermometer orally or by using heat sensitive paper thermometers. In young pediatric patients, or unconscious adult patients a rectal temperature will be necessary. In an alert patient, a temperature below 96°F is probably in error, repeat it. Any temperature greater that 101°F should be brought to a medical officer's attention immediately.

BLOOD PRESSURE: Routine screening blood pressure will normally be taken in either arm with the patient sitting and the arm supported by the medic or a table. Clothing that must be rolled up tightly over the arm to allow access to the antecubital space may easily produce false readings and should be removed. If the first measurement is slightly elevated and the patient has just arrived in the clinic, it is suggested that the measurement be repeated after several minutes of rest. The second measurement will usually fall within the normal range.

PATIENT WITH BLOOD PRESSURE ABOVE 140/90 REQUIRE REFERRAL TO A MEDICAL OFFICER

RESPIRATORY RATE: The respiratory rate should be based on counting the patient's respiration for a full minute and may easily be done while the temperature is being taken. Respiratory distress in an adult would be a rate greater that 24 or less than 10 breaths per minute.

PATIENTS WITH ANY RESPIRATORY DISTRESS REQUIRE IMMEDIATE TO A MEDICAL OFFICER

PULSE: The pulse rate is generally taken by counting the radial artery on the thumb side of the patient's wrist. Some electronic machines will also count the pulse while obtaining a blood pressure. A quick check of the patient's pulse using your hand will easily check for an irregular pulse.

PATIENTS WITH A PULSE RATE GREATER THAN 110 OR LESS THAN 50 OR WITH AN IRREGULAR PULSE REQUIRE REFERRAL TO A MEDICAL OFFICER

D. HISTORY OF ALLERGY TO MEDICATIONS

Proper documentation of a patient's history of an allergy to one or more medications is a necessity. Every patient reporting for treatment must be questioned concerning past allergic reactions to medications and the information documented. A positive history should be annotated by using the phase ALLERGIC TO: followed by the medication concerned. The entry may be circled to emphasize it. The use of colored ink is encouraged. A negative history may be indicated by using the common abbreviation NKA (no known allergies). Failure to adequately establish and document a history of an allergic condition may result in the patient suffering a severe allergic reaction or a **potentially fatal anaphylactic reaction**. Each medic involved with patient care must be aware of the potential for allergic reactions and repeatedly check for allergies before administering, prescribing, or dispensing **ANY** medication.

E. CURRENT MEDICATIONS

Concurrent use of more than one medication may produce unpleasant and often dangerous side effects. It is extremely important to establish and document what medication(s) a patient is currently using. It is best to obtain and document current medications at the same time as the history of allergies. A proper history of current medications includes not only prescription drugs such as blood pressure mediations or antibiotics but must include all over-the-counter type remedies as will. It must also include the strength and dosage schedule. For example:

HYDROCHLOROTHIAZIDE 50mg BID or MYLANTA 2Tbl QID or ASA 325mg 2 q4-8h. Medics unfamiliar with standard pharmacy abbreviations should describe the dosage and schedule in longhand.

F. HISTORY OF CHRONIC DISEASE OR ILLNESS

The presence of a chronic disease or illness can complicate the assessment and treatment of even the most routine minor complaints. In general, any patient with a history of chronic disease or illness should be referred to a medical officer.

G. DOCUMENTATION USING THE SOAP METHOD

The SOAP method is the standard for documentation in medical treatment records. This reference manual is designed to allow the experienced medic to make detailed notes using the SOAP method, and will assist the less experienced medic in making adequate documentation. The SOAP method is also designed to allow easy reference for follow-up care. This method follows the standard and natural flow of a patient interview, beginning with the **SUBJECTIVE** data (S) proceeding to the **OBJECTIVE** findings (O), arriving at an **ASSESSMENT** (A) and formulating a treatment **PLAN** (P). Appropriate SOAP notes will adhere to the following guidelines. Medics will find that each complaint covered by this manual is presented using the SOAP method.

SUBJECTIVE: This portion of the note includes all information of a historical nature; that is, what the patient tells you the trouble is, how long it has been bothering him, and other important parts of the patient's medical history. It should be noted that this portion of the patient interview is the most significant contribution in providing quality patient care. The existence of certain complaints, circumstances, or methods of injury can often lead the medic to concentrate on a specific part of the physical examination, and may greatly influence the final assessment and treatment plan. SOME SUBJECTIVE FINDINGS WILL REQUIRE THE PATIENT TO BE REFERRED TO A MEDICAL OFFICER. An appropriate not will contain the following information.

AGE RACE SEX CHIEF COMPLAINT(S) DURATION OF CHIEF COMPLAINT CIRCUMSTANCES SURROUNDING ONSET OF CHIEF COMPLAINT RELEVANT PAST MEDICAL HISTORY (e.g. history of previous injury) PERTINENT POSITIVES (e.g. vomiting, diarrhea, fever, etc.) PERTINENT NEGATIVES (e.g. NO vomiting, diarrhea, fever, etc.) SIGNIFICANT SOCIAL HABITS (e.g. smoking, use of alcohol, etc.)

(NOTE: A history of allergies to medications and use of current medications is also considered an important part of the SUBJECTIVE note will be documented as previously discussed and repeated in the SOAP note.

As part of the history interview, it is very important to include social habits. You should ask about alcohol consumption and document what kind of alcohol, how much is consumed and when. A smoking history should be documented in **pack years**. You can calculate pack years by multiplying the number of cigarette packs smoked per day times the number of years the patient is smoking. For example, a 30 year old female smokes 2 packs of cigarettes a day for 20 years, she would have a 40 pack year smoking history! Patients who chew tobacco should also have this history documented.

An example of a good subject history for a 21 year old male who injured his right ankle would be

S 21 y/o male presents c/o of a sprained right ankle x 24 hours. Patient injured ankle yesterday by stepping into a hole while running Patient heard a "snap" and can only ambulate with assistance Patient returned to his barracks hoping to "sleep it off" but decided to come in after his ankle swelled and turned blue. Soldier has no previous history of injury to this ankle. The patient denies using tobacco and drinks a 6 pack of beer on weekends. **OBJECTIVE:** This portion of the note includes all the medic's observations and physical findings. It may include the results of pertinent laboratory and x-ray studies. A medical record is a legal document. Good intentions don't make good medical notes. Remember, if you didn't do it, don't chart it, if it isn't charted then you did not perform that part of the examination. An appropriate objective note will demonstrate that the care provider has performed at least those parts of the physical examination which are relevant to the chief complaint, and should adhere to the guidelines listed under each complaint in this manual. SOME OBJECTIVE FINDINGS WILL REQUIRE THE PATIENT TO BE REFERRED TO A MEDICAL OFFICER. A complete objective note will contain the following information.

GENERAL APPEARANCE INDICATIONS OF OBVIOUS DISTRESS PERTINENT PHYSICAL FINDINGS RELEVANT LABORATORY RESULTS RELEVANT X-RAY STUDIES

An example of a good OBJECTIVE note for the physical examination on our soldier with an ankle injury would be

O Right ankle w/significant swelling over lateral malleolus. Ecchymosis present. Neuor-vascularly intact distally. Significant pain limits FROM mild to moderate laxity of the joint. No bony pain. Unable to bear weight. X-rays show no bony pathology with a good mortise.

ASSESSMENT: This manual will generally provide the medic with the guidance necessary to reach a reasonable assessment. The assessment should reflect your findings during the history and your examination. It is assumed that the art of arriving at more specific diagnoses will develop with experience. SOME ASSESSMENTS WILL REQUIRE A REFERRAL TO A MEDICAL OFFICER.

An example of ASSESSMENT using our patient with the ankle injury would be:

A Grade II right ankle sprain

PLAN: This portion of the note includes all medications prescribed, treatments given, special instructions, diets, physical limitations imposed, disposition, and plans for follow-up. Immediately following the PLAN should be the care provider's identification data, to include either **stamped or printed** the rank, name, MOS, SSN and signature. MANY PLANS WILL REQUIRE CONSULTATION WITH A MEDICAL OFFICER.

An adequate Plan will contain the following information:

Medication (with strength, dosage schedule, and duration) SPECIAL INSTRUCTIONS DISPOSITION (duty, profile, quarters, referrals) FOLLOW-UP PLANS

Continuing to use our example of the injured soldier, the PLAN would be:

P U Splint x 3 days Ice for 48 hours then alternate ice/heat Motrin 800mg PO TID PRN Crutches for 72 hours them increase activity Profile TL3 for 2 weeks RTC PRN

H. ORDERING LABORATORY TESTS

In some instances it may be necessary for the care provider to obtain one or more basic laboratory studies to confirm or rule out a specific assessment. It should be remembered that the foundation of quality medical care rests on a complete history and physical exam, and is only supported by laboratory results. Although the supervising medical officer may wish to make modifications in accordance with local SOP and circumstances, it is suggested that medics be limited to independently ordering laboratory studies from the following list and in accordance with the guidelines set forth in the complaint section of this manual

THROAT CULTURE - to identify bacterial infections **URINALYSIS** - to check for UTI, specific gravity, or blood/protein **SKIN SCRAPE (KOH prep)**- to identify fungal infections

I. ORDERING X-RAY STUDIES

Unless specifically authorized by the supervising medical officer, medics will not independently order x-ray studies. If a patient presents with a condition significant enough to warrant an x-ray, the medic should at a minimum, consult with the medical officer prior to ordering the study.

An X-ray request should contain the area to be studied, a brief subjective description of the patient's problem, any pertinent physical findings, and the purpose of the X-ray (e.g. Routine, R/O Fracture, R/O Foreign body, confirm diagnosis)

The more common X-ray request are listed below:

X-Ray Type	Examples
Chest X-ray	CSR-PA and LAT
Abdomen	KUB upright/flat
Hand (does not include wrist)	Rt Hand, 3 views - isolate 2d finger
Knee	Lft Knee - 2 views
Ankle (does not include foot)	Rt ankle - 3 views
Wrist (does not include hand)	Lft wrist - 3 views

J. PRESCRIBING AND DISPENSING OF MEDICATIONS

Medications prescribing and dispensing is done IAW local guidelines. Some medications as a medic you will come in contact with are listed below:

- 1. Antacids (Maalox, Maalox plus)
- 2. Antihistamines (25mg Benadryl/Actifed tablets)
- 3. Aspirin
- 4. Analgesic balm (Ben Gay)
- 5. Anesthetic ointment (Nupercainal ointment
- 6. Antidandruff shampoo (Sebutone, Coal Tar)
- 7. Antifungal foot ointment, powder, or solution (Desenex products, Lotrimin solution/cream)
- 8. Antibacteral ointment (Bacitracin)
- 9. Betadine
- 10. Calamine lotion
- 11. Decongestant (Sudafed 30mg)
- 12. Domeboro's Tablets
- 13. Expectorants (Robitussin)
- 14. Gargles (hydrogen peroxide)
- 15. Hemorrhoidal suppositories (Annusol HC suppositories)
- 16. Hydrocortisone 1% cream
- 17. Kaopectate
- 18. Laxatives (Ducolox Tablets)
- 19. Nasal Spray Decongestant (Afrin)
- 20. Stool Softener (Colace)
- 21. Throat Lozenges (Cepacol)
- 22. Tincture of Benzoin
- 23. Tyenol

If at any time you have a question about a medication, always ask a medical officer.

K. PROFILES, QUARTERS AND BED REST.

Unless specifically authorized by the supervising medical officer and local SOP, **medics are not authorized to issue profiles or quarters/bed rest.** This manual may suggest certain periods of limited physical activity or periods of quarters but medics will follow SOP and consult with or refer to a medical officer. Some helpful pints to remember.

- 1. Profiles should be written in not-medical language and should be specific concerning physical limitations.
- Profiles should have a specific expiration date. For example: NO RUNNING UNTIL 15 APRIL OR QUARTERS FOR 24 HRS THEN RETURN TO BAS 0630 ON 15 APRIL.
- 3. Profiles which contain such terms as (X 14 hrs) or (X 3 days) may be misunderstood particularly if the patient was seen in the afternoon or on a Friday.
- 4. The term QUARTERS means restriction and rest in the patients place of domicile (i.e. barracks, BEQ, BOQ, etc.) and should allow the patient freedom of movement within his living space. In other words he may be free to use the day room etc. Patients on QUARTERS may not perform military duties.
- 5. The term BED REST means the patient is restricted to his/her bed, with allowances for necessary travel tot he dining facility and latrine. Patients on BED REST may not perform any military duties.
- 6. PATIENTS ILL OR INJURED ENOUGH TO BE PLACED ON BED REST.QUARTERS REQUIRE DAILY FOLLOW-UP AT THE TMC/BAS.
- It should be remembered that profiles and duty limitations are only recommendations issued to commanders by medical authorities. Commanders may decide that the mission requires the soldier "break" his profile and the commander takes responsibility for his/her actions.

L. REFERRAL TO SUPERVISING MEDICAL OFFICER

This manual sets forth instances and circumstances where referral to a medical officer is mandatory. Medics should feel free and comfortable in seeking guidance from their PA or MD whenever doubt exists. The next section of this manual contains specific guidelines when to seek Medical Officer consultation.

ALL COMPLAINTS OR CONDITIONS NOT COVERED IN THE COMPLAINT SECTION OF THIS MANUAL REQUIRE CONSULTATION WITH OR REFERRL TO A MEDICAL OFFICER.

The requirements for referral DO NOT imply that the medic must halt his or her evaluation of the patient immediately upon encountering a condition for referral. On the contrary, unless the patient's conditions is emergent (significantly abnormal vital signs, altered mental status, severe pain or injury, etc) the medic should continue to fully question and examine the patient to the best of his or her ability. After completing as much of the assessment as possible the medic should present all of the findings, including reason for consultation or referral to the supervising medical officer.

M. QUALITY ASSURANCE

This medic's manual is one of the elements in the overall quality assurance program. It in no way replaces the obligations and responsibilities that medics have in following other quality assurance SOP's and directives.

GUIDELINES TO SEEK MEDICAL OFFICER CONSULTATION DURING PATIENT TRIAGE

This guidance will serve you well in the BAS, TMC, or in the Emergency Room of a MEDCEN. Of course, if you ever feel uncomfortable with any patient, obtain Medical Officer consultation. PATIENT'S WITH THE FOLLOWING SIGNS AND SYMPTOMS SHOULD BE BROUGHT TO THE ATTENTION OF A MEDICAL OFFICER IMMEDIATELY. The broad categories that are discussed are:

- A. Vital Signs
- B. Chest Pain
- C. Respiratory Complaints
- D. Increased Blood Pressure
- E. OB/GYN Problems
- F. Urinary Complaints
- G. Headaches
- H. Fever
- I. Overdose or Poison Ingestion
- J. Trauma
- K. Eye Complaints

- L. Seizures
- M. Bleeding
- N. Psychiatric Problems
- O. Pediatrics
- P. Insect/Snake Bites or Allergic Reactions
- Q. Vomiting
- R. Syncope
- S. Pain
- T. Neurologic
- U. Infection

A. Vital Signs

NOTE: The medic should personally recheck abnormal vital signs manually.

- Adult: Heart Rate <50 or > 120 resting or irregular BP systolic <90 or diastolic >100 Respiratory Rate >24 or < 10
- (2) Pediatric:

Less than 5 years: Heart Rate >140 or <80 Greater than 5 years: Heart Rate >120 or <60 or Resp Rate >40

B. Chest Pain

(1) Any chest pain

C. Respiratory Complaints

(1) Any difficulty breathing

D. Increased Blood Pressure (diastolic greater than 100mm Hg)

See A. Vital Signs

E. OB/GYN Problems

(1) Imminent delivery or any complaints of labor (or abdominal cramping)

(2) Suspected ectopic pregnancy (pain, vaginal bleeding and know pregnancy)

(3) Any vaginal bleeding

(4) Alleged rape or sexual assault

(5) Pregnancy with blood pressure greater than 140/90 nn Hg or 20 mm rise from patient's baseline or proteinuria with headache or abdominal pain (think of toxemia of pregnancy)

F. Urinary Complaints

(1) Unable to pass any urine

- (2) Suspected renal stone (pain and hematuria)
- (3) Toxic patients with UTIs
- (4) Any patient with temperature over 101°F with pyuria (pus in the urine)

G. Headaches

(1) With meningeal signs or suspected meningitis

- (2) With persistent vomiting, fever, photophobia, neck pain with movement
- (3) With associated neurologic alteration

(4) Associated with recent trauma

(5) In patients who relate abrupt onset of the most intense headache they've ever had or in patients with history of migraine headaches who have new type of severe headache.

(6) Associated with diastolic blood pressure greater than 110 mm HG

(7) Associated with significant vision disturbances (decreased visual acuity greater

than 1 line from other eye or prior exam)

(8) Associated with syncope

H. Fever

(1) Adults (temperature >102°F)

- (a) In any suspected IV drug abuser
- (b) Associated with threat to airway
- (c) Associated with meningeal signs
- (d) Associated with altered mental status

(2) Children (older than 24 months) who appear toxic at any temperature or with temperature greater than 102°F

(3) Toddler or infants (between 3 months to 24 months): a temperature (rectal) greater than or equal to 101°F or 39.5°C OR if the patient appears toxic at any temperature

(4) Neonates (less than 12 weeks) With temperatures greater than 100.4°F (rectal) or less than 96.5°F (rectal)

I. Overdose or Poison Ingestion

Anyone with suspected poison ingestion or overdose

J. Trauma

(1) Lacerations less than 24 hours old or facial lacerations of any duration which may result in significant disfigurement.

(2) Trauma less than 24 hours old

(3) Closed head trauma with neurologic changes or in a child under 2 years old

(4) Trauma with associated chest pain or shortness of breath

(5) Trauma associated with hematuria

(6) Assault within 24 hours (except sexual assault- consult every time)

(7) All animal or human bites (For insect bites see P: Insect/Spider/Snake Bites or Allergic Reactions)

(8) Closed adult extremity injuries, less than 24 hours old with accompanying X-rays (where indicated)

(9) Pediatric (younger than 12 years old) extremity injuries less than 48 hours old with accompanying X-rays (where indicated)

(10) Major mechanism of injury (motor vehicle accident, low altitude entanglement, etc.)

K. Eye Complaints

(1) Abrupt loss or significant decrease of vision (greater than 1 line change visual acuity)

(2) Associated amaurosis fugax (transient loss of vision in one eye), burst of floaters, abrupt flashes of light, halos, or waving curtains

(3) Eye trauma or foreign body embedded in cornea

(4) Eye pain around globe or socket (not irritation)

(5) Chemical injury (battery acid, etc.)

(6) Diplopia (new onset in less than 48 hours)

(7) Facial herpes or varicella zoster with eye or nose tip involvement

(8) High speed foreign body injury (from lawnmower, table saw, etc.)

L. Seizures

- (1) Actively seizing
- (2) Seizure within 2 hours
- (3) New onset seizure
- (4) Change in normal seizure pattern
- (5) Altered mental status

M. Bleeding

- (1) Suspected posterior epistaxis (bleeding in the back of the nose)
- (2) Epistaxis uncontrolled by 10 minutes of medically supervised nasal pressure (i.e. bleeding does not stop during appropriately applied nasal pressure)
- (3) Henatochezia (bloody stools) melena (dark, tarry stools), or history of same
- (4) Hematemesis (vomiting blood)
- (5) Anticoagulated patients with bleeding
- (6) Any vaginal bleeding. See item E. OB/GYN Problems

N. Psychiatric Problems

- (1) Patients who pose a threat to themselves or others
- (2) Psychotic or delusional patients
- (3) All paranoid schizophrenics with active symptoms
- (4) Alcohol detoxification requests

O. Pediatrics

- (1) Any toxic or lethargic child
- (2) Fever see item H. Fever
- (3) Head injury in a two year old or younger or any age with neurological deficits
- (4) Children with respiratory distress or wheezing
- (5) Any child with recent viral illness and a single episode of vomiting, who behaves unusually
- (6) With cyanosis
- (7) Child less than 5 years who is unable to use an extremity
- (8) Suspected Child Abuse and/or Neglect (SCAN)
- (9) Vomiting in first 8 weeks of lift (not regurgitating)

P. Insect/Spider/Snake Bites or Allergic Reactions

- (1) Any bite within 4 hours
- (2) or swelling above next major joint on extremity wounds
- (3) or shortness of breath or wheezing
- (4) or chest injuries
- (5) or sense of swelling in throat
- (6) or associated with generalized rash
- (7) or with intense pain, as in black widow spider bites
- (8) or history of allergic response to similar bite/sting
- (9) With petechiae
- (10) Suspected loxosceles envenomation (bite from Brown Recluse spider)
- (11) All snake bites

Q. Vomiting

- (1) With associated loss of consciousness
- (2) Hematemesis (vomiting blood)
- (3) With associated head injury
- (4) With systolic blood pressure less than 90 mm Hg
- (5) With associated visual complaints
- (6) With acute or surgical abdomen
- (7) With orthostatic signs and/or symptoms
- (8) With associated orthostatic pulse increase of greater than 20 or systolic blood pressure drop greater than 10 mm Hg with ortostatic symptoms
- (9) Suspected drug toxicity
- (10) In cancer patients
- (11) With associated altered mental status

R. Syncope

- (1) In all patients without obvious vasovagal (e.g. needle stick) cause
- (2) With associated trauma (either before or after)
- (3) Secondary to heat injury
- (4) With positive tilts (defined in **Q. Vomiting (8))** or symptoms

S. Pain

- (1) Any patient complaining of severe or significant pain
- (2) Abdominal pain associated with mass especially if it is aulsatile
- (3) Eye pain (not irritation)
- (4) Suspected deep vein thrombosis

T. Neurologic

- (1) Suspected current or recent TIA (transient ischemic attack) or Stroke
- (2) Altered mental status
- (3) Any paralysis

U. Infection

- (1) Abscesses with fever or malaise/weakness especially in immunocompromised patient (HIV, cancer, diabetic, or steroids, splenectomized, etc.)
- (2) Peri-rectal abscess
- (3) Pilonidal cyst

Table of Chief Complaints

The following table is organized into sections with individual complaints grouped under the section heading to which they are most related.

ENT COMPLAINTS Upper respiratory infection (URI) Sore throat Allergy/hay fever Hoarseness Sinus complaints Epistaxis (nosebleed) Ear pain, drainage, sense of fullness Hearing loss	19 20 22 23 25 27 28 30
DERMATOLOGIC COMPLAINTS Friction blisters Corns and calluses Superficial fungal infections Tinea versicolor Acne Sexually transmitted diseases Crabs/lice	31 32 34 35 36 38 40
MINOR TRAUMA Minor Trauma Shoulder pain Low back pain Hip pain Knee pain Ankle sprains	42 45 47 49 50 52
MEDICAL COMPLAINTS Fatigue Headaches Chest pain Nausea and vomiting Abdominal pain Diarrhea and constipation	54 56 58 60 62 64

UPPER RESPIRATORY INFECTION (URI)

Acute infection of the upper airway is characterized by a cough which may be either productive or non-productive. Sputum may be mucoid or purulent. There may be a low grade fever. Rhonchi or wheezing may be heard.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Cough (productive or non-productive)
- b. Feeling of stuffiness in ears
- c. Stiff neck
- d. Hoarseness/Sore throat
- e. Sore throat
- f. Runny nose
- g. Increased lacrimation
- h. Chest pain during cough or during inspiration
- i. Duration of symptoms
- j. Smoking history

2. OBJECTIVE (always include vital signs)

- a. Neck (supple, presence of pain when touching chin to chest)
- b. Eyes (conjunctival injection, photophobia)
- c. Tympanic membranes (appearance)
- d. Nasal discharge (mucoid, purulent)
- e. Oropharynx (injected, tonsillar enlargement, exudates)
- f. Cervical adenopathy
- g. Chest (rhonchi, wheezing)
- 3. ASSESSMENT Based on examination
- 4. **PLAN** Most uncomplicated URIs can be managed with decongestants, antitussives for moderate to severe cough, and ASA or acetaminophen for elevated temperature or sore throat.

- a. Temperature greater that 100°F
- b. Pain when touching chin to chest
- c. Purulent sputum, dark sputum
- d. Hoarseness for 1 week
- e. Eardrum bulging
- f. Tonsils grossly swollen, necrotic, or heavily exudative
- g. Difficulty in swallowing
- h. Symptoms present greater than 1 week
- i. If the medic is in doubt or uncomfortable with the case

SORE THROAT

Patients may present with the complaint of sore throat only. The examination should include the following:

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Duration of symptoms
- b. Difficulty swallowing or breathing
- c. Inability to fully open mouth
- d. Drooling
- e. Smoking habits
- f. Fever

2. OBJECTIVE (always include vital signs)

- a. Neck supple
- b. Elevated temperature
- c. Oropharynx (injected edematous)
- d. Lesions of oral mucosa
- e. Tonsillar enlargement/exudate
- f. Cervical adenopathy
- g. Abdominal tenderness (splenomegaly) highly suspicious of mononucleosis

3. ASSESSMENT

- a. No significant positive findings- presumptive **viral or irritative pharyngitis** (i.e. heavy smoker)
- b. Oropharynx injected tonsillar enlargement exudate -presumptive beta hermolytic Streptococcal (BHS) pharyngitis. Must also have a fever greater that 100°F with tender cervical adenopathy. Rule out mononucleosis if there is also abdominal discomfort.

4. **PLAN**

- a. Presumptive **ivral or irritative pharyngitis** may be managed by having the patient discontinue smoking, use warm saline or hydrogen peroxide gargles and throat lozenges.
- b. Presumptive **BHS pharyngitis** does not need to be confirmed by throat culture if a fever, exudative tonsilities, and tender cervical adenopathy are present. It may be treated with penicillin, or erythromycin if a penicillin allergy exists. Medical officer consultation/referral is required
- c. In certain cases mononucleosis must also be ruled out. A CBC with differential is indicated, atypical lymphocytes noted suggest mononucleosis. A mono spot should also be ordered. A positive reaction is confirmation but a negative reaction does not exclude mononucleosis.

SORE THROAT continued

- a. Pain when touching chin to chest or complaint of a stiff neck
- b. Temperature greater than 100°F
- c. Difficulty swallowing or breathing
- d. Inability to fully open mouth or drooling
- e. Tonsillar enlargement to midline and/or heavy exudate
- f. When the medic is in doubt or uncomfortable with the case

ALLERGIES AND HAY FEVER

Patients with allergies often have family history of multiple allergic disorders including hay fever, asthma, and eczema.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Onset and duration of symptoms
- b. Previous occurrences (symptoms related to seasonal changes. Etc)
- c. Known allergies, exposure to know allergies
- d. Sneezing
- e. Runny stuffy nose
- f. Eye irritation
- g. Shortness of breath, wheezing
- h. Current/previous medications
- i. Family history of allergic conditions

2. **OBJECTIVE (always include vital signs)**

- a. Temperature
- b. Conjunctival injection lacrimation
- c. Nasal discharge, pale, boggy, edematous nasal turbinate
- d. Wheezing, increased rate of respirations, stridor

3. ASSESSMENT

- a. **Allergic conjunctivitis.** Conjunctiva injected with increased lacrimation, itching and sneezing.
- b. Allergic rhinitis. Non purulent nasal discharge with associated sneezing.
- c. **Hay fever.** Eye and nasal signed present with occasional wheezing. Allergies during spring is usually due to tree pollens, during the summer to grass pollens, and during the fall to weed pollens, but fungus spores may also cause hay fever symptoms.
- 4. PLAN The best treatment is identification and avoidance of the offending allergen, but the systemic effects can be treated symptomatically with antihistamines. If eye irritation is significant, add Visine. If nasal congestion is severe, nasal spray or drops containing ne0-synephrine may also be used for period not to exceed three days.

5. MEDICAL OFFICER CONSULTATION IS INDICATED WHEN:

- a. Pain when touching chin to chest
- b. Fever greater that 100°F
- c. Purulent nasal discharge
- d. Shortness of breath, stridor
- e. When simple antihistamines have not been effective
- f. When the medic is in doubt or uncomfortable with the case

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HOARSENESS

The most common cause of hoarseness is acute laryngitis resulting from a viral infection. Other causes include bacterial infections, excessive use of the voice, allergic reactions and inhalation of irritating substances.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Onset/precipitating factors
- b. Duration
- c. Associated symptoms (e.g., sore throat, cough, runny nose, muscle aches, hay fever)
- d. Pain with swallowing (dysphagia)
- e. Smoking history
- f. Contact with irritating substances
- g. Fever history

2. **OBJECTIVE (always include vital signs)**

- a. Hoarse voice (aphonia)
- b. Temperature elevation
- c. Dyspena
- d. Drooling
- e. Posterior oropharynx
- f. Throat culture results
- g. Cervical adenopathy
- 3. **ASSESSMENT** Based on subjective and objective findings. The key is to identify treatable causes.

4. Plan

- a. **Viral laryngitis** is self-limited and no specific treatment is indicated. Some symptomatic relief may be gained with warm normal saline or hydrogen peroxide gargles or throat lozenges. Cepacol gargles or Chloraspectic may also be of benefit.
- b. **Bacterial laryngitis** is rare, but is more frequently seen in children than adults, and is treated with appropriate antibiotics
- c. Avoidance of irritating inhaled substances (tobacco smoke) should be stressed in those cases where this is the cause of the laryngitis.
- d. All patients with laryngitis should have voice rest and be advised to stop smoking, if applicable.
- e. Chronic hoarseness may be due to dysfunction of the vocal cords from tumor growth or neurologic deficit, and needs specialty care.

HOARSENESS continued

- a. Pain with swallowing
- b. Temperature greater than 100°F
- c. Stiff neck
- d. Dyspnea, drooling
- e. Positive culture for pathologic bacterial agent
- f. Symptoms present over 10 days
- g. When the medic is in doubt or is uncomfortable with the case

SINUS COMPLAINTS

The patient who presents with the complaint of sinusitis may or may not have true sinusitis. Most, in fact, do not. Sinusitis is an infection of the frontal, maxillary, ethmoid or sphenoid sinuses. The most common pathogens are Staphylococcus, Streptococcus, pneumococci and Haemophilus influenzae. Acute sinusitis may follow URI, dental abscess or nasal allergy.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. URI complaints (nasal discharge, post-nasal drip)
- b. Recent dental problems
- c. Nasal allergy
- d. Headache (location, radiation, relieving or aggravating factors)
- e. Facial pain
- f. Duration of symptoms
- g. Feeling of nasal obstruction
- h. Prior Hx of sinus infection
- i. Fever history

2. **OBJECTIVE (always include vital signs)**

- a. Fever
- b. Purulent nasal discharge
- c. Tenderness to percussion or palpation over frontal and/or maxillary sinuses
- d. Injected oropharynx without tonsillar enlargement or exadate
- e. Appearance of nasal mucosa
- f. Cough (productive or non-productive)
- g. Cervical adenopathy

3. ASSESSMENT

- a. Boggy, hyperemic nasal mucosa is consistent with **allergic rhinitis**, the most common cause of sinus complaints. See discussion on **ALLERGY/HAY FEVER**
- b. Tenderness to percussion over frontal and/or maxillary sinuses is consistent with **acute sinusitis**
- c. Chronic sinusitis may have minimal findings such as a nasal discharge.

SINUS COMPLAINTS continued

4. **PLAN**

- a. **Allergic rhinitis** is best treated by avoidance of offending allergen. Decongestants and antihistamines are of some benefit
- b. Acute or chronic sinusitis will require antibiotics. Analgesics, decongestants and topical nasal decongestants are also used. A Medical Officer consultation is required.
- c. It the **ethmoid**, **sphenoid**, **or frontal sinuses** are involved, the patient is usually referred to the ENT service

- a. Temperature greater than 100°F
- b. Retro-orbital headache
- c. Purulent nasal discharge
- d. Pain when touching chin to chest
- e. Tenderness to percussion over maxillary and/or frontal sinuses
- f. When the medic is in doubt or uncomfortable with the case.

EPISTAXIS (NOSEBLEED)

The most common sites of nasal bleeding are the mucosal vessels over the cartilaginous nasal septum and the anterior tip of the inferior turbinate. Bleeding is usually caused by external trauma, nose picking, nasal infection, from plucking nose hairs, by vigorous nose blowing or drying of the nasal mucosa.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Nasal infection
- b. Trauma
- c. Exposure to drying factors, i.e. sleeping in closed room with forced air heating system
- d. Duration of symptoms
- e. Pain
- f. Vigorous nose blowing
- g. Previous nose bleeds

2. **OBJECTIVE (always include vital signs)**

- a. Deformity of nose from trauma
- b. Location of bleeding site
- 3. **ASSESSMENT** Most cases of epistaxis are uncomplicated. If the problem is recurrent or chronic, other causes must be investigated.

4. PLAN

- a. Most cases can be treated easily be having the patient sit up and lean forward. Tip the head downward and pinch the nose for 5-10 minutes. If this does not control the bleeding, then cauterization may be required. A cold pack to the area may also slow the bleeding.
- b. To prevent recurrence when the cause is dry nasal mucosa, the patient is given Bacitracin ointment or NoseBetter Nasal spray (available over the counter in most drug stores) to use as a protective coating for the nasal mucosa

- a. History of significant trauma
- b. Pain
- c. B/P with systolic greater that 140 and diastolic greater than 90
- d. Pulse greater than 100
- e. Temperature greater than 100°F
- f. When pressure does not control bleeding
- g. Recurrent bleeding episodes
- h. When the medic is in doubt or uncomfortable with the case

EAR PAIN, DRAINAGE, SENSE OF FULLNESS

Ear pain may be caused by an infection of the external canal, middle ear infection or eustachian tube dysfunction. It may be accompanied by tinnitus or decreased hearing.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Pain in affected ear
- b. Associated URI symptoms
- c. Decreased hearing
- d. Trauma
- e. Drainage
- f. Fever history

2. OBJECTIVE (always include vital signs)

- a. Movement of pinna causes pain
- b. Tympanic membrane dull, retracted, hyperemic, buldging
- c. External canal abraded, inflamed
- d. Temperature greater than 100°F
- e. Cervical adenopathy
- f. Perforation
- g. Unable to see tympanic membrane due to cerumen
- h. Valsalva maneuver or pneumatic otoscopy

3. ASSESSMENT

- a. External canal abraded, inflamed, movement of pinna causes pain, is consistent with **external Otitis.**
- b. Dull, retracted drum is consistent with **eustachian tube dysfunction**.
- c. Hyperemic, bulging tympanic membrane is consistent with **acute Otitis media.**
- d. A dull tympanic membrane behind which a fluid level with occasional air bubbles can be seen is consistent with **serous Otitis media**.
- e. Ear pain and decreased hearing can result from hard **impacted cerumen**. In this case the tympanic membrane cannot be seen due to obstruction.

EAR PAIN, DRAINAGE, SENSE OF FULLNESS continued

4. **PLAN**

- a. **External otitis** is usually quite adequately treated with Domeboro otic solution. Occasionally an antibiotic-steroid combination may be required. In this case medical officer consultation is required.
- b. **Eustachian tube dysfunction** is treated with decongestants and having the patient perform Valsalva maneuvers periodically.
- c. Acute otitis media usually requires antibiotics, therefore medical officer consultation, is required.
- d. **Serous otitis media** is treated in the same manner as eustachian tube dysfunction
- e. A perforation of the tympanic membrane requires medical officer referral
- f. Impacted cerumen can be removed by irrigation or Debrox solution. Curetting should only be done by the medical officer. Prior to irrigation, Cerumenex or Derbox should be placed in the affected ear and allowed to soften the cerumen for approximately 15 minutes. Prior to irrigation make sure there is no perforation.

- a. History of trauma
- b. Temperature greater than 100°F
- c. Perforation
- d. Hyperemic, bulging tympanic membrane
- e. When the medic is in doubt or is uncomfortable with the case.

HEARING LOSS

When a patient complains of hearing loss, the following examination should be done.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Onset
- b. Trauma
- c. Noise exposure
- d. URI symptoms
- e. Ear pain
- f. Affected ear(s)
- g. Current medications
- h. Fever history

2. **OBJECTIVE (always include vital signs)**

- a. URI signs
- b. Perforation
- c. Otitis media
- d. Cerumen obstruction
- e. Audiometry screen
- 3. **ASSESSMENT** If an obvious cause of hearing loss is not found, neurosensory hearing loss must be considered.
- 4. **PLAN** Hearing losses with no apparent cause must be referred to the medical officer for further evaluation. Other causes which are found on examination are treated as appropriate.

- a. Audiogram shows a 10 dB loss at any frequency not previously documented
- b. NO apparent cause for the hearing loss is found
- c. Temperature greater than 100°F
- d. Inflamed, bulging eardrum
- e. Perforation
- f. When the medic is in doubt or uncomfortable with the case.

FRICTION BLISTERS

A blister will present as a bulla which may or may not be intact. Blisters are caused by mechanical friction. Blisters on the feet are usually a result of poorly fitted footwear.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. General (location, onset, duration)
- b. Pain
- c. Activity limitations

2. **OBJECTIVE (always include vital signs)**

- a. Appearance of lesions (location, solitary, multiple, intact, weeping)
- b. Signs or infection (warmth, erythema, pus)
- c. Observe gait (able to bear weight) if blisters are on feet.

3. **ASSESSMENT** Based on observation

4. **PLAN**

- a. **Intact bullae** are aspirated with a sterile needle and syringe after cleaning the area with Betadine. The skin is not debrided. The area is painted with sterile tincture of benzoin twice. A dry dressing is applied. Soft shoes or duty limitations are not usually necessary, but may be indicated for 24 hours if the patient has difficulty bearing weight or walking.
- b. Bullae which are broken are cleaned with Betadine. The skin is preserved and the area painted with sterile tincture of benzoin and a dry dressing applied. Soft shoes or duty limitations are not usually necessary, but may be indicated for 24 hours if the patient has difficulty bearing weight or walking.

- a. Extensive bullae formation
- b. Moderate to severe pain
- c. Infection
- d. When medic is in doubt or uncomfortable with the case.

CORN AND CALLUSES

Corns and calluses develop in response to abnormal pressures against the skin of the foot. External pressure due to improper shoe wear and/or internal pressure from abnormal bony protuberances will frequently lead to the production of thickened, painful hard skin over the bony prominence. In areas where moisture and perspiration collect, the skin becomes macerated and a soft corn develops.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Location
- b. Duration
- c. Pain
- d. Aggravating factors

2. OBJECTIVE (always include vital signs)

- a. Appearance
- b. Inspection of foot gear
- c. Signs of inflammation/infection
- d. Pain with direct or with lateral pressure

3. ASSESSMENT

- a. **Callus formation** normally occurs over weight bearing surfaces and consists of thickening, tender, hard skin. Margins often blend into the surround skin
- b. **Hard corns** are usually found on the dorsal lateral aspect of the PIP joint of the 5th toe. They are painful with direct pressure
- c. **Soft corns** are most common in the 4th inter digital space
- d. **Plantar warts** may be confused with calluses or corns. They generally have a central punctate area with surrounding thicken skin. **Plantar warts** are painful with lateral pressure and have punctate bleeding points when shaved.

4. **PLAN**

- a. Removal of the external pressure is essential. Doughnut pads are helpful in blocking direct contact and reducing pressure on the corn or callus.
- b. Warm, soapy-water soaks, followed by salicylic and plaster or cream application will help eliminate the corn or callus
- c. Corns and calluses may be treated by the patient using commercially available pumice stone.
- d. Corns and calluses may be shaved in thin layers using a scalpel (a number 10 blade) to reduce discomfort.

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CORNS AND CALLUSES continued

- a. There is acute pain with weight bearingb. Inflammation or infection present
- c. Punctate bleeding points exposed when callus is trimmed
- d. When the medic is in doubt or uncomfortable with the case

SUPERFICIAL FUNGAL INFECTIONS

Multiple forms of superficial fungal infections are found among soldiers. They commonly include infections of the feet, groin, and occasionally the smooth skin (ring worm)

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Location
- b. Duration
- c. Puritis
- d. Spread
- e. Aggravating factors

2. OBJECTIVE (always include vital signs)

- a. Distribution
- b. Describe lesions (scaly, raised margins, erythematous)
- c. Superinfection with bacteria from excoriation
- d. Adenopathy
- e. Weeping
- f. KOH prep results

3. ASSESSMENT

In all cases of suspected fungal infection, a KOH prep is mandatory. A positive KOH is diagnostic, however a negative KOH does not exclude a fungal infection.

4. **PLAN**

- a. Fungal infections of the feet, groin, and smooth skin may be treated with Mycelex or Lotrimin
- b. Infections of the nails and hair require oral medication. Topical preparations are ineffective in the treatment of fungal infections of the nails or hair.

5. MEDICAL OFFICER CONSULTATION IS REQUIRED WHEN:

- a. Significant adenopathy
- b. Pain
- c. Involvement of nails or hair
- d. Infection is deep, rather that superficial
- e. Lesions appear secondarily-infected
- f. When the medic is in doubt or uncomfortable with the case

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TINEA VERSICOLOR

A superficial fungal infection most prominent on the upper trunk and arms, nonpuritic in most cases. Characterized by hypopigmented, minimally-scaling areas, it is more common during hot, humid weather and often recurs from year to year.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Onset
- b. Duration
- c. Relationship to sun exposure

2. OBJECTIVE (always include vital signs)

- a. Distribution
- b. Lesions
- c. KOH prep

3. ASSESSMENT

T versicolor is based on hypopigmented, confluent, macular lesions. KOH may be positive, with a "spaghetti and meatballs" appearance

4. **PLAN** T versicolor is treated with an oral antifungal agent called Ketoconazole (Nizoral) which requires a prescription from a medical officer. After a course o f Nizoral is completed, the soldier is usually instructed to bathe with selsum blue once monthly

5. MEDICAL OFFICER CONSULTATION IS REQUIRED WHEN:

- a. For a prescription for the antifungal agent
- b. When the medic is in doubt or uncomfortable with the case

ACNE

Acne is a very common skin condition of adolescents and young adults. It is a result of hormonal influences increasing the activity of the oil glands. In women acne may be worse during the menstrual cycle.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Age at onset
- b. Previous treatment
- c. Relationship to menstrual cycle in women
- d. Cammo face paint, oily hair preparations and cosmetics

2. **OBJECTIVE (always include vital signs)**

- a. Distribution
- b. Comedones (black heads)
- c. Papulopustular lesions
- d. Cystic lesions
- e. Scaring

3. ASSESSMENT

Acne may be graded as follows:

a. **Grade I** is usually limited to the facial area and is characterized by comedones and few papular lesions. Scarring is not present

b. **Grade II** consists of comedones, moderate amount of inflamed papules, and occasional scarring

c. **Grade III** has the lesions described above plus pustules; papulopustular formation is moderate and scarring is seen

d. **Grade IV** is the most severe form. In addition to the lesions above, cystic lesions are present. Scarring may be severe

4. **PLAN**

a. **Grade I** may be treated with topical preparations containing benzoyl peroxide, and/or with Retin-A

b. Grade II/III are treated with these topical agents but tetracycline PO is added

c. **Grade IV** will require referral to a dermatologist for more intensive therapy.

d. All patients must be instructed to avoid picking or squeezing lesions, avoid use of oily cosmetics, and practice meticulous cleansing of the face and affected areas.

ACNE continued

- a. Patient has Grade II/III acne (antibiotics will be required)
- b. Patient has Grade IV acne (a referral to dermatology will be required)c. When the medic is in doubt or is uncomfortable with the case

SEXUALLY TRANSMITTED DISEASES

Male patients will frequently complain of a burning on urination, a penile discharge and/or penile lesions. They may describe their problems as clap, drip or track. Regardless of the slang expression used, medical personnel should approach the problem as being significant and in a serious and professional manner. See **Crabs/Lice** as a cross reference.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Penile discharge
- b. Burning on urination (dysuria)
- c. Fever or chills
- d. Abdominal or flank pain
- e. Frequency or urgency of urination
- f. Genital lesions, description, associated pain
- g. History of previous sexually transmitted diseases (STD)

2. OBJECTIVE (always include vital signs)

- a. Vital signs
- b. Inspect genitals for lesions, describe how they look, location
- c. Urinalysis if associated with urinary complaint
- d. Blood sample for VDRL

3. ASSESSMENT

a. **Gonorrhea (GC)** usually presents as a thick penile discharge with dysuria 3 to 7 days after last sexual contact

b. **Nonspecific urethritis (NSU)** usually presents as a thinner penile discharge with dysuria, 4 to 14 days after last sexual contact

c. Herpes, venereal warts, chancroid, and syphillis all generally present initially with genital lesions

d. Do not overlook the fact that a patient may have more than one type of STD at the same time. In fact, GC and NSU frequently occur together or with another type of STD

e. **Urinary tract infection (UTI)** Frequency, urgency, and dysuria accompanied by a low-grade fever suggests and uncomplicated UTI. This is rare in healthy males, however, it should be rued out be a urinalysis

4. **PLAN** Refer to the EDC clinic

SEXUALLY TRANSMITTED DISEASES continued

- a. Female patient
- b. Genital lesions
- c. Fever greater than 100°F
- d. Abdominal or flank pain
- e. Patients who return as repeated or questionable treatment failuresf. When the medic is in doubt or is uncomfortable with the case

CRABS/LICE

The crab louse is a tiny insect which lives only on humans, almost exclusively on the moist, hairy areas of the body - the groin and axillae. Sexual contacts accounts for 99% of the transmission. Shared towels, lines, or underwear may rarely transmit the louse. Lice die rapidly when removed from their human host; they do not hind in the latrines or jump from bunk to bunk. They may be seen with the naked eye on skin or hair and appear above the size of a pinhead. Because their life cycle takes 2 to 3 weeks, it may take as long as 4 to 6 weeks before the crab population is large enough for the patient to notice the infestation. Use **SEXUALLY TRANSMITTED DISEASES** as a cross-reference

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Mild to moderate pubic or penianal itching
- b. Crabs noted by patient
- c. Rash
- d. Last sexual contact (LSC)

2. OBJECTIVE (always include vital signs)

- a. Insects on skin or hair
- b. Egg cases (nits) attached to hair
- c. Above confirmed under microscope, if necessary
- d. Mild erythema of skin around insect (bite marks)

3. ASSESSMENT

- a. **Crabs (pubic lice)** Consistent with the above symptoms and signs. Vigorous scratching may result in secondary infection
- b. **Scabies** This is an infestation by the scabies mite, which is smaller than the crab louse and burrows into the skin. Scabies is not limited to the pubic region but spreads everywhere except the scapl, causing a very itchy rash.

4. **PLAN**

- a. **Crabs.** Apply a lindane cream or lotion (such as Kwell) from the umbilicus to the knees, as well as to the armpits, if those are involved. This should be left on for 8-12 hours, then washed off. RID may be used as an alternate to Kwell. Very hairy individuals may have to apply these from the neck down. A repeat application in 1 week is recommended
- b. **Scabies.** Apply a lindane cream or lotion (such as Kwell) from the neck down, including the arms, for 8-12 hours, then wash off. Repeat application is usually not necessary
- c. Patient must be cautioned to follow instructions carefully to avoid lindane skin reactions.

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CRABS/LICE continued

PLAN continued

All bedding and clothing to be used within the next 30 days must be washed thoroughly in hot, soapy water or dry cleaned. It hot water is unavailable, a disinfectant may be added to the wash.
Laundering of clothes is to be done during the 12 hour treatment period.

- a. Suspected scabies
- b. Secondary infection
- c. When the medic is in doubt or is uncomfortable with the case

MINOR TRAUMA

Minor trauma is a very broad topic, the detailed discussion of which is beyond the scope of this manual. Most minor trauma is self-limited and treatment largely designed to alleviate pain and protect the patient from further injury. The medic must take caution, however, to rule out more significant injuries, such as a fracture, which might be hidden. Blunt trauma to the chest, abdomen, back, most burns, and significant head injuries always require consultation/referral with a medical officer. The related discussions on **joint pain** should be used as cross-reference

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Type of trauma (blunt, stretching, compressing, lacerating, penetrating, burn)
- b. Location(s) of injury
- c. Where, when, and how injury occurred
- d. Associated bleeding, loss of consciousness (LOC), nausea and vomiting
- e. Present pain (severity, location, quality, radiation)
- f. History of prior trauma to same area
- g. Last tetanus shot (date)

2. **OBJECTIVE (always include vital signs).** A complete exam of the injured area(s) should be done. If a joint has been injured, **always exam the joint above and below the injured joint.**

- a. Vital signs
- b. Describe size and appearance of wounds
- c. Swelling, ecchymosis, deformity
- d. Active bleeding
- e. Tenderness to palpation, bony point tenderness
- f. Pain with voluntary/involuntary motion
- g. Signs of infection (redness, pus)
- h. Distal neurovascular exam (sensation, pulse, capillary refill)

MINOR TRAUMA continued

3. ASSESSMENT

- a. **Soft tissue injury/contusion.** Usually results from blunt or compressing force. Swelling, ecchymosis, tenderness may be present. No bony point tenderness
- b. **Superficial laceration.** Usually results from sharp trauma. Minimal swelling or tenderness. A laceration is superficial if it does not penetrate below the dermis. An **avulsion** is an injury where some of the tissue has been torn away
- c. **Penetrating wound.** Usually results from sharp, penetrating injury. Care must be taken to rule out (R/O) any foreign body (FB) remaining in the wound
- d. **Abrasion.** Superficial scraping or removal of outer layers of skin; minimal bleeding
- e. **1st degree burn.** Redness, pain, possibly minimal swelling without blister formation. Almost all sunburns are 1st degree burns
- f. **Sprain/strain (Grade I).** Usually results from stretching, twisting, forces across a joint or muscle. There is mild swelling, tenderness, and limitation of motion. See the individual discussions on shoulder, knee and ankle pain.
- g. **Possible fracture.** Fractures may occur with any type of traumatic force. Usually have significant swelling, bony pint tenderness, and limitation of motion. X-ray required.
- h. Do not overlook the fact that a patient may have more than one type of injury at the same time e.g. contusions, abrasions, and a fracture.

4. **PLAN**

- a. Soft tissue injuries are treated with cold compresses, rest, and elevation for 24-48 hours; use warm compresses to reduce any swelling thereafter. An ace wrap may occasionally be of benefit for pressure and protection. Aspirin, Tylenol or Motrin (consult required) are given to relieve pain.
- b. Superficial lacerations require thorough irrigation of the wound and cleansing of the surrounding skin using aseptic technique. Gaping lacerations greater than 1 cm in length require referral for possible suturing. Smaller gaping lacerations may be closed with steri-strips and dressed.
- c. **Penetrating wounds.** Wounds must be thoroughly irrigated and examined to R/O any foreign body (X-ray may be required). Clean wound using an angiocathether connected to normal saline under pressure. Place the catheter into the wound to clean. Do not be timid. If necessary, local anesthetic may be used. **HOWEVER**, be sure the neurological examination is documented before using a local anesthetic. Tetanus and antibiotics prophylaxis are sometimes indicated.

MINOR TRAUMA continued

PLAN continued

- d. **Abrasions** must be thoroughly cleansed using aseptic technique and dressed. Care must be taken to remove all dirt from the wound.
- e. 1st degree burns are treated with immediate cold, moist saline ice compresses to decrease pain and cool the skin. The area(s) should them be gently cleansed and rinsed with saline. Dressings are usually not necessary. Emollients maybe used to relieve dryness during healing. ASA and Tylenol often are sufficient analgesics, but codeine may be needed for extensive burns.
- f. Grade I Sprains/strains are treated like soft tissue injuries. The affected joint/muscle should be immobilized with an ace wrap or sling, as appropriate, and crutches may be needed for lower extremity injuries. Temporary limitations are often indicted.

- a. There is blunt trauma to abdomen, chest, or back
- b. History of LOC, nausea or vomiting
- c. Facial, hand, deep, or avulsion-type lacerations
- d. Penetrating wounds to chest, abdomen, or when FBs are possible
- e. Burns other than 1st degree or extensive 1st degree (over 20% of body surface)
- f. Significant swelling, ecchymosis
- g. Bony point tenderness (possible fracture)
- h. Deformity or severe limitation of motion
- i. Distal neurovascular abnormality
- j. Signs of infection present
- k. Human or animal bites
- I. When the medic is in doubt or uncomfortable with the case

SHOULDER PAIN

A frequent complaint among soldiers is shoulder pain usually following strenuous physical activity. The causes of non-traumatic shoulder pain are limited but there are multiple conditions of traumatic origin, both acute and chronic. Some of the most common causes are listed here.

1. SUBJECTIVE (ask about previous history for the same complaint)

- a. Onset and duration of pain
- b. Exact location and radiation
- c. What relieves, what makes it worse
- d. History of activity or trauma
- e. Prior episodes
- f. Functional limitations

2. OBJECTIVE (always include vital signs)

- a. Erythema, hot shoulder
- b. Deformity
- c. Effusion, pain to palpation (location)
- d. Active and passive ROM; crepitus
- e. Strength
- f. X-ray results, if indicated

3. ASSESSMENT

- a. **Rotator cuff tear.** Usually presents with shoulder pain/tenderness, a history of trauma, and patient is unable to abduct the arm or hold it abducted against gravity
- Acute bursitis. Usually produces pain with movement and follows overuse in most instances. Most frequently tender to palpation over subdeltoid bursa.
- c. **Calcific tendonitis.** The shoulder may appear swollen and inflamed, and the pain may be severe. X-ray often shows ectopic calcifications.
- d. **Septic arthritis.** Should be considered if the patient has a fever or other signs and symptoms of inflammation.
- e. **Dislocation.** Usually follows a history of trauma but may occur spontaneously in some people. Sudden onset of pain with gross deformity of shoulder joint and severe limitation of motion. X-ray should be done to R/O associated fracture if a history of trauma.
- f. **Referred pain.** Shoulder pain may occur with abdominal (subdiaphragmatic) or chest disease/injuries. In these cases the pain is often unrelated to a Hx of shoulder trauma or to shoulder motion, and there are usually abdominal or chest symptoms.

SHOULDER PAIN continued

4. **PLAN**

- a. **Rotator cuff tear** is treated initially with a shoulder sling and oral antiinflammatory drugs (ASA, Motrin). Many traumatic tears in young patients are significant and may require surgical intervention. Consequently, F/U with orthopedics is indicated in any patient who does not show significant improvement in pain and increased ROM within 72 hours. Those with improvement should begin a program of ROM and strengthening exercises.
- b. **Acute bursitis/tendonitis** is treated with anti-inflammatory drugs and progressive shoulder exercises. There should be a reduction of certain physical activities including lifting, pushups and pulling for 7 days.
- c. **Calcific tendonitis** is treated like acute bursitis but stronger antiinflammatory drugs may be required for severe pain.

- a. The patient has a swollen shoulder
- b. Hot shoulder/fever
- c. Severe pain or decreased ROM
- d. Deformity of shoulder (possible dislocation)
- e. When the medic is in doubt or uncomfortable with the case.

LOW BACK PAIN

Low back pain (LBP) is the leading "occupational" complaint in the U.S. Common causes of LBP include unaccustomed physical activity, acute strain, positional changes, and in some cases, the cause is never determined. Most LBP is due to muscle strain but a herniated intervertebral disc must always be ruled out.

1. SUBJECTIVE (ask about a previous history of the same complaint)

- a. General (location, onset, duration, nature and intensity of pain)
- b. Radiation (does pain shoot down leg (sciatica), and how far)
- c. Aggravating/relieving factors
- d. Weakness in legs
- e. Bowel/ladder dysfunction
- f. History of direct trauma to back
- g. Prior episodes of similar pain and prior evaluation

2. OBJECTIVE (always include vital signs)

- a. Observe difficulty dressing/undressing
- b. Alignment, lordotic curve
- c. Palpation of spinous processes and paraspinal musculature contovertebral
- d. Range of motion (flexion, extension, lateral bending, rotation). Measure distance of finger tips to floor during flexion
- e. Gait
- f. Heel/toe walk
- g. Deep tendon reflexes at knees, ankles (decreased, normal)
- h. Straight leg raising (SLR)

3. ASSESSMENT

- a. Lumbosacaral strain (mild to moderate). Usually have reduced range of motion, discomfort which is localized to the lumbar-sacral area, and palpable muscle tenderness/spasm. Inability to heel-toe walk may be based on increased pain rather than nerve involvement. A SLRs that localizes the pain to the lumbosacaral area without radiation is considered a negative SLR.
- b. Nerve root involvement. Disc involvement or sciatica usually has unilaterally decreased tendon reflexes, foot drop, radiation of pain to the posterior thigh(s), and pain with extension or Valsalva maneuver. Rectal exam may show reduced sphincter tone (this is a medical emergency) SLR will be positive for reproducing pain which shoots down the leg.

LOW BACK PAIN continued

4. **PAIN**

- a. **Lumbosacral strain** usually can be adequately managed by decreasing activity and ice massages. Medications, if required, usually consist of anti-inflammatory drugs and/or muscle relaxants.
- b. Involvement other than mild strains will usually require more extensive management and a referral is necessary

- a. There is a history of direct trauma to back
- b. Radiating pain which "shoots" down the leg
- c. Marked loss of range of motion
- d. Severe pain, CVA tenderness, or spinous process tenderness
- e. Straight leg raise positive
- f. Bowel or bladder dysfunction
- g. Foot or unilateral decrease in tendon reflexes
- h. When the medic is in doubt or uncomfortable with the case.

HIP PAIN

Traumatic hip pain in young adults usually follows overuse (i.e. sports, running, or other strenuous physical activity. Hip fractures or dislocations in young adults with normal bones occur with high energy trauma and are usually associated with other severe injuries.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Character of pain
- b. Onset/activity
- c. History of trauma or arthritis
- d. Involvement of other joints

2. **OBJECTIVE (always include vital signs)**

- a. Palpable tenderness (exact location)
- b. ROM and associated pain
- c. Gait

3. ASSESSMENT

- a. **Trochanteric bursitis.** Usually presents with local pain over the greater trochanter with radiation down the lateral aspect of the thigh to the knee. Palpable tenderness is present. Internal rotation and abduction also causes pain.
- b. **Tendonitis.** Any of the muscles or tendons surrounding the hip joint may become strained and inflamed. Pain localized to affected part on palpation, aggravated with motion.
- c. Slipped femoral epiphysis. A limp with hip pain develops. Usually seen in young males who are obese or tall and thin, and rarely occurs over age 20. X-ray confirms diagnosis.

4. **PLAN**

- a. **Bursitis/tendonitis.** Treatment consists of anti-inflammatory drugs, warm compresses, and reduction of aggravating factors until pain free.
- b. A slipped epiphysis will require an orthopedic consult.

- a. Inability to bear weight
- b. Decreased ROM
- c. Evidence of infection
- d. Crepitus present in joint with motion
- e. When the medic is in doubt or uncomfortable with the case

KNEE PAIN

Most unilateral knee pain is traumatic in origin. Acute trauma usually causes ligament sprains/strains or meniscal damage. Repeated mild trauma over long periods of time can lead to chondromalacia, chronic arthritis or other problems.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. History of "locking" or "giving way"
- b. History of trauma
- c. Prior knee surgery
- d. Precipitating factors
- e. Aggravating factors; deep knee bends, stair climbing
- f. Pain without weight-bearing

2. **OBJECTIVE (always include vital signs)**

- a. Discoloration (ecchymosis, erythema), swelling, deformity
- b. Effusion, crepitus
- c. Tenderness to palpation over joint line
- d. Warm to touch
- e. Tenderness over medial/lateral collateral ligaments or menisci
- f. Patellar shift; tenderness with patellar compression
- g. Ligamentous instability with lateral/medial stress (lateral/medial collateral ligaments)
- h. Drawer and Lachmann's sign (cruciate tear)
- i. McMurray's sign; Apley's sign (meniscal damage)
- j. Quadriceps symmetry (measured in centimeters)

3. ASSESSMENT

- a. Hot, tender knee with or without swelling may indicate **intraarticular infection**
- b. Inability to fully extend knee and joint line tenderness may indicate **meniscal injury**
- c. Tenderness over MCL/LCL without laxity may indicate grade I sprain or strain
- d. If mild laxity and tenderness of MCL/LCL is present, possible grade II sprain
- e. If ecchymosis, effusion present with laxity, possible grade III sprain (torn ligament)
- f. Positive drawer sign, positive Lachmann's sign, probable cruciate injury

KNEE PAIN continued

ASSESMENT continued

- g. Patellar shift present, possible patellar subluxation
- h. Asymmetry of quadriceps positive subpatellar crepitus, pain while climbing stairs, is possible **chondromalacia**

4. **PLAN**

- a. For Grade I sprains. Initial treatment consists of ice packs, ace wrap and elevation for the first 24 hours. Crutches may be indicated for comfort. Anti-inflammatory agents are used as required. Contusion without additional findings may also be treated with the above plan.
- b. **Chondromalacia**, or **retropatellar pain symdrome**, is treated with quadriceps strengthening exercises, avoiding deep knee bending, and non-steroidal anti-inflammatory drugs (Motrin, Indocin)

- a. Unable to bear weight
- b. Unable to fully extend leg
- c. History of "locking or giving way"
- d. Significant trauma
- e. Knee is warm, discolored or deformed
- f. Effusion greater than one inch
- g. Ligamentous instability
- h. Positive drawer, Lachmann's or McMurray's sign
- i. When symptoms persist more than 3 weeks
- j. When the medic is in doubt or uncomfortable with the case

ANKLE SPRAIN

Ankle sprains are common in the active duty population due to the increased level of physical activity. Ankle sprains can be grouped as Grade I simple sprains, or as Grade II or Grade III sprains which are significant. Fractures are frequently associated with significant sprains.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Mechanism of injury, position of foot at time of injury (inverted, supinated)
- b. Time of occurrence
- c. Past trauma
- d. Pain discomfort

2. OBJECTIVE (always include vital signs)

- a. Inability to bear weight
- b. Swelling (edema)
- c. Ecchymosis
- d. Localization of tenderness, pain (medial or lateral maleolus, anterior joint margin)
- e. Range of motion, passive and active
- f. Stability, drawer sign
- g. Distal neurovascular exam (sensation, pulses, capillary refill)
- h. X-ray results, if indicated

3. ASSESSMENT

- a. **Grade I sprain.** Antalgic gait. Able to bear weight, minimal if any edema, no ecchymosis, mild tenderness of either malleolar area, no drawer sign, neurocascular status and ROM intact.
- b. **Grade II sprain.** Unable to bear weight edema, possible ecchymosis, acute tenderness, no drawer sign, neurovascular status intact. ROM reduced. An X-ray should be done to R/O an associated fracture.
- c. **Grade III sprain.** Unable to bear weight edema, ecchymosis present, acute tenderness, positive drawer sign. ROM markedly decreased, instability present, neurovascular status may be compromised. An X-ray is necessary to R/O an associated fracture.

ANKLE SPRAIN continued

4. **PLAN**

- a. Grade I sprains are initially treated with ice, compression, and elevation for 24-48 hours. Crutches are indicated for up to 48 hours in Grade I sprains. Anti-inflammatory agents (Motrin) and ace wrap protection are indicated for 5-7 days, with gradually increased exercise
- b. **Grade II sprains** may require posterior or "U" splinting for 3-5 days with ice, elevation, crutches and analgesics (Motrin). An ace wrap is indicated with gradual increase of activity after 72 to 96 hours.
- c. **Grade III sprains** is a significant injury and will require immobilization using either a splint or non-weight bearing cast. Initially, ice, compression, and elevation are used to reduce edema and pain. Crutches, without weight bearing, and F/U with podiatry or orthopedics is usually indicated. Nonsteroidal anti-inflammatory drugs with a mild narcotic will often be needed for pain relief.
- d. In all sprains, physical activity must be reduced appropriately and will vary in length from 72 hours to several weeks

- a. Unable to bear weight
- b. Ecchymosis present
- c. Severe pain
- d. Loss of ROM
- e. Instability (positive drawer sign)
- f. When the medic is in doubt of uncomfortable with the case

FATIGUE

Fatigue is one of the most common symptoms for which adult patients seek medical attention. It may be described as a general tiredness, lack of energy, weariness, or a subjective sense of weakness, and is often accompanied by a strong desire to sleep. Fatigue is normal when it is the result of a full day's work or sustained physical activity. Chronic fatigue, however, is not normal. The medic's objective is to separate those normal individuals from those with significant anxiety, depression or organic illness.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. General (onset, duration, character of fatigue)
- b. Associated fever, loss of appetite, weight loss, headache, sore throat, muscle aches, or joint pains
- c. Sleep patterns (insomnia, early awakening)
- d. Anxiety (current stressful situations)
- e. Depression (feeling blue, loss of interest)
- f. Medications (sedatives, antihistamines, antidepressants)
- g. Living conditions what is used for heat (woodburning, coal, gas, etc.)
- h. Do other people in the household have the same complaint

2. **OBJECTIVE (always include vital signs)**

- a. Vital signs
- b. Appearance of patient (sick, tired, depressed)
- c. Pale skin, nail beds, or mucosae
- d. HEENT exam (erythema of the throat)
- e. Lynphadenopathy (swollen, lender lymph nodes)
- f. Lungs (rales, wheezes)
- g. Heart (irregular rhythm, murmur, gallop, or rub)
- h. Abdomen (masses, tenderness)
- i. Hematocrit test results, if indicated

3. ASSESSMENT

- a. **Normal tiredness.** History of sustained hard work or physical activity without anxiety, depression, or trouble sleeping. Normal exam.
- b. **Anxiety state.** History of recent stressful situations, difficulty sleeping; fatigue lessens during day, mild headache may be present. Patient may appear anxious, exam is otherwise normal.
- c. **Dysthmia.** No set pattern but usually accompanied by difficulty sleeping. Patient may appear depressed, physical exam otherwise normal.

FATIGUE continued

ASSESSMENT continued

- d. **Mononucleosis.** Mild sore throat, fever, fatigue relieved by rest. Exam reveals pharyngitis, cervical adenopathy. Positive mono spot test.
- e. **Anemia.** Patient usually c/o lack of energy with physical activity, relieved by rest. Exam reveals pale nail beds, skin, or mucosae, increased pulse. Anemia is seen with a hematocrit less that 43% in males, 38% in females.
- f. **Chronic illness.** Fatigued relieved by rest or decreased activity, muscle aches or joint pains, low grade fever, weight loss may also be present. Exam may reveal lymphadenopathy, cardiac, lung, or abdominal abnormalities.
- g. **Carbon monoxide poisoning.** Usually a normal exam, may see pale or bluish hue to nails. Will generally have a history of wood/oil/coal burning stove in a trailer with other people in the household having the same complaint

4. **PLAN**

- a. Patients with **normal fatigue** need reassurance that there is no evidence of underlying disease, and should be counseled to make maximum use of the sleeping time available to them.
- b. Those with **mild situational anxiety** or **dysthymia** may only require reassurance that there is no evidence of underlying organic disease and that their symptoms are situational in origin. They should be instructed to return for F/U if there is no improvement within 72 hours.

- a. Fever greater than 100°F
- b. Pulse greater than 100 bpm at rest
- c. Worsening symptoms over two weeks
- d. History of greater than 5 lb weight loss in past month
- e. Marked anxiety or depression
- f. Inability to sleep
- g. Pale nail beds, skin, or mucosae
- h. Adenopathy other than mild cervical adenopathy
- i. Persistent joint or extremity pain
- j. Abnormal lung, cardiac, or abdominal exam
- k. Hematocrit below 42% in males, 38% in females
- I. When the medic is in doubt or uncomfortable with the case

HEADACHES

The majority of headaches are easily managed with simple medications. The onset of most headaches tends to be associated with stress, hangovers, or heat. The vast majority of these are "muscle tension" headaches. Vascular (migraine type) headaches and headaches associated with febrile viral illnesses are also common in young adults.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Onset (gradual, sudden, awakens from sleep)
- b. Duration of the headache, are they recurrent
- c. Location and character (unilateral, occipital, throbbing, band-like)
- d. Associated fever, LOC, nausea, vomiting, stiff neck, eye pain, visual changes, malaise.
- e. Aggravating, mitigating factors
- f. Trauma within 72 hours
- g. Past treatment or evaluation

2. **OBJECTIVE (always include vital signs)**

- a. Vital signs, especially temperature and blood pressure
- b. Able to touch chin to chest without pain
- c. HEENT exam (evidence of trauma, pupil size and reaction to light, sinus tenderness, tympanic membranes)
- d. URI signs
- e. Mental status (alert, oriented, drowsy, confused)

3. ASSESSMENT

- a. **Simple headache** usually has no specific physical findings
- b. **Musculoskeletal headache.** Usually presents with "squeezing band" encircling the head, and tightness of the neck muscles. It is usually bilateral and may continue for days.
- c. **Migraine headaches** are characterized by unilateral throbbing pain. There is usually nausea, vomiting, visual disturbances, and photophobia. Migraines generally have a history of recurrence.
- d. Pain with the chin to chest maneuver along with fever suggest possibility of meningitis. Suspected meningitis is always an emergency.

HEADACHES continued

4. **PLAN**

- a. **Simple headaches** are treated with analgesics, including Tylenol or aspirin
- b. **Musculoskeletal headaches** can also be treated with analgesics, but moderate to severe headaches may require muscle relaxants.
- c. **Migraine headaches** will require specific anti-migraine medications and probably temporary duty limitations.

- a. Headaches associated with trauma, LOC, nausea and vomiting, or visual disturbances
- b. Increased blood pressure, temperature greater than 100°F
- c. Inability to touch chin to chest without pain
- d. Moderate to severe musculoskeletal headaches
- e. Migraine-type headaches
- f. Inability to perform duty
- g. When the medic is in doubt or uncomfortable with the case

CHEST PAIN

Chest pain offers a diagnostic challenge to the medic as well as to the PA or physician. **Most chest pain among healthy soldiers is non-cardiac in origin, but care must be taken to rule out heart disease in every case**. Gastrointestinal, pulmonary, musculoskeletal, neurological and psychogenic problems can cause chest pain. The best way to differentiate these non-cardiac from cardiac problems is to obtain a good history. A description of the pain is extremely important.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. Onset of pan
- b. Precipitating factor(s) of pain
- c. Duration of pain
- d. Predictable relief of pain
- e. Location of pain
- f. Quality of pain
- g. Pain intensity changing with respiration
- h. Previous episodes of pain
- i. Previous heart disease
- j. Nausea, vomiting, diaphoresis, shortness of breath (SOB)
- k. Fainting spells
- I. Trauma to chest wall
- m. Cough, fever
- n. Family history of heart disease
- o. Cardiac risk factors (smoker, hypertension, cholesterolemia, diabetes, sedentary lifestyle, abnormal ECG)

2. OBJECTIVE (always include vital signs)

- a. Elevated B/P
- b. Pulse rate tachycardic or irregular pulse
- c. Tenderness with palpation over area of chest pain
- d. Cyanosis
- e. Wheezing, rales
- f. Cardiac or pulmonary friction rub on inspiration
- g. Abnormal heart sounds
- h. Levine's sign (clutching fist to chest)

CHEST PAIN continued

3. ASSESSMENT

The main objective is to separate non-cardiac from cardiac pain.

- a. Cardiac pain, caused by insufficient blood tot he heart muscle (ischemia), is called **angina**.
- b. If the history reveals that the pain is induced by bending forward, touching the chest wall, breathing, positioning of the body or arms, then it is highly unlikely that the pain is of cardiac origin.
- c. Also, if the pain lasts only a second or is constant over hours or days, then the pain is not due to angina.
- d. If the pain is brought on immediately while lying down, again the pain is not due to angina.
- e. Tenderness to palpation of chest wall or pain in chest wall with twisting of the upper body with otherwise negative findings indicates **musculoskeletal pain (costochondriasis).**
- f. Chest wall pain in large-breasted women may be due to inadequate breast support during exercise
- 4. **PLAN.** Except in those instances where chest wall pain can be determined to be the cause, chest pain should be evaluated by a PA or physician. For chest wall pain, anti-inflammatory analgesics such as aspirin or Motrin (consult required) should be provided.

- a. For all chest pain other than chest wall tenderness.
- b. When the medic is in doubt or uncomfortable with the case.

NAUSEA AND VOMITING

Nausea and vomiting are common, related complaints, and while the most common causes in a young adult are mild and self-limited illness, there are many serious considerations which must be ruled out. Such a large list is beyond the scope of this manual. The medic must, however, take a thorough history and make referrals as appropriate. The discussion on **ABDOMINAL PAIN AND HEADACHE** should be used as cross-reference.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. General (onset, frequency, duration, amount vomited)
- b. Appearance of vomitus (bloody, coffee ground, bilious)
- c. Associated fever, diarrhea, constipation, abdominal pain, headache, dizziness, or malaise
- d. Recent appetite
- e. Jaundice, dark urine, light stools
- f. Medications, alcohol ingestion
- g. Dietary range, recent food history
- h. Pregnancy, Last menstrual period (LMP)
- i. Anxiety, stress

2. OBJECTIVE (always include vital signs)

- a. Vital signs, including postural B/P (tilts) and pulse
- b. Sclera icterus, jaundice, appearance of mucus membranes
- c. Signs of viral URI on HEENT exam
- d. Appearance of abdomen (flat, protuberant, distended)
- e. Bowel sounds (normal, increased, decreased)
- f. Tenderness on abdominal palpation
- g. Guarding or rebound tenderness on palpation
- h. Guaiac results on any vomitus (if available) or stool

3. ASSESSMENT

- a. Acute gastroenteritis. Nausea and vomiting, frequently accompanied by diarrhea, malaise, and mild fever; occasionally with URI symptoms. Active bowel sounds and little, if any abdominal tenderness
- b. **Food poisoning.** Similar to gastroenteritis. More often rapid or sudden onset, with diarrhea following. Clusters of cases with similar food history seen.

c. **Following alcohol, drugs.** Many chemicals and drugs may cause nausea and vomiting. The exam is usually normal

d. **Early pregnancy.** LMP greater than 6 weeks ago. Symptoms often worse in morning. Confirm with pregnancy test

NAUSEA AND VOMITING continued

ASSESSMENT continued

- e. **Migraine headache.** Headache is usually the major complaint but nausea and vomiting may precede a severe headache
- f. Acute hepatitis. History similar to gastroenteritis; light stools, dark urine, or jaundice. RUQ tenderness and liver enlargement often present'
- g. **Abdominal emergency.** Severe abdominal pain, high fever, bloody vomitus or bloody stools
- h. **Anxiety/Stress related.** Clear history relating nausea and vomiting to anxiety or stressful event(s). Normal exam

4. **PLAN**

- Acute gastroenteritis is usually self-limited. Treat with a clear liquid diet, rest, and Tylenol. If patient cannot hold down fluids, then a Phenergan 25mg IV or PR, or Compazine 5mg IV or PR, may be given (requires consult) Kaopectate or Donnagel may be used for diarrhea
- b. **Food poisoning.** Same treatment as for gastroenteritis. Report clusters of cases to preventive medicine.
- c. **Following alcohol, drugs.** Self-limited, if noxious agent is avoided; withholding the offending medication or referral for special counseling may be required. Dramamine may be of benefit to alleviate symptoms.
- d. **Early pregnancy.** It is best not to give any medications. Symptoms can be minimized by eating several small meals and avoiding high-fat foods.
- e. **Anxiety/stress related.** Reassure patient that no serious organic disease is present. Discuss ways to avoid or alleviate stress; special counseling may be required

- a. Bloody vomitus or coffee ground appearance
- b. Bloody, tarry stools
- c. Fever greater than 100°F
- d. Jaundice, icterus
- e. Severe headache or dizziness
- f. Postural vital signs (blood pressure drops more than 10mm HG systolic, pulse rises greater than 20 beats/min, after standing)
- g. Abdominal distention
- h. Moderate or severe abdominal tenderness
- i. Positive guaiac
- j. History of vomiting or persistent vomiting for greater than 24 hours
- k. When the medic is in doubt or uncomfortable with the case

ABDOMINAL PAIN

Abdominal pain is a common complaint, and while the most common causes in young adults are mild and self-limited, there are many serious considerations which must be ruled out. Such a large list is beyond the scope of this manual. The medic must, however, take a thorough history, and make referrals as appropriate. See the discussions on **NAUSEA AND VOMITING** and **DIARRHEA AND CONSTIPATION** as a cross-reference.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. General (quality, location, onset, duration, radiation of pain)
- b. Aggravating or mitigating factors
- c. Associated fever, diarrhea, constipation, nausea, vomiting, chest pain or back pain
- d. History of trauma
- e. Appetite and last meal
- f. Medications, alcohol ingestion
- g. Past treatment or evaluation

2. **OBJECTIVE (always include vital signs)**

- a. Vital signs, including postural B/P and pulse
- b. Sclera icterus, jaundice (appearance of mucus membranes)
- c. Listen to lungs and heart (abnormal sounds)
- d. Appearance of abdomen (flat, protuberant, distended)
- e. Bowel sounds (normal, increased, or decreased)
- f. Tenderness, masses on abdominal palpation
- g. Guarding or rebound tenderness
- h. Psoas or obdurator signs
- i. Costovertebral angle (CVA) tenderness
- j. Hernia (males)
- k. Guaiac (+) stool, any pain during rectal examination

3. ASSESSMENT

- a. Acute gastroenteritis. Pain usually mild, cramps, poorly-localized, with nausea, vomiting, and diarrhea. See discussion on NAUSEA and VOMITING
- b. Heartburn or gastroesophageal reflux (GER). Mild epigastric, substernal buring sensation, usually after meals, relieved by antacids
- c. **Pain from abdominal muscle stress.** Excessive coughing or vomiting causing diffuse abdominal wall discomfort. Afebrile, may have minimal diffuse guarding
- d. **Hepatitis.** Malaise, nausea, RUD pain and tenderness, jaundice, dark urine.

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ABDOMINAL PAIN continued

ASSESSMENT continued

- e. **Abdominal emergency.** Severe abdominal pain, vomiting blood, bloody stools, high fever, rigid abdomen, positive heel tap, inability to stand or sit straight without pain.
- f. **Appendicitis.** Gradual onset of diffuse pain with migrates to RLQ. Fever usually less than 101°F initially, RLA and LLQ rebound tenderness (Rovsing's sign) psoas and obductor signs are positive if a retrocecal appendix. Elevated WBC.
- g. **Peptic ulcer.** Burning, gnawing epigastric pain, often episodic 1-4 hours after meals. Relieved by food or antacids. Deep epigastric tenderness.
- h. Pelvic inflammatory disease (PID). Progressive lower abdominal pain, cramping, fever in females. Aderexal tenderness on pelvic examination (Do not perform this exam unless under the direct supervision of a medical officer).

4. **PLAN**

- a. Acute gastroenteritis is usually self-limited. Treat with clear liquid diet, rest. Tylenol, Kaopectate or Donnagel may be given for diarrhea.
- b. **Heartburn** usually responds well to antacids such as Gavison or Mylanta. Recurring episodes may indicate underlying ulcer or reflux.
- c. **Pain from abdominal stress.** Reassure patient that there is no evidence of serious organic disease. Tylenol, antacids, and rest help pain.

- a. severe or recurrent abdominal pain
- b. Severe nausea or vomiting
- c. Bloody, coffee ground vomitus
- d. Bloody, tarry stools
- e. Fever greater than 100°F
- f. Jaundice, icterus
- g. Postural vital signs (B/P drops more than 10mm HG systolic, pulse rises greater than 20 beats/min, after standing)
- h. Abdominal distention
- i. Absence of bowel sounds
- j. Moderate to severe tenderness or masses on palpation
- k. Guarding or rebound tenderness
- I. CVA tenderness
- m. Hernia
- n. Positive guaiac
- o. When the medic is in doubt or uncomfortable with the case

DIARRHEA AND/OR CONSTIPATION

Diarrhea and constipation are symptoms whose causes are usually acute and selflimited. In all cases it is important to obtain a detailed description of the patient's symptoms. Acute diarrhea implies frequent, watery bowel movements, not just loose stools. A dietary history can usually explain must cases of constipation and loose stools in young adults. The discussion on **ABDOMINAL PAIN** and **NAUSEA AND VOMITING** should be used as cross reference.

1. SUBJECTIVE (ask about a previous history for the same complaint)

- a. General (onset, frequency, amount, last BM, color, consistency, odor, and recent changes)
- b. Associated abdominal pain, painful BMs, fever, weight loss, flatulence, anxiety, lack of energy
- c. Bloody or tarry (black) stools.
- d. Postural hypotension (the feeling like one will faint upon arising suddenly)
- e. Current medications (laxatives, antibiotics, codeine, antacids)
- f. Appetite, last meal, current fluid consumption
- g. Dietary history (dairy or meat products, fruit, fiber)
- h. Recent travel to rural arrears, tropics, or third world countries
- i. Prior evaluation or treatment

2. OBJECTIVE (always include vital signs)

- a. Vital signs, including postural B/P and pulse
- b. Document weight (in symptoms chronic)
- c. Signs of viral URI on HEENT exam
- d. Appearance of abdomen (flat, protuberant, distended)
- e. Bowel sounds (normal, increased, decreased)
- f. Tenderness on abdominal palpation
- g. Guarding or rebound tenderness
- h. Guaiac results on any stool and save specimen for possible microscopic examination for WBCs

3. ASSESSMENT

- a. **Acute Constipation.** Usually situational, secondary to voluntary restraint, decreased intake, or rectal pain (hemorrhoids)
- b. **Chronic constipation.** Usually due to low fiber, high-fat, highcarbohydrate diet, possible exacerbated by laxative abuse. Flatulence and mild abdominal pain may also be observed.

DIARRHEA AND/OR CONSTIPATION continued

ASSESSMENT continued

- c. **Acute gastroenteritis.** Diarrhea will be moderate and with acute onset, frequently with nausea, vomiting, malaise, and mild fever; occasionally with URI signs. Active bowel sounds and little, if any, abdominal tenderness.
- d. **Food poisoning.** Similar to gastroenteritis. Bacterial toxins (e.g. Staph) often produce sudden onset of nausea and vomiting followed by diarrhea. Bacterial infections (e.g. Salmonella) usually produces only diarrhea of sudden onset. Clusters of cases with similar food histories are frequently seen.
- e. **Dysentery.** Acute to subacute diarrhea with pus, mucus, and blood in stools, fever, malaise, and abdominal pain are observed. Stool (+) for many WBCs.
- f. **Irritable bowel syndrome.** Though common, it is a diagnosis made only when others have been excluded. Chronic, recurrent abdominal discomfort and flatulence, aggravated by anxiety, and stress, diarrhea often alternate with constipation. Exam is usually normal.
- g. **Inflammatory bowel disease.** Recurrent diarrhea, often mixed with blood, and worse at night, mild to moderate abdominal pain with accompanying weight loss.

4. **PLAN**

- a. **Acute constipation** responds well to laxatives, such as Milk of Magnesia, stool softeners (Colace, Surfak) are helpful when painful BM, are part of the problem. Warm prune juice works wonders in relieving constipation. Try this first before giving out laxatives.
- b. **Chronic constipation** should be treated with dietary modifications to increase the amount of fruit and fiber eaten. Bulk-forming agents (Metamucei) may be helpful, but laxatives are to be avoided.
- c. Acute gastroenteritis is usually self-limited. Treat with a clear liquid diet, rest, and Tylenol. Donnagel may be given for diarrhea.
- d. **Food poisoning.** If mild, treat like gastroenteritis. Report clusters of cases to Preventive Medicine.
- e. Loose stools, without other symptoms may be treated with Kaopectate.

f. Be sure to tell the patient to return for follow up if the diarrhea persists longer than 48 hours or if he develops a fever.

DIARRHEA AND/OR CONSTIPATION continued

- a. Severe or recurrent diarrhea
- b. Severe or persistent abdominal pain
- c. Bloody, tarry stools
- d. Diarrhea of more than 48 hours duration
- e. Fever greater than 100°F
- f. Postural vital signs (B/P drops more than 10mm Hg systolic, pulse rises more than 20 bpm after standing)
- g. Abdominal distention
- h. Absence of bowel sounds
- i. Moderate to severe tenderness or masses on palpation
- j. Guarding or rebound tenderness
- k. Positive guaiac
- I. When the medic is in doubt or uncomfortable with the case

LIST OF MEDICATION

The following is a list of medications prescribed in the self-care protocols in this manual. After each medication, there is brief description of the symptoms that the drug will treat effectively. In addition, any special patient instructions in the use of the medication and possible side effects are listed to make the medic aware of problems that could surface. Any questions regarding these or any other medication should be referred to the medical officer.

ANALGESIC BALM (Ben Gay) – Effective for relief of minor muscle aches.

Side Effects: Possible rash Special Instructions: None

ANTIBIOTIC OINTMENT (Neosporin, Bacitracin) – An antibiotic ointment for use on minor skin sores or lesions to prevent infection.

Side Effect: Localized redness, rash

Special Instructions: Use small amounts 2-5 times daily. If redness or itching occur, stop use and return for reevaluation.

ANTIFUNGAL AGENTS (Tinactin, Desenex) – Available in powder, liquid, or aerosol, Tinactin is effective in the treatment of many superficial fungal infections of the skin. Tinactin does not sting; it has been know to causes added irritation in very few cases.

Side Effects: Localized rash can occur

Special Instructions: If a rash or additional irritation should develop, the patient should be instructed to discontinue use and return for reevaluation.

ANTIHISTAMINES (Benadryl) – Provides relief to the patient suffering from runny nose or nasal stuffiness resulting from allergies, common cold, or influenza. Antihistamines also decrease secretions and reduce congestion/inflammation of the nasal passages

Side Effects: Drowsiness, rash (localized or general), tightness of the chest, dizziness, headaches.

Special Instructions: If drowsiness should develop, the patient should be instructed not to drive or work around dangerous machinery while taking the antihistamine.

ASPIRIN – Very effective for relief of minor aches and pains. Aspirin should not be used by patients with a history of gastrointestinal bleeding or peptic ulcers.

Side Effects: Skin rash, upset stomach, ringing in the ears if taken in large doses

Special Instruction: Patients should be instructed to take aspirin either with meals or with a glass of milk

BETADINE – Mild skin cleanser; also provides residual protection against future bacterial infection Side Effects: None Special Instructions: None

BURROW'S SOLUTION – Solution prepared from either powder or tablets used as a soothing wet dressing to relieve inflammation of the skin resulting from insect bites, poison ivy, swelling and athlete's foot Side Effects: Localized rash Special Instructions: Patient should be instructed to keep solution away from the eyes. Once in liquid form Burrow's solution should be kept at room

temperature for no more than 7 days.

CALAMINE LOTION – Used to relieve itching skin resulting from poison ivy (contact dermatitis) or sunburn. Side Effects: None Special Instructions: None

CEPACOL LOZENGES – Provides soothing relief from throat irritations.

Side Effects: None Special Instructions: None

CHAPSTICK – A stick of solidified petroleum jelly effective in providing relief for dry, chapped, or cracked lips. Side Effects: None Special Instructions: None

CHLORASEPTIC GARGLE – Provides soothing relief from throat irritations.

Side Effects: None Special Instructions: None **COUGH ELIXER –** Antitussives, expectorants – (Robitussin, Novahistime, Robutussin DM) Provides relief to patient suffering from cough and/or congestion of the lungs resulting from the common cold or influenza. Side Effects: Occasional drowsiness

Special Instructions: Do not exceed 2 teaspoonfuls every 4 hours for 3 days.

DOMEBORO TABLETS – A soothing wet dressing for relief of inflammatory conditions of the skin, insect bites, poison ivy, swellings and bruise, or athlete's foot.

Side Effects: Localized rash Special Instructions: Patient should be instructed to keep the solution away from the eyes

FOOT POWDER/OINTMENT – In either form, this compound is effective against fungal infection of the foot, especially between the toes Side Effects: None Special Instructions: None

FOSTEX SOAP – An effective cleanser used in the treatment of acne, dandruff, and other skin conditions characterized by excessive oil production. Fostex dries the oil thus promoting the removal of the dead layer of skin. Side Effects: None Special Instructions: None

HEMORRHOIDAL SUPPOSITORIES (PLAIN) – provide prompt relief for the itching and pain associated with hemorrhoids. Side Effects: Localized irritation in the rectal area Special Instructions: Suppositories should be used after each bowel movement. If localized irritation develops, discontinue use and return for reevaluation and alternate treatment.

HYDROCORTISONE 0.5g CREAM – Provides temporary relief from minor skin irritation, itching, and rashes.

Side Effects: None

Special Instructions: Avoid contact with eyes. If condition worsens or if symptoms persist for longer than 7 days, the patient should discontinue use and return for reevaluation.

HYDROGEN PEROXIDE – solution used as a cleanser for the skin to control bacterial infection. It may also be used as a gargle (full strength or diluted with water) for relief of throat discomfort.

Side Effects: None

Special Instructions: If used as a gargle, patient should brush teeth after meals before gargling with hydrogen peroxide.

KAOPECTATE – Prepared in both powder and liquid form, provides relief for the patient suffering from diarrhea.

Side Effects: None

Special Instructions: Patient should return for reevaluation if diarrhea persists for longer than 48 hours.

LAXATIVES – Bulk, fecal softeners, mineral oil – used in management of temporary constipation. Fecal softeners keep stools soft for easy natural passage.

Side Effects: Laxatives may become habit forming.

Special Instructions: Use of these medications should be infrequent.

NASAL DECONGESTANT (Afrin Spray, Neo-Synephrine, Sudafed Tablets)-Provides relief from nasal congestion resulting from seasonal allergies, inflammation of the sinuses, and congestion associated with the common cold and influenza. Nasal decongestants constrict the blood vessels of the nasal passages, which allows the patient to breathe easier.

Side Effects: The patient sensitive to nasal decongestants sprays may experience a mild stinging sensation which often disappears after the first few sprays. Certain nasal decongestants tablets may cause nervousness, dizziness, or sleeplessness.

Special Instructions: Patient should be instructed not to exceed the prescribed dosage, to follow package directions carefully, and to return if symptoms become worse or persist for longer than 7 days, or if fever develops. Continuous use for longer than 3 days should be discouraged.

PEPTO-BISMOL – Used in the treatment of indigestion, nausea, or diarrhea. Side Effects: The medication may cause temporary darkening of the stool and tongue

Special Instructions: If take with aspirin and ringing of the ears occurs, the patient should be instructed to discontinue use and return for reevaluation. If the diarrhea is accompanied by fever or continues for more than 48 hours, the patient should return for reevaluation

SEBUTONE/SEBULEX SHAMPOO – Used in the treatment of the scaling and itching associated with dandruff. These shampoos contain special cleansers to rid the hair of excess oil in addition to softening the crusty layers of the scalp.

Side Effect: Localized rash

Special Instructions: Patient should be instructed to avoid contact with the eyes when using any of these shampoos. If a rash or irritation should develop or increase, the patient should discontinue use of the product and return for reevaluation.

STERI-STRIPS- Commercially produced sterile strips used to secure edges of minor skin lacerations to promote healing.

Side Effects: The patient may be sensitive, particularly to the adhesive on the steri-strip, and develop a localized irritation of the skin.

Special Instructions: Steri-strips are for use on minor skin lacerations only. Wounds with edges that cannot be brought in close proximity to one another are not candidates for steri-strip use. The medic must pull the edges of the cut together as close as possible, taking care not to overlap the edges. The patient should be advised to return if any localized redness, irritation, or swelling develops as this is an indication of infection that requires further treatment.

TOPICAL ANESTHETICS (Nupercainal Ointment) – Provides temporary relief of pain and itching from hemorrhoids by lubricating dry and inflamed skin. May also be used for sunburn, minor cuts, and burns. Side Effects: None Special Instructions: None

VASELINE (WHITE PETROLEUM JELLY) – Provides soothing relief to many types of skin trauma. In addition, petroleum jelly acts as a moisturizer for dry skin. Side Effects: None Special Instructions: None

VISINE EYE DROPS – Provide relief for tired and irritated eyes resulting from dilated blood vessels. Side Effects: None Special Instructions: None **ZINC OXIDE OINTMENT –** Provides temporary relief of minor skin irritations and provides a protective coating for inflamed tissues.

Side Effects: None

Special Instructions: Do not put this medication into the rectum. Do not apply over puncture wounds, infections, or lacerations. Avoid contact with eyes

GLOSSARY OF TERMS

Occasionally the medic may be uncertain of the definition of some of the medical terms used in this manual. Since medic may not have access to a medical dictionary, the following glossary of terms is provided.

ABDUCTION - 1. The lateral movement of the limbs away from the median plane of the body, or the lateral bending of eh heard or trunk. 2. The movement of the digits away from the axial of a limb. 3. Outward rotation of the eyes.

ACCOMODATION – The adjustment of the eye for various distances whereby is able to focus the image of an object on the retina by changing the curvature of the lens.

ACNE– A common skin condition occurring primarily in the late teens and early twenties, but many continue into the thirties. Heredity, diet, hygiene, stress, and general illness can aggravate acne and be extremely upsetting to the young soldier. Acne is caused by plugged oil glands. The oily material that is secreted develops a dark color when exposed to air, forming what is knows as a "blackhead." These plugged glands may become inflamed, and pimples develop when bacteria begin breaking down the oil thereby producing irritating substances as by-products. With proper treatment acne can be improved, thus avoiding scarring and other life-long side effects.

ADDUCTION - Movement of a limb or eye toward the median plane of the body, or, in case of digits, toward axial line of a limb.

ADENOPATHY – Enlargement of the glands, especially the lymph glands/nodes

ALIMENTARY CANAL OR TRACT – The digestive tube from mouth to anus.

ALOPECIA – See Hair Loss

ANOREXIA – Loss of appetite

ANTERIOR – Before or in front of

ATHLETE'S FOOT – Athlete's foot is the result of a fungal infection that usually starts with scaling and/or fissuring between the toes accompanied by intense itching. It is not uncommon for the infection to spread to other portions of the foot, especially around the toenail. The presence of athlete's foot fungus can be confirmed by a potassium hydroxide test.

ATROPHY – Degeneration, wasting away

BENIGN – not malignant, not recurrent, favorable from recovery

BOIL – Also known as a furuncle if it has a single "core" or carbuncle if there are multiple cores. It is a painful nodule formed in the skin by inflammation enclosed a core. It is caused by bacteria which generally enter through a follicle. Tenderness, swelling, and pain are present around the area of redness. Extremely large or numerous boils can produce fever.

BURN – Any localized injury in the outer layer of skin caused by heat and characterized by redness, pain, and/or blisters. The three degrees of burns are:

First Degree (characterized by redness) Second Degree (characterized by blistering) Third Degree (results when the outer layer of skin is destroyed)

CHARCRE – The primary sore of syphilis characterized by an elevated painless ulceration which indicates the point of entry of tile infection.

CONFUSION – A disturbance in the patient's understanding, and that simple questions directed to the patient are not understood.

CONJUNCTIVITIS – Inflammation of the membrane that lines the eye and eyelids; also known as "pink eye".

CONSTITUTIONAL – Affecting the entire body; not local.

CONTACT DERNATITIS (Poison Ivy) – results when the skin comes in contact with anything in the environment that causes an inflammatory reaction in the skin (e.g. shoe materials, watch-band, earrings, etc.) Poison ivy is the most common cause of contact dermatitis. The specific cause of the skin reaction in poison ivy is the oil secreted by the ivy leaves. This oil can be transported directly from the plant to the skin by way of a person's hand or even inhaled by burning plants. A poison ivy rash is usually confined to the arms, legs, or face since these body parts readily come in contact with the plant. Symptoms usually develop within 24-48 hours of contact and are characterized by itching, redness, minor swelling, and the formation of blisters. The blisters can break resulting in oozing fluid and a crusted appearance. Contrary to popular belief, the fluid from broken blisters does not cause more lesions; only the plaint oil can do that.

CONTRACEPTION – The prevention of pregnancy.

DANDRUFF- A condition affecting the epidermal (outer) skin layer of the scalp characterized by itching and scaling of the scalp. More serious cases of dandruff can affect the facial areas as well

DERMIS – see skin

DIARRHEA – Loose or liquid bowel movements of abdominal frequency.

DIASTOLIC PRESSURE – A measure of the blood pressure during dilation stage of the heart while it fills with blood; the low point of a blood pressure reading.

DIPLOPIA – Seeing two images of a single object; double vision

DORSAL – 1. Pertaining to the back. 2. Indicating a position toward a rear part. Opposed to ventral.

DRUG REACTION (Rash) – An acute widespread temporary reddish eruption on the skin which can develop in individuals sensitive to a particular drug (prescription or nonprescription). The rash is characterized by itching that can interfere with sleep or performance of normal duties/activities. The rash results from the enter body reacting to the drug itself and usually develops early in treatment rather than after the drug has been taken for a period of time.

DYSMENNORRHEA – Painful menstruation

DYSPEPSIA – Excessive acidity of the stomach; epigastric discomfort following meals.

DYSPNEA – Air hunger resulting from labored or difficult breathing, sometimes accompanied by pain. Normal when due to vigorous work or athletic activity.

DYSPHAGIA – Difficulty in swallowing

DYSURIA – Pain during urination; difficult with urination

EPIDERMIS – see Skin

EPISTAXIS – Nosebleed (normally resulting from the rupture of the blood vessels inside the nose)

ESOTROPIA – Marked turning inward of the eye; crossed eyes.

EUSTACHIAN TUBE – Auditory tube, channel extending from the middle ear to the nasal passages.

EXOTROPIA – Abnormal turning of one or both eyes outward.

EXUDATE – Material, such as fluid, cells, or cellular debris, which has escaped from blood vessels and has been deposited in tissues or in tissue surface, usually as the result of inflammation.

FATIGUE – State of increased discomfort and decreased efficiency resulting from prolonged or excessive exertion.

FISSURE – A line-like crack in the skin.

FLATULENCE – Excessive gas in the stomach and intestines

FLATUS – Gas in the digestive tract. Expelling of gas from any digestive tract..

FROSTBITE – The condition that results from the skin being exposed to extremely cold weather for an extended period of time (usually the toes, fingers, or face are affected). In severe cases, permanent destruction of tissues may occur from the crystallization of tissue water in the skin and adjacent tissues.

GASTROENTERITIS – Inflammation of the stomach and intestines.

HAIR FOLLICLE – see Skin

HAIR LOSS (ALOPECIA)- While most hair loss is natural and hereditary, any hair loss that is sudden or extreme in nature can result from a severe infection, caustic chemicals, or drugs. When treated promptly and properly, hair growth can resume.

HEAT INJURY - The result of exposure to excessive temperatures with or without accompanying strenuous activity. The cause of heat injury is an excessive loss of water and salt from the body or a breakdown of the body's cooling mechanism.

HEMATURIA – Blood in the urine.

HEMORRHOIDS – Expansion of one or more veins in the rectal area resulting from an increase in venous pressure.

HYP(O) – A prefix signifying beneath, under, below normal, or deficient.

HYPEREMIA – Congestion, an unusual amount of blood in a part.

HYPERMENORRHEA – excessive uterine bleeding occurring at regular intervals, the period of flow being of usual (normal) duration

HYPERTENSION – Persistently high blood pressure

HYPERVENTILATION – Abnormally prolonged, rapid, and deep breathing causing an increased, amount of air to enter the lungs resulting in a decrease in the level of carbon dioxide (CO2) dissolved in the blood.

ICTERIC – Pertaining to or affected with jaundice

IMMUNOLOGY – Pertaining to that branch of medicine dealing with the response of the body to the introduction of foreign substance (antigens) such as bacteria, viruses, and ragweed pollen.

JAUNDICE – A syndrome characterized by the deposition of bile pigments in the skin, mucous membranes, and sclera with resulting yellow appearance of the patient.

JOCK ITCH (Tinea Cruris) – Caused by a fungal infection and aggravated by sweating, restrictive garments, and a failure or inability to wash and dry carefully on a daily basis. This type of infection causes intense itching that can be disabling. In addition to intense itching, red areas with many small blisters and dandruff-like scales develop on either side of the scrotum. Spread of the infection beyond the groin area and involvement of the scrotum and/or penis is uncommon. A secondary bacterial infection can develop which can render the patient seriously ill.

LARYNGITIS – Inflammation of the larynx which may be accompanied by throat dryness, soreness, hoarseness, cough, and/or difficulty in swallowing.

LATERAL - Pertaining to the side, away from the median plane

LESIONS - A wound, injury, or pathological alteration of tissue

LIBIDO - Sexual drive

MALAISE – A vague feeling of body discomfort

MALIGNANT - Tending to become progressively worse and to result in death

MEDIAL – 1. Pertaining to the middle. 2. Nearer the median plane.

MEDIAN PLANE – A vertical plane through the trunk and head dividing the body into right and left halves.

MENINGES – The three membranes that surround the brain and spinal cord

MEMOPAUSE – Cessation of menstruation in the female, usually occurring between the ages of 46 to 50.

MEMORRHAGIA – Excessive uterine bleeding occurring at the regular intervals of menstruation, the period of flow being greater than usual duration.

MENSTRUAL PERIOD – The cyclic uterine bleeding which normally occurs in females at approximately 4-week intervals during the reproductive years in the absence of pregnancy.

METRORRHAGIA – Uterine bleeding, usually of normal amount, occurring at completely irregular intervals, the period of flow sometimes being prolonged.

MIOSIS – Contraction of the pupil

MYALGIA - Pain in a muscle or muscles

MYDRIASIS – Dilatation of the pupil

MYOPIA – nearsighted

NAUSEA – An unpleasant sensation that one may vomit (sick to the stomach)

NEOPLASM – Any new or abnormal growth (tumor). Everyone develops neoplasm during their lifetime, but most neoplasms are not cancerous.

PAP EXAM – A microscopic examination of cells from the vagina and cervix to detect the presence of cancerous or pre-cancerous conditions

PARENTERAL – Denoting any route other than the alimentary canal, such as intravenous, subsutaneous, intramuscular, or mucosal.

PERI- Prefix meaning around or about

POSTERIOR – 1. Toward the rear or caudal end; opposed to anterior. 2. In man, toward the back; dorsal. 3. Situated behind; coming after.

PYURIA – Presence of pus in the urine

RETRO – Prefix meaning backward

SIGN- Any **objective** evidence or manifestation of an illness or disordered function of the body. Signs are more or less definitive and obvious and are not part of the patient's impression (which are symptoms).

SKIN – The external covering of the body. The skin consists essentially of two layers – the epidermis and the corium (or dermis). The epidermis is the outmost layer and forms a protective covering for the body. The corium is below the epidermis and contains connective tissue, lymphatics, blood vessels, sweat glands, nerves, and elastic fibers. Appendages of the skin are the hair and nails.

STOMATITIS- Inflammation of the mouth

STRIDOR – Harsh sound during respiration; high pitched and resembling the blowing of wind due to obstruction of air passages

SYMPTOM- Any perceptible change in the body or its function that indicates disease. Symptoms are considered **subjective**.

SYSTOLE – Pertaining to the contraction, or period of contraction, of the heart especially that of the ventricles

TACHYCARDIA – Heart rate greater than 100 beats per minute

TACHYPNEA – Rapid respiration, generally greater than 20 breaths per minute in adults

TINNITUS – A subjective ringing or tinkling sound in the ear

TOXIC – Manifesting the symptoms of severe infection (unresponsiveness, ashen color, febrile)

TRANSUDATE – The fluid which passes through a membrane, especially that which passes through capillary walls. Compared to an **exudates**, a transudate has fewer cellular elements and is of a lower gravity.

VALSALVA'S MANEUVER – Attempt to forcibly exhale with the glottis, nose, and mouth closed. If the Eustachian tubes are not obstructed the pressure on the tympanic membranes will be increased (bulging outward). It also causes an increased in intrathoracic pressure, slowing of the pulse, decreased return of blood to the heart, and increased venous pressure.

VENTRAL – Pertaining to the belly. Hence, in quadrupeds, pertaining to the lower or underneath side of the body; in man, pertaining to the anterior portion or the front side of the body. Opposite of dorsal

WHEEZE- A whistling or signing sound resulting from narrowing of the lumen of a respiratory passageway. Often only noted by use of a stethoscope. Occurs in asthma, croup, hay fever, reactive airway disease.

MEDICAL ABBREVIATION

Α

А ante, before ACTH adrenocorticotropic hormone auris dexter (right ear) AD ADA American Diabetes Association ADH antidiuretic hormone ADL activities of daily living ad lib as desired AFIP Armed Forces Institute of Pathology A/G albumin/globulin ratio AK above knee AKA Also Known As; Above Knee Amputation AMA against medial advice AMA American Medical Association AP/LA anterior, posterior, and lateral APC aspirin, phenacetin, and caffeine ASA aspirin (acetylsalicylic acid) AU both ears aud auditory AV arteriovenous A/W alive and well В BBB bundle branch block BCP birth control pill bid bis in die (twice a day) ΒE barium enema B/f black female BK below knee BKA below knee amputation BM bowel movement

- B/m black male BMR basal metabolic rate B/P blood pressure BRP bathroom privileges BS bowel sounds, blood sugar BS breath sounds BUN blood urea nitrogen С С con, with CA carcinoma CAD coronary artery disease capsule cap CBC complete blood count chief complaint СС cubic centimeter CC CCU Coronary Care Unit CHD congestive heart disease CHF congestive heart failure CNS central nervous system carbon dioxide со complains of c/o CO2 carbon dioxide COPD chronic obstruction pulmonary lung disease cerebral palsy ср CPK creatine phosphokinase CSF cerebrospinal fluid c&s culture and sensitivity CVA cebrovascular accident; costovertebral angle central venous pressure cvp D D&C dilation and curettage D/C discontinue, discharge DIP distal interphalangeal joint
- disch discharge

DNA deoxyribonucleic acid DOA dead on arrival D.O.S day of surgery dp dorsalis pedis (pulse)

- D5W dextrose 5% in water
- Dx diagnosis

Ε

- ea each
- E.coli Escerichia coli
- EDC estimated date of confinement
- EEG electroenephalogram
- ENT ear, nose and throat
- EKG electrocardiogram
- ECG electocardiogram
- EMG electomyogram
- EOM external ocular muscles
- ER emergency room
- ESR erythrocyte sedimentation rate
- etiol etiology

F

- Fb finger breadth
- FB foreign body
- FBS fasting blood sugar
- FHx family history
- FSH follicle stimulating hormone
- F/U follow-up
- FUO fever of undetermined origin
- Fx fracture

G

- GB gallbladder
- GC gonococcus
- GFR glomerular filtration rate
- GG Gamma globulin

- g or G gram
- GI gastrointestinal
- GTT glucose tolerance test
- gtt guttae (drops)
- GU genitourinary
- GYN gynecology

Η

- HA headache
- Hb.Hgb hemoglobin
- Hct hematocrit
- HEENT head, eyes, ears, nose, throat
- HNP herniated nucleus pulposus
- H&P history and physical
- HPI history present illness
- hs hora somni (at bedtime)
- Hx history

I

- I131 radioactive iodine
- ICF intracellular fluid
- ICU intensive care unit
- ICS intercostals space
- I&D incision and drainage
- Infect Infectious
- IM Intramuscular
- IHN isoniazid
- in situ in natural or normal position
- I&O intake and output
- IPPB Intermittent positive pressure breathing
- IUD intrauterine contraceptive device
- IU international unit
- IV intravenous
- IVP intravenous pyelogram

Κ

- Κ potassium (kalium)
- Kg kilogram
- KOH potassium hydroxide
- KUB kidney, ureter, bladder
- KVO keep vein open

L	
L	left
lat	lateral
LBBB	left bundle branch block
LCM	left costal margin
LDH	lactic acid dehydrogenase
lig	ligament
LKS	liver, kidney, spleen
LMP	last menstrual period
LLL	left lower lobe (lung)
LLQ	left lower quadrant (abdomen)
LOA	left occiput anterior

- LOC lost of consciousness
- LOP left occiput posterior
- LOT left occiput temporal
- LP lumbar puncture
- Ls lumbosacral
- LSB left sternal border
- Lues syphilis
- LUL left upper lobe
- LUQ left upper quadrant
- LVH Left ventricular hypertrophy
- L&W living and well

Μ

- m murmur
- MAO monoamine osidase
- MCA motorcycle accident
- MCD minimal cerebral dysfunction
- MCH mean corpuscular

- hemoglobin concentration
- MCL midcostal line
- MCV mean corpuscular volume
- mEq milliequivalent
- milligram mg
- myocardial infarction MI
- ml milliliter
- MLD minimum lethal dose
- MOM milk of magnesia
- MSL midsternal line
- MVA motor vehicle accident

Ν

- Na sodium (L. natrium)
- N/A not applicable
- NB newborn
- Neg negative
- NIH National Institute of Health
- NKA No Known Allergies
- N2O nitrous oxide
- NOC at night
- NP neural protamine Hadegom (insulin)
- NPO nothing per os (nothing by mouth)
- NS normal saline
- NSU nonspecific urethritis
- NTND nontender nondistended

0

- OB obstetrics
- O.D. Oculus dexter (right eye)
- omni die (every day, daily, od once daily)
- oint ointment
- OPD outpatient department
- OR operating room
- 0.S. Oculus sinister (left eye)
- occupational therapy OT

- O.U. both eyes
- OW otherwise

Ρ

- p after
- PA Physician' Assistant pernicious anemia posterioanterior

PABA oara-aminobenzoic acid

- PaCO2 arterial CO2 tension
- PAo2 arterial O2 tension
- palp palpation
- Pap Papanicolaou smear
- PAS para-aminosalicylic acid
- PAT Paroxysmal atrial tachycardia
- PBI protein bound iodine
- p.c. after meals
- PCO2 CO2 partial pressure
- pd papillary distance
- PDA patent ductus arteriovenous
- PE physical examination
- PE pulmonary embolism
- perf perforaton
- PERLA pupils equal reactive to light And accommodation
- PH past history
- PI present illness
- PID pelvic inflammatory disease
- PIP proximal interphalangeal (joint)
- PKU phenylketonuria
- PMH past medical history
- PMI pont of maximal impulse
- PND paroxysmal nocturnal dyspnea
- p.o. Per os (by mouth)
- PR per return
- PSH Past surgical history
- Pt Patient
- PT Physical Therapy

- PV per vagina
- Px Physical examination

Q

- q every
- qid four times a day
- qod every other day

R

RNA Ribonucleic acid

- ROM range of motion
- ROS review of systems
- RVH right ventricular hypertrophy

S

- s without
- SA node sino atrial node
- S1 first heart sound
- SBE subacute bacterial endocarditis
- segs segmented neutrophils
- Sed Rate sedimentation rate
- SGOT serum glutamic
 - oxalocacetic transaminase
- SGPT serum glutamic-pyruvic transaminase
- SIB sibling
- SIG label, let it be imprinted
- SLE systemic lupus erythematosus
- SOB shortness of breath
- ss one-half
- SSE soap suds enema
- SSKI saturated solution of potassium iodide
- STAT immediately
- STS serologic test for syphilis

Т

- T1 first thoracic vertebra
- T&A tonsillectomy and adenoidectomy
- TAH total abdominal hysterectomy
- TB tuberculosis
- Tbc tuberculosis
- TID ter in die (three times a day)
- TLC total lung capacity, Tender Loving Care
- TM tympanic membrane
- TMJ tempralmandibular joint
- TPR temperature, pulse, respiration
- TSH thyroid stimulating hormone
- tsp teaspoon
- TU tuberculin unit
- TUR transurethral resection (of prostate)

V

- vc vital capacity
- VDRL Venereal Disease Research Laboratories
- V.O. Verbal Order
- V.S. Vital sign
- VSS vital signs stable

W

WBC White blood count

- WDWN Well developed & well nourished
- W/D well-developed
- W/f white female
- W/m white male
- W/N well-nourished
- WNL within normal limits
- WT weight

XYZ

Y/O year old

U

- U/A urinalysis
- URI upper respiratory infection
- UTI urinary tract infection

NOTES

NOTES

IMPORTANT PHONE NUMBERS

PHONE NUMBER	COMMENTS