



U.S. ARMY HEALTH SERVICES COMMAND

AMBULATORY PATIENT CARE



**ALGORITHM-DIRECTED
TROOP MEDICAL CARE**

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Medical Services
ALGORITHM-DIRECTED TROOP MEDICAL CARE

The word "he" (and its derivations) used in this text is generic and, except where otherwise indicated, will apply to both male and female.

	<u>Paragraph</u>	<u>Page</u>
PURPOSE	1	1
REFERENCES	2	2
APPLICABILITY	3	2
EXPLANATION OF TERMS	4	2
BACKGROUND	5	2
DISCUSSION	6	2
RESPONSIBILITIES	7	3
ASSIGNMENT OF SCREENERS	8	3
TRAINING	9	3
SUPERVISION	10	4
RECORDING ENCOUNTERS	11	4
AUDIT	12	4
CORRECTIVE ACTIONS	13	6
FLIGHT/DIVING STATUS PERSONNEL	14	6
TRADE NAMES	15	6
LOCAL MODIFICATION OF PROTOCOLS	16	6
LOCAL REPRODUCTION OF THIS PAMPHLET	17	6

- APPENDIX A. SCREENER'S MANUAL
- B. LIST OF MEDICATIONS
- C. INTERNAL/EXTERNAL AUDIT FORM FOR ADTMC (HSC FORM 425-R)
- D. SCREENING NOTE OF ACUTE MEDICAL CARE (DA FORM 5181-R)

GLOSSARY

1. PURPOSE. This pamphlet serves as a guide to provide commanders of medical treatment facilities (MTFs) standardized clinical algorithms for use by screening personnel in determining the urgency and level of care that the active duty soldier requires and, when appropriate, in providing minor treatment to him.

*This pamphlet supersedes HSC Pamphlet 40-7-21, 26 June 1985.



2. REFERENCES.

- a. AR 40-3, Medical, Dental, and Veterinary Care.
- b. AR 40-48, Nonphysician Health Care Providers.
- c. AR 40-66, Medical Record and Quality Assurance Administration.
- d. AR 40-68, Quality Assurance Administration.
- e. HSC Regulation 40-5, Ambulatory Patient Care.

3. **APPLICABILITY.** The algorithms in this pamphlet will be used by enlisted medical personnel or the civilian equivalent—other than physicians, physician assistants (PAs), and nurse practitioners—who screen walk-in active Army soldiers in ambulatory care facilities including troop medical clinics (TMCs) and battalion aid stations (BASs) or active Army soldiers presenting for sick call.

4. **EXPLANATION OF TERMS.** The glossary contains definitions of special terms used in this pamphlet.

5. **BACKGROUND.** The algorithm-directed troop medical care (ADTMC) system provides rapid, high quality medical care to the active duty soldier. Screening by TMC or BAS personnel is a key component of the ADTMC system. When done properly, it ensures that service members reporting to sick call are expeditiously routed to the appropriate medical care provider. When done improperly, it can harm a service member by providing him inappropriate treatment or directing him to an inappropriate provider.

6. DISCUSSION.

- a. The treatment protocols in the ADTMC system are applicable only to the care of the active duty soldier.
- b. The mission of screening is to gather data about the patient's problem, provide minor medical treatment in accordance with treatment protocols, or refer patients to the appropriate care provider with the appropriate urgency.
- c. Screening begins when the patient walks into the TMC or BAS.
- d. Screeners can render minor medical care, as incorporated in the algorithms in this pamphlet, can be rendered only in TMCs, BASs, or in sick call settings.
- e. The use of ADTMC is optional only when either a physician, PA, or nurse practitioner personally provides the evaluation, treatment, and disposition of all patients.
- f. The use of ADTMC is mandatory when medics determine the treatment and/or disposition of active duty personnel. It is only through the use of this pamphlet that the enlisted medic can perform the screening function.
- g. The algorithms in this pamphlet were developed for and tested in combat maneuver battalion aid stations.

h. The basic premise of including treatment protocols in the algorithms is that active duty personnel requiring health care can often be effectively treated with self-care regimens.

7. RESPONSIBILITIES.

a. The MTF commander will:

(1) Establish a local training program for screeners to include Table of Organization and Equipment personnel when used in this role.

(2) Ensure documentation of completed training.

b. TMC/BAS supervising medical officer will:

(1) Certify in writing that clinic personnel performing the screening function have received training and evaluation in the proper use of the ADTMC.

(2) Ensure training, retraining, and inservice education as necessary to support the overall program.

(3) Will promote training of the medics by encouraging medical officers to see patients jointly with the medics.

8. ASSIGNMENT OF SCREENERS.

a. The qualifications of personnel to perform screening vary depending on educational background, experience, and motivation. Supervisors should consider these qualities when selecting potential screeners.

b. Supervisors are responsible for the identification and evaluation of personnel considered as potential screeners.

9. TRAINING.

a. Before selected personnel are assigned, they must receive training at the local level. The amount of training required will vary with the individual's past experience. Experience indicates that a medic with no prior experience can learn the basics of algorithmic screening in less than a week. All training (didactic and on-the-job) must have documentation.

b. The training consists of the following:

(1) An initial issue of this pamphlet.

(2) Briefing for supervisors and medical officers.

(3) Didactic and hands-on training for the medics for at least four to five days.

- (4) Written documentation of the training.

10. SUPERVISION.

- a. HSC Regulation 40-5 requires that a medical officer supervise the ADTMC functions of medics and civilian personnel.

- b. The designation of a supervising medical officer (a physician, PA, or nurse practitioner) must be in writing even if his or her duty assignment is elsewhere in the MTF.

11. RECORDING ENCOUNTERS.

DA Form 5181-R (Screening Note of Acute Medical Care) is for use in recording the active duty patient encounter. The form requires local reproduction. Instructions for its use are in appendix D.

12. AUDIT.

- a. With an effective audit system, the supervisor can ensure an acceptable level of screening performance, thereby protecting the ill soldier. The audit system will serve several specific purposes including, but not limited to:

- (1) Providing an audit trail of each screener's performance. This record can serve as a basis for awards, periodic job counseling, efficiency reports, and administrative actions (to include unit transfers and Military Occupational Specialty reclassification).

- (2) Pinpointing areas of knowledge and/or performance weakness in the screener. Superiors can then direct refresher classes and in-service curriculum toward those areas of demonstrated weakness, rather than general areas that may already be well understood.

- b. HSC Form 425-R (Internal/External Audit Form for ADTMC) has been developed for use in the auditing process and will be maintained on file for 90 days at the TMC or BAS where the findings occurred. These forms will be subject to audit agency reviews, and examination by the Inspector General.

- c. Internal audit (audit of screener).

- (1) The responsible medical officer will audit by close of business the next duty day all category IV dispositions performed by medics. The medical officer will use HSC Form 425-R (appendix C) to identify the algorithm, the screener, the specific error, and corrective actions taken/planned. Before returning the record to the files, the supervising medical officer will review it, and if it is without error, he will indicate acceptance of the accuracy and completeness of care provided by initialling the "auditor's box" provided on the front of DA Form 5181-R. If the medical officer detects an error in either logic or format, he will discuss the error with the screener by the end of the next duty day. The medical officer, when assigned, will be present when the results of a daily audit are discussed so that he can resolve any questions concerning the logic or format errors detected by the internal audit. The medical officer will annotate the action taken and return it to the file by close of business the next duty day. During this audit, the responsible medical officer will check for logic errors and format errors.

(a) Logic errors are errors of commission in which the screener did not follow the algorithm's instructions; (i.e., recording a disposition not in agreement with the algorithm).

(b) Format errors are errors of omission in which the screener did not correctly complete the note, (e.g., failing to sign the note, failing to record a disposition, or failing to enter complete patient identification information).

(2) A designated person will keep a log of all errors/findings which will serve as a basis for training or retraining. Maintenance of this log will be for a minimum of three months and it will be subject to inspections and reviews by audit agencies. The exact method of conveying this information and the manner in which the documentation is maintained will be in accordance with local policy. The system developed should be as simple and direct as possible.

(3) The records of those patients referred to a higher level of care (disposition levels I thru III) are automatically audited as part of the referral process. The receiving medical officer will review both the format and content of the note on DA Form 5181-R and sign the audit at the conclusion of his patient care note. Should a screening error be found at this level, the screener's responsible medical officer will be notified; the responsible medical officer will complete HSC Form 425-R and take corrective action as discussed above.

d. External Audit (visit and records review).

(1) In accordance with HSC Regulation 40-5, the Chief, Department of Primary Care and Community Medicine (DPCCM)(or the designated medical representative) will conduct a site visit not less than annually to each U.S. Army Medical Clinic. In those clinics using ADTMC, these visits should occur during sick call hours to allow observation of the ADTMC.

(2) During the visit, the medical representative will review a random 10percent sample of the internally audited records to ensure compliance and will verify this second level of audit by initialling the auditor's box on the reverse of DA Form 5181-R. The medical representative can stipulate how the records will be chosen in order to provide him/her with a random sample. If during the course of his audit a deficiency is identified, HSC Form 425-R will be prepared and forwarded to the responsible medical officer for corrective action. Each quarter, the medical representative will prepare a narrative summary of these visits and findings for review by the DPCCM committee. These visits will help the Chief, DPCCM ascertain:

(a) The overall reliability of the screening conducted at TMC and BAS levels.

(b) The rate of referral to various levels of medical expertise.

(c) The raw sick call workload for the installation.

(3) Personnel conducting site visits will prepare and submit a narrative summary of these visits to the DPCCM committee for review. The summary will then be an attachment to the DPCCM committee minutes/reports. A copy of this visit report will be sent to the site.

13. **CORRECTIVE ACTIONS.** Documentation and treatment of errors detected by audit and prescription errors reported by the pharmacist will provide the basis for determining the need for continuing education, additional instruction, or supervision. Personnel will document such additional training.

14. **FLIGHT/DIVING/PERSONNEL RELIABILITY PROGRAM (PRP) STATUS PERSONNEL.**

a. Only flight surgeons, other physicians, and/or PAs can perform treatment and disposition of flight personnel. When aircrew (aviation personnel) receive treatment from personnel other than a flight surgeon or aeromedical physician assistant (APA), the aircrew member's unit commander must receive a recommendation for grounding using DA Form 4186 (Medical Recommendation For Flying Duty). Only a flight surgeon may return aviation personnel to flying duty.

b. All PRP personnel will be seen by the physician, PA, or nurse practitioner.

15. **TRADE NAMES.** The use of trade names in this pamphlet is for clarity only. It does not constitute endorsement by the Department of Defense. Health care extenders in some cases may not be familiar with the generic names for self-care medications; therefore, to expedite health care delivery, familiar brand names have been substituted.

16. **LOCAL MODIFICATION OF PROTOCOLS.**

a. There must be strict adherence to the standardized protocols contained in this pamphlet. Personnel will not make modifications or changes to the algorithms and self-care protocols.

b. Screeners may modify the referral/provider category disposition to meet local requirements without approval if the disposition is to an equal or higher category than the category designated in the manual.

17. **LOCAL REPRODUCTION OF PAMPHLET.** This pamphlet, including all parts, is authorized for local reproduction.

APPENDIX A
 Screener's Manual

Algorithms

1. The possible dispositions of the screening algorithms may be summarized as follows:

LEVEL

PROVIDER SKILL LEVEL

I. PHYSICIAN STAT (MD STAT)

A medical problem exists which may be life threatening (an emergency) requiring the immediate attention of a physician. First aid should be initiated and ambulance transportation called for if a physician is not immediately available. The scope of practice of a TMC or BAS is normally inadequate to care for these patients. The goal is to care for these patients in a facility capable of providing advanced cardiac and trauma life support, usually an emergency center.

II. PA STAT

A medical problem exists which may develop into a life threatening emergency if not evaluated on a priority basis by a physician, PA, or nurse practitioner.

III. PA TODAY

A medical condition exists which requires PA evaluation. Findings will be recorded on DA Form 5181-R. Data may be obtained by an ADTMC screener, but the medical officer will ultimately make the disposition.

IV. SELF-CARE PROTOCOL (SCP)

A health condition exists for which self-care is appropriate. The instructions and medications to be offered the patient are contained within the body of the protocol. **EITHER THE PATIENT OR SCREENER MAY ELECT TO OVERRULE THIS RECOMMENDATION OF SELF-CARE.**

If the patient refuses the SCP, he will be referred to and be seen by a medical officer.

V. HOSPITAL CLINIC REFERRAL

A medical condition exists which will be appropriately evaluated in a specialty or subspecialty clinic. Consultation with either the PA or the supervising physician is required. When an appointment is not available within the time frame specified by the algorithm, the patient will be referred to Level III, PA today.

NOTE: IF FOR ANY REASON YOU FEEL THAT THE DISPOSITION OF THE PATIENT AS DETERMINED BY THE ALGORITHM IS INAPPROPRIATE, CONSULT THE PA OR PHYSICIAN. RULE OF THUMB: WHEN IN DOUBT, CONSULT; IF YOU HAVE DIFFICULTY CONSULTING, REFER! IT IS BETTER TO OVER CONSULT OR OVER REFER THAN TO TAKE THE SLIGHTEST CHANCE WITH YOUR PATIENTS.

2. Questions concerning the disposition instructions for any particular patient should be referred to the supervising physician who is the responsible individual for all aspects of medical care within the unit.
3. The medications to be dispensed by the screening aidmen in conjunction with the self-care protocols are contained in appendix A, section III. Substitution of generic equivalent medications is permitted; however, this does not constitute authority for the addition or deletion of any categories of self-care medications.

NOTES:

1. During acute outbreaks of acute respiratory disease (ARD), basic trainees with temperatures greater than 100°F must be treated in accordance with local standing operating procedures (SOPs), not by algorithmic logic. The period most commonly associated with this problem is January through May; however, outbreaks may occur at any time.
2. Any patient returning to the TMC/BAS for the same complaint/problem that is not improving will, in all cases, be referred to a medical officer.
3. Associated complaints identified by an asterisk (*) and boldfaced type must be screened with the appropriate algorithm(s).
4. First aid measures indicated will be performed by trained personnel.
5. Where lab tests are indicated, local SOPs will be utilized. X-rays will only be ordered by a medical officer.
6. When algorithm calls for obtaining a stool sample and performing a hemocult test, and the patient cannot produce a stool sample, or if a rectal exam is necessary, refer the patient to the medical officer.
7. The complaint-specific vital signs are listed in the upper left corner each algorithm. Additional vital signs may be indicated or required by local SOP but should not be taken during sorting. The end level care provider (i.e., medical officer or screener) will take these additional vital signs.
8. Procedures which require privileging (e.g., setting fractures, minor surgery, etc.) will be accomplished only by personal appropriately trained and privileged IAW AR 40-68.

TABLE OF CONTENTS

a. EAR, NOSE, AND THROAT (ENT) COMPLAINTS.

	Number	Page
Sore Throat	A-1	16
Ear Pain/Discomfort/Drainage	A-2	18
Cough	A-3	20
Sinus Problems/Pain	A-4	22
Runny/Stuffy Nose	A-5	24
Allergy/Hay Fever	A-6	26
Cold	A-7	28
Ringing in the Ears (Tinnitus)	A-8	30
Wax Blockage in Ear	A-9	32
Hearing Problem (Loss)	A-10	32
Foreign Body in Ear or Nose	A-11	32
Ear or Nose Trauma	A-12	32
Hoarseness/Laryngitis	A-13	34
Nosebleed (Epistaxis)	A-14	37

b. MUSCULOSKELETAL COMPLAINTS.

Back Pain	B-1	42
Extremity Pain/Joint Pain (Shoulder, Elbow, Wrist, Hand, Hip, Knee, Ankle, or Foot)	B-2	45
Extremity Pain Not Associated with a Joint	B-3	49
Generalized Muscle Aches (Not Joint or Low Back Pain)	B-4	52
Neck Pain	B-5	54

c. GASTROINTESTINAL (GI) COMPLAINTS.

Nausea/Vomiting/Diarrhea	C-1	59
Abdominal Pain	C-2	64
Rectal Pain/Itching/Bleeding	C-3	69
Constipation	C-4	72
Difficulty When Swallowing (Dysphagia)	C-5	74

d.	CARDIORESPIRATORY COMPLAINTS.		
	Shortness of Breath	D-1	78
	Chest Pain	D-2	81
	Wheeze	D-3	84
e.	GENITOURINARY COMPLAINTS.		
	Painful Urination (Dysuria)/ Frequent Urination	E-1	88
	Blood in Urine (Hematuria)	E-2	90
	Testicular Pain	E-3	92
	Problems in Voiding	E-4	94
	Urethral Discharge (Male)	E-5	97
	Sexually Transmitted Disease (VD)	E-6	98
f.	NEUROPSYCHIATRIC COMPLAINTS.		
	Dizziness/Fainting/Blackout	F-1	102
	Headache	F-2	106
	Numbness/Tingling	F-3	110
	Paralysis/Weakness	F-4	113
	Drowsiness/Confusion	F-5	116
	Depression/Nervousness/Anxiety/Tension	F-6	118
g.	CONSTITUTIONAL COMPLAINTS.		
	Fatigue	G-1	122
	Fever/Chills	G-2	124
h.	EYE COMPLAINTS.		
	Foreign Body in Eye/Eye Injury/Eye Pain/ Itching/Discharge/Redness	H-1	128
	Eyelid Problem	H-2	130
	Decreased Vision	H-3	132
	Seeing Double (Diplopia)	H-4	134
	Seeing Spots	H-5	136
	Request for Eyeglasses Only	H-6	138
i.	GYNECOLOGY (GYN) COMPLAINTS.		
	Breast Problems	I-1	142
	Suspects Pregnancy	I-2	144
	Menstrual Problems	I-3	146

Vaginal Discharge, Itching, Irritation, or Pain	I-4	148
Vaginal Lump, Mass, or Sore	I-5	150
Pelvic Pain	I-6	152
Vaginal Bleeding	I-7	155
Request for PAP or Routine Pelvic Examination	I-8	158
Request for Information on Contraception	I-9	160

j. DERMATOLOGICAL COMPLAINTS.

Unknown Cause of Skin Disorder Complaint	J-1	164
Acne	J-2	166
Shaving Problem—Pseudofolliculitis Barbae (PFB) (Ingrown Hairs)	J-3	168
Dandruff (Scaling of the Scalp)	J-4	170
Hair Loss	J-5	172
Athlete's Foot (Tinea Pedis)	J-6	174
Jock Itch (Tinea Cruris)	J-7	176
Scaling, Depigmented Spots on Chest, Back, and Upper Arm (Tinea Versicolor)	J-8	178
Boils	J-9	180
Fever Blisters (Cold Sores)	J-10	182
Skin Abrasions	J-11	184
Skin Laceration	J-12	186
Suture Removal	J-13	188
Drug Rash	J-14	190
Burns	J-15	192
Friction Blisters on Feet	J-16	195
Corns on Feet	J-17	198
Planter Warts/Ingrown Toenail	J-18	200

k. ENVIRONMENTAL INJURY COMPLAINTS.

Heat Injury/Hyperthermia (Heat Cramps, Heat Exhaustion, Heatstroke)	K-1	202
Hypothermia	K-2	204
Immersion Foot	K-3	206
Chapped Skin/Windburn	K-4	208
Frostbite	K-5	210
Crabs/Lice (Pediculosis)	K-6	212
Insect Bites (Not Crabs/Lice)	K-7	214
Sunburn	K-8	216
Contact Dermatitis (Includes Plants— Poison Ivy, Oak, and Sumac)	K-9	218

1. MISCELLANEOUS COMPLAINTS.

Prescription Refill	L-1	222
Wants a Vasectomy	L-2	225
Needs an Immunization	L-3	226
Exposed to Hepatitis	L-4	228
Dental Problems	L-5	230
Sores in the Mouth	L-6	232
Lymph Node Enlargement	L-7	234
Blood Pressure Check	L-8	236
Preparation of Replacements for Overseas Movement (POR) Qualification	L-9	238
Weight Reduction	L-10	240
Complaint Not on List	L-11	242
Request for Nonprescription Medication	L-12	244

m. MISCELLANEOUS REASONS FOR RETURN.

Showing No Signs of Improvement (Not Getting Better)	M-1	248
Return Requested by Care Provider	M-2	250

EAR, NOSE, AND THROAT COMPLAINTS

*Algorithms for	<u>Number</u>
Sore Throat	A-1
Ear Pain/Discomfort/Drainage	A-2
Cough	A-3
Sinus Problem/Pain	A-4
Runny/Stuffy Nose	A-5
Allergy/Hay Fever	A-6
Cold	A-7
Ringing in the Ears (Tinnitus)	A-8
Wax Blockage in Ear	A-9
Hearing Problem (Loss)	A-10
Foreign Body in Ear or Nose	A-11
Ear or Nose Trauma	A-12
Hoarseness/Laryngitis	A-13
Nosebleed (Epistaxis)	A-14

SORE THROAT, A-1

+ IMPORTANT INFORMATION ON THE ALGORITHM

Blocks 1-2. If the patient has a history of recent neck or throat trauma and also has difficulty speaking or swallowing, he may have a significant injury. This patient requires Category I evaluation.

Blocks 3-4. If the patient is not able to touch his chin to his chest and has an elevated temperature, he may have meningitis and should be evaluated by a medical officer on a priority basis. An inability to swallow should not be confused with difficulty (pain) when swallowing. An inability to swallow is manifested by drooling. If the patient cannot swallow his own saliva, a life-threatening illness may be present. Category I referral is necessary.

Block 5. Difficulty (painful) when swallowing is common with a sore throat and is not a cause for immediate concern. In the absence of a significant fever, exudate (pus) on the tonsils, or swollen tonsils, the patient probably does not have a strep throat requiring antibiotic treatment. However, if any of these three symptoms is present, the patient should be referred as Category III. Asymmetrical tonsils may indicate peritonsillar abscess requiring Category II referral.

Block 6. An inability to clear the ears may indicate an inflammation of the eustachian tubes. This condition makes the patient susceptible to a middle ear infection. (The eustachian tube extends from the middle ear to the nasopharynx.) If this problem exists, the individual needs further evaluation.

- TREATMENT PROTOCOL A-1(6)

1. Aspirin or Tylenol and Chloraseptic gargles or Cepacol lozenges may be provided to relieve the pain. Ensure the patient understands directions for use. Gargling with salt water (1/4 teaspoon of salt in 1 cup warm water) may also help.
2. Instruct the patient to return for medical assistance if the sore throat has shown no signs of improvement after 3 days of the above treatment or if the above signs or symptoms (temperature greater than 101°F, stiff neck, or an inability to swallow) develop.

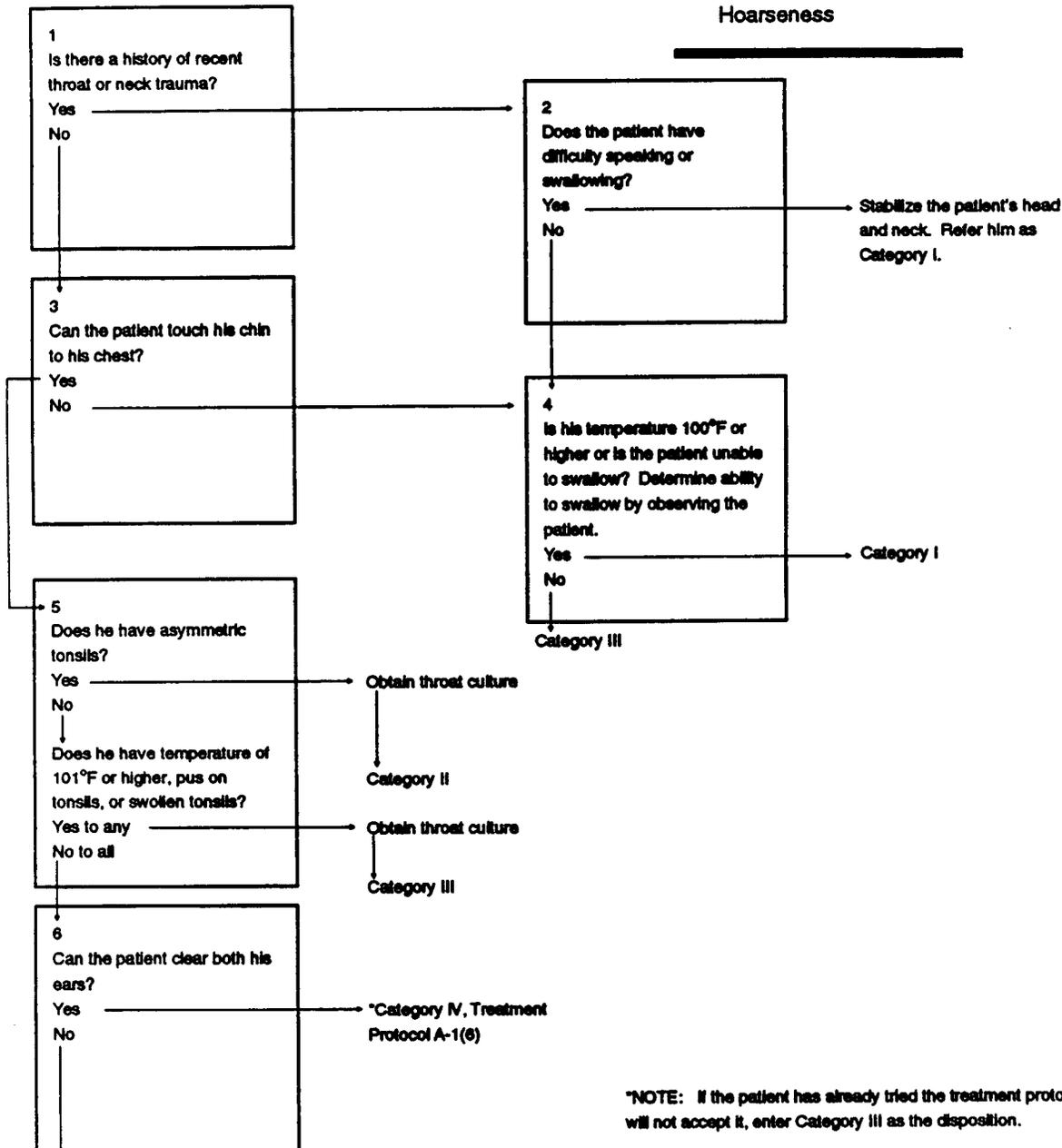
SORE THROAT, A-1

Take complaint-specific vital sign:

Temperature

Associated Complaints:

- Sinus problem
- Allergy/hay fever
- Runny/stuffy nose
- Fever
- Headache
- Muscle aches
- Hoarseness



Screen for Ear Pain/Discomfort/
Drainage, A-2

*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

EAR PAIN/DISCOMFORT/DRAINAGE, A-2

+ IMPORTANT INFORMATION ON THE ALGORITHM

BLOCKS 1-2. Ear infections can be complicated by meningitis. A stiff neck and fever are signs of this complication. ALL PATIENTS WITH A STIFF NECK SHOULD SEE A MEDICAL OFFICER.

BLOCK 3. Patients with true vertigo require evaluation for an inner ear problem.

BLOCKS 4. Patients with ear drainage, pain and decreased hearing, or discomfort without incapacitating vertigo but with a temperature of over 101°F require evaluation by a medical officer. They may need antibiotic treatment for a middle ear infection.

BLOCK 5. Patients without a fever whose complaint is associated with flu symptoms may try self-care for their ear problem. This condition does not require antibiotics. Patients with ear drainage without vertigo, fever, and associated cold or flu symptoms may have an infection in the ear canal requiring medication and should be evaluated as Category III.

- TREATMENT PROTOCOL A-2(5)

1. Provide the patient with a decongestant and aspirin or Tylenol and directions for the use of each medication. Teach the patient to do the modified Valsalva maneuver every 2 hours to attempt to clear the ears.
2. If the patient has a sore throat, provide him/her with Chloraseptic gargles or Cepacol lozenges. Gargling with salt water (1/4 teaspoon of salt in 1 cup warm water) may also help.
3. Instruct the patient to return for medical assistance:
 - If dizziness develops.
 - If his temperature goes above 101°F.
 - If the ear pain is so severe as to preclude duties or activities.
 - If there is no improvement within 24 hours.

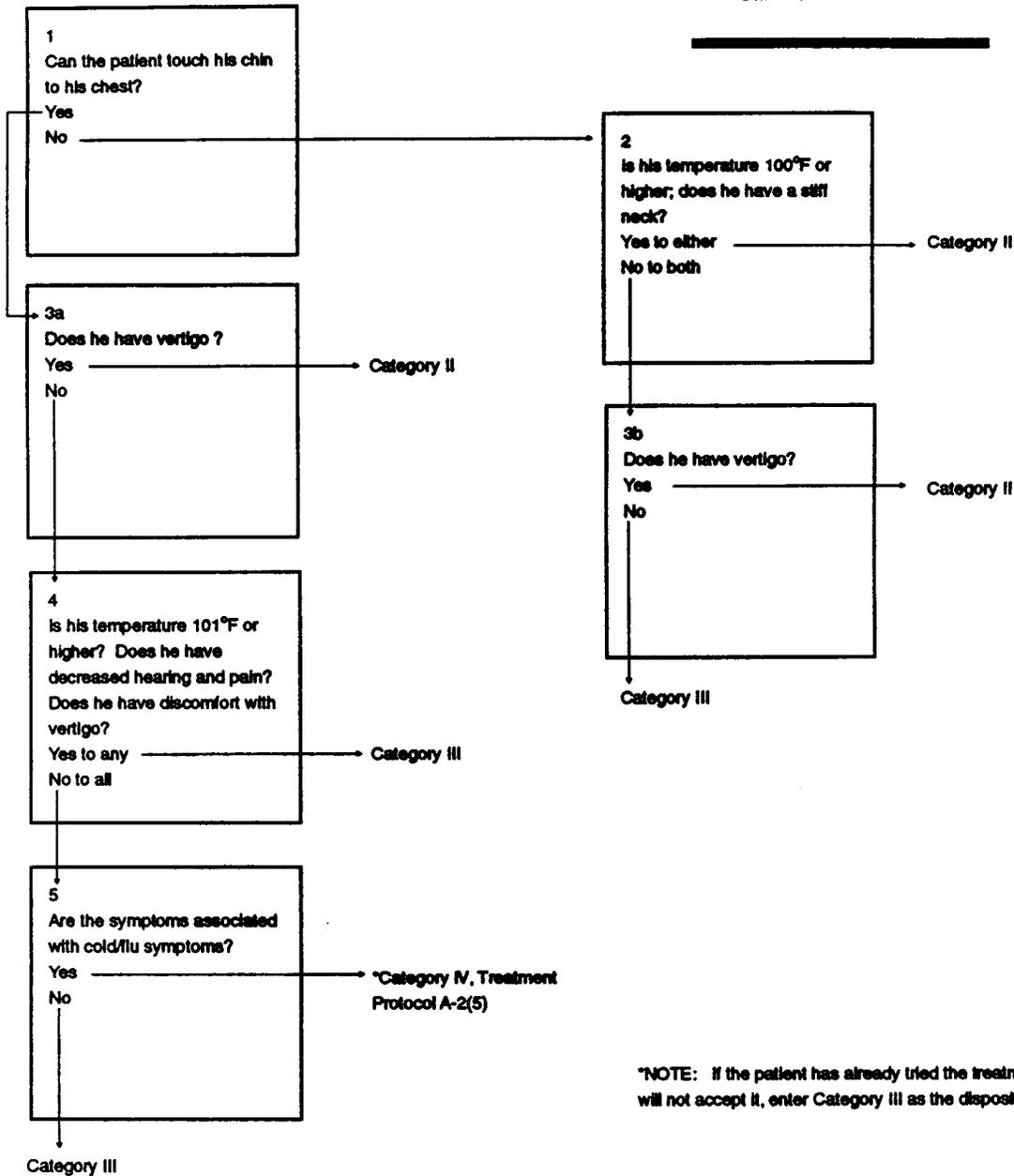
EAR PAIN/DISCOMFORT/DRAINAGE, A-2

Take complaint-specific vital signs

Temperature

Associated Complaints:

- Tinnitus
- Runny/stuffy nose
- Allergy/hay fever
- Sinus Problem**
- Fever
- Headache
- Vertigo/dizziness
- Stiff neck



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

COUGH, A-3

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Shortness of breath at rest indicates severe respiratory distress and requires immediate evaluation.

Block 2. Patients coughing up rusty/blood-streaked sputum or thick sputum with each cough require evaluation as Category III. Obtain a sputum sample for gram stain and gross evaluation before referral.

Block 3. In patients with temperatures of 101°F or greater, the presence of a cough may indicate an infection in the lungs and the patient should be evaluated as Category III. Patients who are coughing without shortness of breath, bloody sputum, or fever over 101°F may appropriately be given self-care. Their symptoms will probably go away without further intervention.

- TREATMENT PROTOCOL A-3(3)

1. The most frequent causes of coughs are colds, flu, smoking, and allergies. Provide the patient with an expectorant and instructions for its use.
2. Advise the patient that:
 - Smoking should be kept to a minimum.
 - Sucking on a cough drop or piece of hard candy may help decrease the tickle in the back of the throat.
3. Instruct the patient to return for medical assistance:
 - If the cough last longer than 2 weeks.
 - If large amounts of thick sputum come up with each cough.
 - If fever, shortness of breath, or pain develops while breathing.

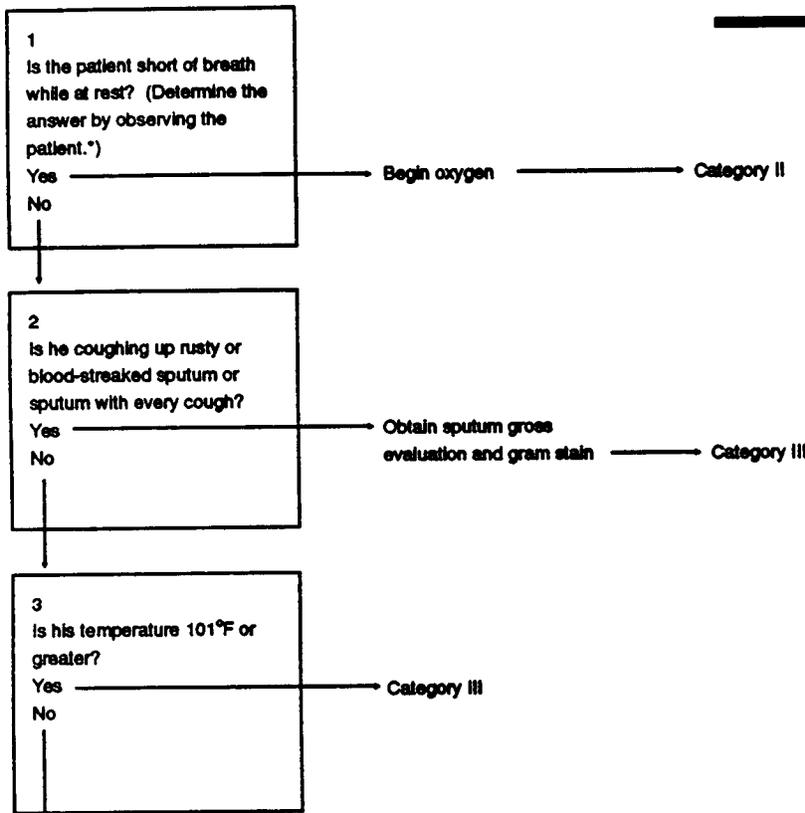
COUGH, A-3

Take complaint-specific vital signs:

- Temperature
- Respiration rate

Associated Complaints:

- Fever
- Runny/stuffy nose
- Allergy/hay fever
- * Shortness of breath
- Muscle aches
- Cold
- * Ear pain
- * Sore throat
- * Chest pain



**Category IV, Treatment Protocol A-3(3)

*NOTE: Shortness of breath at rest is defined as an increased respiratory rate that does not decrease within 3 to 5 minutes rest.

**NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

SINUS PROBLEM/PAIN, A-4

The patient with a runny nose or stuffiness of the head may or may not have a sinus problem.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Blocks 1-3. Patients unable to touch their chin to their chest, who have fever, or who have difficulty answering questions should be evaluated as Category II. They may have serious complications of sinusitis or an upper respiratory infection.

Blocks 4-5. Patients with a temperature over 101°F or with yellow/green or foul-smelling nasal discharge should be referred to Category III as the possibility of a sinus infection requiring antibiotic treatment exists. Patients without these findings will probably respond to self-treatment.

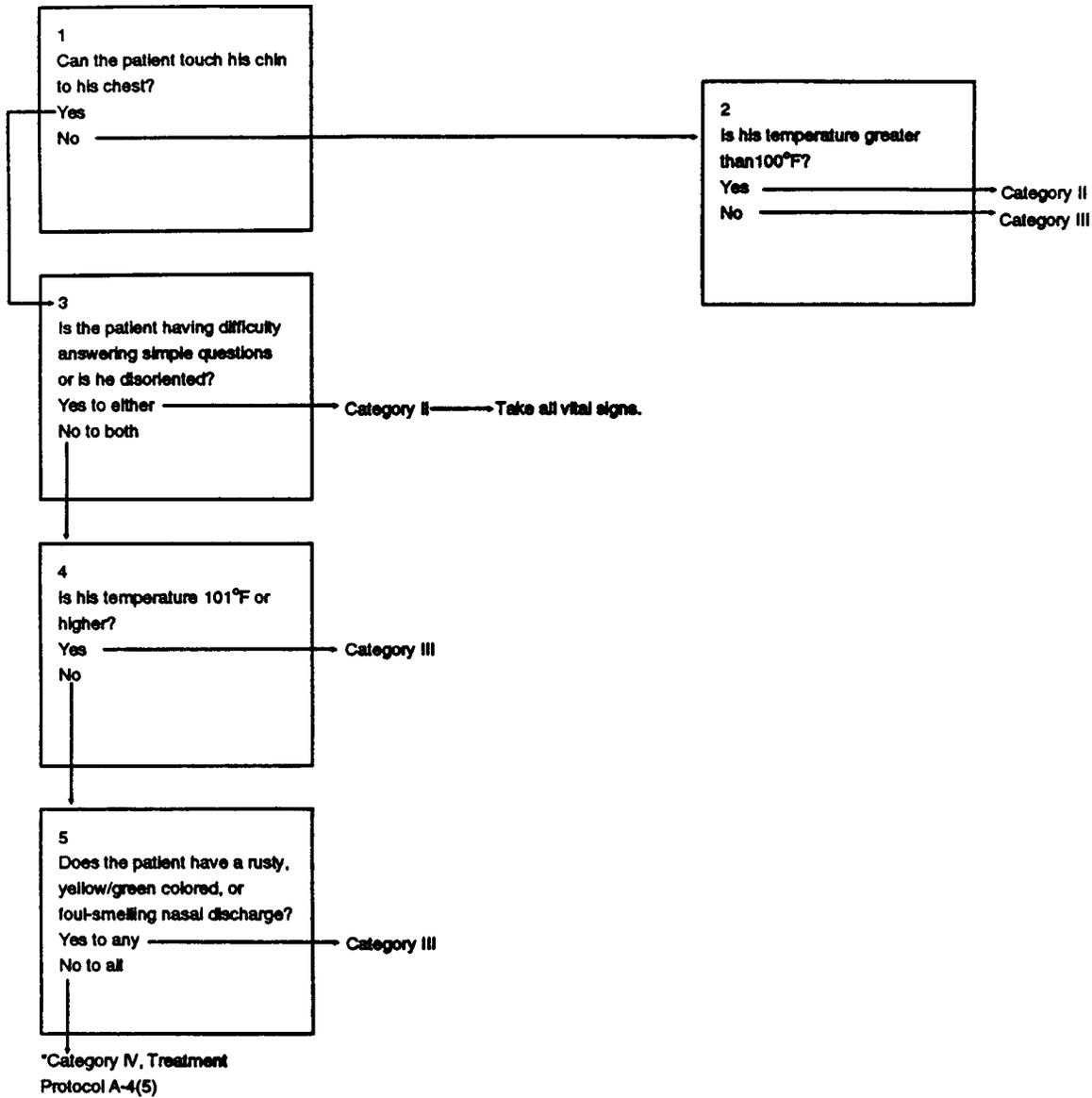
- TREATMENT PROTOCOL A-4(5)

1. Tell the patient that the questions you asked have ruled out the likelihood of a serious problem and that self-treatment should alleviate the symptoms.
2. Provide the patient with a decongestant/nasal spray and aspirin/ Tylenol. Ensure the patient understands directions for use.
3. Instruct the patient to return for medical assistance if the above signs or symptoms (temperature exceeds 101°F, facial pain, purulent nasal discharge, altered mental status, or stiff neck) develop or do not begin to resolve themselves within 3 days.

SINUS PROBLEMS/PAIN, A-4

Take complaint-specific vital signs:

Temperature



*NOTE: if the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

RUNNY/STUFFY NOSE, A-5

A runny/stuffy nose generally indicates a simple cold but may also result from allergies. The following indicate more serious disease and require evaluation by a medical doctor:

- a. Symptoms are not resolved with treatment.
- b. Discharge has a foul odor.
- c. Discharge is rusty or yellow/green colored.

- TREATMENT PROTOCOL A-5

1. Provide the patient with either a nasal decongestant or an antihistamine as indicated by his symptoms. Ensure the patient understands the directions for use.
2. Instruct the patient to return for medical assistance:
 - If he develops fever.
 - If he develops facial pain.
 - If his nasal discharge becomes rust or yellow/green colored.
 - If he cannot perform his duties.

RUNNY/STUFFY NOSE, A-5

Take complaint-specific vital sign:

Temperature

Associated Complaints:

Sinus problem

Fever

Allergy/hay fever

Muscle aches

Hoarseness

* Sore throat

Does the patient have rusty, yellow/greenish, or foul-smelling nasal discharge? (Observe the discharge; do not use the patient's interpretation alone.)

Yes → Category III

No ↓

*Category IV, Treatment Protocol A-5

*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

ALLERGY/HAY FEVER, A-6

Specific allergy/hay fever complaints include “itchy and watery” eyes or a runny or stuffy nose with sneezing. These are very common complaints. Patients who are specific about having an allergy or hay fever do not require further evaluation.

- TREATMENT PROTOCOL A-6

1. Provide the patient with an antihistamine. Visine eyedrops may also be provided if the patient complains of “itchy and watery” eyes. Ensure the patient understands the directions for use and has been cautioned about drowsiness and the major side effects of antihistamines.
2. Instruct the patient to return for medical assistance:
 - If he develops fever.
 - If he develops facial pain.
 - If he develops redness of eyes or eye discharge.
 - If his nasal discharge becomes rust or yellow/green colored.
 - If he cannot perform his duties.

ALLERGY/HAY FEVER, A-6

Associated Complaints:

- Runny/stuffy nose
 - * Sinus problem
-

The patient complains of allergy/hay fever symptoms. Refer patient to Category IV, Treatment Protocol A-6.

*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

COLD, A-7

People mean different things when they say, "I have a cold." Most people who complain of having a cold have just that and will get better even if they receive no medication. However, some people who think they have a cold may actually have allergies, influenza (flu), strep throat, pneumonia, or even meningitis. Do not assume that everyone complaining of a cold is correct in his self-diagnosis. Adherence by screeners to the screening manual significantly decreases the chances of missing someone with a severe underlying illness that was mistakenly called a cold. **ALL PATIENTS WITH A STIFF NECK SHOULD SEE A MEDICAL OFFICER.**

You can best determine the patient's specific complaint by asking, What do you mean by a cold? If his complaint can be screened by another algorithm, use that algorithm, especially if it is one of the associated complaints indicated by bold type.

If the patient's complaint remains vague or general, use the Cold Algorithm, A-7. This algorithm is a combination of algorithms used to evaluate the most common symptomatic complaints associated with colds.

- TREATMENT PROTOCOL A-7(5)

1. Make the patient more comfortable by giving him the appropriate medications, such as an antihistamine for a runny nose or a decongestant for congestion, and aspirin or Tylenol for minor aches and pains.
2. Instruct the patient to return if he develops a temperature greater than 101°F, a productive cough, or if his symptoms do not begin to improve within the next several days.

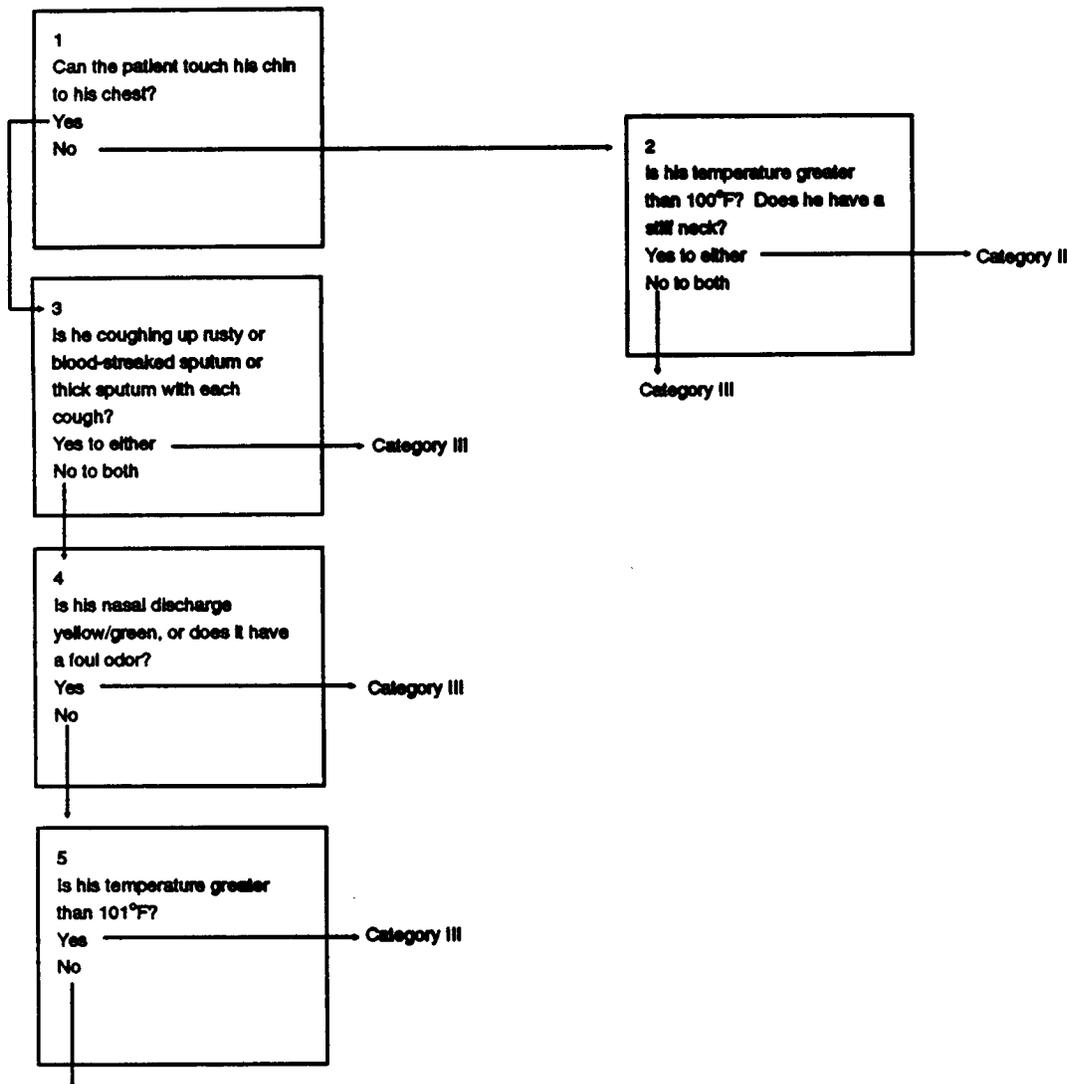
COLD, A-7

Take complaint-specific vital sign:

Temperature

Associated Complaints:

- Fever
- Runny/stuffy nose
- Sinus Problem
- Allergy/hay fever
- Shortness of breath
- Muscle aches
- Ear pain
- Cough
- Sore throat



*Category IV, Treatment
Protocol A-7(5)

*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

RINGING IN THE EARS (TINNITUS), A-8

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Vertigo or “room-spinning dizziness” can be a symptom of inner ear problems and is often associated with nausea. Distinguish vertigo from light-headedness which is screened separately. (See Dizziness/Faintness/Blackout, F-1.)

Block 2. If the ringing noise is an associated symptom of a cold or flu, it should be screened by the algorithm that addresses that primary complaint.

Block 3. Ringing in the ears, if without loss of balance, is not uncommon especially following recent exposure to loud noises from situations such as weapons firing or riding in mechanized vehicles or aircraft. Generally, the ringing in the ears associated with such noises subsides within 24 hours but may persist in persons who have long histories of exposure. Further examination is indicated in the absence of exposure to excessive noise or for symptoms lasting longer than 24 hours. Ringing in the ears, if without loss of balance, can be associated with certain medications such as aspirin, nonsteroidal antiinflammatory agents, some diuretics, etc.

- TREATMENT PROTOCOL A-8(3)

1. Advise the patient that tinnitus due to recent noise exposure should show improvement over the next 24 hours.
2. Instruct the patient to return for medical assistance if ringing does not improve or if dizziness or ear pain develops.

RINGING IN THE EARS (TINNITUS), A-8

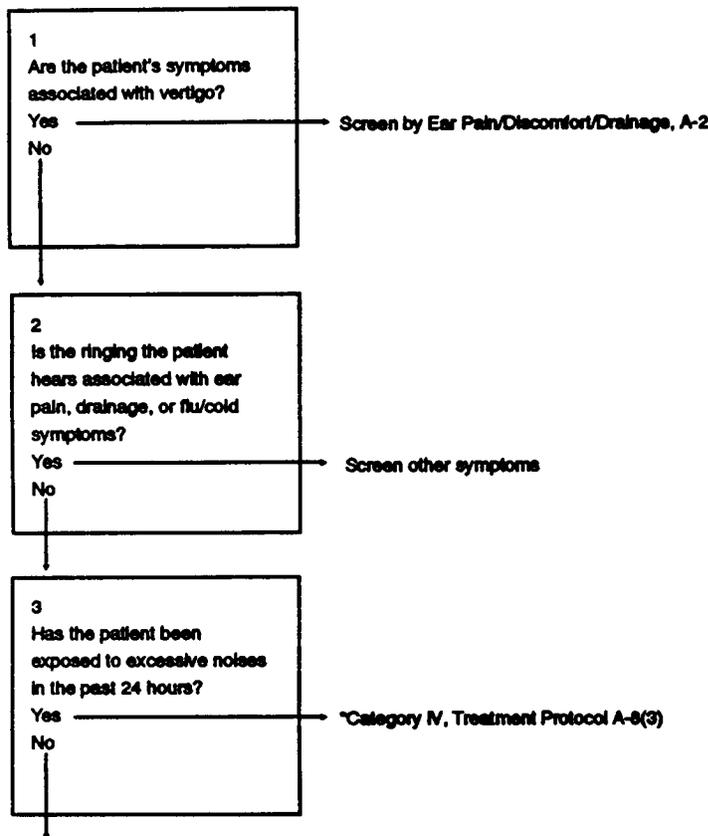
Take complaint-specific vital signs:

Temperature

Blood pressure

Associated Complaints:

- Runny/stuffy nose
 - Allergy/hay fever
 - Sinus problems
 - Fever
 - Dizziness/faintness
 - Hearing Loss
-



*Category III
 Document any medications (aspirin, nonsteroidal anti-inflammatory agents (Motrin, Advil, etc.) diuretics (Lasix, Diuril), etc.)

*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

WAX BLOCKAGE IN EAR, A-9

If a patient complains of hearing loss because of ear wax, distinguish a true complaint of hearing loss from that of bothersome wax. Both should be evaluated as Category III.

HEARING PROBLEM, A-10

If a patient complains of decreased hearing, refer him to Category III. The medical officer will examine the ears and make the appropriate disposition. Many cases of decreased hearing are simply due to simple colds, other cases may need audiological testing.

NOTE: Tinnitus (ringing in the ears) and ear pain are screened separately.

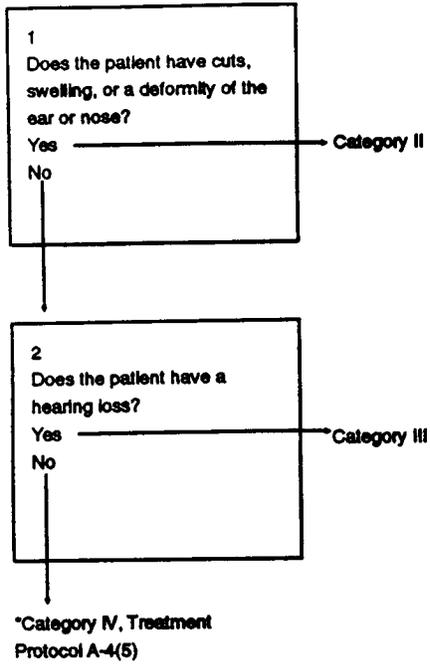
FOREIGN BODY IN EAR OR NOSE, A-11

If the patient complains of a foreign body in either his ear or nose, refer him to Category III. Foreign bodies can best be removed in the treatment area/clinic or emergency center where the equipment necessary for removal is available.

EAR OR NOSE TRAUMA, A-12

Cuts, swelling, a deformity, or hearing loss secondary to trauma are evaluated by the medical officer.

EAR OR NOSE TRAUMA, A-12



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

HOARSENESS/LARYNGITIS, A-13

If the patient complains of a sore throat in addition to hoarseness/laryngitis, the sore throat algorithm should be used.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Laryngitis or hoarseness associated with a cold or an upper respiratory infection (URI) within the last 10 days should be treated with self-care.

Block 2. Laryngitis or hoarseness is frequently associated with heavy smoking and can be treated by decreasing smoking and self-care.

Block 3. Laryngitis present for more than 10 days requires further medical evaluation to rule out serious underlying causes for this disorder. Self-care is appropriate for patients whose laryngitis or hoarseness has been present less than 1 week and who have no other associated symptoms.

- TREATMENT PROTOCOL A-13(1)(2)(3)

1. There is no medication that will make hoarseness go away. Resting the vocal cords totally and reducing irritants (chiefly cigarette smoke) will help. If the patient must speak, he should vocalize as normally as possible. Merely reducing voice tones is difficult and strenuous. The patient may find some relief by sucking on a piece of hard candy, drinking water, or gargling with warm salt water.

2. Instruct the patient to return for medical assistance if symptoms persist for 1 week or longer. If hoarseness becomes associated with a breathy voice, difficulty in breathing, or by a choking sensation, the patient should return immediately.

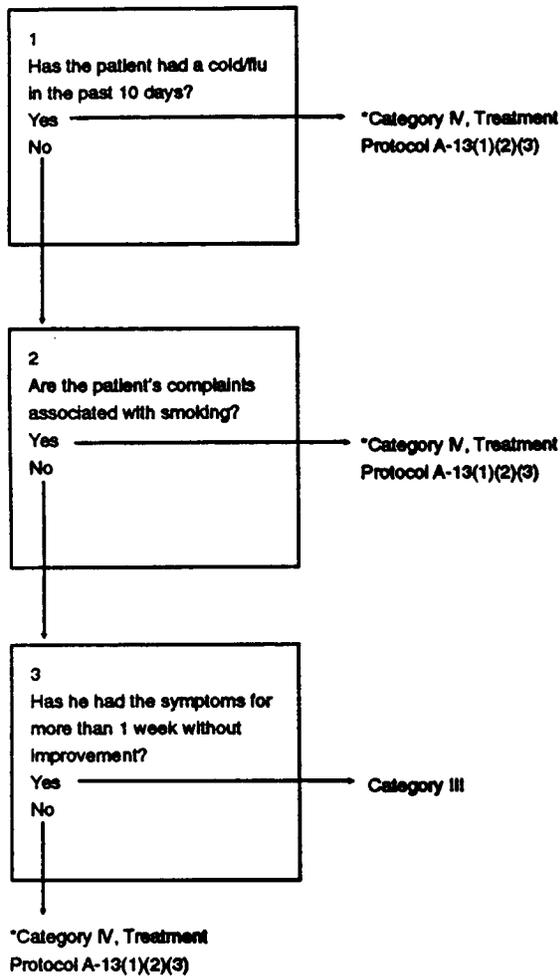
HOARSENESS/LARYNGITIS, A-13

Take complaint-specific vital sign:

Temperature

Associated Complaints:

- * Sore throat
 - Runny nose
 - Fever
 - Muscle aches
 - * Sinus problem
 - Allergy/hay fever
-



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

NOSEBLEED (Epistaxis), A-14

Nosebleeds normally result from the rupture of small blood vessels inside the nose.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Patients who have had trauma to the nose with an associated nosebleed should be screened according to the Nose Trauma Algorithm, A-12 after the bleeding is controlled.

Block 2. Patients who have a nosebleed that is easily controlled but with a history of hypertension should be referred to Category III to have their blood pressure checked after the bleeding is controlled.

Block 3. Patients with bleeding may undergo self-treatment to stop the bleeding. Failure of the bleeding to stop will require treatment in the emergency center or the ear, nose, and throat (ENT) clinic.

Block 4. A history of nosebleeds with associated cold or hay fever symptoms is not uncommon—these problems can cause nosebleeds. The patient should undergo self-treatment for cold/hay fever symptoms as this will probably control the nosebleeds. In the absence of a history of cold/hay fever symptoms, failure of self-treatment should result in a referral to the ENT clinic.

Block 5. Some patients may have a bleeding disorder and this needs to be ruled out in persistent bleeders.

- TREATMENT PROTOCOL A-14(1)(3)(5)

1. If the bleeding is not controlled, advise the patient while in the clinic to:
 - a. Sit up with his head held back, not to lie down.
 - b. Blow his nose gently to expel mucus and clots.
 - c. Gently squeeze the nose with the thumb and forefinger just below the hard part of the nose for at least 5 minutes.
2. If bleeding is still not controlled, treatment in the emergency room or ENT clinic is required.
3. If the bleeding is controlled, tell the patient to avoid vigorous blowing of the nose for the next day or two. (If the room air is dry—either from heating or air conditioning—a humidifier or vaporizer often helps.)
4. Instruct the patient to return for medical assistance if the bleeding persists or recurs after trying the above measures and if the amount of blood lost at one time is enough to completely soak a handkerchief (ask the patient to bring in his handkerchief).

- TREATMENT PROTOCOL A-14(4)

1. Provide the patient with an antihistamine/decongestant. Ensure the patient understands the directions for use.
2. Instruct the patient not to blow his nose vigorously as this can aggravate the nosebleeding.
3. Instruct the patient to return for medical assistance if he develops fever, yellow-colored nasal discharge, or if he cannot perform his duties.

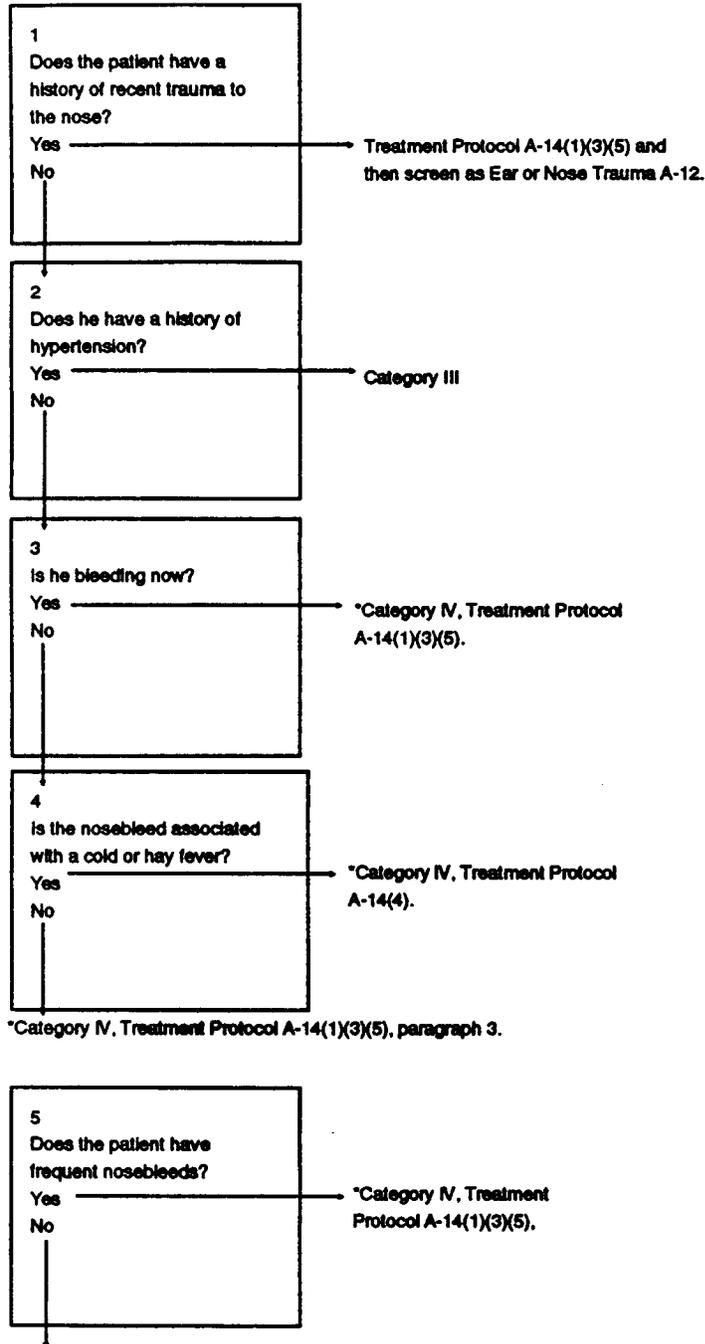
NOSEBLEED (Epistaxis), A-14

Take complaint-specific vital sign:

Blood Pressure

Associated Complaints:

- Runny nose
 - * Sinus problem
 - Allergy/hay fever
 - Fever
 - Muscle aches
-



*Category IV, Treatment Protocol A-14(1)(3)(5), paragraph 4.

*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

MUSCULOSKELETAL COMPLAINTS

*Algorithms for	<u>Number</u>
Back Pain	B-1
Extremity Pain/Joint Pain (Shoulder, Elbow, Wrist Hand, Hip, Knee, Ankle, or Foot)	B-2
Extremity Pain Not Associated with a Joint	B-3
Generalized Muscle Aches (Not Joint or Low-Back Pain)	B-4
Neck Pain	B-5

BACK PAIN, B-1

+ IMPORTANT INFORMATION ON THE ALGORITHM

Blocks 1-2. Back pain associated with complaints of dysuria (painful or frequent urination in male and female patients), nausea, vomiting, diarrhea, abdominal pain, or flu symptoms would be screened using the appropriate algorithms for those complaints. Back pain associated with these complaints will usually go away when the underlying cause is properly treated.

Block 3. Back pain associated with fever in the absence of any of the complaints in Blocks 1 and 2 may have a serious cause and should be evaluated by a medical officer.

Block 4. Back pain associated with pain running down into the legs below the knee may represent a "ruptured disc" and requires evaluation by a medical officer.

Block 5. Back pain associated with direct trauma to the back (meaning that the patient got hit or fell on his back) within the last 72 hours may indicate the presence of a severe back problem that requires evaluation now.

NOTE: In the absence of any of the preceding conditions, self-care is appropriate.

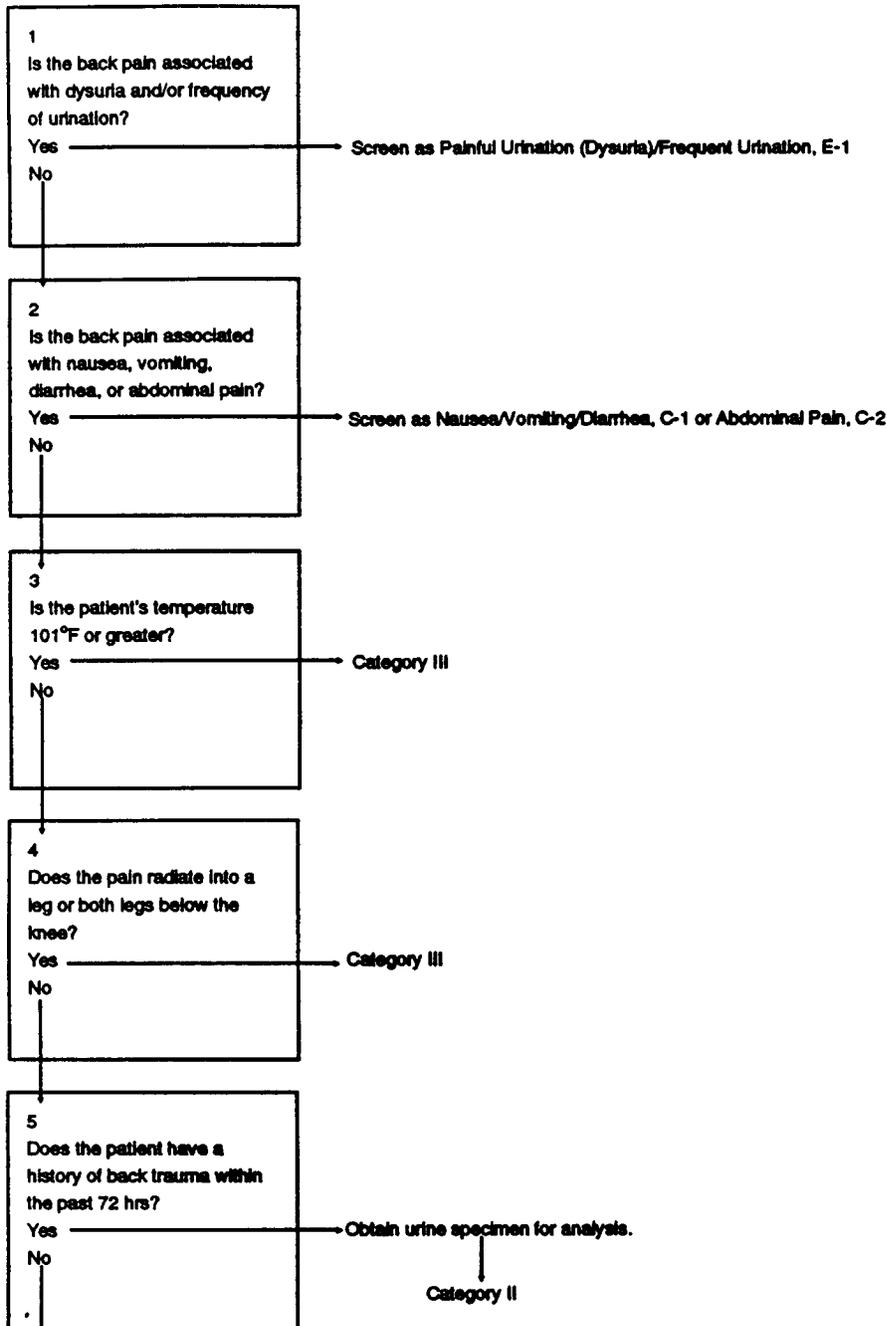
- TREATMENT PROTOCOL B-1(5)

1. Low back pain is extremely common in soldiers. The best treatment is aspirin or Tylenol (two tablets every 4 hours) and ice packs. Provide the patient with aspirin or Tylenol, analgesic balm, and instructions for ice massage.
2. A bedboard, an extra firm mattress, or sleeping on a mattress on the floor may also be of some help in dealing with low back pain. In general, the best treatment is preventive—an exercise program to strengthen the muscles of the abdomen and back. If available, give the patient a back-problem-exercise handout from the medical treatment facility.
3. Instruct the patient to return for medical assistance if pain becomes so severe as to prevent performance of normal duties or activities or if any of the symptoms become worse.

BACK PAIN, B-1

Take complaint-specific vital sign:

Temperature



*Category IV, Treatment Protocol B-1(5)

*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

EXTREMITY PAIN/JOINT PAIN, B-2
Shoulder, Elbow, Wrist, Hand, Hip, Knee, (Ankle, or Foot)

These are very common complaints and screening is designed to separate those patients requiring further evaluation from those who can safely care for themselves.

+ IMPORTANT INFORMATION ON THE ALGORITHM

BLOCK 1. A history of the occurrence or the absence of trauma in the past 72 hours is important in determining proper treatment. (Trauma includes joint injury due to getting hit, falling on, or twisting.)

BLOCK 2. The absence of pulse, a lack of sensation, or loss of function distal to the injury indicates possible severe injury that might result in loss of an extremity; these patients are sent to a physician on an emergency basis, Category I.

BLOCK 3. Laceration injuries require evaluation and may require closure. Prompt referral to Category II is appropriate.

BLOCK 4. Obvious deformities indicate a fracture, dislocation, or significant sprain and will require referral to Category III after immobilization.

BLOCK 5. Hand injuries have a high potential for disability. All hand injuries should be evaluated by the medical officer.

BLOCK 6. Pain in the ankles, knees, hips, elbows, or shoulders which does not prevent full weight bearing or full range of motion (ROM) of the extremity even though pain is present can be treated by self-care.

BLOCK 7. In the absence of trauma, the presence of a temperature greater than 101°F may represent an infection of the joint. Patients with a fever are sent to the medical officer immediately. Patients with swelling and/or redness of a joint should likewise be sent to the medical officer to determine the cause of the inflammation.

BLOCK 8. In the absence of trauma, fever, redness/swelling, or a history of pain lasting less than 3 weeks, self-care is appropriate.

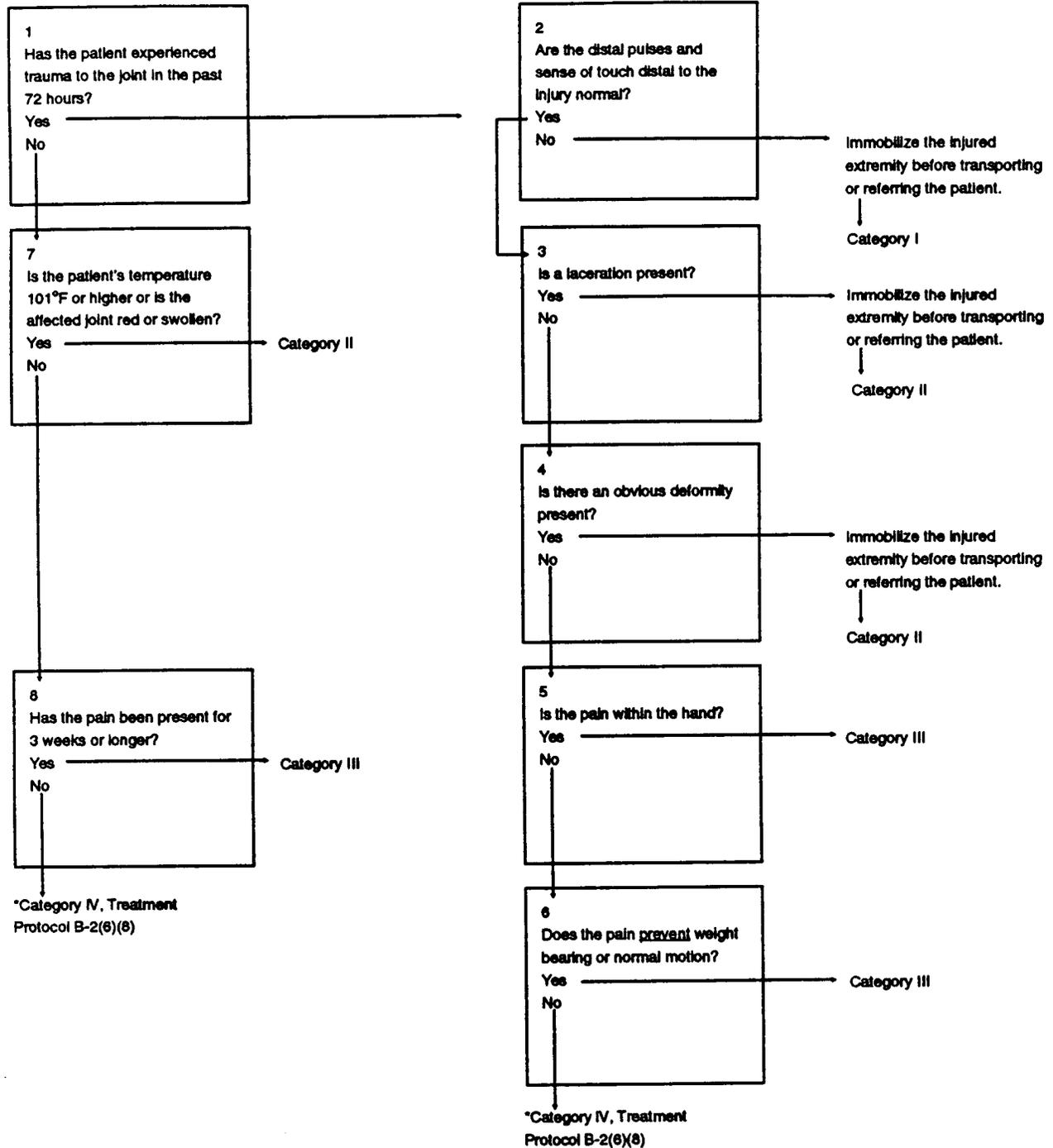
- TREATMENT PROTOCOL B-2(6)(8)

Most strains and sprains are treated with immobilization, ice, compression, elevation, and analgesia.

1. Advise the patient to avoid or discontinue the activity which may have caused the problem. This may require a temporary profile. Immobilization of the area with an arm sling to rest both shoulder and elbow, an ace bandage to provide support, or a crutch or cane to take weight off the injured extremity may be appropriate. Instruct the patient to work the injured part through its range of motion at least twice each day to preserve mobility. If possible, this is best done after a 20-minute application of ice. The range of motion exercise should not be vigorous enough to cause pain.
2. Provide the patient with aspirin or Tylenol and directions to take two tablets or capsules every 4 hours. If swelling is present, tell the patient that an ice pack should be applied to provide relief. If swelling is not present, you may give the patient analgesic balm to apply in addition to ice massage.
3. Instruct the patient (and record the instructions) to return for medical assistance:
 - If the pain continues longer than 3 weeks.
 - If swelling worsens rather than improves within the next 24 hours.
 - If the pain is worse 24 hours after the initial visit.

EXTREMITY PAIN/JOINT PAIN, B-2

(Shoulder, Elbow, Wrist, Hand, Hip, Knee, Ankle, or Foot)



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

EXTREMITY PAIN NOT ASSOCIATED WITH A JOINT, B-3**+ IMPORTANT INFORMATION ON THE ALGORITHM**

BLOCK 1. Direct trauma means that the extremity was struck by something such as a baseball bat or car bumper. It does not mean the pain that follows running, jumping, calisthenics, or other strenuous exercise in which a direct blow did not occur.

BLOCK 2. A deformed extremity means the extremity is bent in a place that an arm or leg would not normally bend and may indicate a broken bone requiring immediate evaluation.

BLOCK 3. In an arm or leg that has been fractured, the absence of a pulse or the sense of touch distal to the injury may indicate that the arteries or nerves going down the extremity have been injured by the same process that caused the fracture. This is a medical emergency; the patient must be immediately referred to Category I after proper splinting.

BLOCK 4. Indirect trauma means no blow was made directly to the sore area. Such pain often follows participation in calisthenics, sports, or other strenuous activity. This pain is often referred to as a "pulled muscle" or a strain. It is usually not serious. Pain in the absence of a history of direct trauma or indirect trauma (recent vigorous activity) may indicate a significant underlying disease requiring further medical evaluation.

BLOCK 5. Pain resulting from participation in strenuous activity, calisthenics, or sports (over-use syndrome) generally is not serious. However, if the joint distal and/or proximal to the affected area does not function correctly, torn tendons or ligaments or muscles may be the problem requiring immediate evaluation by a medical officer.

BLOCK 6. Calf pain following participation in calisthenics, sports, or other strenuous activity is probably due to overuse. The pain occurs with use of the extremity (kinetic pain). In a few instances, calf pain may indicate a torn Achilles tendon, ruptured blood vessels, ruptured muscle or blood clots in the calf. This pain will be present when the leg is at rest (static pain) as well as when moved. These conditions can be potentially serious and require referral as Category III.

BLOCK 7. If the pain is severe, the patient may have compartment syndrome; this requires immediate medical attention, Category II.

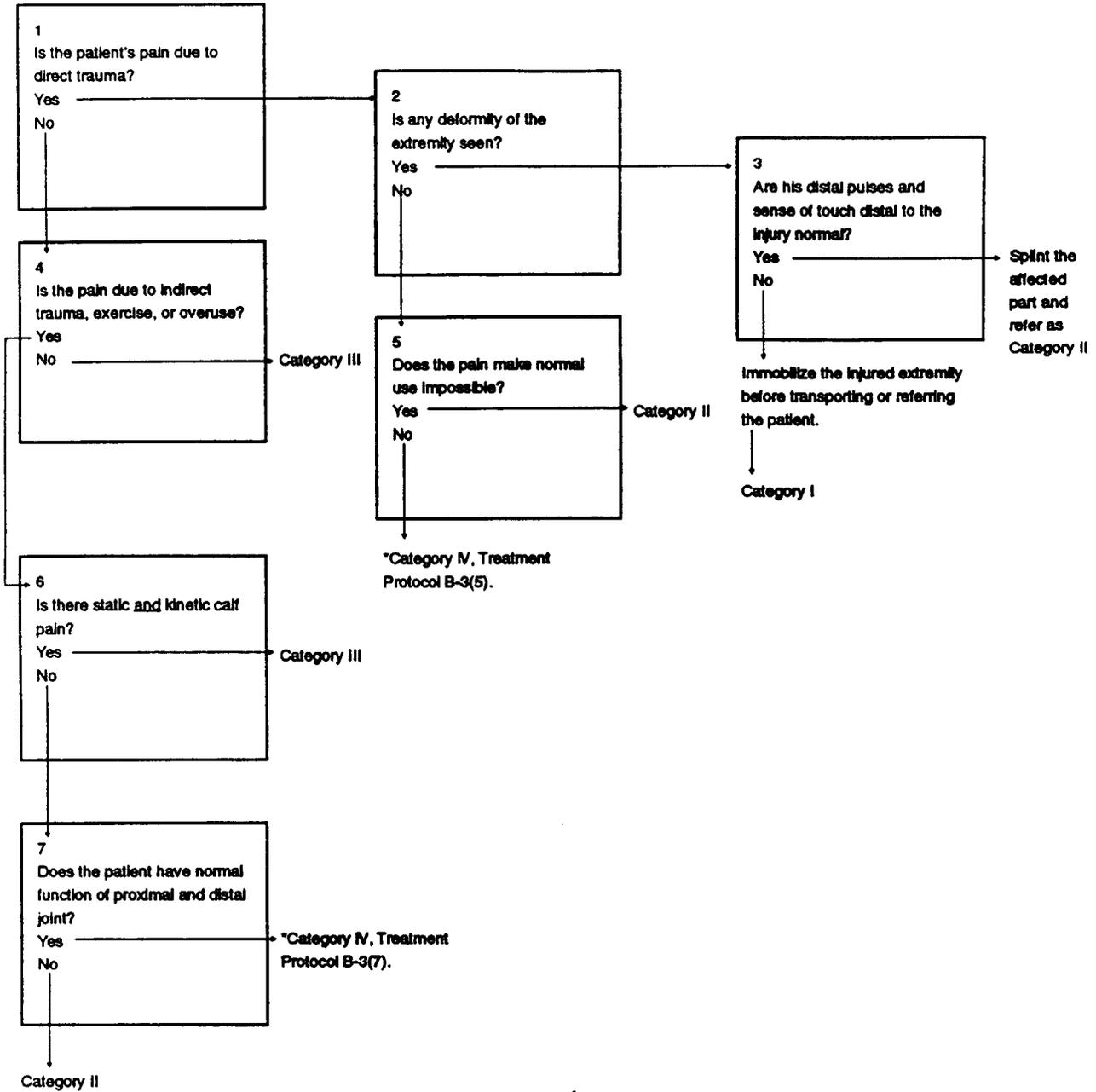
- TREATMENT PROTOCOL B-3(5)

1. Seldom does minimal direct trauma to an extremity break a bone; however, it can cause considerable local tissue damage with accompanying pain, swelling, redness, and tenderness.
2. Moderate pain can best be controlled with Tylenol or aspirin. It will usually last 3 to 6 days and will lessen with time and rest. Swelling is best controlled by ice applications. Ace wraps and elevation of the affected area may be indicated.
3. Injuries following this pattern do not require x-rays or further evaluation. The patient should be instructed to return for further evaluation if the pain increases to the point that the normal use of his joints is affected or if a skin color change other than normal bruising is noted.

- TREATMENT PROTOCOL B-3(7)

1. The patient is most likely suffering from a "pulled muscle," that is, muscle strain. Pain will continue for several days.
2. Tylenol or aspirin, ice applications (when possible), and analgesic balm will offer pain relief. Instruct the patient to apply the balm to the affected area, as needed.
3. Instruct the patient to return for further evaluation if any of the following conditions are noted:
 - a. Pain that increases or does not begin to get better or lasts longer than 5 to 6 days.
 - b. Significant swelling or skin color change.
 - c. Soreness in uninjured areas or difficulty in joint movement is noted.

EXTREMITY PAIN NOT ASSOCIATED WITH A JOINT, B-3



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

GENERALIZED MUSCLE ACHES, B-4 (Not Joint or Low-Back Pain)

Generalized muscle aches refer to an aching sensation in muscles of the extremities, trunk, or neck. The medical term is myalgia. The most common cause of myalgia is a febrile illness. Sore muscles after overexertion are common although the patient does not usually seek medical attention for this. This complaint does not mean joint or low back pain, but rather pain in other areas.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Blocks 1-3. Headache is very common in viral infections that produce myalgia. A stiff neck, however, is not expected. If a stiff neck and fever are present, meningitis must be ruled out.

Block 4. Myalgia is frequently associated with certain respiratory infections such as influenza. If the patient has symptoms such as cough, runny nose, or sore throat, the appropriate screening sequence will lead to the correct disposition.

Block 5. Viral gastroenteritis is sometimes associated with myalgia. Again, screening the primary symptom will guide your disposition.

In the absence of any of the symptoms in Blocks 1, 4, or 5, self-care is appropriate.

- TREATMENT PROTOCOL B-4(5)

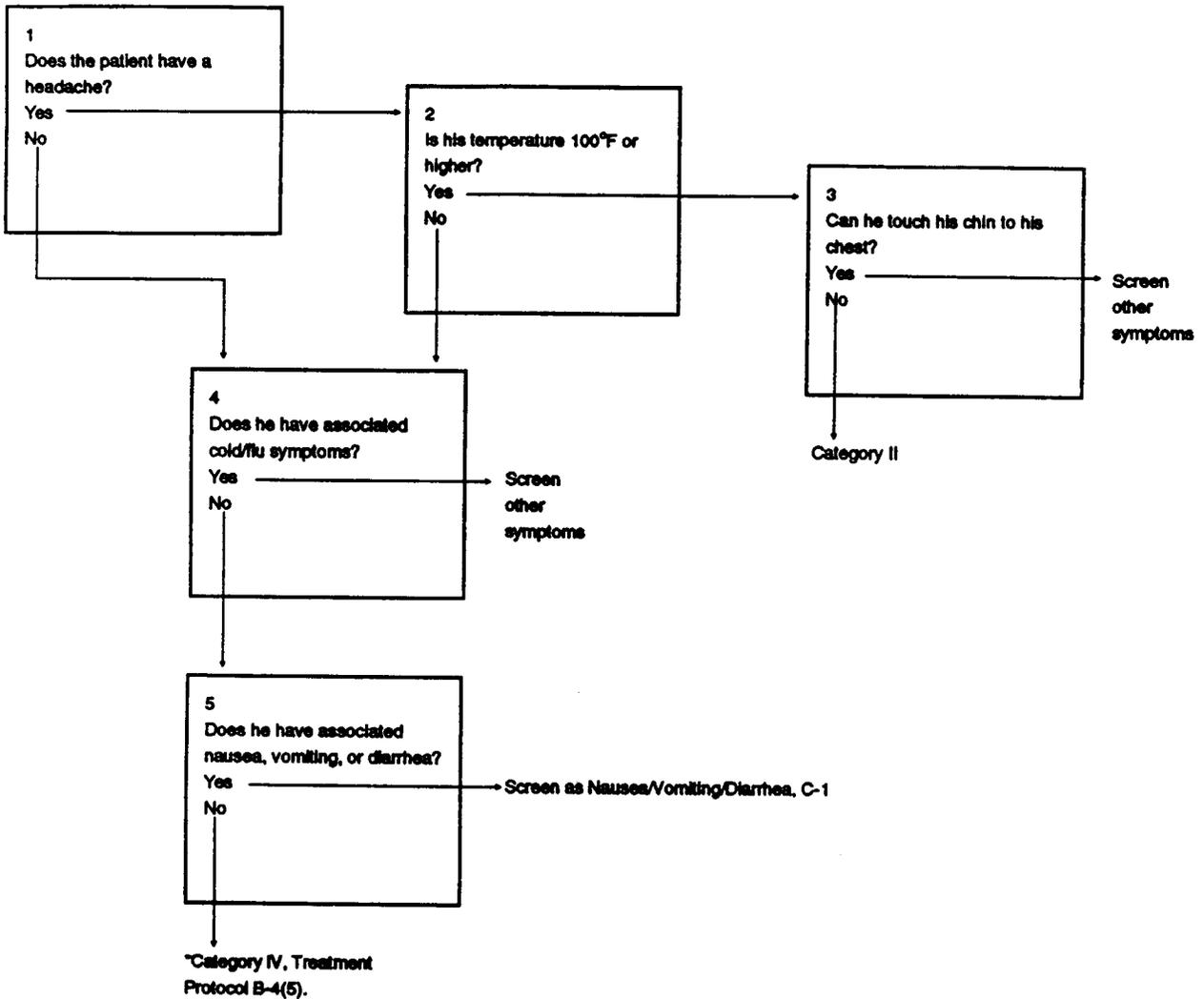
1. Muscle aches result from an abnormal amount of use by the patient. All muscles are normally used every day, but in different degrees. These muscle aches and pains are not dangerous and will usually go away in 3 to 4 days. In general, the treatment for muscle aches and pains is more of the same activity that produced the pain in the first place so that the muscles can get used to that activity.
2. Advise the patient to take aspirin or Tylenol (two tablets every 4 hours) and to use warm soaks (wet towels or wash cloths) to obtain relief. Instruct the patient to apply it to the affected area, as needed.
3. Advise the patient to return for medical assistance if the pain has not improved in 4 to 5 days or if it becomes severe enough to preclude performance of normal duties and activities.

GENERALIZED MUSCLE ACHES, B-4

(Not Joint or Low Back Pain)

Take complaint-specific vital sign:

Temperature



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

NECK PAIN, B-5

This term refers to pain in the back or sides of the neck. If the patient has soreness in other muscles as well, follow the Generalized Muscle Aches, B-4. If the pain is in the front of the neck, follow the Sore Throat, A-1.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Blocks 1-4. Neck pain with fever, history of trauma, or inability to touch chin to chest warrants careful evaluation. In the absence of signs or symptoms of trauma, meningitis, or flu, self-care is appropriate.

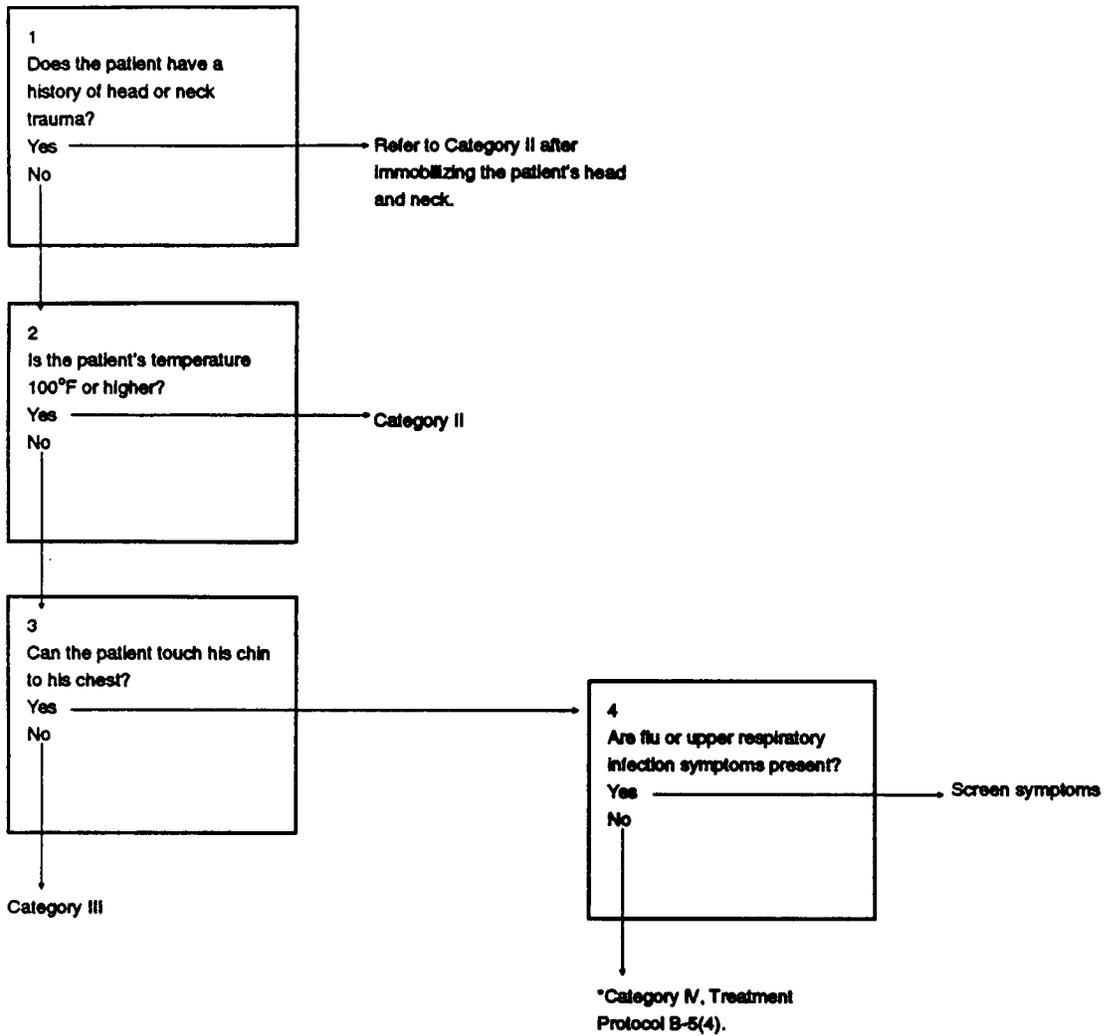
- TREATMENT PROTOCOL B-5(4)

1. Neck pain which is not due to meningitis, a pinched nerve, or flu is best treated with aspirin or Tylenol and ice packs. Provide the patient with aspirin or Tylenol (two tablets every 4 hours), an analgesic balm, and instructions for ice massage.
2. Instruct the patient to return for medical assistance if a fever develops; if symptoms are not relieved in 2 days; if pain, numbness, or tingling develops in one or both arms; or if the symptoms worsen.

NECK PAIN, B-5

Take complaint-specific vital sign:

Temperature



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

GASTROINTESTINAL (GI) COMPLAINTS

*Algorithms for	<u>Number</u>
Nausea/Vomiting/Diarrhea	C-1
Abdominal Pain	C-2
Rectal Pain/Itching/Bleeding	C-3
Constipation	C-4
Difficulty When Swallowing (Dysphagia)	C-5

NAUSEA/VOMITING/DIARRHEA, C-1

The symptoms of nausea, vomiting, and diarrhea are screened together because they frequently accompany one another. In screening any or all of the symptoms, the algorithm is to be used in exactly the same way. Nausea means a feeling of sickness to the stomach with an inclination to vomit. Diarrhea means loose or liquid bowel movements of increased frequency.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Recent head injury is serious because bleeding inside the skull can cause increased intracranial pressure. Increased intracranial pressure directly triggers episodes of vomiting.

Block 2. A patient who is visibly distressed with pain, is clutching his abdomen, or is bent over should be referred to Category II for comfort and because of possible serious disease.

Block 3. Bloody or "coffee ground" vomitus may represent GI bleeding requiring immediate treatment. Blood looks like coffee grounds because of the action of gastric juices on blood. Black or bloody stools may also represent internal hemorrhage requiring immediate treatment.

Blocks 4-5. A patient who is pregnant but who has not registered with the Obstetrics (OB) clinic should be referred there after Category III evaluation. If a clinic is available and the patient is registered, refer the patient to be seen today. If the patient cannot be seen by the OB clinic today, the patient should be evaluated as Category III. If an clinic is not established, the patient should be evaluated as Category III.

Blocks 6-7. Nausea, vomiting, or diarrhea of less than 1 week's duration and not associated with an elevated temperature, postural symptoms, dehydration, or any of the above problems is unlikely to be due to serious illness. Self-care is appropriate. Nausea, vomiting, or diarrhea lasting longer than 1 week requires detailed evaluation. The severity of the patient's symptoms will determine how quickly the evaluation should occur.

Block 8. Fever indicates an infectious disease. The patient should be evaluated as Category III.

- TREATMENT PROTOCOL C-1(8)

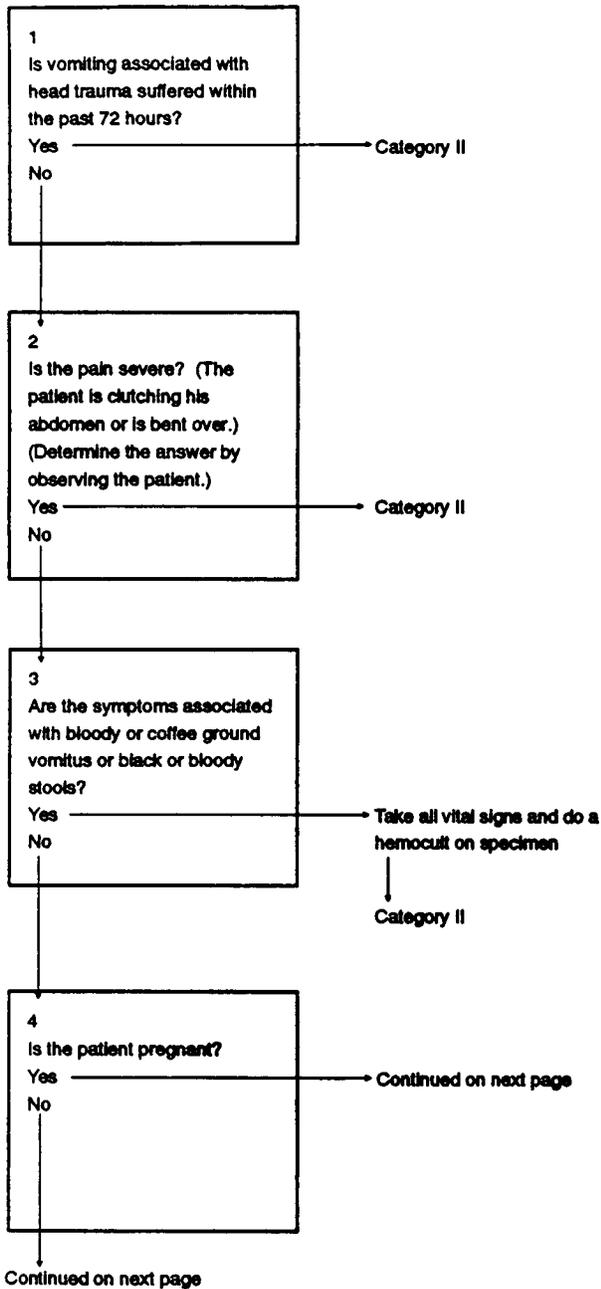
1. Diet control is very important in treating nausea, vomiting, or diarrhea. Only clear liquids (e.g., 7-Up, ginger ale, broth, water, or Kool-aid) are needed. Solid foods should be avoided. The patient with nausea or vomiting may have ice chips to suck on. Once vomiting is under control, the patient may start drinking small amounts of clear liquids, gradually adding more liquids, and then adding solids as tolerated. The patient with severe or persistent vomiting will require IV fluids and evaluation as Category II.
2. Kaopectate or Pepto-Bismol may be given to the patient for the symptomatic control of diarrhea, but the best treatment is not to interfere with the mechanical cleansing of the gut. Medication can actually prolong the problem.
3. Advise the patient to return for medical assistance if the symptoms last more than 2 days, if blood appears in his vomit or in his stools, or if he becomes dizzy and/or faints upon standing. Vomiting that is severe enough to keep the patient from keeping anything (even clear liquids) down for 24 hours or symptoms that make normal duty performance impossible are also causes for a prompt return visit.
4. Instruct the patient to return for further medical evaluation if he develops abdominal pain that becomes severe enough to prevent his performance of normal duties.

NAUSEA/VOMITING/DIARRHEA, C-1

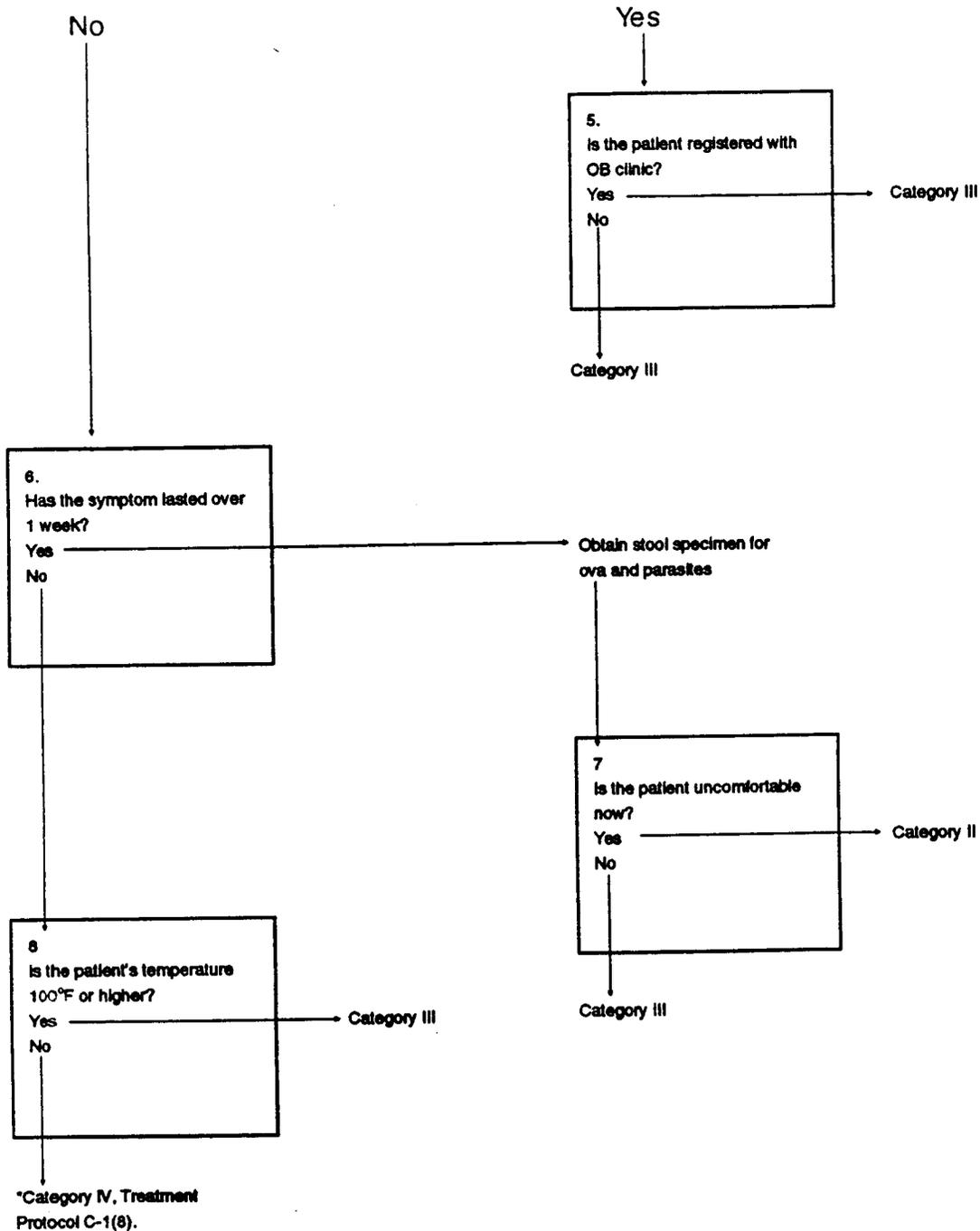
Take complaint-specific vital signs:

Temperature

Pulse rate (If > 90, take the patient's blood pressure while he is lying down and then when he is standing.)



Continued from previous page



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

ABDOMINAL PAIN, C-2

Abdominal pain is pain anywhere below the ribs and above the groin in the front half of the body. The back may also hurt, but if the pain is confined to the back, screen using Back Pain, B-1. At times it may be difficult to distinguish pain in the upper abdomen from that in the lower chest; therefore, a cardiac problem could be causing the pain. If the patient's pulse or blood pressure are abnormal, he should be evaluated as a priority.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Patients with severe abdominal pain should be evaluated as Category II.

Blocks 2-3. Abdominal pain frequently accompanies nausea and diarrhea. Evaluation by Nausea/Vomiting/Diarrhea, C-1 is appropriate if the patient has cramping abdominal pain associated with vomiting. The patient who complains of increasing abdominal pain followed by vomiting should be evaluated immediately as Category II; surgical intervention may be indicated.

Block 4. Black or bloody stools may indicate bleeding in the gastrointestinal tract. The patient should be evaluated as Category II.

Block 5. Abdominal pain associated with recent abdominal trauma could indicate a life-threatening situation such as a ruptured spleen. The patient should be evaluated as Category II.

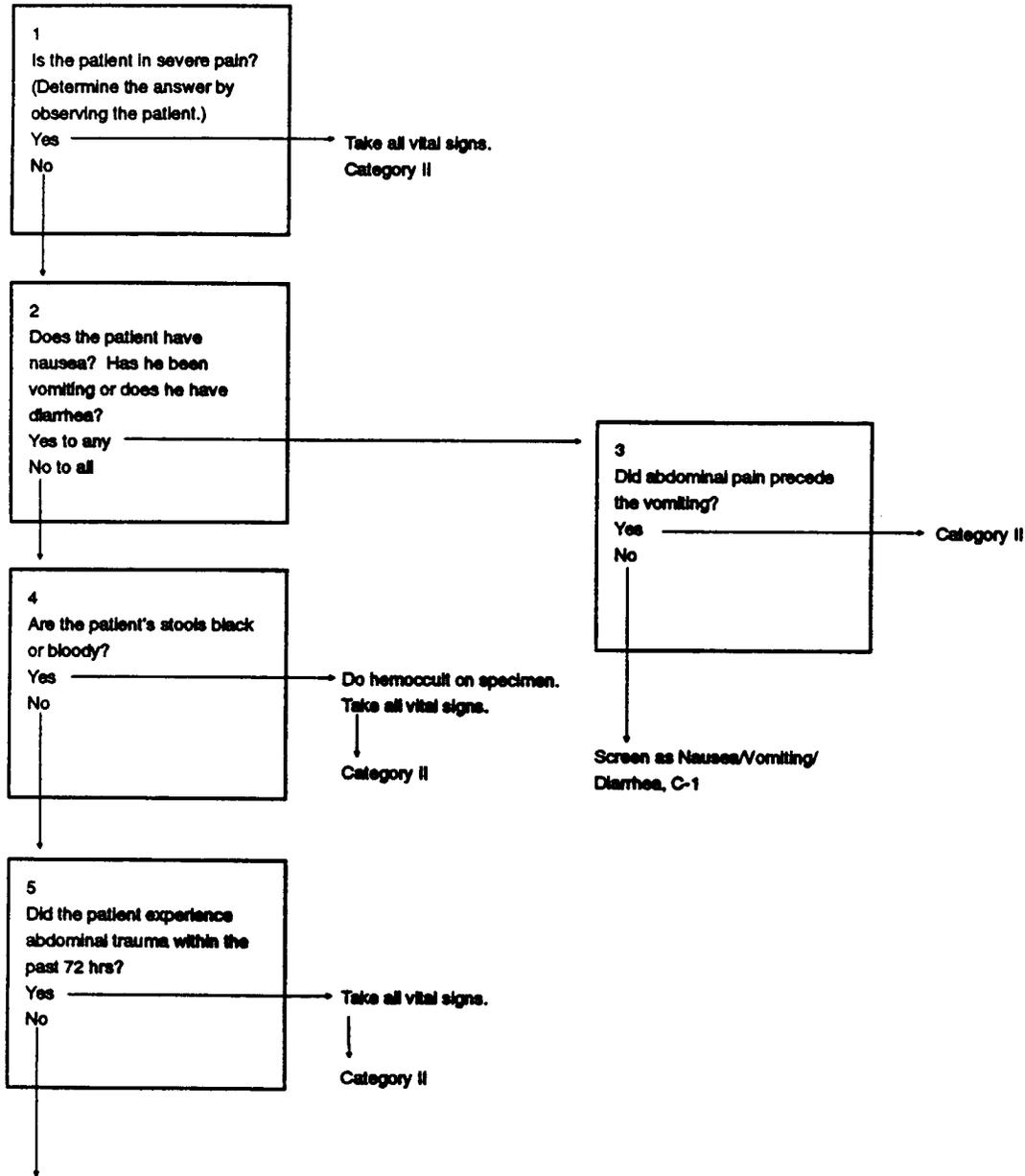
Blocks 6-8. Abdominal pain in pregnancy could represent a complication of pregnancy. Category III is the proper disposition for this complaint. If the patient is not registered with the OB clinic, she should be referred there after Category III evaluation.

Block 9. A different group of diseases, many of them gynecologic in nature, affect the pelvic region.

ABDOMINAL PAIN, C-2

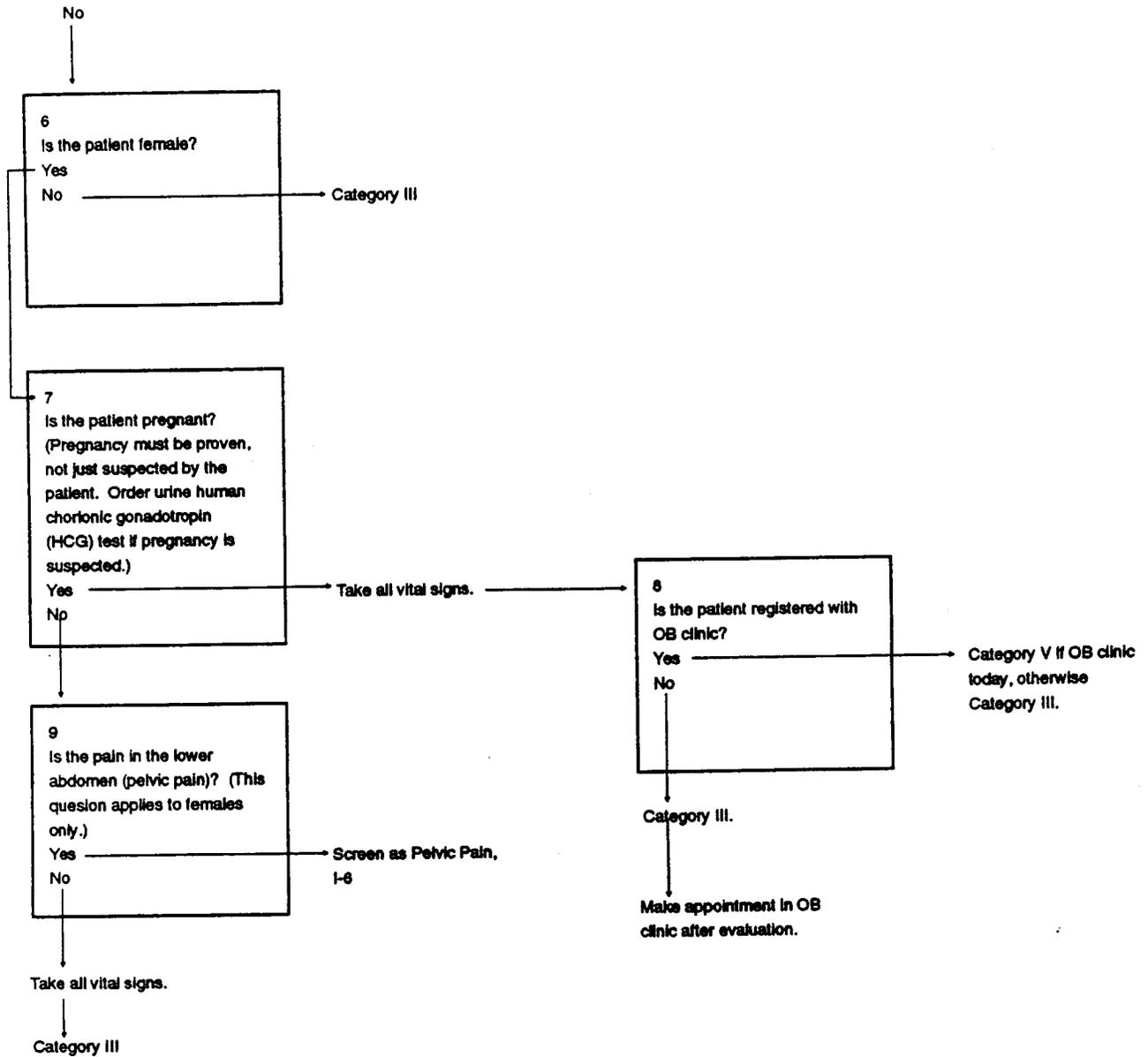
Take complaint-specific vital signs:

Temperature



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HSC Pam 40-7-21

RECTAL PAIN/ITCHING/BLEEDING, C-3**+ IMPORTANT INFORMATION ON THE ALGORITHM**

Block 1. A patient who has a proven history of hemorrhoids (determined by reviewing his medical record) and then develops the symptoms again, probably has a recurrence of hemorrhoids. Self-care is appropriate if examination reveals hemorrhoids.

Block 2. Although rectal pain or bleeding can be signs of serious disease of the colon or large intestine, most people with itching (and no other symptoms) do not have a serious disease.

Block 3. Gastrointestinal bleeding associated with nausea, vomiting, and diarrhea may represent serious bleeding from the stomach or upper gut. This bleeding associated with dizziness on standing may represent a large amount of blood loss and requires immediate evaluation as Category II.

Block 4. Black or maroon stools may be caused by large amounts of blood from the lower gut. This condition needs immediate evaluation as Category II.

Block 5. If the patient has only seen blood on the toilet tissue or on the outside of the stool and has not had nausea, vomiting, diarrhea, or black/maroon stools, he/she may simply have hemorrhoids or an anal fissure. The patient should still be classified as a Category III in order to rule out other more serious causes of the bleeding.

- TREATMENT PROTOCOL C-3(1)

Hemorrhoids are the most common cause of these symptoms. Hemorrhoids are enlarged veins around the rectum that protrude, get rubbed, become sore, raw, and painful. Hemorrhoids are not dangerous but can be extremely uncomfortable.

1. Diet control is important in the management of patients with these symptoms. To decrease the amount of irritation, the stool needs to be softened by including lots of water-absorbing fiber. Advise the patient to eat bran cereal, whole wheat bread, fresh fruits, and vegetables. A stool softener or bulking agent may be indicated.
2. Tell the patient that cleanliness is also important. The area should be kept clean by washing with warm water and blotting (rather than wiping) dry.
3. Suppositories and anesthetic ointment can help hemorrhoid symptoms. Instruct the patient in their use.
4. Instruct the patient to return for evaluation if the symptoms last longer than 1 week or if the problem recurs.

RECTAL PAIN/ITCHING/BLEEDING, C-3

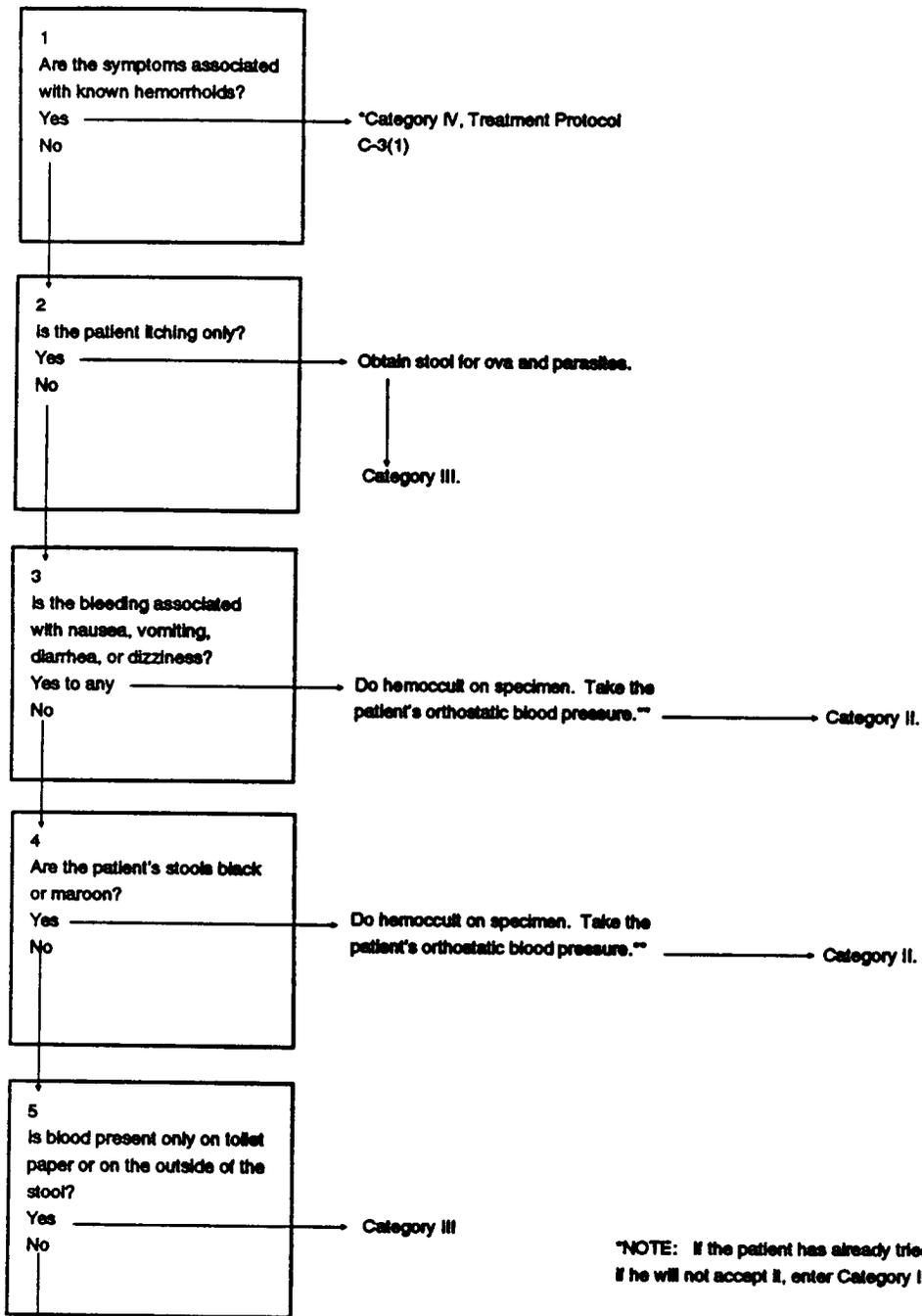
Take complaint-specific vital signs:

* Blood pressure

Temperature

Associated Complaints:

Constipation



***NOTE:** If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

****NOTE:** Take the patient's blood pressure while he is lying down and then when he is standing.

CONSTIPATION, C-4

+ IMPORTANT INFORMATION ON THE ALGORITHM

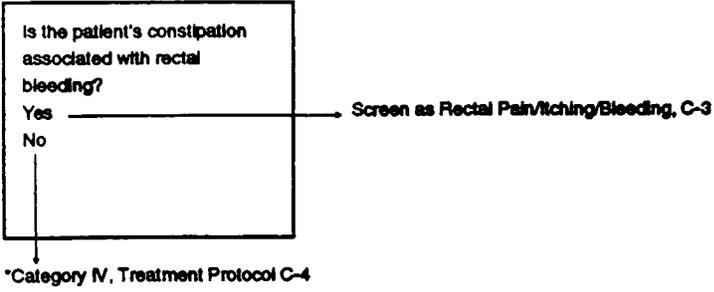
Constipation means infrequent or difficult bowel movements. Patients use the word to mean many things—painful defecation, narrowing of the stools, or not having a “regular daily” bowel movement. Normal bowel habits differ from patient to patient; therefore, a wide variation exists in what patients consider to be normal or to be a problem.

Because constipation and hemorrhoids commonly occur together, rectal bleeding may be falsely attributed to these causes. This can be a dangerous mistake. Rectal bleeding must be screened as a separate problem. Constipation not associated with rectal bleeding may be appropriately treated through self-care.

- TREATMENT PROTOCOL C-4

1. The most important step in treating constipation is to alter the diet so that it contains plenty of fiber. Fiber is that part of food which is not absorbed into the body but instead remains in the intestines and absorbs water to form the bulk of the bowel movements. Without proper bulk, the large and small intestines cannot work properly, and this causes constipation. Fiber is present in bran cereal, whole wheat bread, fresh fruits, and vegetables.
2. Laxatives can be used on a one-time basis but should not be used repeatedly because the body can become dependent on them. Not everyone has a bowel movement every day. Bowel movements may occur as often as three times a day or once every 3 days and still be normal. Discomfort and a change in pattern are more reliable guides to a diagnosis of constipation.
3. Instruct the patient to return for medical assistance if abdominal pain develops, if the interval between movements is 4 days or longer, or if blood appears in his stools.

CONSTIPATION, C-4



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

DIFFICULTY WHEN SWALLOWING (DYSPHAGIA), C-5

Dysphagia means difficulty or pain when swallowing.

+ IMPORTANT INFORMATION ON THE ALGORITHM

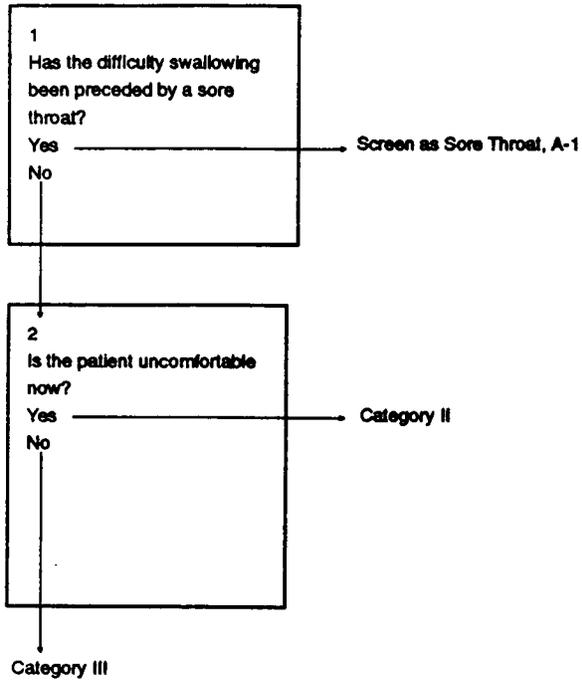
Block 1. Dysphagia frequently accompanies a severe sore throat. However, **MAKE CERTAIN** that dysphagia did not precede the sore throat. Causes of dysphagia not associated with a sore throat may require extensive evaluation.

Block 2. If the patient is comfortable, refer him as Category III for further evaluation. If the patient is uncomfortable, he may be in serious difficulty; therefore, refer him to Category II immediately.

DIFFICULTY WHEN SWALLOWING (DYSPHAGIA), C-5

Take complaint-specific vital sign:

Temperature



CARDIORESPIRATORY COMPLAINTS

*Algorithms for	<u>Number</u>
Shortness of Breath	D-1
Chest Pain	D-2
Wheeze	D-3

SHORTNESS OF BREATH, D-1

This term refers to a sensation of not getting enough air. "Air hunger" or "feeling of suffocation" is descriptive of this sensation. This symptom is aggravated by exertion.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Troubled breathing is **not** always the same as shortness of breath. If it is caused by a stuffy nose, chest pain, persistent cough, or generalized fatigue, screen according to the appropriate algorithm.

Block 2. The patient who is truly short of breath **at rest** with one of the findings in this block is in significant respiratory distress and should be seen by a physician **immediately**. Such a situation is usually obvious to you and the patient. Prior to the patient's transfer:

- Put him at rest in the semi-Fowler position.
- Give him oxygen at 4 to 6 liters per minute.
- Start an IV of D5W, or normal saline, to keep his veins open.

Block 3 & 4. Chest pain associated with shortness of breath may indicate serious heart or lung disease. However, patients with upper respiratory infection symptoms may experience mild shortness of breath and mild chest discomfort that is interpreted as pain. These combinations of symptoms are best evaluated by a medical officer as Category II.

Block 5. Cough, A-3, or Wheeze, D-3, will direct you to an appropriate degree of shortness of breath. If the shortness of breath is not obvious and there is no chest pain, cough, or wheeze, disposition to Category III is appropriate.

SHORTNESS OF BREATH, D-1

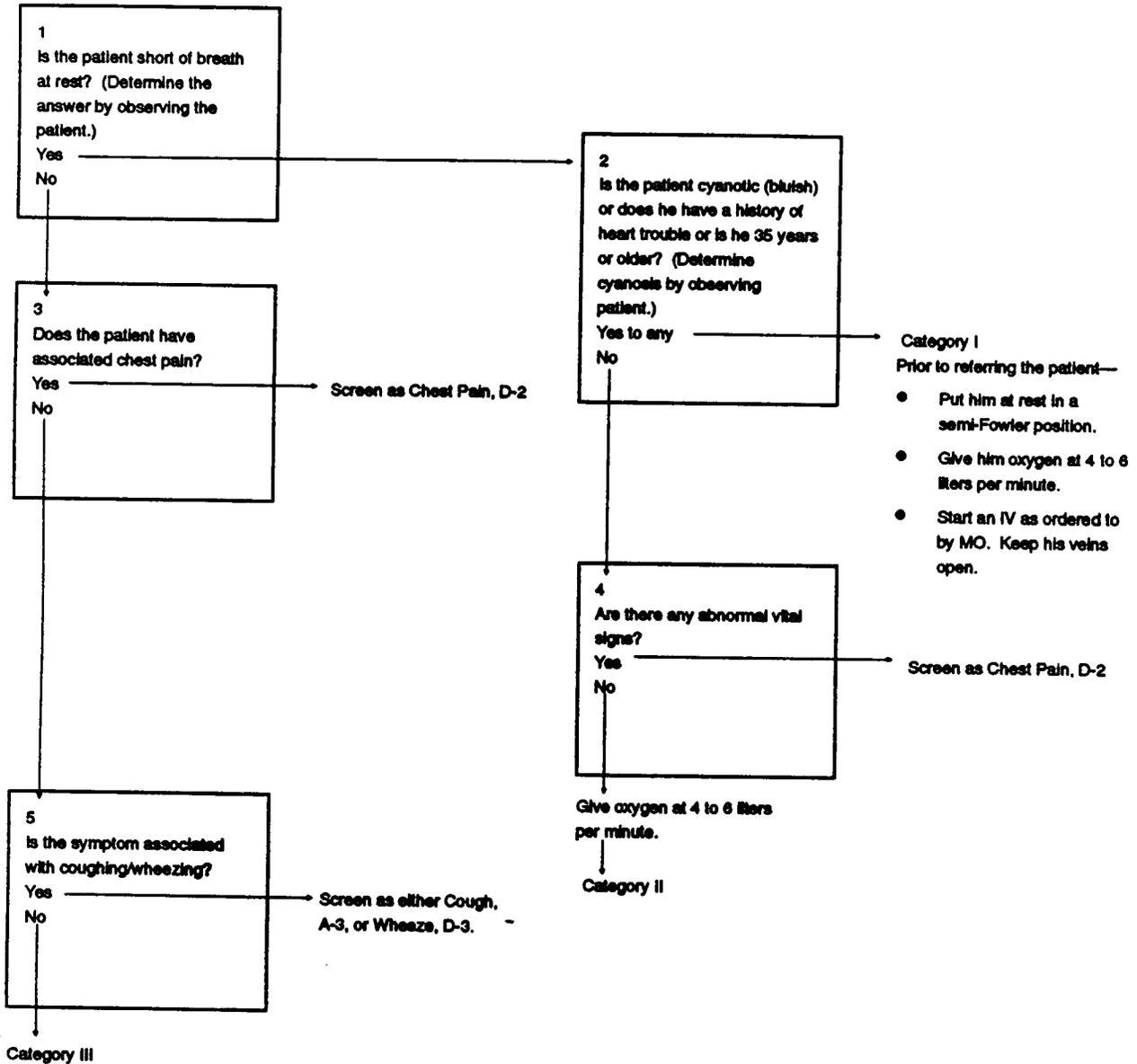
Take complaint-specific vital signs:

Temperature

Pulse

Respiration

Blood Pressure



CHEST PAIN, D-2

Chest pain means pain anywhere in the chest area, but it needs to be distinguished from back pain and generalized muscle aches which should be screened separately. When the patient's chief complaint is chest pain, be especially alert to his general appearance. While chest pain in the young is not generally associated with serious disease, all complaints of chest pain must be considered potentially serious regardless of the age of the patient.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Blocks 1-3. Substernal (beneath the breast bone) or left anterior chest pain in a patient over 40 years of age strongly suggests the possibility of a heart attack. This is especially true if it is accompanied by anxiety, sweating, severe weakness, or radiating pain to the neck, jaw, or down the left arm. Such a patient must be:

- Evaluated rapidly and monitored closely,
- Given first aid, and
- Started on treatment as described in the NOTE for this algorithm.

Patient with chest pain associated with shortness of breath at rest or an irregular pulse should be evaluated as Category I. It is highly possible that the patient may have a serious disease of the lungs or heart.

Block 4. A patient with chest pain made worse by coughing or deep breathing should be referred to Category II.

Block 5. A patient with a sore chest that is tender to the touch implies a musculoskeletal syndrome as does pain made worse by twisting movements of the chest wall. Such pain can be treated with self-care. Pain that is not clearly described by the above should be evaluated as Category III.

- TREATMENT PROTOCOL D-2(5)

1. The patient should be able to deal effectively with a mild musculoskeletal syndrome (pain arising from the chest wall). This is usually caused by injury to the muscle, bone, or cartilage that makes up the chest wall and may be treated with aspirin or Tylenol. (Any "heat rub" may also be applied in accordance with the manufacturer's instructions.) Advise the patient to follow instructions for any medications given.

2. Instruct the patient to return for medical assistance if:

- Pain becomes severe.
- Pain persists beyond 4 days.
- Shortness of breath develops.
- An irregular pulse develops.
- Dizziness develops.

CHEST PAIN, D-2

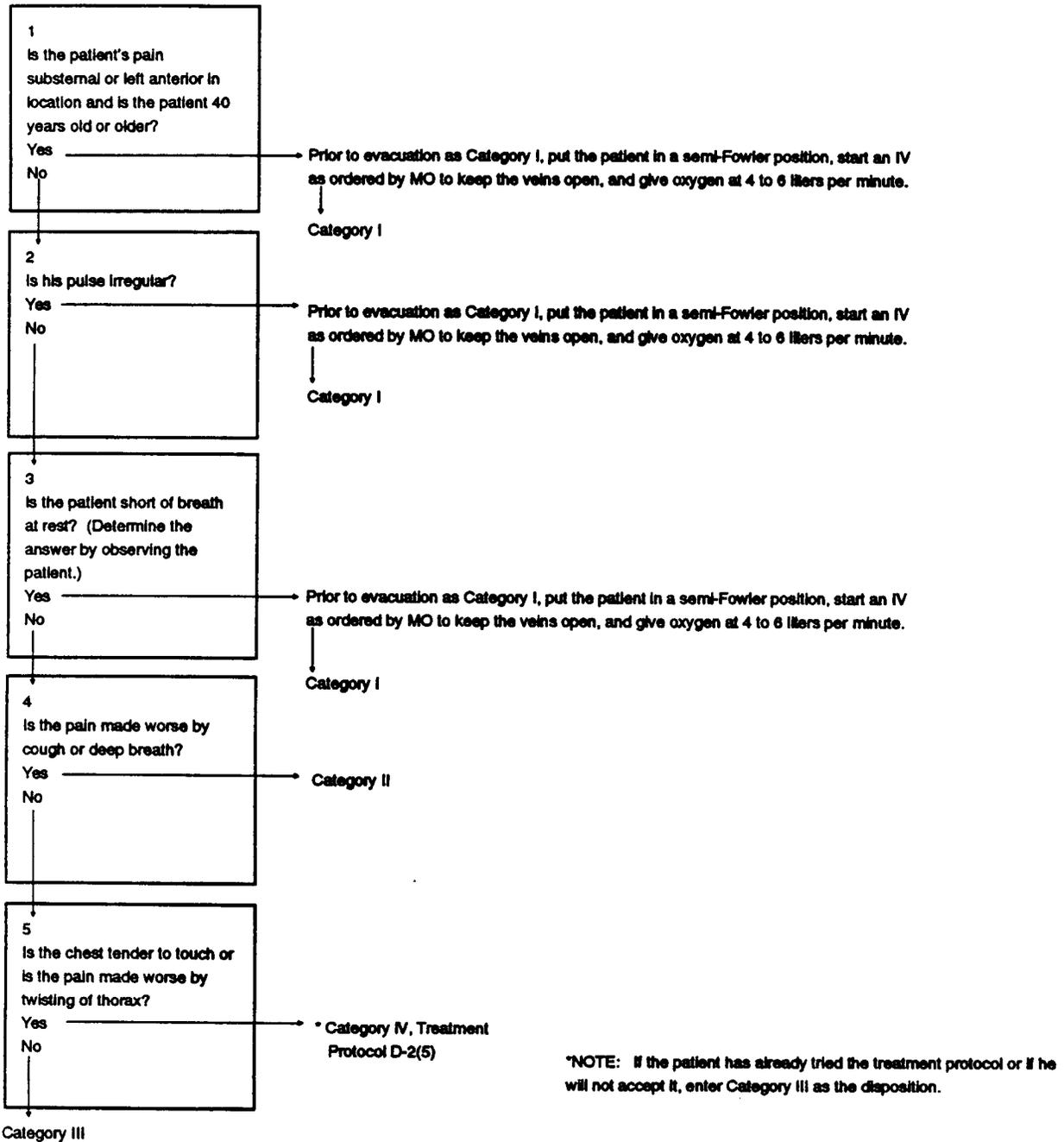
Take complaint-specific vital signs:

Temperature

Pulse

Respiration

Blood Pressure



WHEEZE, D-3

A wheeze is a dry “musical” whistling sound produced by air forced through narrowed passages. It may or may not be heard by someone near the patient. Gurgling or crackling respiratory noises are not considered wheezing.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Shortness of breath at rest is indicative of severe respiratory distress and requires immediate evaluation.

Block 2. In patients with signs of cyanosis (bluish appearance), or 35 years or older, or with a history of heart trouble, mild wheezing can indicate a serious condition that should be referred to Category I.

Block 3. The presence of wheezing may indicate significant infection in the lungs. The patient should be evaluated as Category II. In the absence of obvious wheezing, the patient should be evaluated as Category III.

WHEEZE, D-3

Take complaint-specific vital signs:

Temperature

Pulse

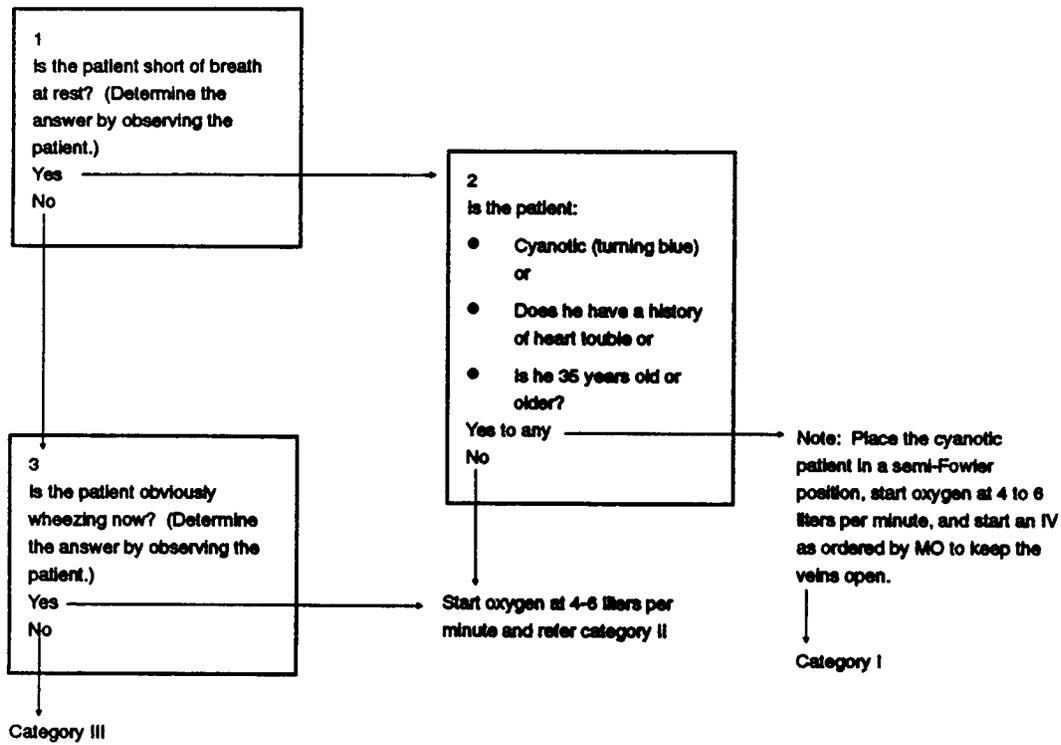
Respiration

Blood pressure

Associated Complaints:

Allergy/Hay fever

Shortness of breath



HSC Pam 40-7-21

GENITOURINARY COMPLAINTS

*Algorithms for	<u>Number</u>
Painful Urination (Dysuria)/Frequent Urination	E-1
Blood in Urine (Hematuria)	E-2
Testicular Pain	E-3
Problems in Voiding	E-4
Urethral Discharge (Male)	E-5
Sexually Transmitted Disease (VD)	E-6

PAINFUL URINATION (DYSURIA)/FREQUENT URINATION, E-1

Dysuria means difficulty, pain, or burning sensation with urination (“voiding” or “passing water”). Frequent urination means “voiding” or “passing water” more often than normal. Urgency means feeling the sensation of a full bladder even though it is not.

+ IMPORTANT INFORMATION ON THE ALGORITHM

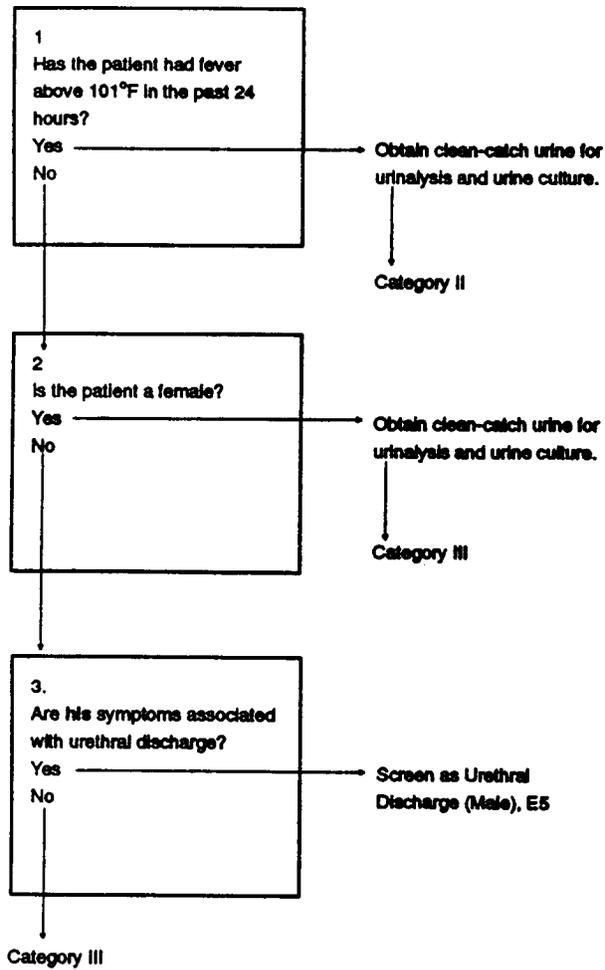
Block 1. A patient with dysuria and/or frequent urination and high fever might have a serious kidney infection requiring admission to the hospital. Evaluation and disposition are expedited by referring the patient to Category II.

Blocks 2 and 3. Male patients with urethral discharge from any cause frequently have associated dysuria. The symptom(s) may be the result of a sexually transmitted disease, but this diagnosis can only be confirmed by laboratory tests and should not be assumed by the screener. Screen using the Urethral Discharge (Male), E-5. Dysuria and/or frequent urination that is not associated with an obvious urethral discharge is not common. Of the other possible causes, most are evaluated initially as Category III.

PAINFUL URINATION (DYSURIA)/FREQUENT URINATION, E-1

Take complaint-specific vital sign:

Temperature



BLOOD IN URINE (HEMATURIA), E-2

Hematuria means blood in the urine. Fresh blood gives urine a pink or red color while older blood causes the urine to appear brownish, resembling cola. A blood-tinged urethral discharge of any type should be distinguished from blood in the urine and screened using Urethral Discharge (Male), E-5.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. The passing of blood clots during urination indicates active bleeding and a potential emergency; the patient should be evaluated as Category I immediately.

Block 2. Dysuria means pain or burning on urination (“voiding” or “passing water”).

Block 3. Frequent urination means voiding or passing water more often than normal. Urgency is the sensation of a full bladder when it is not.

Block 4. A ruptured kidney may not manifest itself immediately after injury. Any blow or fall that the patient can recall must be evaluated as Category II. Otherwise, the patient can be evaluated as Category III.

BLOOD IN URINE (HEMATURIA), E-2

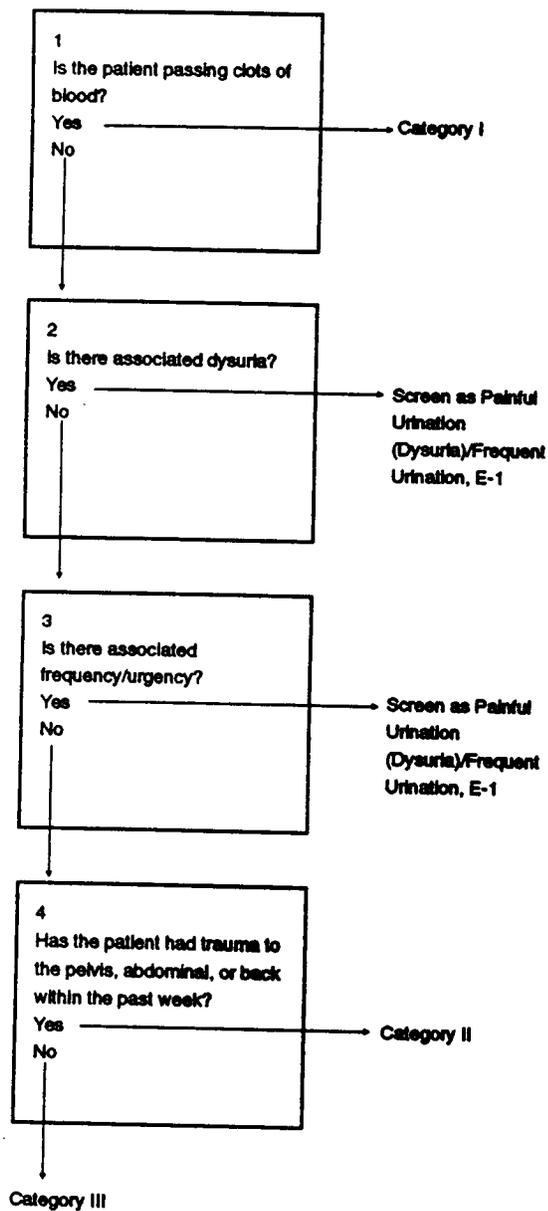
Take complaint-specific vital signs:

Blood pressure

Pulse rate

Temperature

Note: Obtain clean-catch urine for routine and microscopic analysis and culture sensitivity.



TESTICULAR PAIN, E-3

This term may be described as pain in the testes, gonads, "balls," or "crotch." It is impossible to give a purely quantitative definition of "severe" or "moderate."

+ IMPORTANT INFORMATION ON THE ALGORITHM

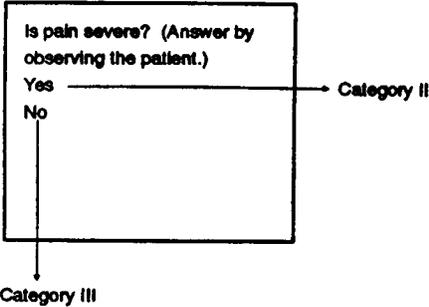
Observe the patient. A patient in severe pain will usually have a distressed look on his face or walk slowly with an abnormal gait.

Severe testicular pain may signify serious disease; therefore, immediate evaluation is necessary to avoid possible surgical removal. This complaint should be taken seriously.

TESTICULAR PAIN, E-3

Take complaint-specific vital sign:

Temperature



PROBLEMS IN VOIDING, E-4

Problems in voiding may range from difficulty initiating the urinary stream, to decreased force of stream, to dribbling urination, to complete inability to void.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Complete inability to void is a **medical emergency** and requires **immediate** treatment.

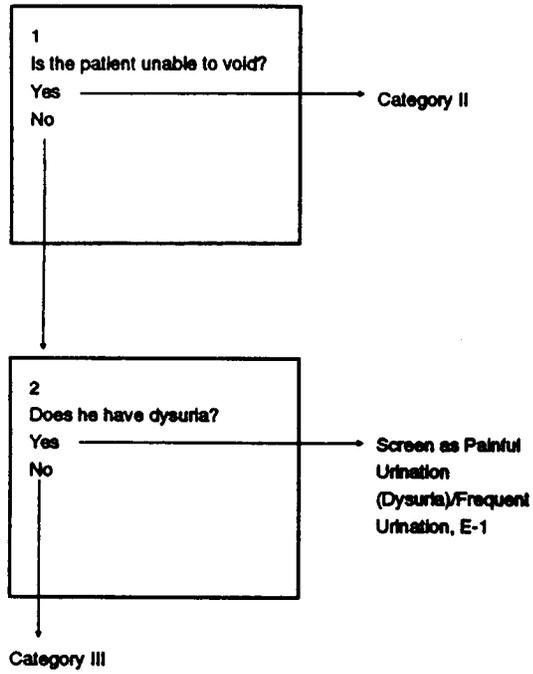
Block 2. Difficulty in voiding may be associated with dysuria or frequent urination in patients with a urinary tract infection. Screen using Painful Urination (Dysuria)/Frequent Urination, E-1.

PROBLEMS IN VOIDING, E-4

Take complaint-specific vital sign:

Temperature

NOTE: Obtain urine for analysis.



URETHRAL DISCHARGE (MALE), E-5

There is usually little difficulty in distinguishing discharge (pus) from urine. The pus is thicker and more opaque than urine. The patient may complain of dripping from the penis or say he has the "clap." The discharge may be blood-tinged and, if so, needs to be distinguished from blood in the urine.

In young, sexually active males, sexually transmitted disease (STD) is by far the most common cause of urethral discharge. In older males, other causes are probable. Proper evaluation on a timely basis is essential. Obtain a urethral smear for gram stain from the patient complaining of a urethral discharge. The patient should be evaluated as Category III.

SEXUALLY TRANSMITTED DISEASE (VD), E-6

Patients frequently show concern that they may have a sexually transmitted disease (STD); however, they will seldom use that term. More frequently, they will express concern about "VD" (venereal disease), "bad blood," or the "clap." For screening purposes, it is not important that the patient correctly define these terms. It is sufficient that they have symptom(s), or in the absence of symptom(s), believe they may have been exposed to an infection through sexual contact. Sexually transmitted diseases include but are not limited to those traditionally classified as venereal diseases. Some are potentially life-threatening; others are not. Some infections can be cured through treatment; others cannot be cured at the present time. Sometimes symptomatic relief is available. All patients, with or without symptom(s), need to be evaluated by a medical officer.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Patients (with or without symptoms) should be advised to avoid sexual contact until they have been evaluated by a medical officer.

Block 1. All female patients will be referred to a medical officer.

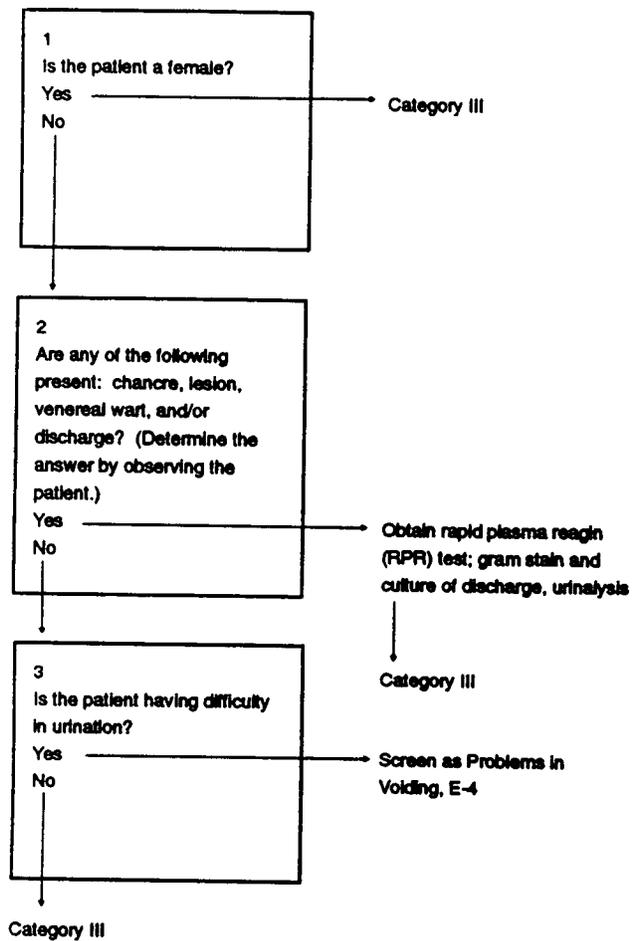
Block 2. Male patients with a chancre (an elevated, painless, ulceration (sore), usually on the penis) or with a urethral discharge should be seen by a medical officer.

Block 3. Male patients without a chancre or urethral discharge but complaining of difficulty urinating should be screened under Problems in Voiding, E-4. Patients who have neither lesions nor discharge consistent with STD nor dysuria need further evaluation by a medical officer to determine what is wrong.

SEXUALLY TRANSMITTED DISEASE (VD), E-6

Associated Complaints:

- Difficulty in urination
 - Penile discharge
 - Presence of a chancre or lesion
-



NEUROPSYCHIATRIC COMPLAINTS

Algorithms for	<u>Number</u>
Dizziness/Fainting/Blackout	F-1
Headache	F-2
Numbness/Tingling	F-3
Paralysis/Weakness	F-4
Drowsiness/Confusion	F-5
Depression/Nervousness/Anxiety/Tension	F-6

DIZZINESS/FAINTNESS/BLACKOUT, F-1

The term “dizzy” or “dizziness” may be used by the patient to mean light-headedness or feeling faint. True vertigo refers to an illusion where the room seems to be spinning about or the floor seems to be moving. It may be likened to severe seasickness or the feeling experienced immediately after getting off a fast merry-go-round. It is often accompanied by nausea. Vertigo is not to be confused with faintness or light-headedness which is a feeling of unsteadiness or beginning to fall. Blackout refers to a complete loss of consciousness. The patient who merely felt light-headed or thinks he may have blacked out for a few moments usually has not had a complete loss of consciousness. Question others who observed this fainting or blackout episode.

A momentary drop in blood pressure is probably the most common cause of transient faintness or light-headedness. Typically, symptoms occur when the patient goes suddenly from a squatting, sitting, or reclining position to an upright one. The symptoms are caused by a momentary decrease of blood flow to the brain. Low blood pressure, dehydration, and/or improper diet may also be contributing factors.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Orthostatic blood pressures should be taken for patients with this complaint. The patient’s blood pressure is taken first with the patient supine and then again after the patient has been standing for several minutes.

Block 1. If the patient does not have normal blood pressure or temperature reading, refer him as Category II for evaluation.

Block 2. Intoxication by drugs or alcohol can be a cause for dizziness, fainting, or blacking out. However, it is an unusual cause during normal duty hours. Patients who are intoxicated should be evaluated as Category III.

Blocks 3-4. A patient who loses consciousness from his dizziness or faintness may have a significantly more serious illness than one who does not lose consciousness. In a patient who has lost consciousness and is unable to walk unassisted within 10 minutes of the loss of consciousness, a serious underlying disease is probable. The patient should be evaluated as Category I immediately.

Block 5. Patients who require assistance to walk may also have a serious underlying disease and should be evaluated as Category II immediately.

Block 6. The patient with true vertigo may be able to walk without assistance which does not always represent a true emergency; therefore, refer the patient to Category III for evaluation.

Block 7. Dizziness and faintness are commonly associated with flu-like symptoms. If the patient has flu-like symptoms, he should be screened.

Block 8. Dizziness and faintness severe enough to prevent carrying out normal military duties should be evaluated as Category III.

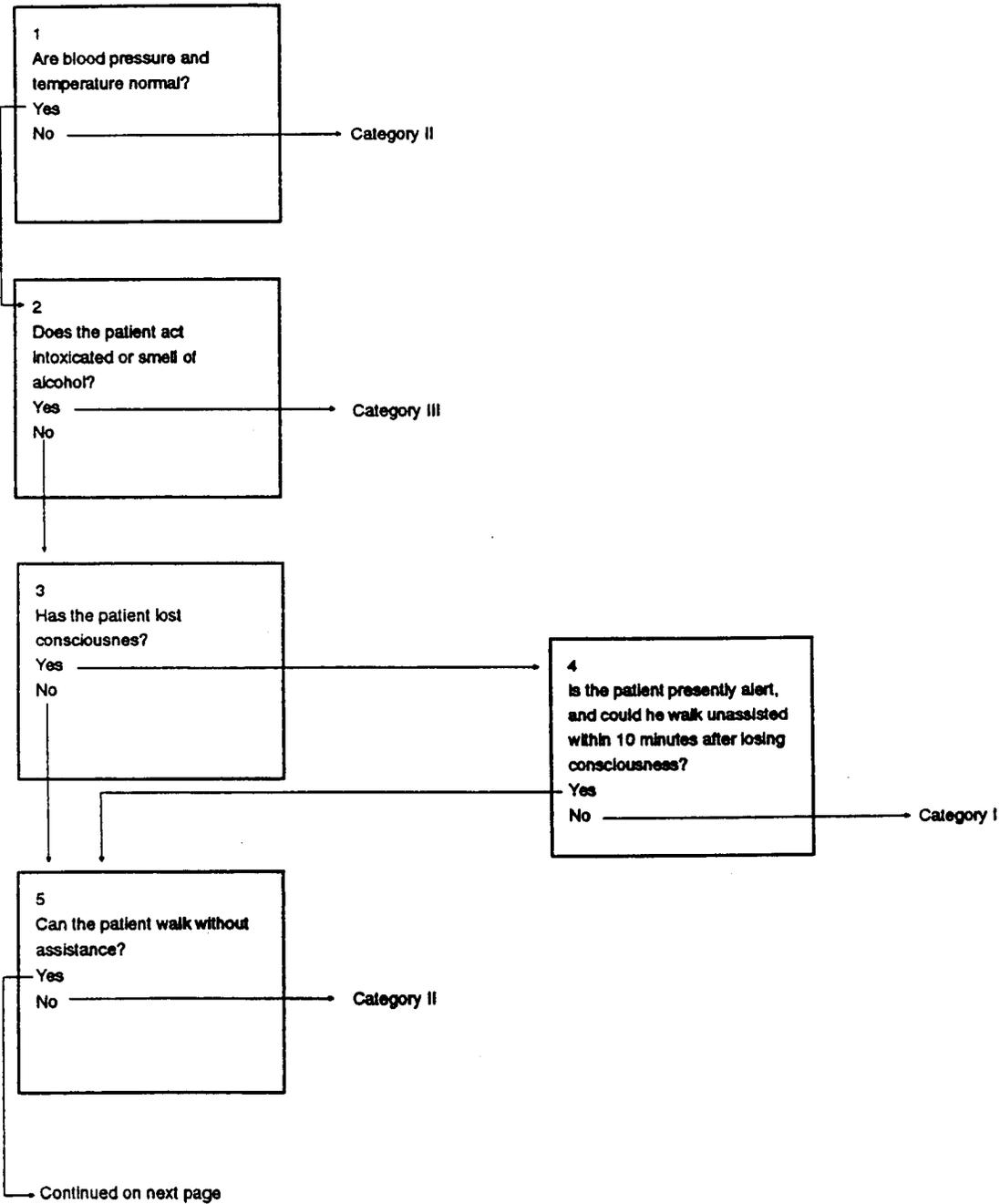
DIZZINESS/FAINTNESS/BLACKOUT, F-1

Take complaint-specific vital signs.

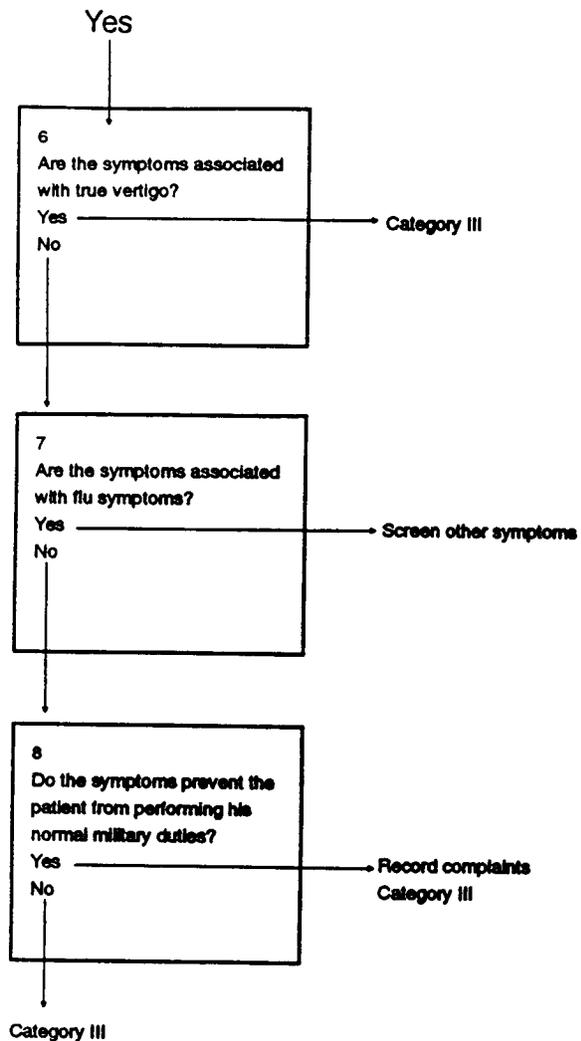
Temperature

Pulse rate

Blood pressure (postural).



Continued from previous page



HEADACHE, F-2

Strictly speaking, the word headache refers to pain anywhere above the neck. However, pain that is confined to or predominantly in the eyes, ears, or throat should be screened using the appropriate algorithm.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. The patient with a headache and a history of head trauma within the past week should be evaluated as Category II.

Blocks 2-3. Inability to touch the chin to the chest is usually due to muscle pain or spasm. The most serious condition that could cause this is meningitis which is a medical emergency. Meningitis can occur in military personnel, especially among recruits. It must be specifically ruled out when the patient has a headache associated with fever. Once screened, such cases should be evaluated as Category II.

Blocks 4-5. The patient with a headache who is also drowsy or confused may have a serious disease. If there is some question as to whether or not the patient is confused, ask him simple questions such as his name, day of the week, the year, where he is now, or who is the President of the United States. Patients who cannot answer these simple questions or who have recent visual problems should be evaluated as Category II.

Block 6. The patient with a headache who also has nausea and vomiting should be screened for the other symptoms.

Blocks 7-8. The patient with a headache who also has numbness or tingling should be screened as Numbness/Tingling, F-3. If he has elevated blood pressure, he should be evaluated as Category III.

Blocks 9-10. A patient whose headache has persisted longer than 5 days or that causes him to awaken at night should be evaluated as Category III.

Block 11. The patient with a headache and other upper respiratory infection complaints should be screened using the appropriate algorithm(s).

- TREATMENT PROTOCOL F-2(11)

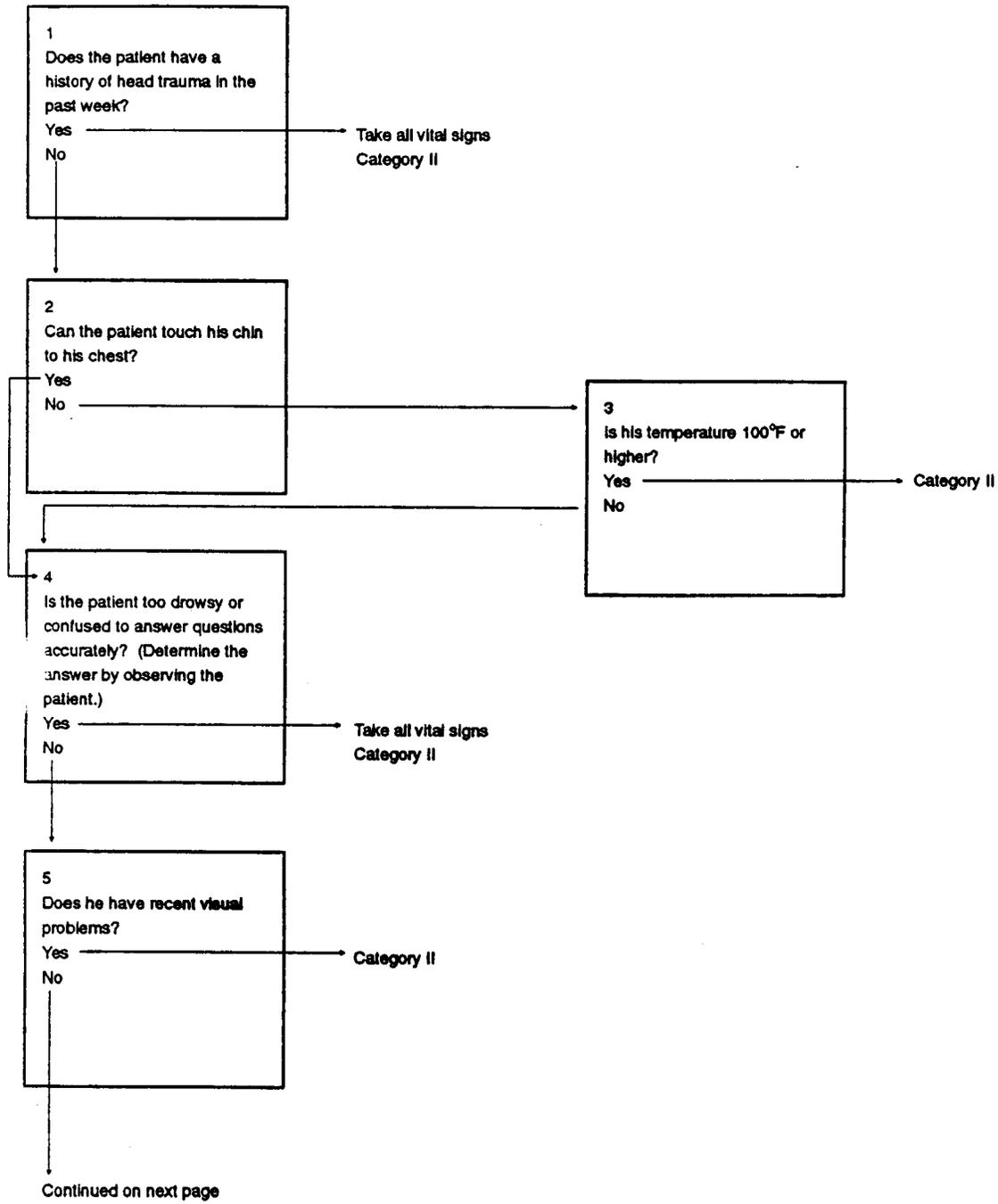
1. Headache is one of the most common complaints. In the absence of fever, severe pain, or confusion, serious disease is extremely unlikely.
2. Instruct the patient to take two tablets or capsules of aspirin or Tylenol every 4 hours and to return if the headache persists longer than another day, if fever or confusion occurs, or if the pain is so severe that performance of normal duties is impossible.

HEADACHE, F-2

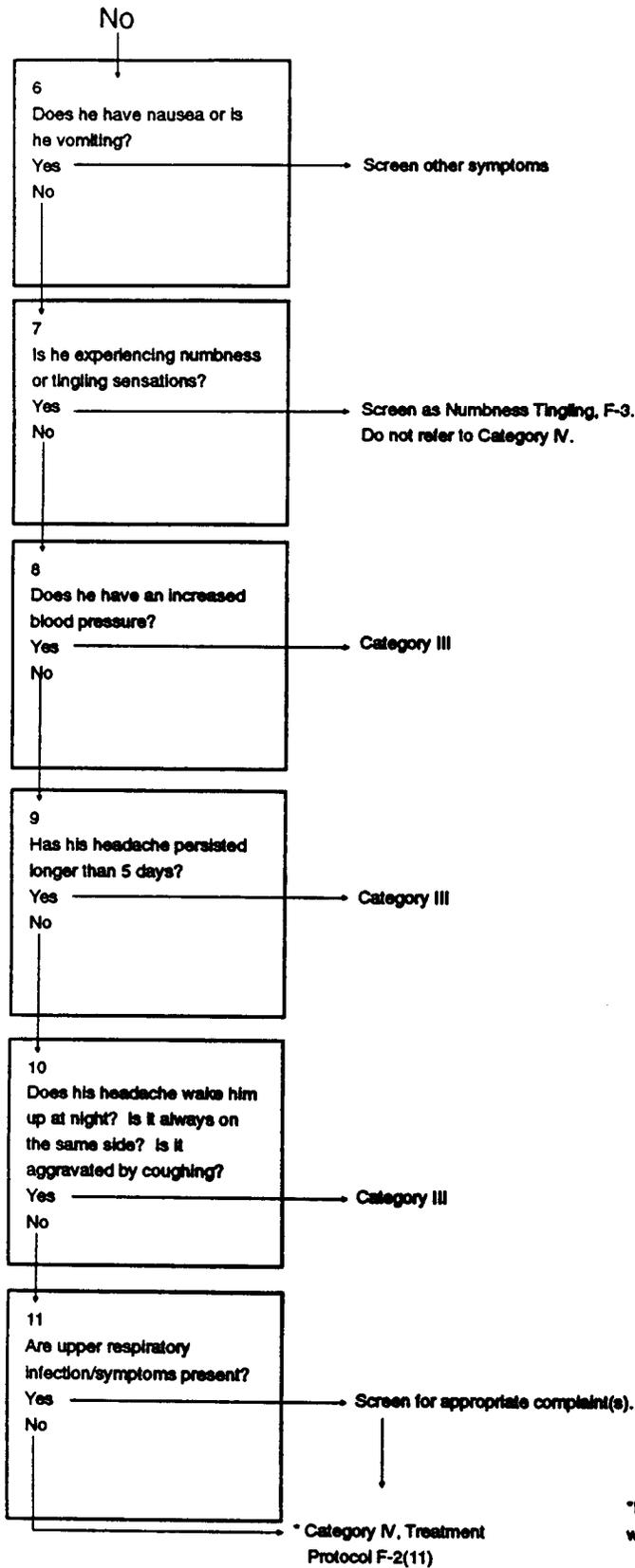
Take complaint-specific vital signs.

Temperature

Blood pressure



Continued from previous page



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

NUMBNESS/TINGLING, F-3 (Dysesthesia/Paresthesia)

This condition refers to any abnormality in sensation of the skin. Numbness is a state of decreased sensation. The patient often perceives the involved area as being “asleep.” Tingling is an alteration in the type of sensation that is perceived such as a prickling sensation—a “pins and needles” sensation.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Screen the patient for other associated complaints.

Block 2. Numbness/tingling confined to one area of the body (that is, focal) is more likely to have a serious cause than generalized numbness and tingling.

Block 3. If the patient has symptoms now, examination may reveal the cause. It is less likely that the cause for numbness and tingling will be determined after the symptoms subside.

Block 4. Generalized numbness or tingling associated with loss of consciousness, possible low blood sugar responses to insulin, or in conjunction with abdominal pain are indications for evaluation as Category II.

Block 5. Generalized numbness or tingling without any of the above symptoms in a patient who has a respiratory rate greater than 14 respirations per minute may be due to involuntarily breathing more deeply and quickly than normal in response to nervousness. Breathing in this way is called “hyperventilation” and causes the amount of carbon dioxide dissolved in the blood to decrease. This can cause numbness, tingling, and even muscle cramping. The patients are often unaware that they are breathing in this way and it may not be obvious to you observing them. Remember, however, that numbness and tingling in the absence of other findings is not always due to hyperventilation. If any doubt exists, the patient should be evaluated as Category III.

- TREATMENT PROTOCOL F-3(5)

Explain hyperventilation (see Block 5, above) to the patient. Instruct the patient to sit down and breathe quietly, mouth closed, with shallow (not deep) breaths at no more than 12 respirations per minute. If this breathing pattern does not resolve the patient’s symptoms within 5 to 10 minutes, he should be evaluated as Category III.

NUMBNESS/TINGLING, F-3

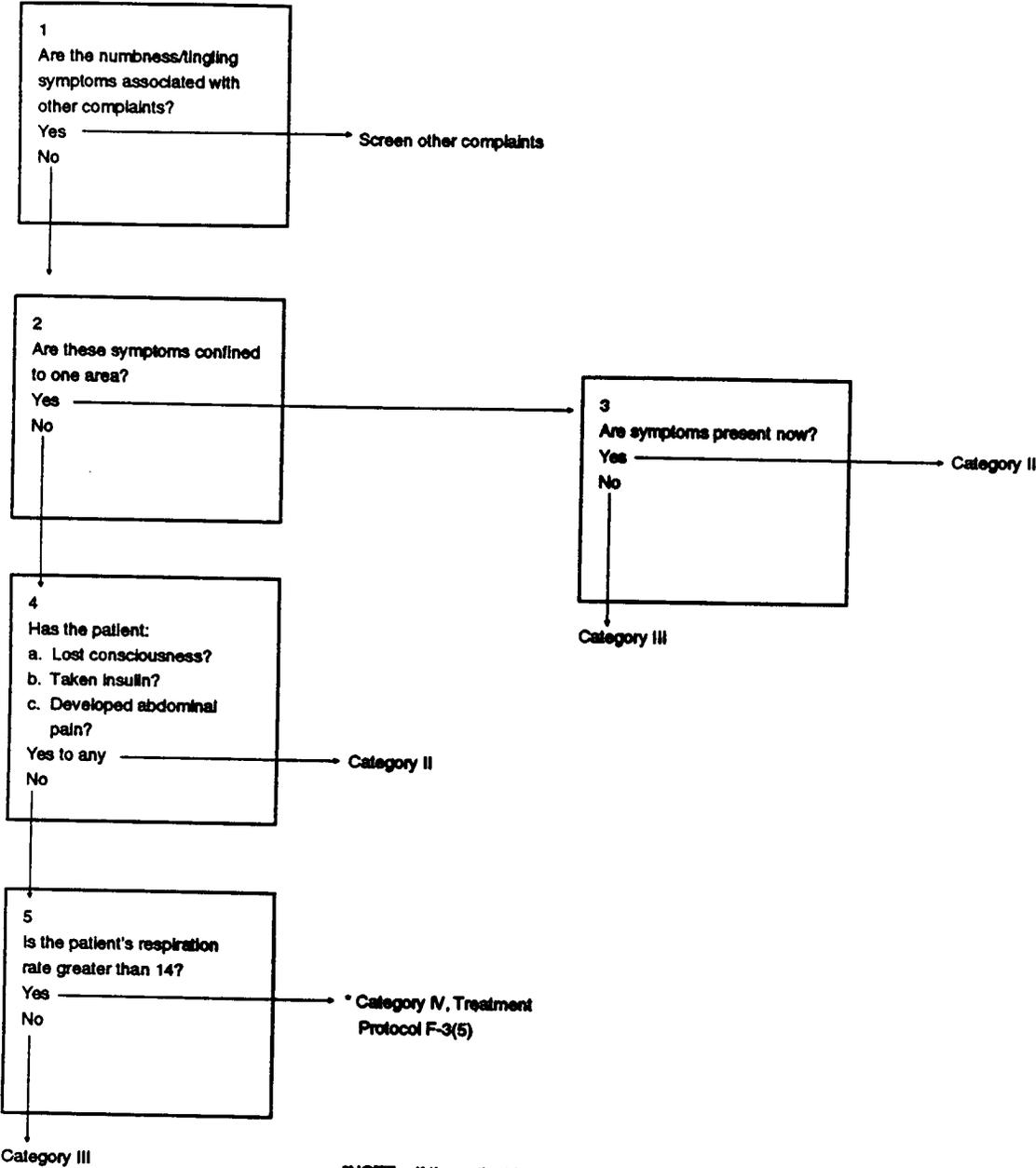
Take complaint-specific vital signs.

Pulse rate

Respiration rate

Associated Complaints:

- * Weakness
- * Paralysis



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

PARALYSIS/WEAKNESS, F-4

Paralysis/weakness is a condition that refers to a loss of muscular strength resulting in difficulty or inability to move a body part. A complete loss of muscular strength is paralysis; a partial loss is weakness. The patient who complains of being "weak all over" is often describing a manifestation of fatigue or depression.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Of more concern is loss of muscular strength or sensation that is focal in nature. This means that the weakness is confined to one area of the body commonly an arm, leg, one side of the body, or one side of the face.

Block 2. A focal deficit is of particular concern in patients older than 35 years in whom a stroke may be the cause of this symptom.

Blocks 3. Younger patients who have had similar symptoms in the past do not usually have an emergency cause for focal paralysis or weakness. They can be evaluated on a routine basis by the medical officer. An older patient, or a patient who never had a focal paralysis or weakness before, may have an acute problem involving the nervous system or brain. He should be evaluated by the medical officer immediately.

Block 4. A patient who has weakness all over his body associated with flu or upper respiratory infection (URI) symptoms is probably feeling weakness due to other symptoms.

Block 5. A patient with weakness which interferes with normal duties needs medical officer evaluation today as these symptoms can be early manifestations of neurologic disease. If he can perform normal activities, self-care is appropriate.

- TREATMENT PROTOCOL F-4(5)

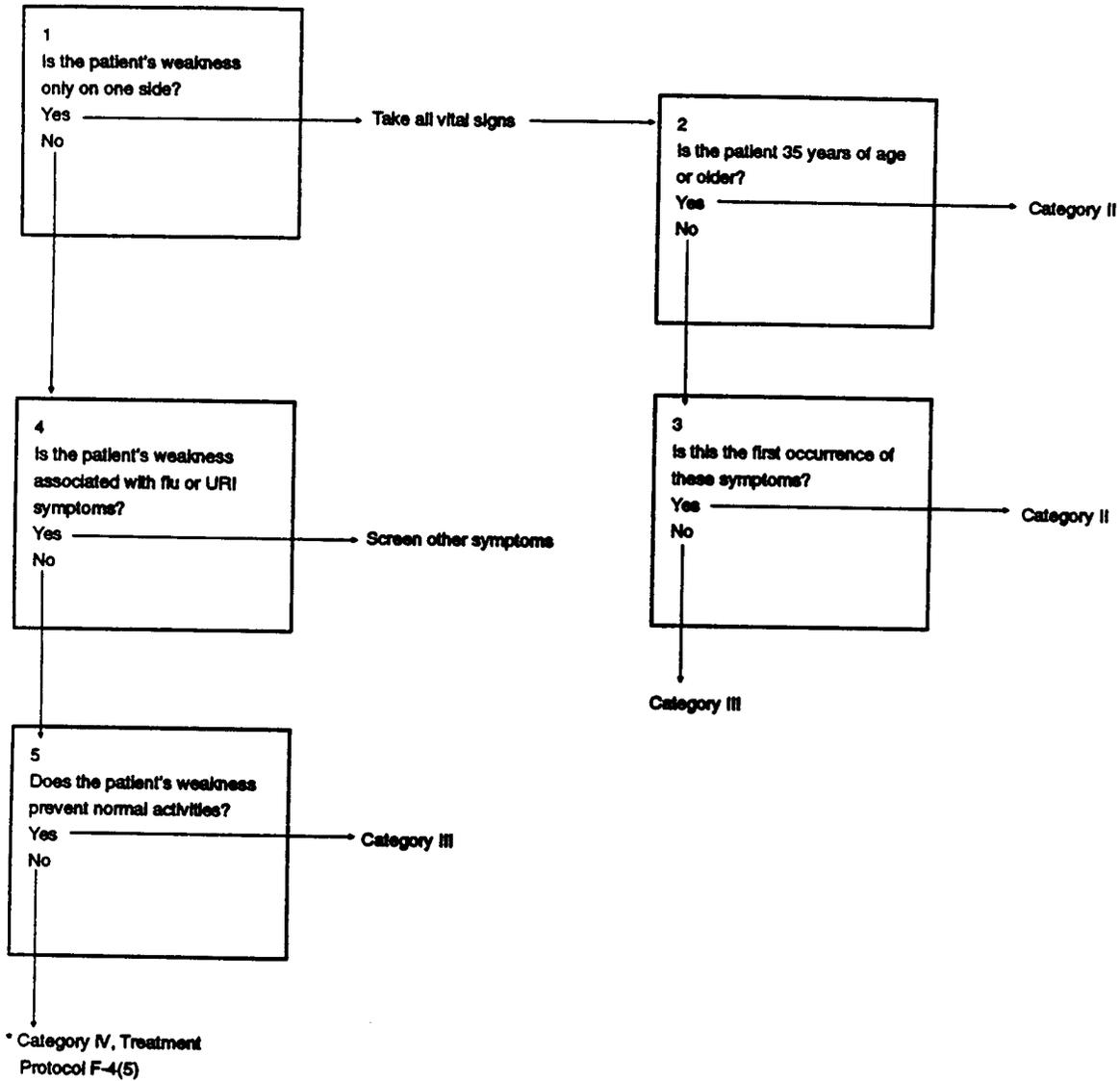
1. Generalized weakness of this nature is most likely due to fatigue or depression. The most important factor in treating this condition is careful consideration of the cause.
2. There are no simple cures for the most common fatigue syndromes. Taking a vacation, changing jobs, and undertaking new activities (if possible) may be helpful. "Pep pills" do not work and can be dangerous; the rebound usually makes the problem worse. Tranquilizers only serve to intensify the fatigue.
3. Advise the patient of the above treatment and request that he return if the problem worsens or if new symptoms develop. Offer a routine mental hygiene appointment, and, if it is accepted by the patient, phone the local mental health facility to make the appointment.

PARALYSIS/WEAKNESS, F-4

Take complaint-specific vital signs.

Blood pressure

Temperature



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

DROWSINESS/CONFUSION, F-5

Drowsiness and confusion may appear together. Drowsiness means that the patient is not alert; he appears sleepy. Confusion means the patient has trouble understanding simple questions, his attention span is short, and his responses are inaccurate. These symptoms may be observed even when the patient is relating other complaints.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. If the patient's drowsiness or confusion does not significantly interfere with your ability to obtain a history, the symptoms are considered mild.

Block 2. Mild drowsiness or confusion may be difficult to distinguish from the fatigue or malaise that accompanies many acute and chronic illnesses. Screen the patient's other complaints, but be certain that the disposition to a medical officer is made for today. If there is no other complaint or if this is the patient's only expressed problem, then he should be evaluated as Category III.

Block 3. Drowsiness/confusion associated with significant fever may indicate meningitis or some other serious infection. Refer the patient to Category II for evaluation.

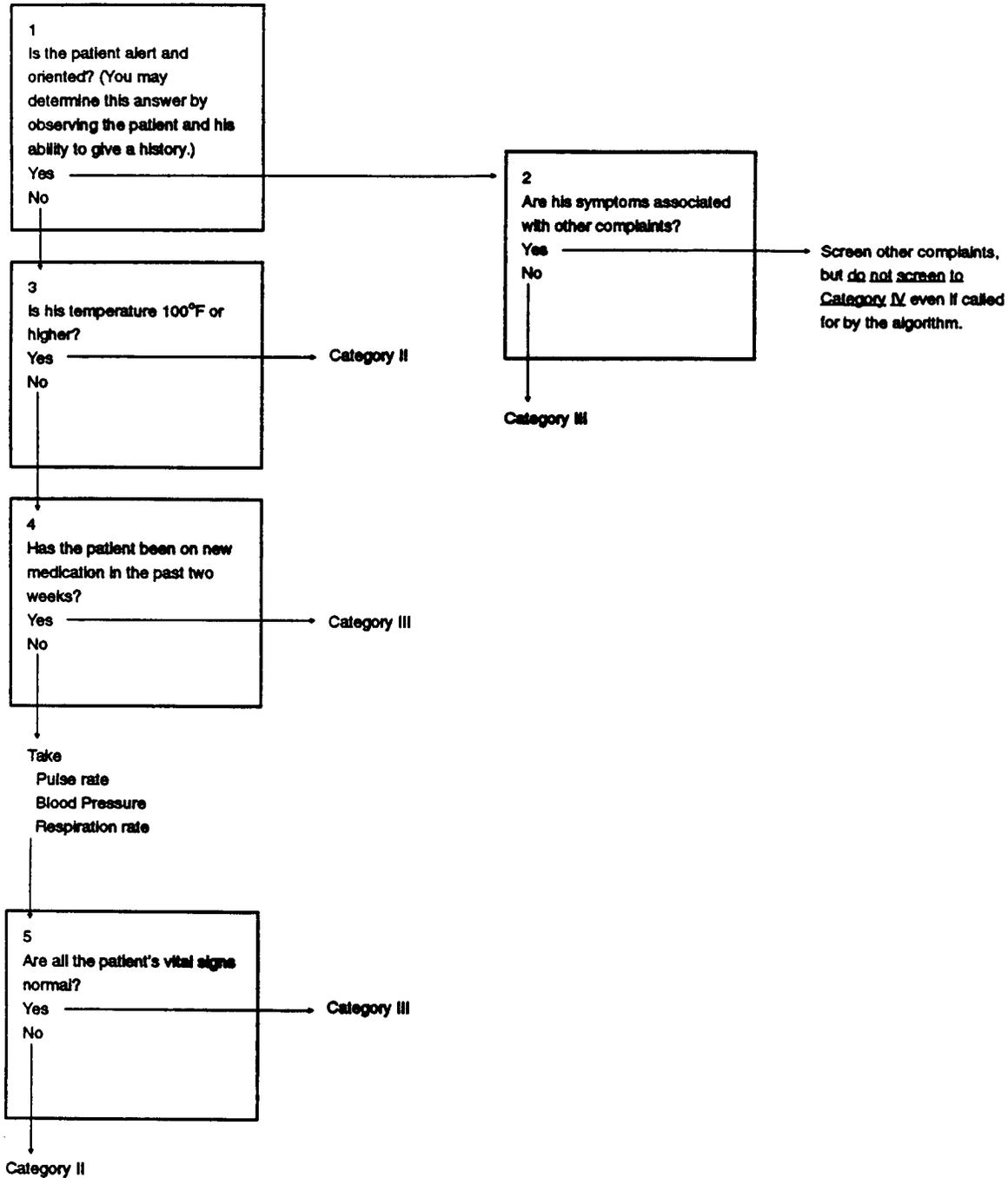
Block 4. Many medications can cause drowsiness or confusion. Most commonly, these symptoms will occur within the first several days after starting a new medication. The patient who has recently been started on medications (e.g., antihistamines, tranquilizers, muscle relaxants, and some analgesics,) has normal vital signs, and has no other indication of the cause for his drowsiness or confusion should be evaluated as Category III. The patient who has not recently been started on medication and has no other explanation for his drowsiness/confusion should be evaluated as Category II. This is necessary so that possible serious causes for his condition may be detected.

Block 5. Mild drowsiness/confusion in a patient with normal vital signs is of less concern and can be routinely evaluated as Category III. Any abnormal vital signs associated with drowsiness or confusion may indicate a more serious problem and should be evaluated as Category II.

DROWSINESS/CONFUSION, F-5

Take complaint-specific vital sign.

Temperature



DEPRESSION/NERVOUSNESS/ANXIETY/TENSION, F-6

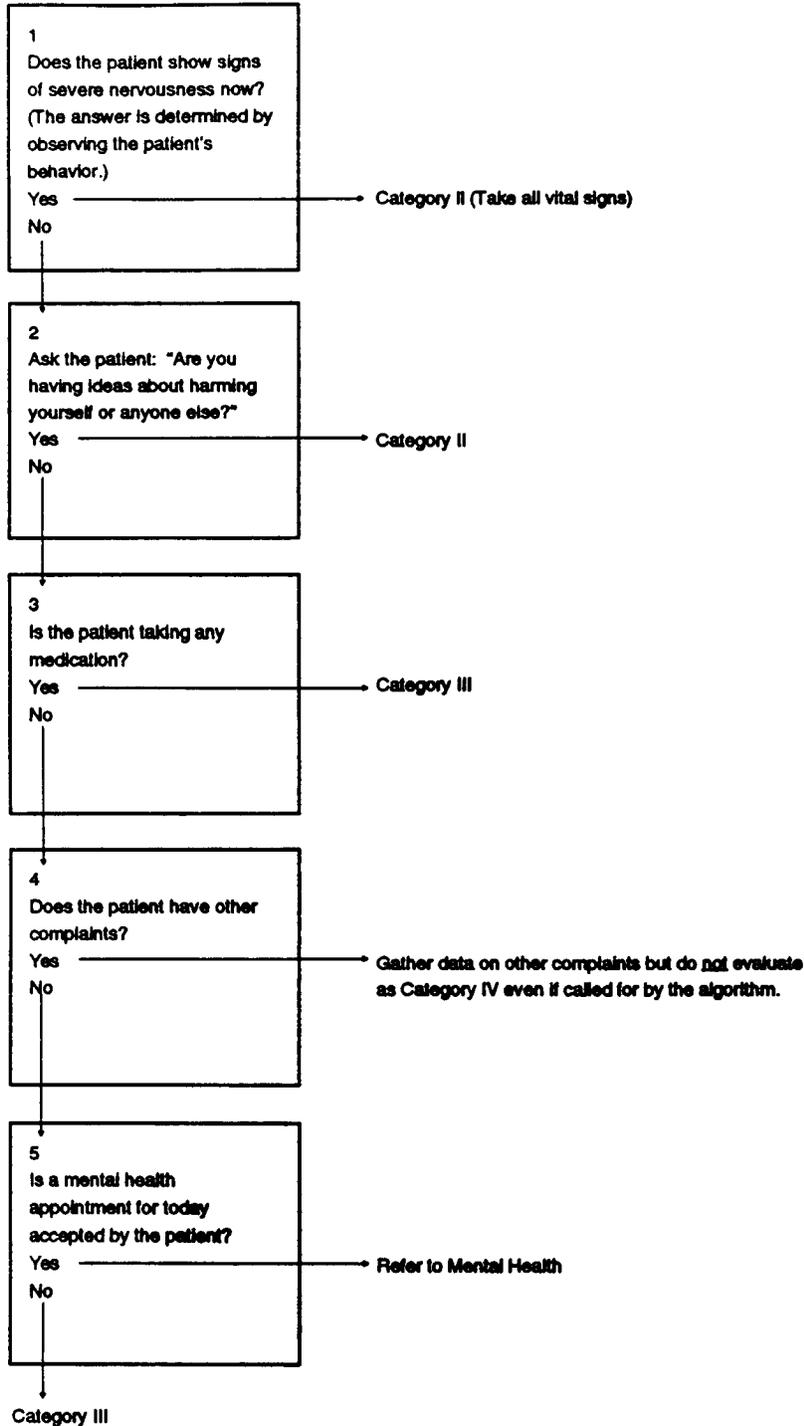
The terms “depression/nervousness/anxiety/tension” and the common complaints of “nerves” or “being upset” all refer to problems of mood. The patient does not feel well; but it may be due to a physical problem. Everyone experiences these feelings from time to time. When suicidal or homicidal ideas are admitted, however, or when symptoms become continuous or interfere with daily functioning, the complaint should be considered serious.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Blocks 1-4. The severely nervous patient may be tearful or so restless that it is difficult for him to sit for the interview. He may be so withdrawn that it is difficult to get him to answer questions. Because the patient may become worse if he has to sit and wait for a period of time in a busy waiting room with other patients, he is referred to Category II. Certain drugs can cause these symptoms. Note what medication, if any, the patient is taking. Also, ask how much medication the patient took; a large amount could indicate an attempted suicide. Refer to Category II. If the symptoms are mild and other complaints are present, it is best to focus on the additional complaints.

Block 5. If no other complaints are present, a patient with mild symptoms may accept or decline an appointment in the mental health clinic today.

DEPRESSION/NERVOUSNESS/ANXIETY/TENSION, F-6



CONSTITUTIONAL COMPLAINTS

*Algorithms for	<u>Number</u>
Fatigue	G-1
Fever/Chills	G-2

FATIGUE, G-1

Fatigue is a state of increased discomfort and decreased efficiency resulting from prolonged or excessive exertion or emotional distress. It is seldom caused by a specific disease. If the patient has other specific complaints, they should be evaluated. Otherwise, Category IV care is indicated.

- TREATMENT PROTOCOL G-1

1. Advise the patient that vitamins are rarely helpful, that “pep pills” do not work (the rebound usually makes the problem worse), and that tranquilizers generally intensify fatigue. Taking a vacation, if possible, or undertaking new activities is often helpful. The most helpful actions are:

- Identifying the problem causing the fatigue such as work stress, marital discord, or lack of rest or sleep.
- Working on the problem rather than on the symptom.

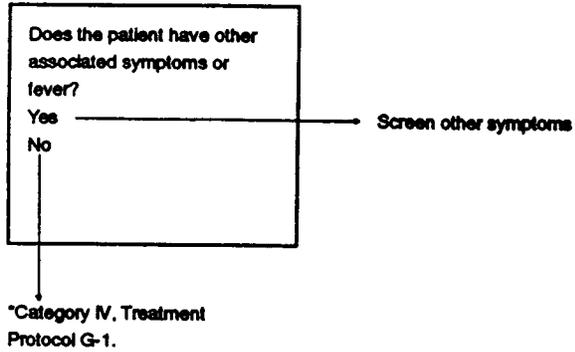
2. Instruct the patient to return for medical assistance only:

- If other symptoms develop.
- If the fatigue makes normal activities impossible.
- If fatigue persists for more than a week.

FATIGUE, G-1

Take complaint-specific vital sign:

Temperature



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

FEVER/CHILLS, G-2

Fever/chills are usually associated with an acute illness with other obvious symptoms. Before assuming the patient has isolated fever/ chills, be sure to ask him specifically about other symptoms such as headache, rash, dysuria, sore throat, cough, and muscle aches. If the patient's temperature is greater than 101°F or if his symptoms have persisted for more than 48 hours, refer him to Category III for evaluation.

- TREATMENT PROTOCOL G-2(3)

1. Drink extra fluids—at least one glass of water every hour. Take one or two tablets of Tylenol every 3 to 4 hours as needed.
2. Return for medical assistance if fever persists despite self-care or if other symptoms develop.

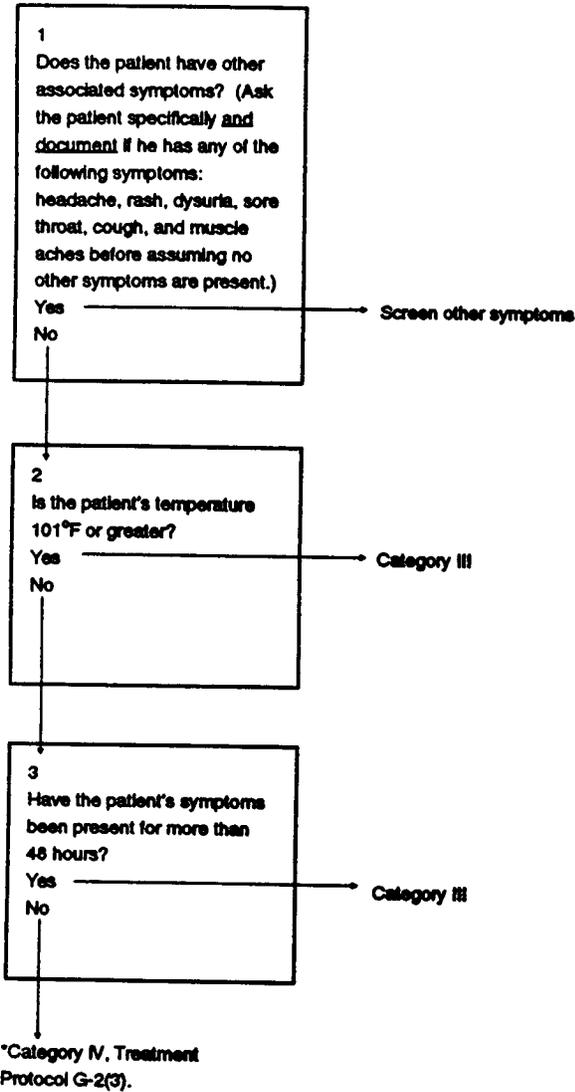
FEVER/CHILLS, G-2

Take complaint-specific vital sign:

Temperature

Associated Complaints:

Malaise



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

EYE COMPLAINTS

*Algorithms for	<u>Number</u>
Foreign Body in Eye/Eye Injury;	
Eye Pain/Itching/Discharge/Redness	H-1
Eyelid Problem	H-2
Decreased Vision	H-3
Seeing Double (Diplopia)	H-4
Seeing Spots	H-5
Request for Eyeglasses Only	H-6

NOTE: Test and record visual acuity for every complaint.

**FOREIGN BODY IN EYE/EYE INJURY;
EYE PAIN/ITCHING/DISCHARGE/REDNESS, H-1**

+ IMPORTANT INFORMATION ON THE ALGORITHM

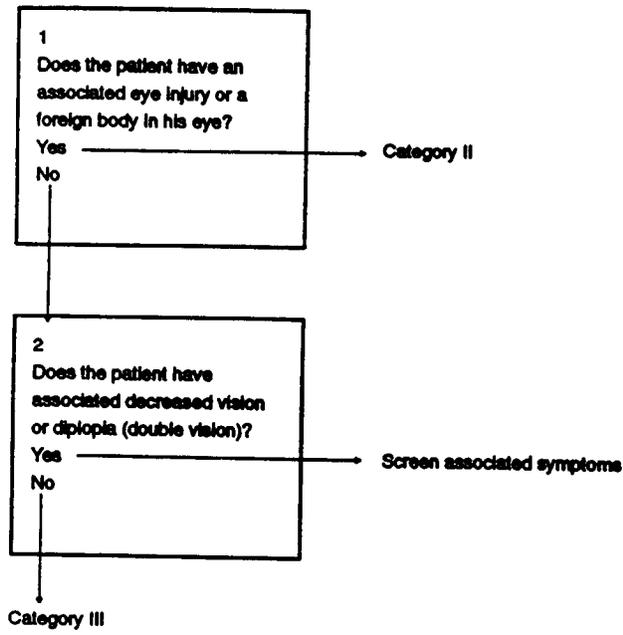
Block 1. The patient does not need to be positive that something is in his eye. Most patients can distinguish the specific sensation due to a foreign body. Refer him to Category II care. If the patient was exposed to fast moving metal or glass slivers from an explosion, hammering, or welding, take caution. These particles can actually penetrate the eye and symptoms then disappear rapidly. A history of a foreign body that is now "getting better" should still be screened as a foreign body. All eye injuries should be similarly referred; always patch the patient's eye before referring him. If one suspects a penetrating foreign body injury to the eye, do not patch the eye directly. Instead use a protective metal fox shield if available. If a fox shield is not available, tape a protective cup over the eye (e.g., tape a styrofoam cup cut in half over the injured eye).

Block 2. Pain includes burning sensations. The membrane that lines the eye and eyelids may be inflamed. A discharge often causes crusting on the eyelids. These symptoms most commonly indicate conjunctivitis or "pink eye." If the patient also reports an eye injury, a foreign body in his eye, decreased vision, or diplopia (double vision), conjunctivitis is less likely. Screen these symptoms in addition to evaluating the patient's complaint of discomfort.

FOREIGN BODY IN EYE/EYE INJURY:

EYE PAIN/ITCHING/DISCHARGE/REDNESS, H-1

Test and record visual acuity.



EYELID PROBLEM, H-2

Patients with a variety of problems, as well as some systemic diseases, may present with eyelid complaints.

+ IMPORTANT INFORMATION ON THE ALGORITHM

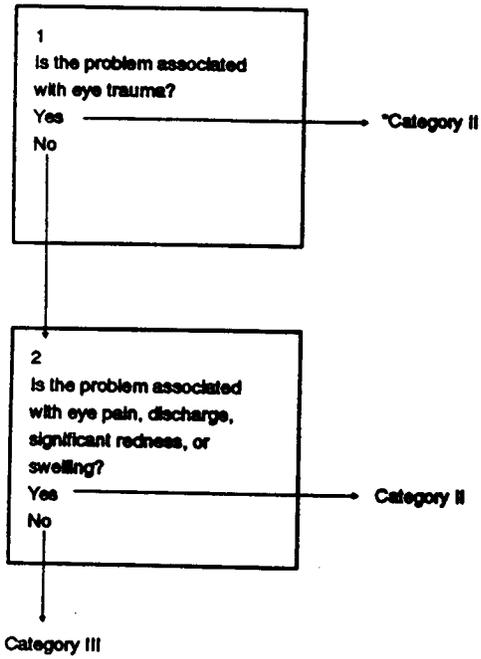
Block 1. Any eye trauma should be evaluated by a medical officer. Be sure to patch the injured eye with a dry, sterile gauze dressing to prevent further injury to the eye if:

- The medical officer is not physically present, and
- The ophthalmology clinic is more than 10 minutes away.

Block 2. Some primary diseases and infections of the eye may spread and involve the lids. Other infections are localized and do not normally become serious. Differentiate between these causes to determine the urgency of referral.

EYELID PROBLEM, H-2

Test and record visual acuity.



*NOTE: If the medical officer is not physically present, patch the patient's eye and refer him to ophthalmology.

DECREASED VISION, H-3

Decreased vision can mean that images are less distinct or that a portion of the visual field is "blacked out."

+ IMPORTANT INFORMATION ON THE ALGORITHM

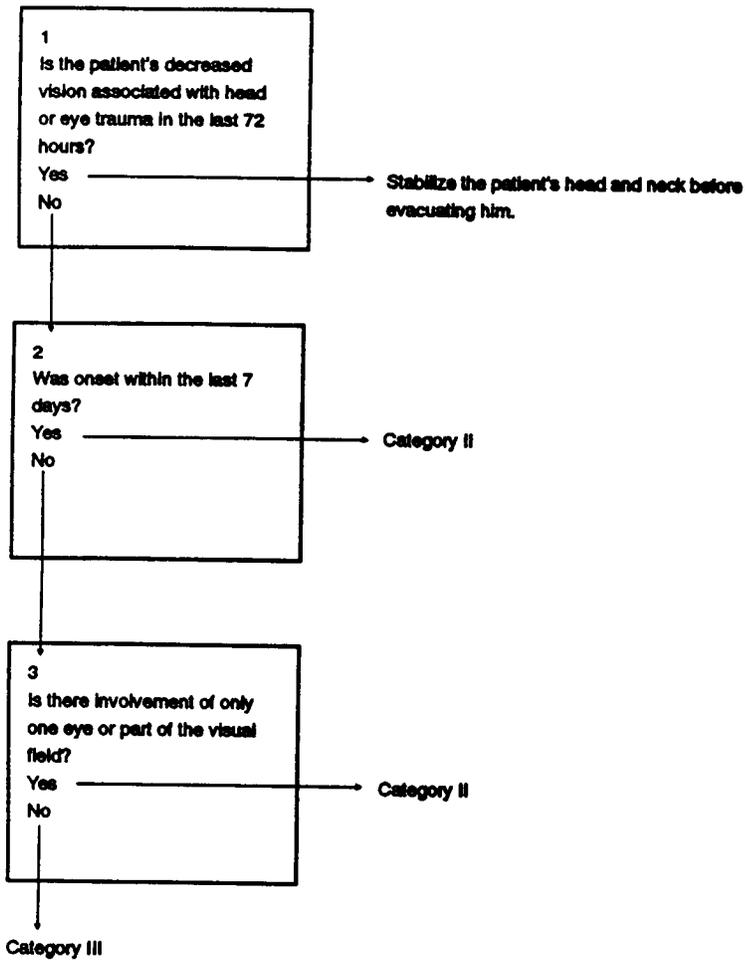
Block 1. Decreased vision that occurs following trauma may indicate a serious injury that requires immediate treatment.

Block 2. Visual disturbances of the type requiring eyeglasses usually come on gradually. Rapid onset of decreased vision signifies a more serious problem.

Block 3. The usual types of visual problems (such as those requiring eyeglasses) are not limited to one area of the field of vision. The patient may volunteer the fact that only part of the visual field is involved. If the decrease or loss of vision involves a distinct part of the visual field and is acute, the cause may be serious and immediate evaluation is required.

DECREASED VISION, H-3

Test and record visual acuity.



SEEING DOUBLE (DIPLOPIA), H-4

Double vision means seeing two images of a single object.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Blocks 1-2. Double vision of recent onset or following injury may represent a serious problem in the brain or skull and the patient should be evaluated as Category I.

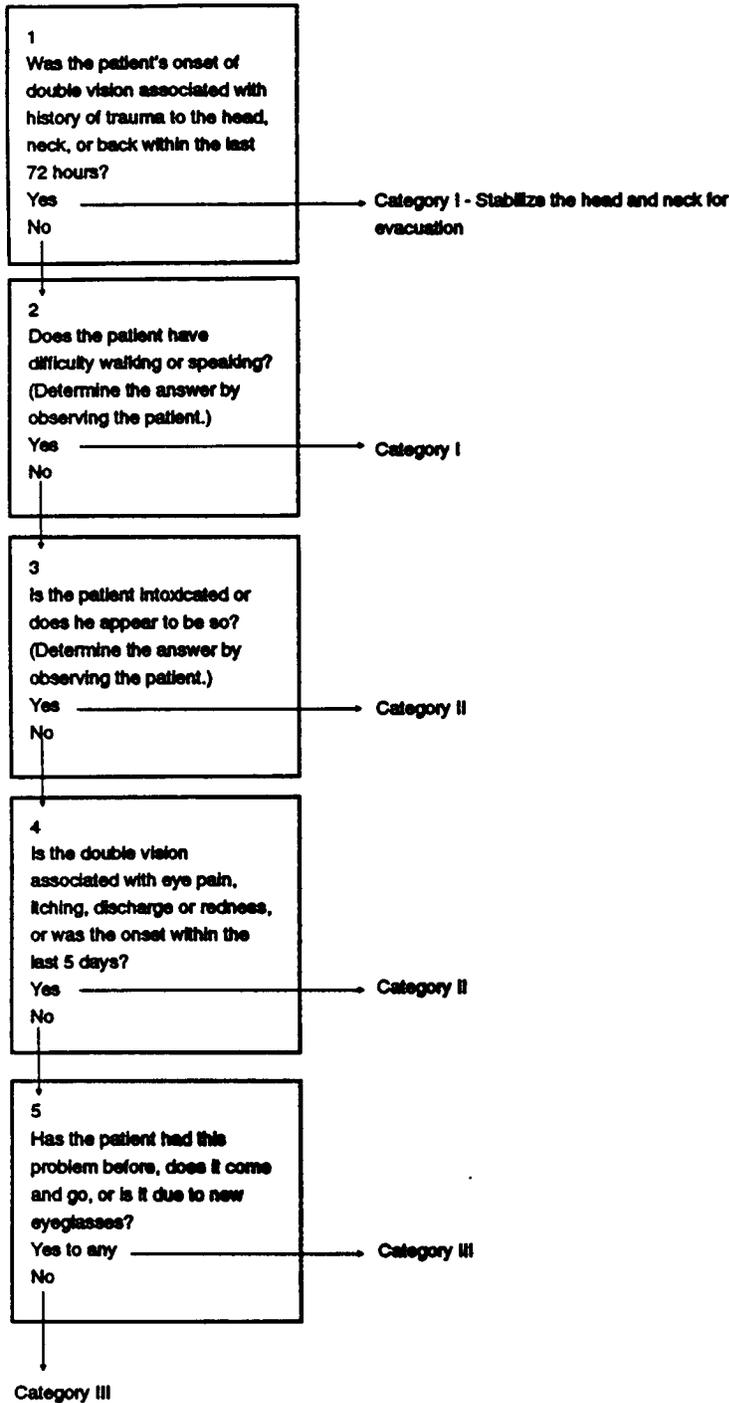
Block 3. Intoxication is a common cause of double vision but should not occur during duty hours. If the patient appears intoxicated, he should be evaluated as Category II.

Block 4. Double vision associated with eye pain, discharge, or redness should be evaluated as Category II for further evaluation.

Block 5. A long-standing history of double vision or double vision caused by new eyeglasses may well indicate a need for evaluation of the eyeglass prescription. The patient should be given an appointment at the optometry clinic. Patients with none of the conditions in blocks 1-5 and no prior episodes of diplopia present a diagnostic problem that should be evaluated by an optometrist/ophthalmologist.

SEEING DOUBLE (DIPLOPIA), H-4

Take and record visual acuity.



NOTE: Covering one eye prior to referral should temporarily relieve the symptom. The patient should not drive or perform any duty requiring depth perception.

SEEING SPOTS, H-5

The patient may refer to the spots as stars, flashes, or floaters.

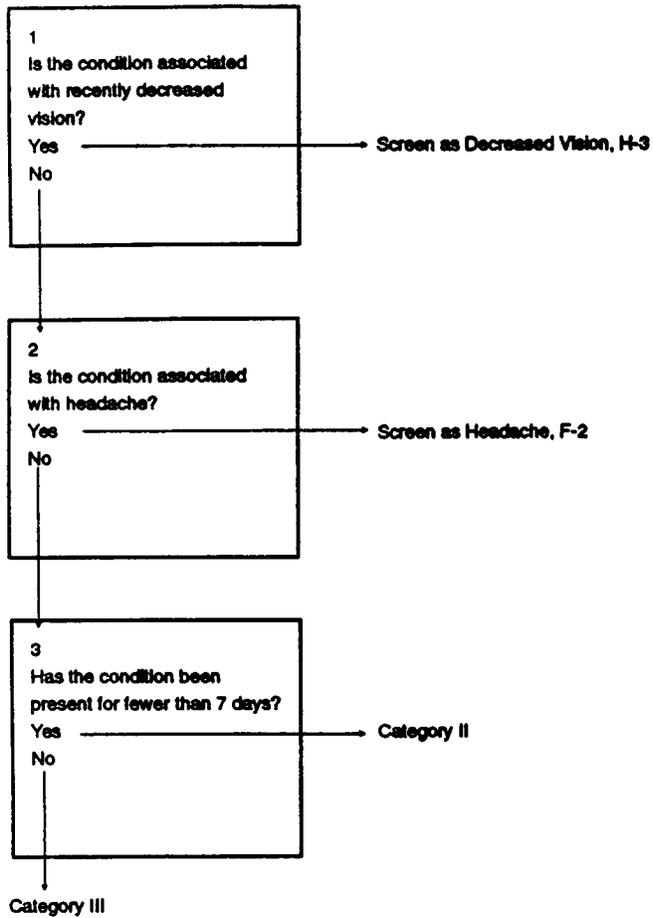
+ IMPORTANT INFORMATION ON THE ALGORITHM

Blocks 1-2. The patient complaining of seeing spots associated with decreased vision or headache requires referral to Category II care.

Block 3. When this symptom is of recent onset, the patient should be examined today by an optometrist/ophthalmologist. Otherwise, referral to Category III care is appropriate.

SEEING SPOTS, H-5

Test and record visual acuity



REQUEST FOR EYEGLASSES ONLY, H-6

This algorithm is specifically for patients who request a routine check for glasses or protective mask inserts. NOTE that protective mask inserts are not usually provided to personnel with uncorrected vision of 20/40 or better.

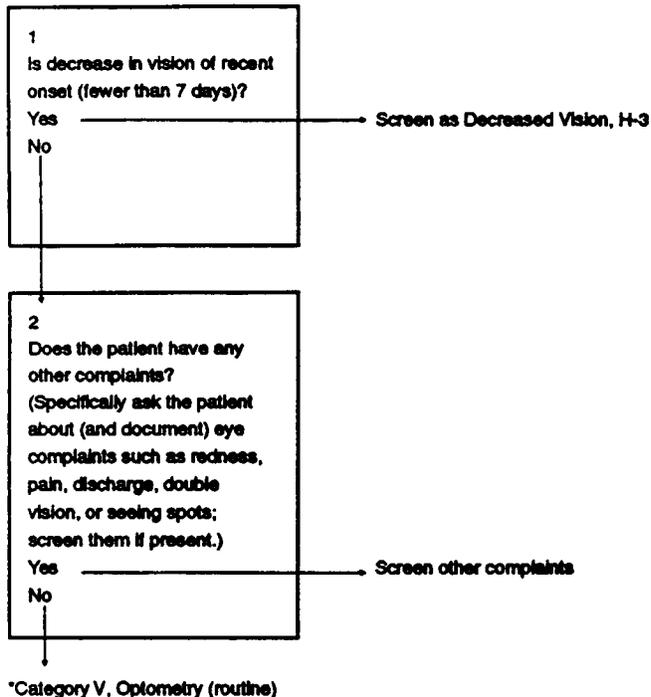
+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. The common problems of nearsightedness or farsightedness usually progress slowly. Rapid onset of visual problems should be evaluated promptly.

Block 2. If the patient has any other eye complaints, screen according to the appropriate algorithm in this section.

REQUEST FOR EYEGLASSES ONLY, H-6

Test and record visual acuity and compare with any previous evaluations.



*NOTE: Do not send patient to the optometry clinic for protective mask inserts unless uncorrected vision (as documented in the health record) of worse than 20/40 has been corrected with spectacles.

GYNECOLOGY (GYN) COMPLAINTS

Algorithms for	<u>Number</u>
Breast Problems	I-1
Suspects Pregnancy	I-2
Menstrual Problems	I-3
Vaginal Discharge, Itching, Irritation, or Pain	I-4
Vaginal Lump, Mass, or Sore	I-5
Pelvic Pain	I-6
Vaginal Bleeding	I-7
Request for PAP or Routine Pelvic Examination	I-8
Request for Information on Contraception	I-9

BREAST PROBLEMS, I-1

+ IMPORTANT INFORMATION ON THE ALGORITHM

Nursing mothers often have problems with cracked or infected nipples or have difficulty when the child is weaned. Other breast problems, including lumps and soreness, should be evaluated as Category III.

BREAST PROBLEMS, I-1

Take complaint-specific vital sign:

Temperature

All breast problems should be evaluated as Category III.

SUSPECTS PREGNANCY, I-2

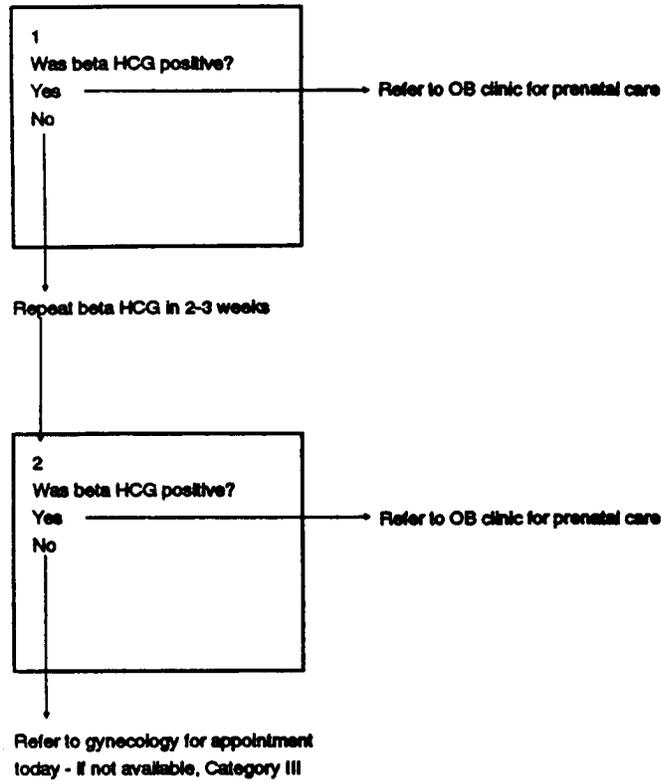
+ IMPORTANT INFORMATION ON THE ALGORITHM

Serum tests for pregnancy, beta human chorionic gonadotrophin (HCG) determinations, are quite accurate and are positive a few days after the missed menstrual period. A serum beta HCG obtained about two weeks after the patient should have had a menstrual period based upon her normal cycle should be positive.

SUSPECTS PREGNANCY, I-2

(Patient with menses at least two weeks late.)

Order beta HCG



MENSTRUAL PROBLEMS, I-3

This algorithm is meant to cover all types of menstrual difficulties not covered in other flow charts. If the problems are missed periods (possible pregnancy), vaginal bleeding, or abdominal pain, screen according to the appropriate algorithm.

The most common problems are irregular or painful periods. You do not need to define the problem. This algorithm is used to determine how quickly the patient needs to be seen.

- TREATMENT PROTOCOL I-3(4)(5)

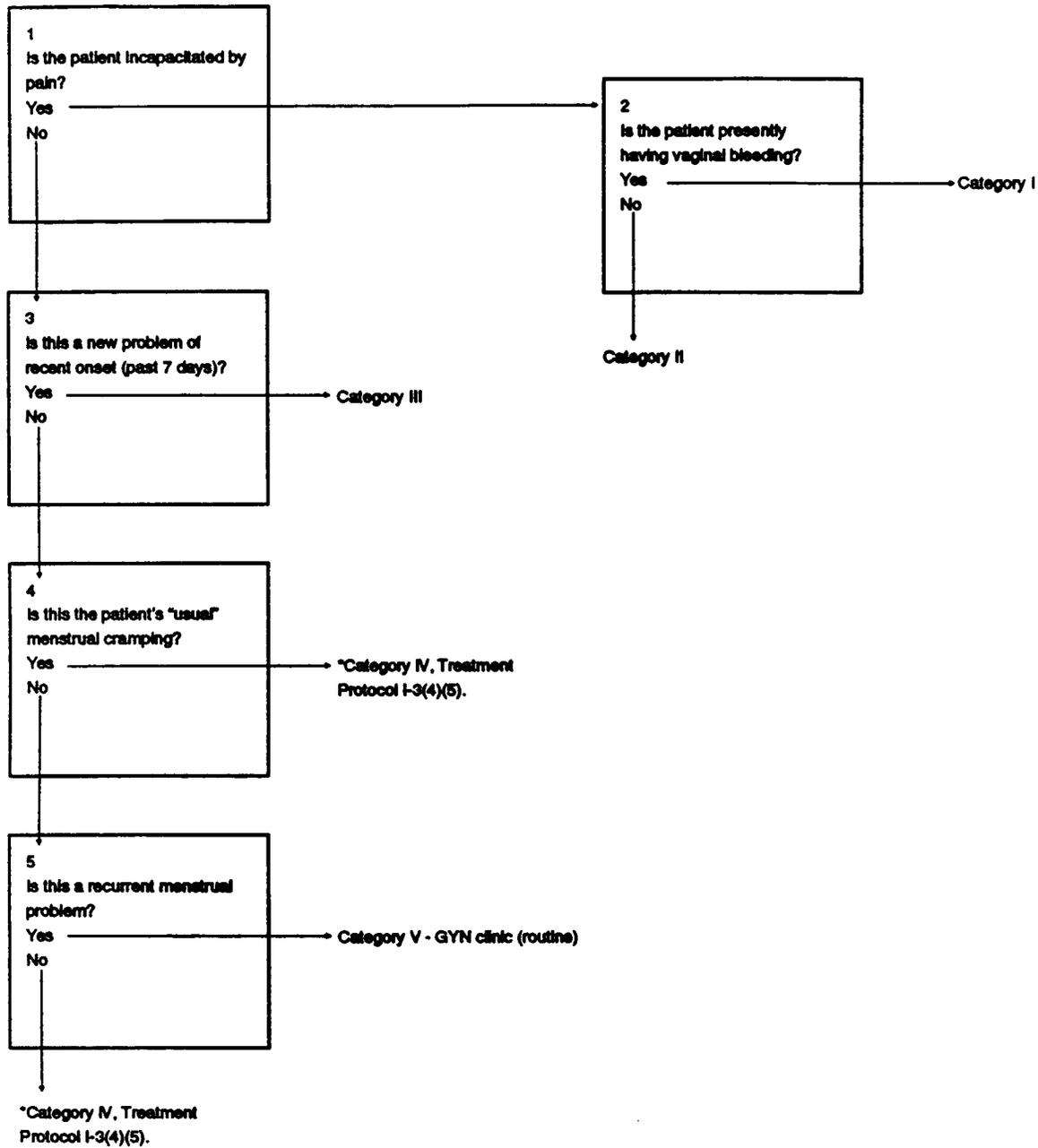
1. Bothersome menstrual cramping usually lasts about 24 hours. It may be relieved by aspirin or Tylenol (two tablets every 4 hours). Seldom is discomfort such that the patient is unable to perform normal activities.
2. Give the patient symptomatic medication and instructions for use.
3. Instruct the patient to return if the problem prevents performance of normal duties. A medical officer will evaluate the patient.

MENSTRUAL PROBLEMS, I-3

Take complaint-specific vital signs:

Temperature

Blood Pressure

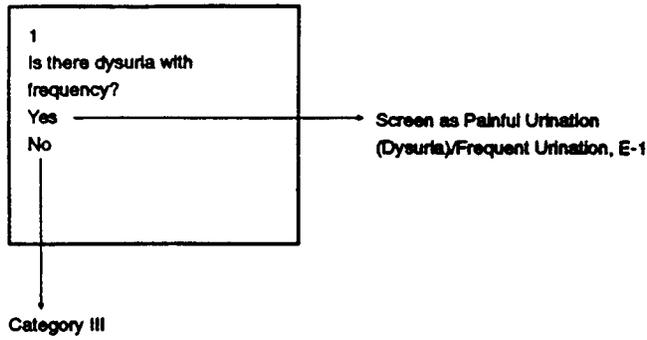


*NOTE: If the patient has already tried the treatment protocol or if she will not accept it, enter Category III as the disposition.

VAGINAL DISCHARGE, ITCHING, IRRITATION, OR PAIN, I-4

External pain or burning with urination are often confused with symptoms of urinary tract infection. If a patient has external or vaginal discomfort along with symptoms suggesting a urinary tract infection (frequency, urgency, and internal dysuria), she should be screened as Painful Urination (Dysuria)/Frequent Urination, E-1.

VAGINAL DISCHARGE, ITCHING, IRRITATION, OR PAIN, I-4



VAGINAL LUMP, MASS, OR SORE, I-5

All vaginal lumps, masses, or sores should be evaluated as Category III.

PELVIC PAIN, I-6

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. If a patient has pelvic pain along with symptoms suggesting a urinary tract infection, she should be screened as Painful Urination (Dysuria)/Frequent Urination, E-1.

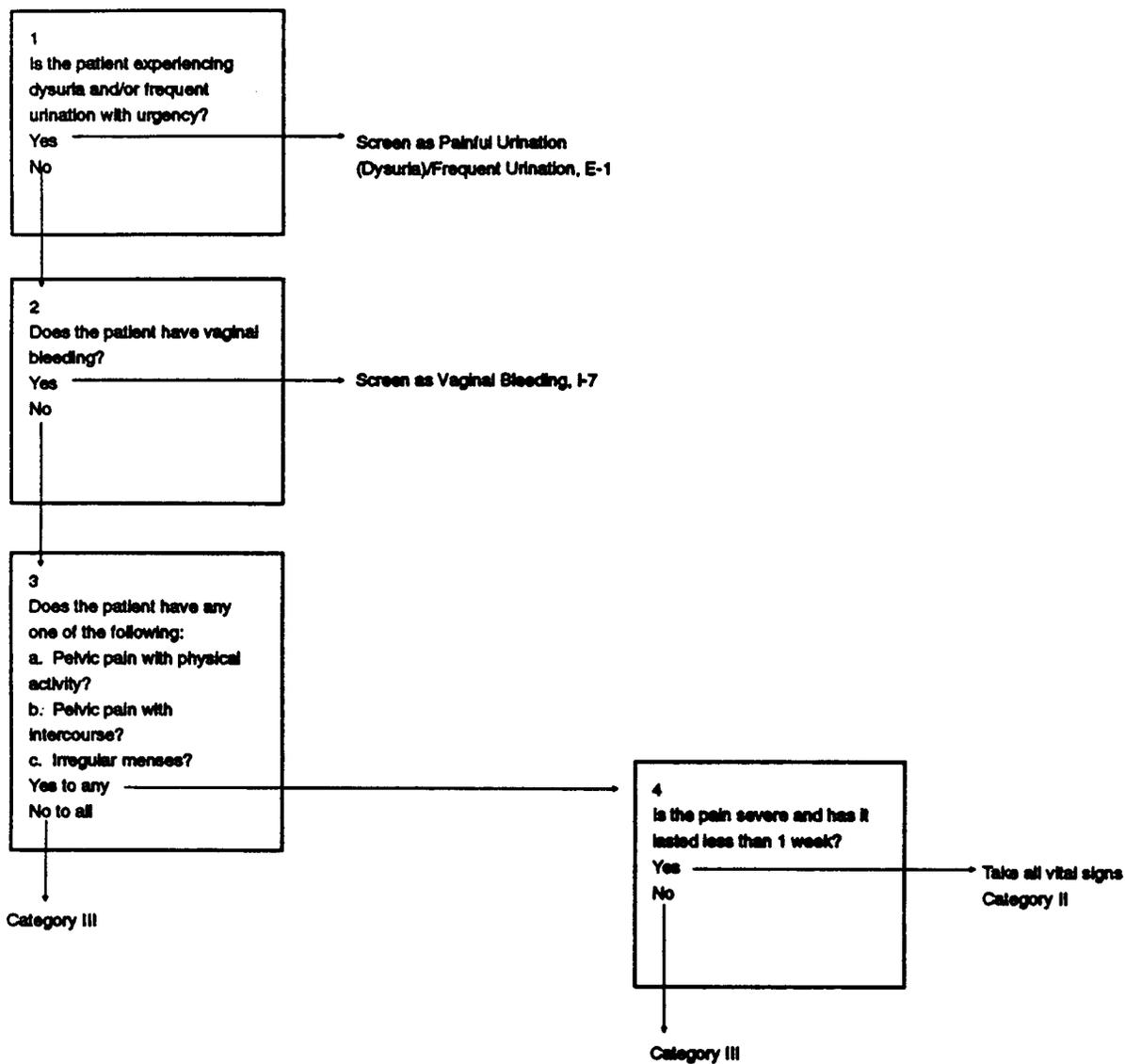
Block 2. Screen as Vaginal Bleeding, I-7.

Blocks 3-4. Most patients with vaginal discharge, itching, irritation, or mild pain may be more appropriately evaluated by the medical officer on an appointment basis. Patients with more severe pain, pain which is present only during physical activity or intercourse, or pain associated with irregular menses should be sent to the medical officer for a more thorough evaluation.

PELVIC PAIN, I-6

Take complaint-specific vital sign:

Temperature



VAGINAL BLEEDING, I-7

To help clarify dispositions for vaginal bleeding, ask the patient how many pads (sanitary napkins or tampons) she has used. This means the equivalent of fully soaked pads (many women change pads before they are really saturated with blood). Try your best to use these estimates.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Blocks 1-3. If this bleeding represents a period that is more than 1 week late or if the previous period consisted of only a small amount of spotting, then pregnancy is possible. Pregnant patients (proven by a pregnancy test) with bleeding should be evaluated as Category I due to possible spontaneous abortion (miscarriage) or some other serious complication of pregnancy. Follow the algorithm precisely. If in doubt, treat as if pregnant.

Block 4. Massive bleeding (when a patient soaks more than one pad per hour) needs immediate attention.

Block 5. Gynecologists feel that more than 10 pads per day (other than on the first day of menses) is “abnormal.” These patients, as well as those with pain, should be sent to Category III.

Block 6. Prolonged bleeding over 10 days may be seen in women on birth control pills. Because of the potential for chronic blood loss and anemia, the patient should be referred to Category III today.

Block 7. Prolonged “spotting” (more than 10 days) in patients who are on birth control pills is not unusual and usually not life threatening. Therefore, referral to Category III within 1 week is appropriate. If the patient is not on birth control pills and is having prolonged bleeding, a referral to Category III today is indicated.

Block 8. Post-menopausal bleeding is bleeding in a woman who has passed through menopause (“change of life”). Menopause means the cessation of menstruation in the female, usually occurring between the ages of 46 and 50. A woman over 40 who has not had a menstrual period for over 6 months should be considered post-menopausal. Bleeding after menopause represents a possible neoplasm and requires evaluation in the obstetrics/gynecology clinic.

VAGINAL BLEEDING, I-7

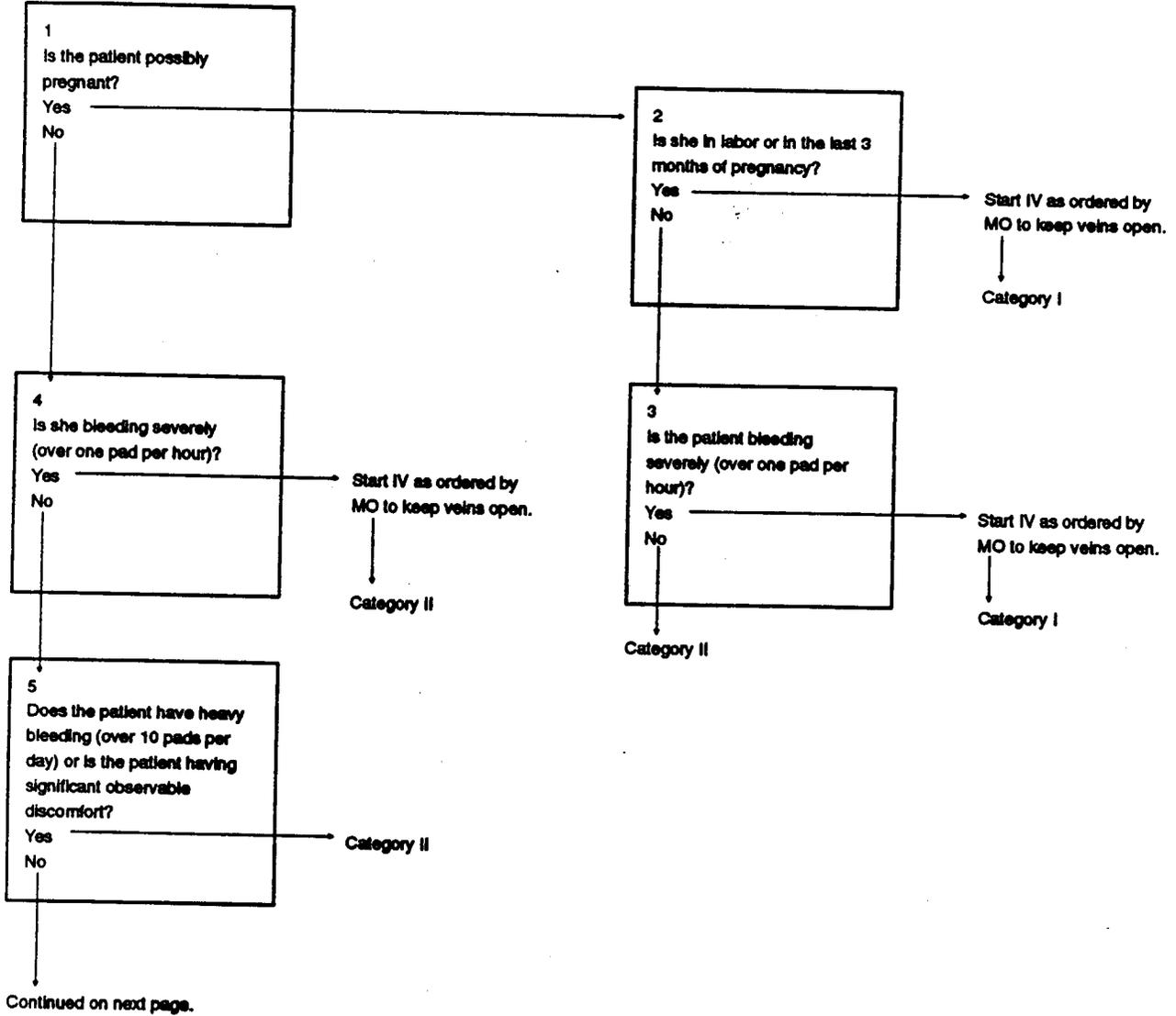
Take complaint-specific vital signs:

Pulse

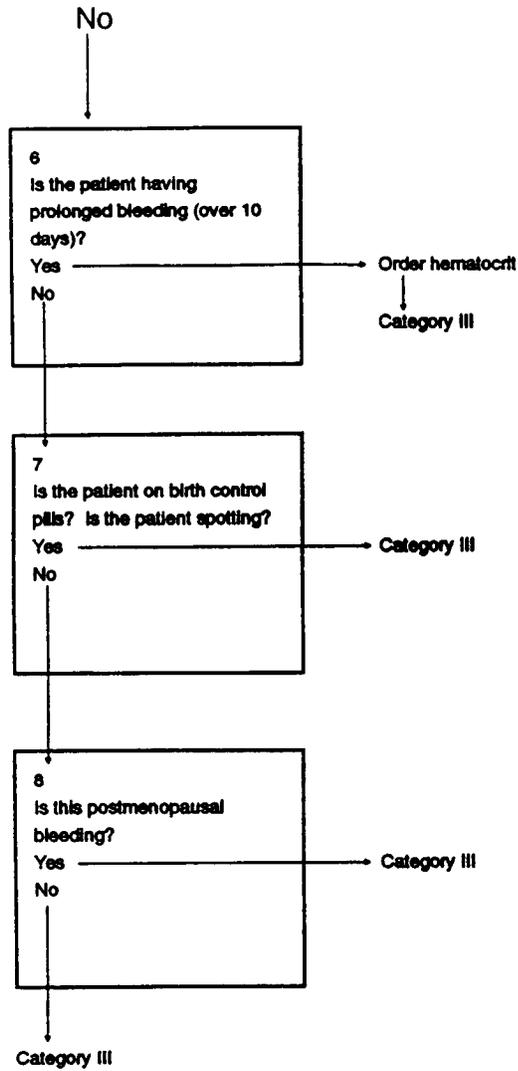
Blood Pressure (orthostatic)

Associated Complaints:

Menstrual problem



Continued from previous page.



REQUEST FOR PAP OR ROUTINE PELVIC EXAMINATION, I-8

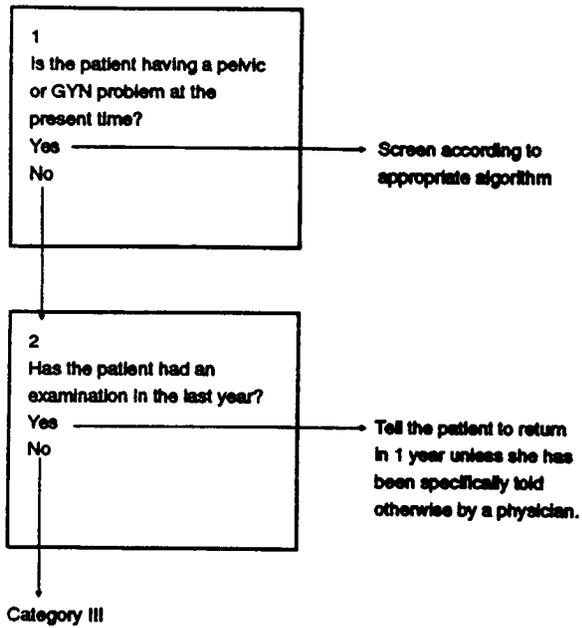
A Pap test is a microscopic examination of cells to detect the presence of a cancerous process.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. If the patient is requesting a Pap test due to symptoms such as menstrual problems, screen according to the appropriate algorithm.

Block 2. Women who have had abnormal or suspicious PAP tests may be asked to have examinations more frequently—for example, every 3 to 6 months. Otherwise, it is AMEDD policy to recommend yearly PAP tests on every woman beginning in the late teens and continuing throughout her lifetime. PAP tests are done at the (enter appropriate name) clinic on an appointment basis. Call (enter telephone number) for an appointment.

REQUEST FOR PAP OR ROUTINE PELVIC EXAMINATION, I-8

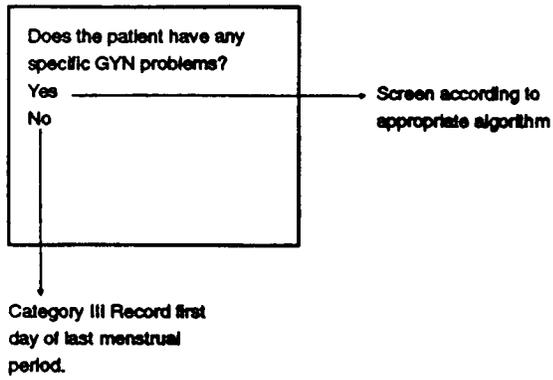


REQUEST FOR INFORMATION ON CONTRACEPTION, I-9

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. If the patient is requesting information on how to prevent pregnancy (contraception) but presents with no specific problem, advise her to make an appointment in the appropriate clinic by calling (enter telephone number). If she has any specific complaints, screen them using the appropriate algorithm. Document the first day of the last menstrual period.

REQUEST FOR CONTRACEPTION, I-9



DERMATOLOGICAL COMPLAINTS

The format of this section is slightly different from the other major-complaint sections of this manual. This is because patients with a skin disorder or complaint usually know the cause and simply want something to treat it. Therefore, the dermatology section deals with specific conditions rather than symptoms.

The first algorithm of this section is designed to separate complaints with a known cause from those which have an unknown origin. If the patient knows the cause of the complaint, the screener must refer to the appropriate algorithm:

- To ensure the symptoms presented are characteristic of the suggested cause.
- To direct the patient to the proper level of health care, or
- To prescribe self-care, dependent on the severity of the condition.

DERMATOLOGICAL COMPLAINTS

*Algorithms for	<u>Number</u>
Unknown Cause of Skin Disorder Complaint	J-1
Acne	J-2
Shaving Problem—Pseudofolliculitis Barbae (PFB) (Ingrown Hairs)	J-3
Dandruff (Scaling of the Scalp)	J-4
Hair Loss	J-5
Athlete's Foot (Tinea Pedis)	J-6
Jock Itch (Tinea Cruris)	J-7
Scaling, Depigmented Spots on Chest, Back, and Upper	
Arm (Tinea Versicolor)	J-8
Boils	J-9
Fever Blisters (Cold Sores)	J-10
Skin Abrasions	J-11
Skin Laceration	J-12
Suture Removal	J-13
Drug Rash	J-14
Burns	J-15
Friction Blisters on Feet	J-16
Corns on Feet	J-17
Plantar Warts/Ingrown Toenail	J-18

UNKNOWN CAUSE OF SKIN DISORDER COMPLAINT, J-1

If the cause of the condition is unknown to the patient, this first algorithm provides the level of health care provider for referral or self-care protocol.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. If the patient knows the cause of the sore, that should determine the appropriate algorithm to use.

Block 2. Any unknown lesion that persists for 4 weeks or more and shows no sign of improvement may represent a problem requiring evaluation as Category III care.

Block 3. A lesion of an unknown cause that has changed color or oozes blood or any type of fluid may indicate a condition requiring evaluation as Category III care.

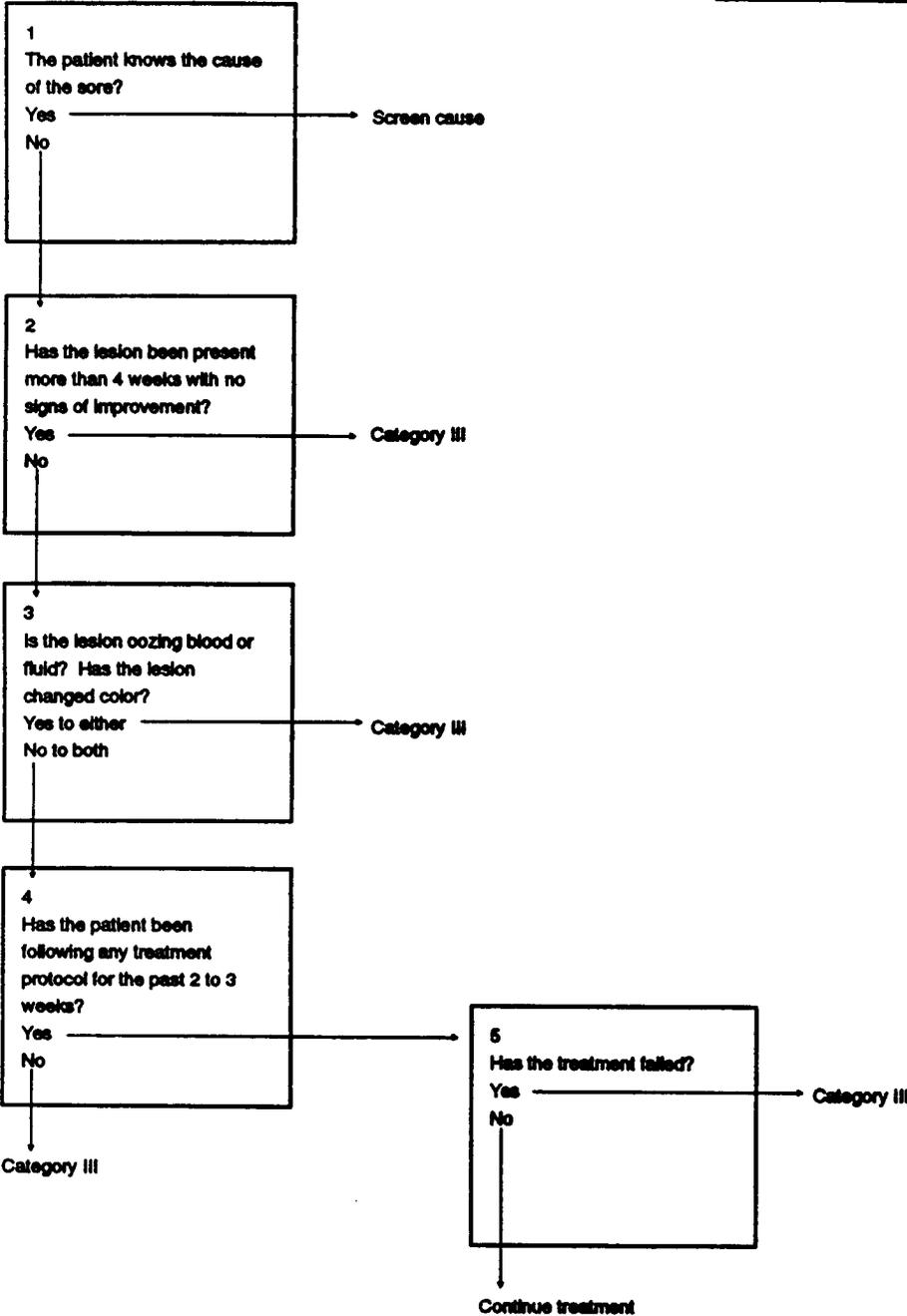
Blocks 4 and 5. Advise the patient—

- That the treatment protocol must be followed for 2 to 3 weeks.
- To return in 2 to 3 weeks so that the provider can determine if the sore has completely healed or shows signs of significant improvement.
- To return immediately for reevaluation if the sore worsens.

UNKNOWN CAUSE OF SKIN DISORDER COMPAIN, J-1

Associated Complaints:

Any dermatology-related
complaint



ACNE, J-2

Acne is caused by plugged oil glands. The oily material that is secreted from the glands develops a dark color when exposed to the air, forming blackheads. Pimples develop when these plugged glands become inflamed and bacteria begin breaking down the oil-producing irritating substances as by-products. Acne is a common condition occurring primarily in the late teens and early twenties. Acne may be extremely upsetting to the young soldier. The seriousness of this condition or its importance to the patient must not be underestimated. With proper treatment, acne can be improved thus avoiding scarring.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. If the patient complains of acne but shows no signs of blackheads or blemishes, the diagnosis of acne is doubtful. The patient should be evaluated as Category III.

Block 2. Inflamed lesions on the face and back should be treated to avoid permanent scarring or the development of a condition that does not respond to therapy.

- TREATMENT PROTOCOL J-2(2)

1. Twice daily, wash (but avoid scrubbing) affected area with unscented soap and warm water. Pat dry.

NOTE:

Do not use cold cream, face cream, or any greasy or oily products on affected area.

2. Normal exposure of affected areas to sun may improve the condition.

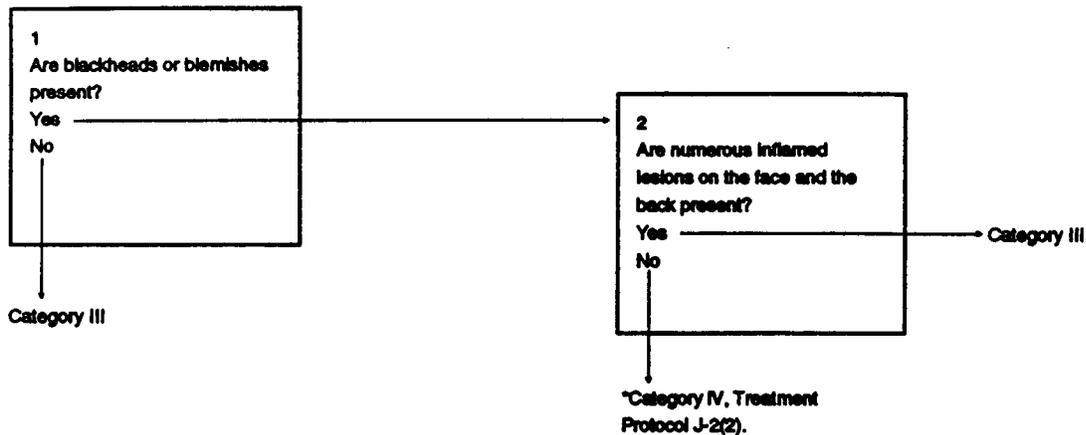
ACNE, J-2

Associated Complaints:

Blackheads

Blemishes

Pitting of the skin



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

**SHAVING PROBLEM—PSEUDOFOLLICULITIS BARBAE—PFB
(INGROWN HAIRS), J-3**

Pseudofolliculitis Barbae is a chronic condition of the beard area resulting from the reentry of the growing hair into the upper layer of the skin or facial hairs becoming trapped in the upper layer of the skin. The genetic predisposition of the black male to tight coiling hair makes him highly susceptible to this condition. The most common locations for lesions are the face and neck. The lesions can be painful and interfere with shaving although they rarely become secondarily infected. Permanent scarring is possible. The development of many shaving bumps can make the soldier self-conscious. The patient should be evaluated as Category III. The medical officer can determine the degree of severity and treat the condition accordingly to avoid permanent scarring and to improve the patient's complexion.

SHAVING PROBLEM-PSEUDOFOLLICULITIS BARBAE (PFB) (INGROWN HAIRS), J-3

Associated Complaints:

Crusted lesions

Lesions oozing pus

Curly hair ends
embedded in face

Pain

Secondary infection on
face

Refer the patient complaining of shaving problems to Category III.

DANDRUFF (SCALING OF THE SCALP), J-4

Dandruff is the dry scaly material that falls from the scalp. It is associated with itching of the scalp.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. If the scalp does not itch or scale it may not be dandruff. Patients who do not show the characteristic signs of dandruff (itching and scaling) should be further screened to determine the cause of their complaint.

Block 2. The presence of lesions indicates a degree of seriousness that is beyond self-care. These patients should be evaluated as Category III.

Blocks 3 and 4. The normal time for a patient to respond to dandruff treatment is 2 to 3 weeks. If therapy fails, the patient should be reevaluated as Category III.

- TREATMENT PROTOCOL J-4(3)

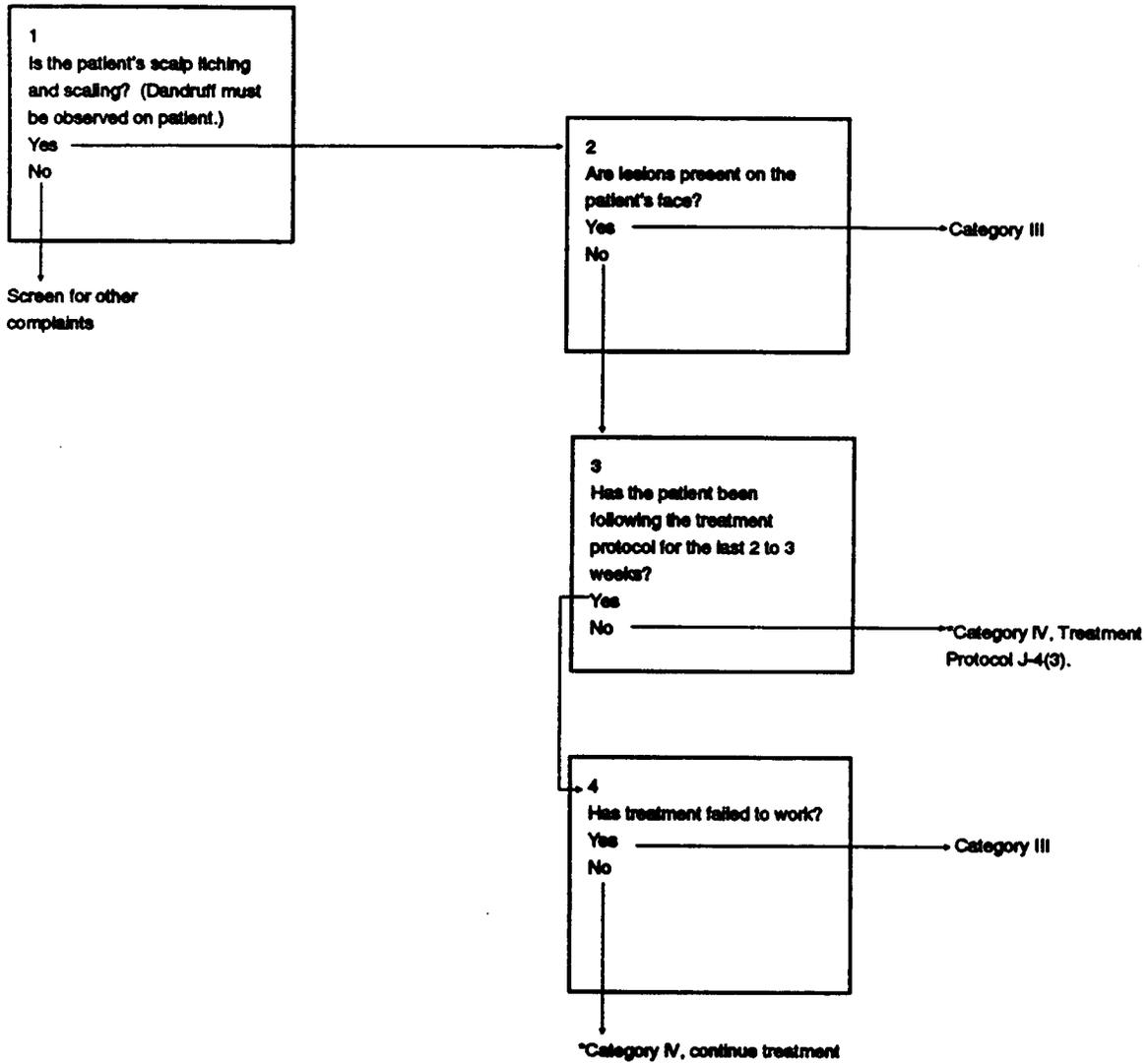
Advise the patient to—

1. Use an antidandruff shampoo twice a week to control mild flaking.
2. Massage the shampoo well into the scalp.
3. Leave the shampoo on the scalp for 5 minutes.
4. Rinse thoroughly with clean water.
5. Repeat the procedure.

DANDRUFF (SCALING OF THE SCALP), J-4

Associated Complaints:

Fine scaling of scalp
Itching of scalp



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

HAIR LOSS, J-5

While most hair loss is natural and hereditary, any hair loss that is sudden or extreme in nature can result from a severe infection or exposure to caustic chemicals or drugs. When treated promptly and properly, hair growth can resume. All cases of hair loss should be assessed by a medical officer.

HAIR LOSS, J-5

Associated Complaints:

Patches of hair loss

Baldness

The patient complaining of hair loss should be evaluated as Category III.

ATHLETE'S FOOT (TINEA PEDIS), J-6

Athlete's foot is a fungal infection. The patient usually complains of itching, scaling, or blistering between toes or an ugly appearance of the toenails. The presence of athlete's foot fungus can be confirmed by a potassium hydroxide (KOH) test.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. If the patient complains of athlete's foot but does not have the typical lesions, refer him to the medical officer for further evaluation.

Block 2. The presence of red streaks, vesicles, or oozing fluid on the foot indicates a possible secondary bacterial infection. The patient should be evaluated as Category III.

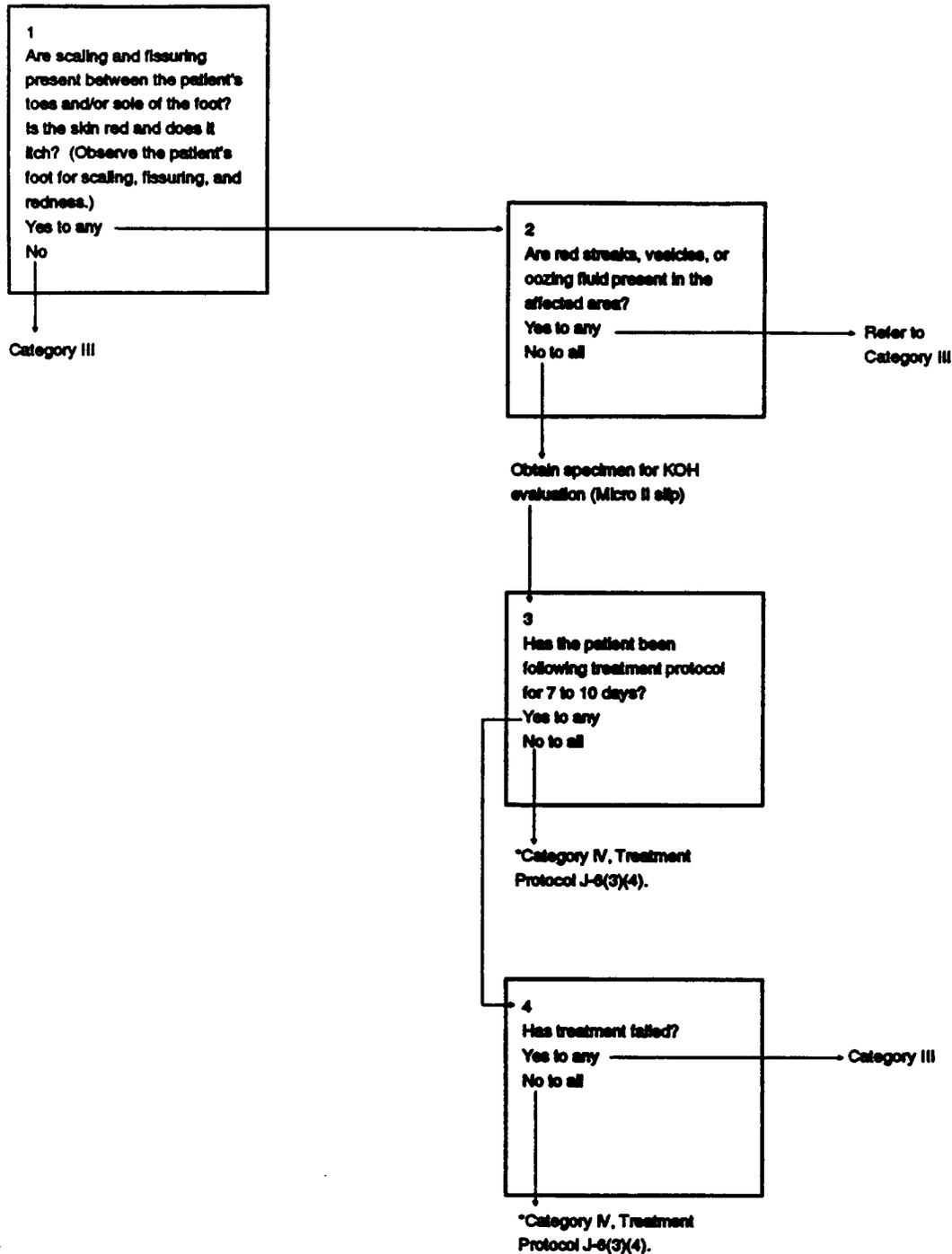
Blocks 3 and 4. If self-care does not show signs of improvement after 7 to 10 days, refer the patient to the medical officer for reevaluation and alternate treatment.

- TREATMENT PROTOCOL J-6(3)(4)

Advise the patient to—

1. Dry his feet carefully after washing them.
2. Change socks and shoes at least once daily.
3. Sprinkle foot powder in boots or shoes when they are not being worn.
4. Apply an antifungal foot ointment or powder between the toes twice daily for 10 days.
5. Soak his feet twice daily for 30 minutes in Domeboro's solution of two tablets per pint of water. (This solution may be saved for reuse.)

ATHLETE'S FOOT (TINEA PEDIS), J-6



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

JOCK ITCH (TINEA CRURIS), J-7

Jock itch is a fungal infection in the folds of the groin and the inner thighs. It is most commonly found in younger men. This condition is aggravated when the person sweats, wears restrictive garments, and does not or is unable to wash and dry himself carefully on a daily basis. In addition to intense itching, red areas with many small blisters or dandruff-like scales develop on either side of the scrotum. Spread of the infection beyond the groin area and involvement of the penis is uncommon.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. The presence of red, itching, blistering, or scaling lesions in the folds of the groin and inner thighs is characteristic of this tinea cruris. In the absence of typical symptoms, other causes of rashes may exist. The patient should be evaluated as Category III.

Block 2. If pus is present, the lesion is no longer simple jock itch. Refer the patient to Category III care to avoid further spread of the bacterial infection.

Block 3. The treatment protocol should eliminate the symptoms in 10 to 14 days. If the treatment fails, the patient should be evaluated as Category III. However, initial treatment must be given time to work before the patient is further evaluated.

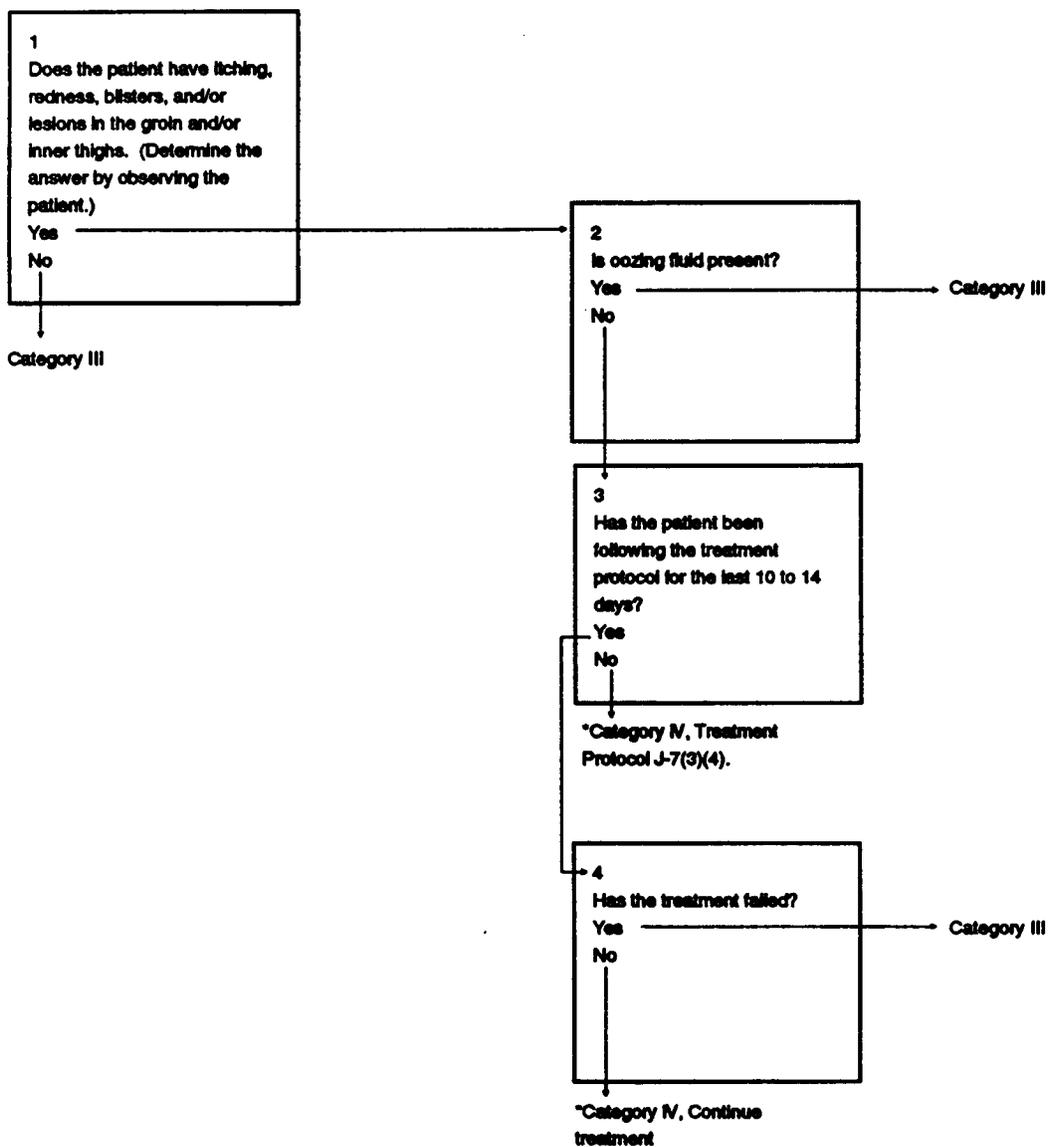
- TREATMENT PROTOCOL J-7(3)(4)

1. Wash the folds of the groin and thighs with mild soap twice a day. Completely dry yourself after washing.
2. Wear loose-fitting clothes (boxer shorts rather than jockey shorts).
3. Apply antifungal solution/cream to the affected area twice daily for 10 to 14 days. To prevent recurrence, continue treatment for 2 weeks after symptoms disappear.
4. If the condition has not improved after 14 days of treatment, return for further evaluation.

JOCK ITCH (TINEA CRURIS), J-7

Associated Complaints:

- Blisters
 - Lesions
 - Scaling
 - Redness
 - Oozing of fluid in area of the groin or inner thighs
-



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

**SCALING, DEPIGMENTED SPOTS ON THE CHEST,
BACK AND UPPER ARMS (TINEA VERSICOLOR), J-8**

Tinea versicolor is a common superficial fungal infection which appears as “spots” (lighter or darker than surrounding skin) on the neck, chest, back, and arms usually with no other symptoms.

The rash is typically scaly and painless. Its color is yellowish-tan, brown, or white. The patient should be evaluated as Category III.

**SCALING, DEPIGMENTED SPOTS ON THE CHEST,
BACK, AND UPPER ARMS (TINEA VERSICOLOR), J-8**

Associated Complaints:

Lack of skin pigmentation
in patches primarily on
the chest and back.
Patches do not tan when
exposed to the sun.

Evaluate as Category III the patient who has scaling and depigmented spots on the chest and back.

BOILS, J-9

A boil is usually caused by bacteria that enters through a hair follicle. A painful nodule enclosing a core of pus forms in the skin. Tenderness, swelling, and pain are present around the area of inflammation. An extremely large boil or numerous boils can produce fever. Boils are also known as furuncles if they have a single core or carbuncles if they have multiple cores. The patient should be evaluated as Category III.

BOILS, J-9

Take complaint-specific vital signs:

Temperature

Associated Complaints:

Localized tenderness and
pain

Elevated temperature

Evaluate as Category III the patient with a boil(s). The patient should apply moist heat for 20 minutes every 4 hours until seen.

FEVER BLISTERS (COLD SORES), J-10

Fever blisters result from an acute viral infection that frequently occurs around the mouth or on the lips. Fever blisters are both recurrent and painful.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Vesicles around the mouth or on the lips with pain are typical symptoms of cold sores. If the lesions are not typical cold sores, a more serious infection could be indicated. The patient should be evaluated as Category III.

Block 2. Large clusters of vesicles or lesions oozing pus may represent a herpes virus or bacterial infection. This infection can spread. The patient should be evaluated as Category III. The patient should NOT be prescribed the self-care protocol.

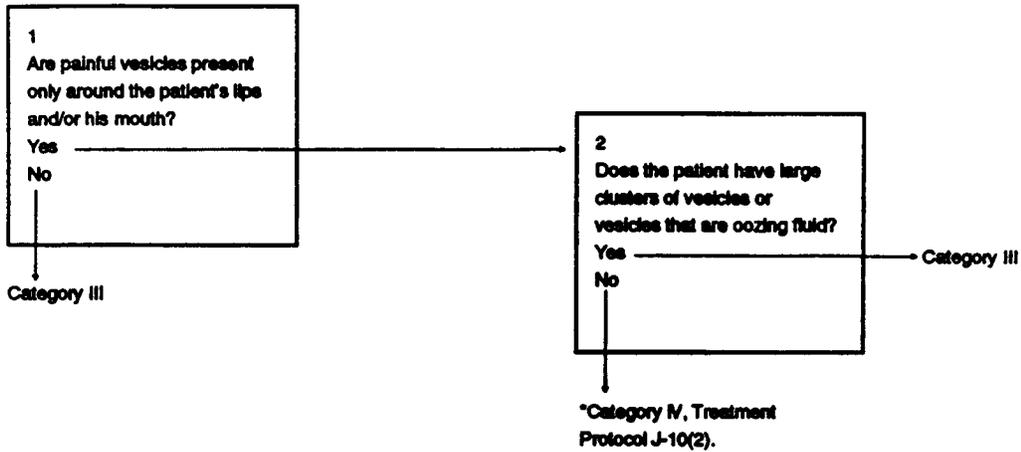
- TREATMENT PROTOCOL J-10(2)

This condition is usually self-limiting. Pain may be decreased by using lip balm, zinc oxide ointment, or white petroleum jelly.

FEVER BLISTER (COLD SORES), J-10

Associated Complaints:

Superficial vesicles
Burning discomfort



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

SKIN ABRASIONS, J-11

Skin abrasions are caused when the skin is rubbed raw such as when a knee or elbow is scraped. While this type of injury is painful, it normally requires only minor treatment.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. If more than scraping of the skin has occurred, the patient should be screened under Skin Laceration, J-12.

Block 2. Unusually large areas of abrasions or abrasions associated with evidence of infection such as pus or fever should be further evaluated by the medical officer.

- TREATMENT PROTOCOL J-11(2)

1. Gently wash affected area with a skin cleaner (Betadine).
2. Apply antibacterial ointment (Bacitracin) 2 to 3 times daily.
3. Apply a protective sterile dressing.

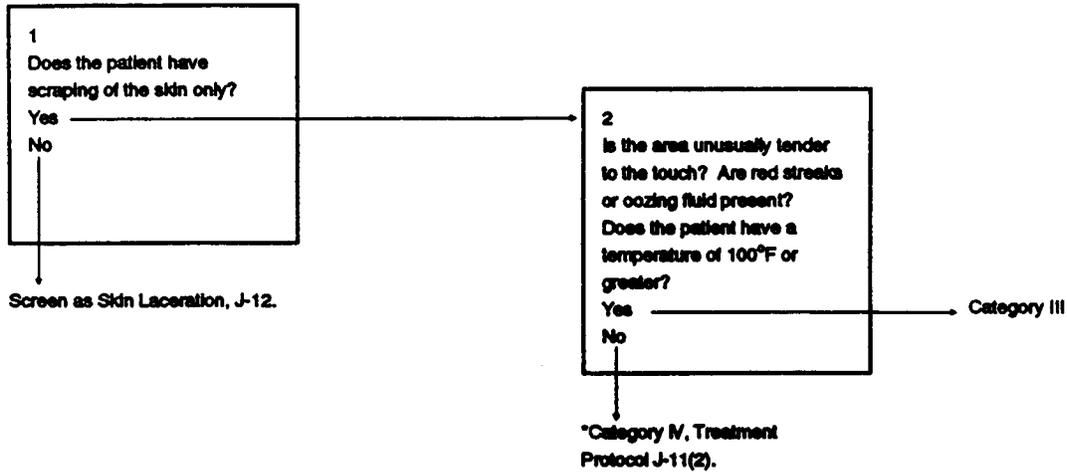
SKIN ABRASIONS, J-11

Take complaint-specific vital sign:

Temperature

Associated Complaints:

Scraping of skin with or without bleeding



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

SKIN LACERATION, J-12

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Injury to the portion of the skin containing blood vessels and nerves causes bleeding and pain. This type of injury requires the immediate attention of a medical officer, especially when the injury is caused by an animal or human bite.

Block 2. A laceration located over a joint, on a foot or hand, or the face requires evaluation by a medical officer.

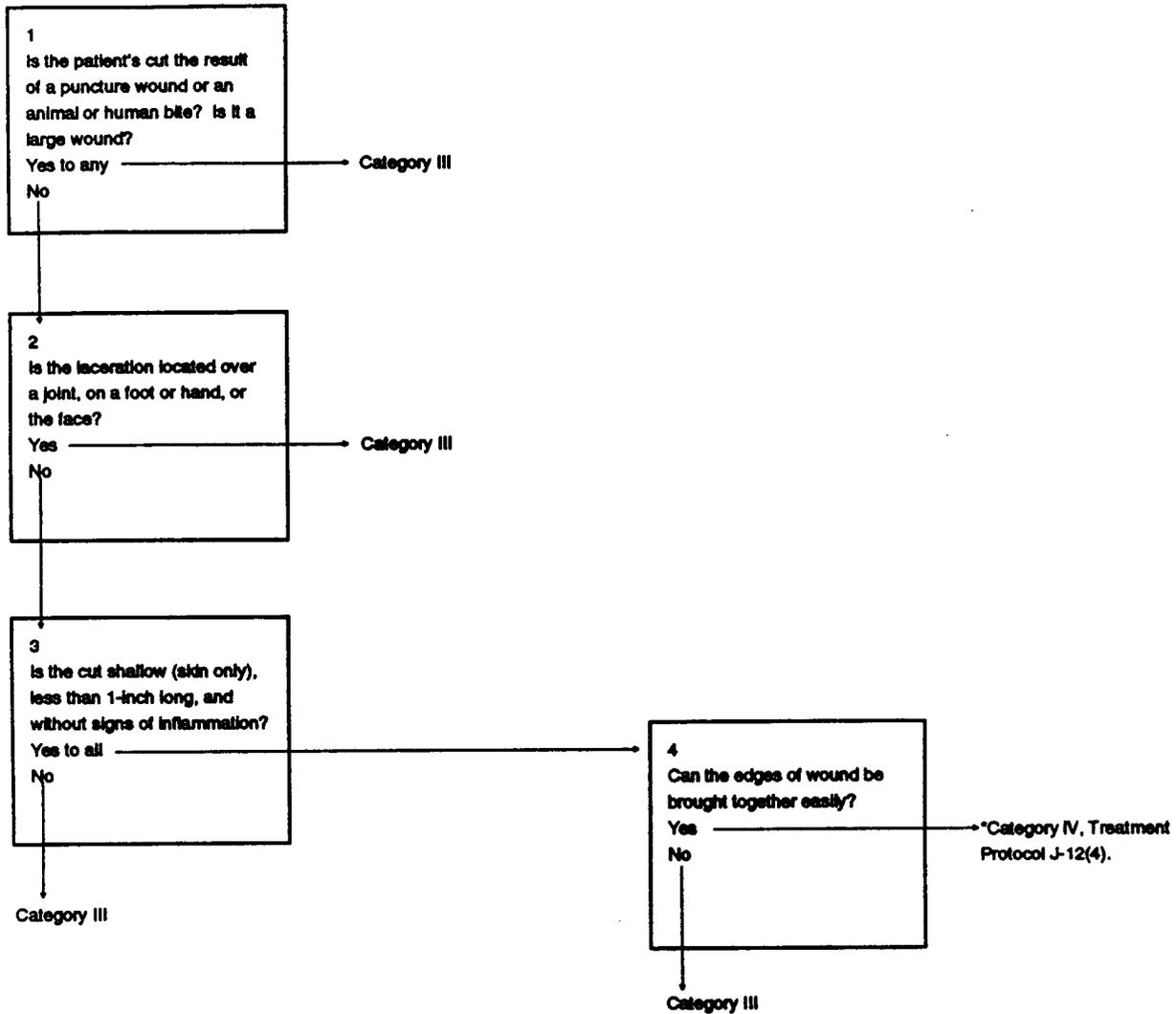
Block 3. Even shallow cuts with signs of inflammation or longer than 1-inch should be evaluated as Category III.

Block 4. If the edges of the wound can be brought together easily and there are no signs of infection, self-care is appropriate. Steri-strips may be applied to keep the edges of the skin together. Patients with injuries where the edges of the wound cannot be brought in close proximity or which show signs of infection should be managed as Category III.

- TREATMENT PROTOCOL J-12(4)

1. Clean the area around the wound with a generous application of soap and water, then irrigate the wound with jets of sterile normal saline using a syringe. Do not leave any dirt, glass, metal, or other foreign material in the wound.
2. Keep the area clean and dry and return in 24 to 48 hours for reevaluation.
3. Return for additional assistance if the wound becomes red and swollen, oozes pus, or becomes separated.

SKIN LACERATION, J-12



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

SUTURE REMOVAL, J-13

Evaluate as Category III the patient who needs to have sutures removed.

Suture should be removed when:

- The wound has healed (within 5 to 10 days).
- The suture line is clean.
- No pus, redness, or swelling is present.

Document the appearance of the wound (sutured laceration).

DRUG RASH, J-14

Drugs can cause acute widespread rash of small red spots over the entire body in individuals with sensitivity to them. This is usually associated with itching and can interfere with sleep or the performance of normal duties or activities. The rash results when the entire body reacts to the drug itself and may develop early in treatment or after the drug has been taken for a period of time.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Patients who feel that they may have a drug reaction but have not started a new drug within the last 5 days may be suffering from another condition. The patient should be evaluated as Category III.

Block 2. A “no” response to this question makes the diagnosis of drug reaction less likely. The patient should be evaluated as Category III.

Block 3. Presence of widespread, elevated lesions (hives), or obvious wheezing indicates a possible life-threatening reaction. The patient should either be sent to the emergency center or to see a medical officer immediately, Category I care.

DRUG RASH, J-14

Take complaint-specific vital sign:

Temperature

Pulse

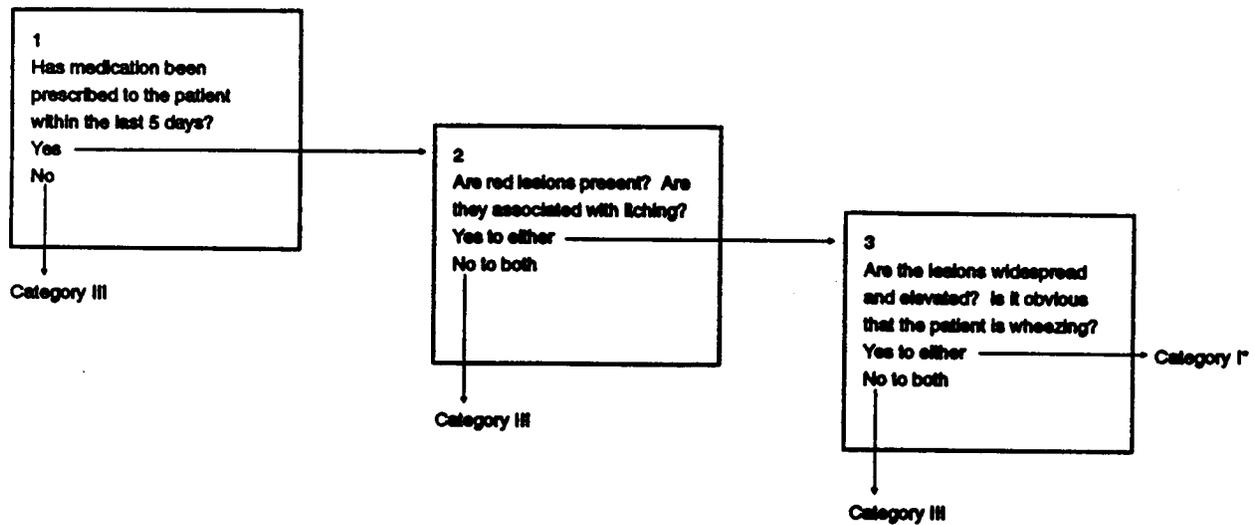
Respiration

Blood Pressure

Associated Complaints:

Red lesions on the chest,
abdomen, and
extremities

Wheezing



*Provide emergency first aid prior to evacuation.

**NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

BURNS, J-15

A burn is defined as any injury to the outer layer of skin or deeper tissue caused by heat, chemicals, or electricity. Minor burns are characterized by redness, pain, and tenderness. More severe burns may not have these symptoms.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. If the burn is a result of overexposure to the sun, the patient should be screened under Sunburn, K-8.

Block 2. A serious medical condition may exist; evaluate as Category I.

Block 3. Blisters or charring of the skin indicate second or third degree burns and should be evaluated immediately.

Block 4. Even extensive first degree burns may become infected and are painful to the patient. These patients should be seen by the medical officer. Patients with minor first degree burns should be treated by self-care.

- TREATMENT PROTOCOL J-15(5)

1. Apply cold packs to affected area to relieve pain.
2. Leave area open to the air.
3. Take two tablets of Tylenol or aspirin every 4 hours for pain.

BURNS, J-15

1
Is the patient's burn due to overexposure to the sun?
Yes _____ → Screen as Sunburn, K-6
No

2
Is the patient short of breath or complaining of difficulty breathing? Does the patient appear confused or drowsy?
Yes to any _____ → Category I
No

3
Are the burns second or third degree?
Yes _____ → Category II
No

4
Are the burns extensive covering more than 25% of the body?
Yes _____ → Category II
No

5
Is the patient uncomfortable or in pain?
Yes _____ → Category II
No

*Category IV, Treatment Protocol J-15(5).

*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

FRICTION BLISTERS ON FEET, J-16

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Infected blisters can become serious health hazards and should be referred to the medical officer for further evaluation and treatment. Uninfected blisters have their own treatment protocol.

Block 2. Ruptured blisters have their own treatment protocol.

- TREATMENT PROTOCOL J-16(2A)

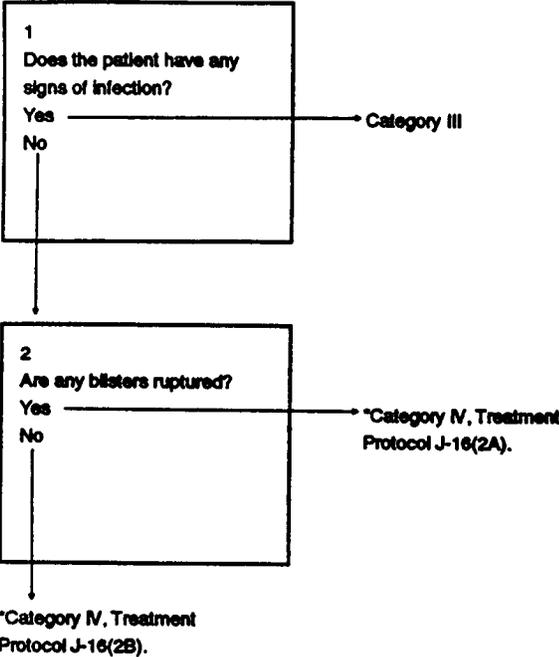
1. Prepare the skin with alcohol or Betadine.
2. Remove the dead skin with sterile scissors. If sterile instruments are not available or personnel have not been taught to perform the procedure, skip this step and proceed to step 3.
3. Wash area with Betadine and apply an antibacterial ointment to the blister only.
4. Cover a large area of surrounding undamaged skin and the treated blister with a protective dressing of moleskin between treatments. An adhesive solution such as tincture of benzoin or a surgical adhesive may be applied to the skin around the blister to improve the adhesion of the moleskin.
5. Instruct the patient to wear two pairs of socks when wearing combat boots (a thin pair of nonabsorbent, noncotton socks under the boot socks) and to check for proper fit of boots.
6. Instruct the patient to return for further evaluation if:
 - The protective dressing begins to come off.
 - He develops blisters that make wearing shoes or boots impossible.
 - He is disabled by pain.
 - He has signs of infection.
7. The patient should be reevaluated every 24 hours.

- TREATMENT PROTOCOL J-16(2B)

1. Prepare the skin with alcohol or Betadine. Puncture the blister with a sterile needle to allow fluid to drain.
2. Apply surgical adhesive tincture of benzoin to the surrounding normal skin and let it air-dry for 30 seconds. (If sterile instruments are not available or personnel have not been taught to perform this procedure, skip this step. The patient should be evaluated as Category III.)
3. Apply an antibacterial ointment to the blister only.
4. Cover the area with a protective dressing as described in paragraph 4, Treatment Protocol J-16(2A), above.
5. Instruct the patient to wear two pairs of socks when wearing combat boots (a thin pair of nonabsorbent, noncotton socks under the boot socks) and to check for proper fit of boots.

FRICITION BLISTERS ON FEET, J-16

Associated Complaints:
Discomfort or pain while walking or wearing constricting footwear.



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

CORNS ON FEET, J-17

A corn is a benign growth characterized by a thick hard area on the sole of the foot or toes. Tenderness occurs especially during weight-bearing on the foot and afterpain is common.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Thickening of the hard surface on the sole of the foot can be related to plantar warts or cancerous tumors. These growths can be painful and interfere with daily activities such as walking or running. They should be differentiated from simple corns by the medical officer before any treatment is given.

Block 2. A patient complaining of severe pain while walking or wearing footwear should be treated by the medical officer to expedite the soldier's return to duty.

Block 3. Pain that significantly interferes with the performance of normal duties/activities falls into the same category and should be referred to the medical officer for evaluation and treatment.

Block 4. A history of diabetes may be significant. If the patient does not indicate diabetes (either in himself or his family), self-care is appropriate; otherwise, the patient should be referred to the medical officer for evaluation and treatment.

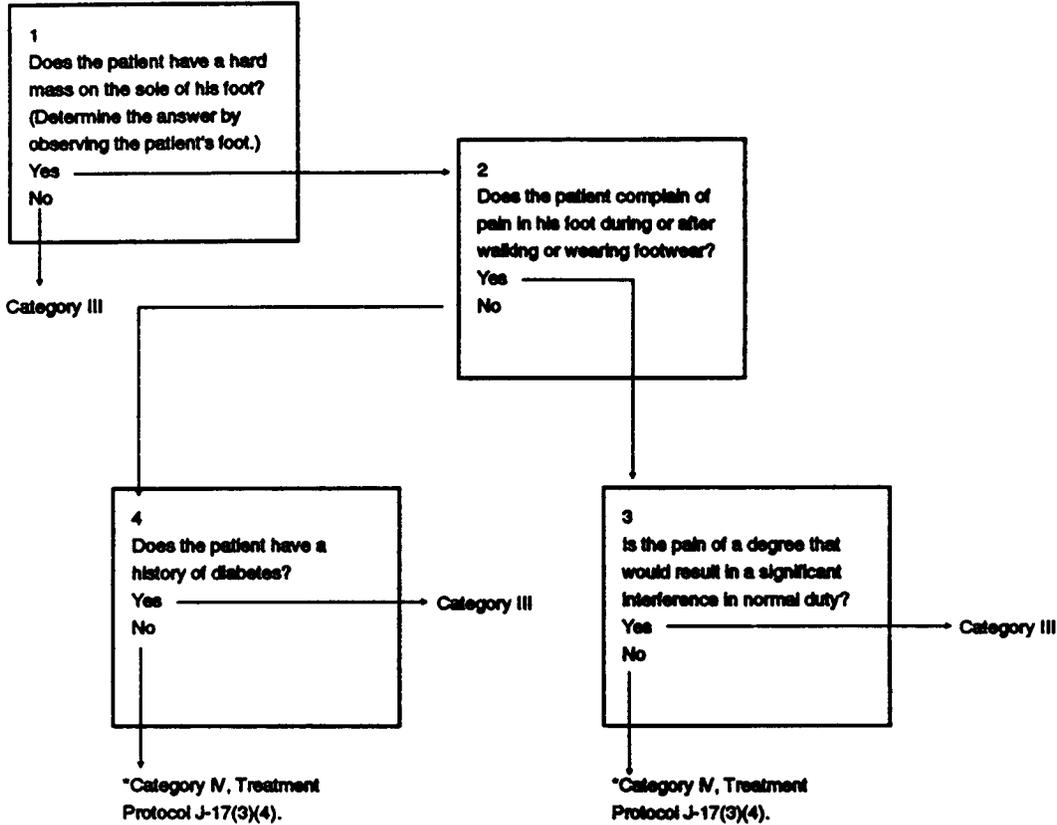
- TREATMENT PROTOCOL J-17(3)(4)

1. Soak the patient's foot in warm water for 20 minutes.
 2. Pare corns down with scalpel blade reducing enough hard skin until the lesion is flexible or until the patient can stand or bear weight on foot without discomfort. Do not pare the corn down to cause bleeding.
- CAUTION:** If the treater has not been taught how to perform this procedure, instruct the patient to return for follow-up treatment with the medical officer.
3. Instruct patient on weekly self-debridement. Self-care can be given using a pumice stone.
 4. The patient will need a special insole constructed for his shoe.
 5. Refer the patient to the medical officer if limited motion of the toes exists, if a severe hammer or mallet toe deformity exists, if the skin bleeds freely when pared, or if an insole is required.

CORNS ON FEET, J-17

Associated Complaints:

Discomfort or pain during or after walking or wearing constricting footwear.



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

PLANTAR WARTS/INGROWN TOENAIL, J-18

A plantar wart is a benign growth of skin on the foot. An ingrown toenail is a toenail which extends into the flesh of the toe along its lateral margins. Both may be painful. If the patient is complaining only of foot pain and does not know the cause, screen by following Extremity Pain, B-3.

1. All such problems are evaluated by the medical officer.
2. If the patient is limping because of his foot problem, he should be seen as soon as possible for treatment or early referral.

ENVIRONMENTAL INJURY COMPLAINTS

*Algorithms for	<u>Number</u>
Heat Injury/Hyperthermia (Heat Cramps, Heat Exhaustion, Heatstroke)	K-1
Hypothermia	K-2
Immersion Foot	K-3
Chapped Skin/Windburn	K-4
Frostbite	K-5
Crabs/Lice (Pediculosis)	K-6
Insect Bites (Not Crabs/Lice)	K-7
Sunburn	K-8
Contact Dermatitis (Includes Plants—Poison Ivy, Oak and Sumac)	K-9

HEAT INJURY/HYPERTHERMIA, K-1 **(Heat Cramps, Heat Exhaustion, Heatstroke)**

Heat injury results from exposure to excessive temperatures with or without accompanying strenuous physical activity. An excessive loss of water and salt from the body or a breakdown of the body's cooling mechanism causes heat injury.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. A "yes" response to any of the questions may indicate heatstroke. Heatstroke is characterized by high body temperature ($\geq 103^{\circ}\text{F}$), confusion, delirium, coma, and, in most cases, an absence of sweating. The development of heatstroke represents a breakdown of the body's heat regulating mechanism. Heatstroke is not necessarily preceded by heat exhaustion or heat cramps. Death may follow very rapidly. This condition has a high mortality rate and is a **medical emergency**. Lowering the body temperature is the most important objective in the treatment of heatstroke. The longer the high temperature continues, the greater the threat to life or risk of permanent damage. Dousing the patient with water and gently fanning him allows for evaporative cooling. Measures must be taken to prevent the patient from shivering. An intravenous infusion should be started and the patient's body temperature should be monitored.

Block 2. A "yes" response to questions may indicate heat exhaustion (prostration) which occurs as a result of an excessive loss of water and salt from the body. The syndrome is characterized by profuse perspiration, pallor, and perhaps low blood pressure. The mortality rate from this disorder, **if treated**, is extremely low. Moving the patient to a cool area for rest and the administration of fluids (orally or intravenous infusion, depending on severity of symptoms) will result in prompt recovery. **Untreated heat exhaustion may progress to heatstroke.**

Block 3. A "yes" response to these questions indicates heat cramps. These are painful cramps of voluntary muscles which result from excessive loss of salt from the body. Muscles of the extremities and the abdominal wall are usually involved. Body temperature is normal. Heat cramps can be promptly relieved by replacing salt and fluid orally and placing the individual in a cool environment.

- TREATMENT PROTOCOL K-1(3)

Place the patient in a cool or shaded place. Give the patient at least one liter of cool water to drink in the first 30 minutes and then at least one liter of water per hour the next 2 hours. Advise the patient to decrease his activity for the next 24 hours. If the patient's symptoms do not begin to resolve themselves within 30 minutes, if they get worse, or if the patient's temperature exceeds 101°F , refer the patient to the medical officer.

HEAT INJURY/HYPERTHERMIA, K-1

(Heat Cramps, Heat Exhaustion, Heatstroke)

Take complaint-specific vital signs.

Rectal temperature

Blood pressure

Pulse rate

Associated Complaints:

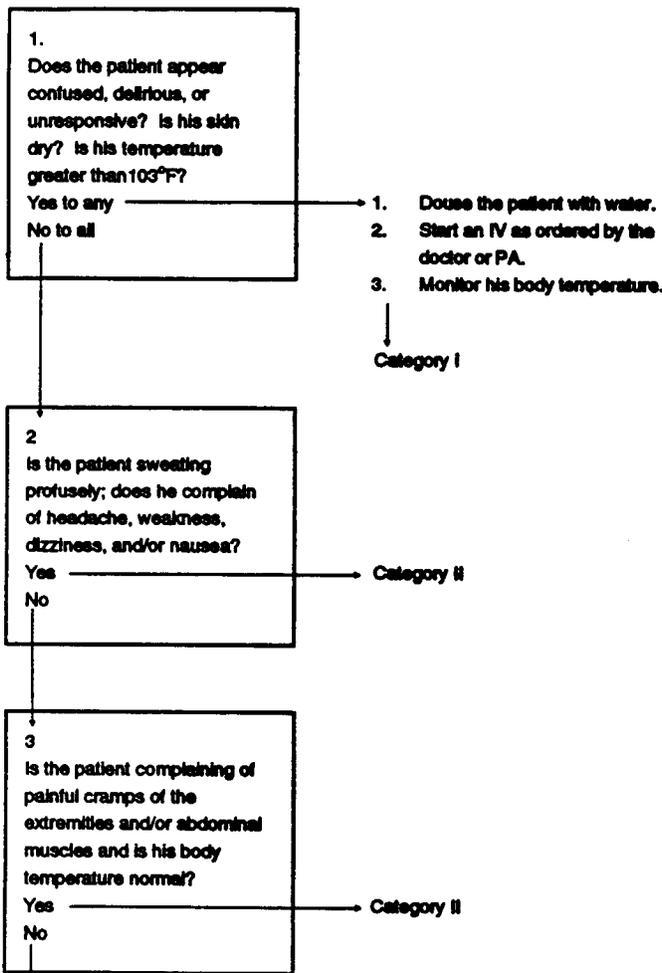
Headache

Dizziness

General weakness

Cold, sweaty skin

Cramping of the
extremities and
abdominal muscles



*Category IV, Treatment Protocol K-1(3).

*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

HYPOTHERMIA, K-2

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Hypothermia, or a lower than normal body temperature, can be the result of heat loss from exposure to cold or wet environments, from inadequate heat production due to poor nutrition or exhaustion, or from inaccurate heat regulation from using drugs such as nicotine, alcohol, and medications with anticholinergic side effects.

Block 2. A person can lose body heat faster than he can produce it, especially when poor nutrition and exhaustion are also present. Examples of incidents causing heat loss follow:

- a. A person exposed to cold temperatures.
- b. A person exposed to a cold wet environment where the insulating value of clothing may be lost.
- c. A person exposed to warm wet environments or who has been swimming may lose heat faster than he can produce it. This is especially true when poor nutrition and exhaustion are also present.

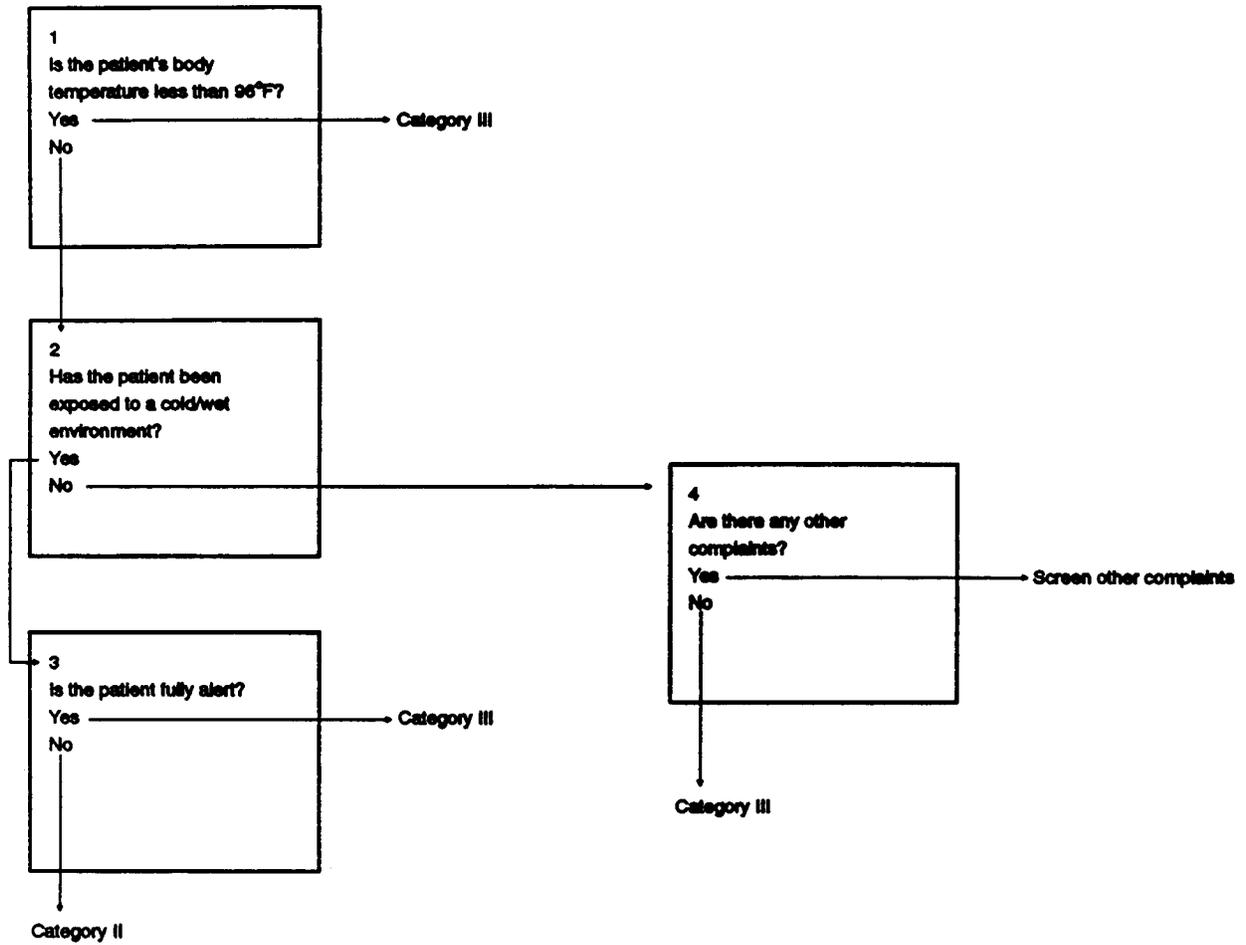
Block 3. The first symptom of hypothermia is often mental. The victim is relatively unresponsive or uncooperative. Exposure plus a decreased level of alertness when the body temperature is less than 96°F indicates possible hypothermia. These signs and symptoms without a lowered body temperature may or may not be indicative of a problem. A medical officer should evaluate anyone who shows evidence of decreased mental alertness.

Block 4. Patients without a history of recent exposure may be mildly hypothermic from other causes, especially if they are children or elderly persons. In the absence of a lowered body temperature and/or a history of exposure, hypothermia is not likely. Screen other complaints, if any, and consult the medical officer.

HYPOTHERMIA, K-2

Take complaint-specific vital sign:

Temperature



IMMERSION FOOT, K-3

Immersion foot usually results when the skin is exposed to wet, cold foot gear or from outright immersion of the feet at temperatures below 50°F. It may also occur following prolonged exposure at temperatures greater to 50°F.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Skin that is white and wrinkled is characteristic of immersion foot. Patients may also complain of swelling of the foot or pain while walking.

Block 2. Signs of infection (streaks, redness, or swollen glands in the lower legs) indicate a potentially serious condition that should be evaluated by the medical officer now.

Block 3. A 7-day treatment regimen is required for treatment to be effective and for improvement to show. If there is no improvement after 1 week, the patient should be reevaluated for an alternate form of treatment.

- TREATMENT PROTOCOL K-3(3)(4)

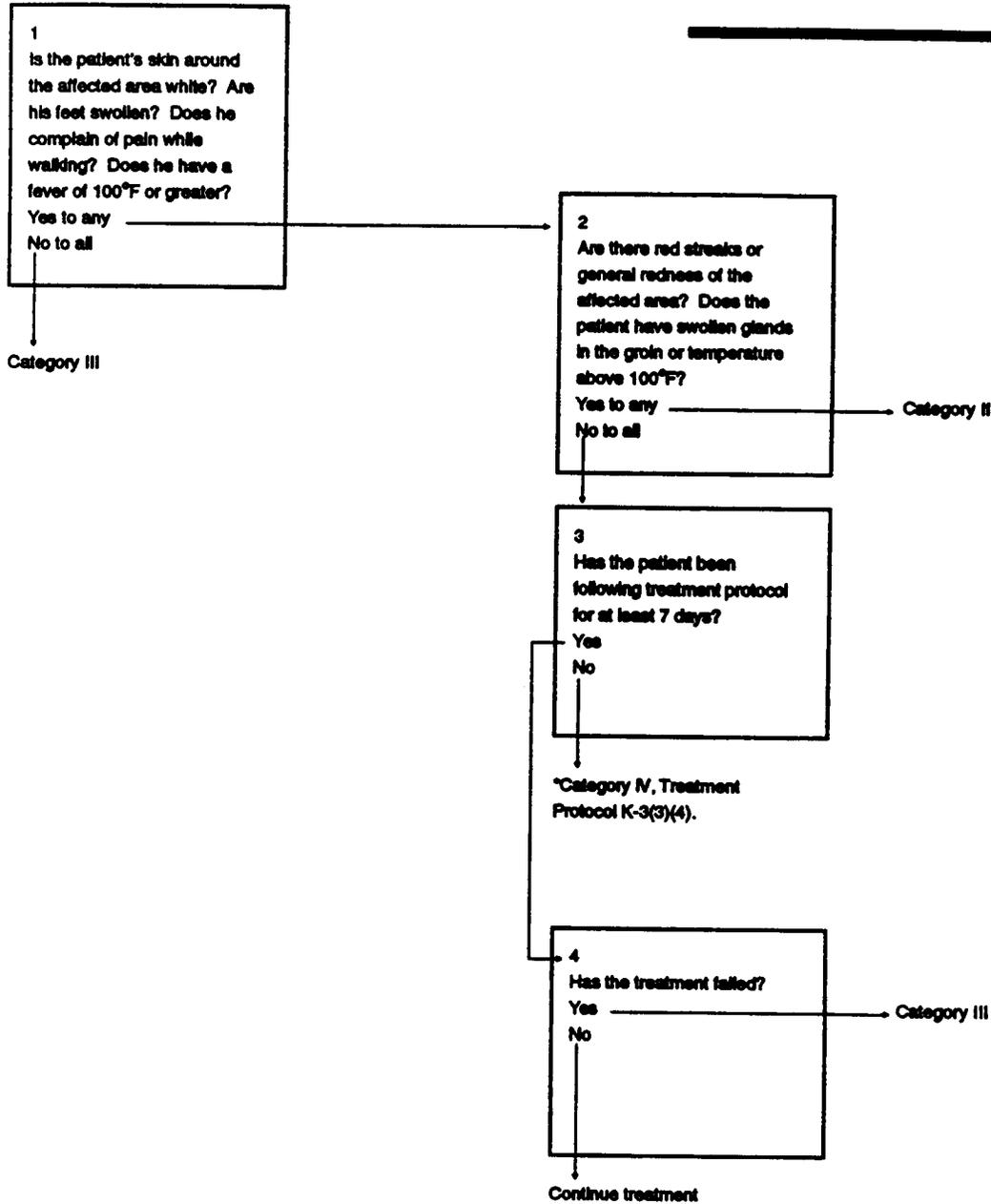
1. Keep your skin warm and dry.
2. Limit your activities for 3 to 4 days.
3. Return if the condition becomes worse or if signs of infection develop.

IMMERSION FOOT, K-3

Take complaint-specific vital sign:
Temperature

Associated Complaints:

- Skin is white and wrinkled
- Swelling of the feet
- Patient complains of pain while walking



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

CHAPPED SKIN/WINDBURN, K-4

Chapping is the unusually rapid drying of skin due to exposure to a hot or cold dry wind which draws water out of the skin. Generally, it is not a medical problem unless cracking or fissuring with a secondary infection takes place. The involved skin heals as new skin cells develop.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Since exposure to wind causes chapping, involvement of areas other than the hands and face makes this diagnosis unlikely, and the patient should be referred to the medical officer.

Block 2. Same reasoning applies as in Block 1.

Block 3. Presence of inflammation other than simple skin redness warns of the possibility of infection and requires referral to a medical officer for evaluation.

Block 4. In cool or cold weather and if normal sensation is absent, a more severe injury such as frostbite and/or significant burn becomes a possibility. Patient must be referred to medical officer for evaluation.

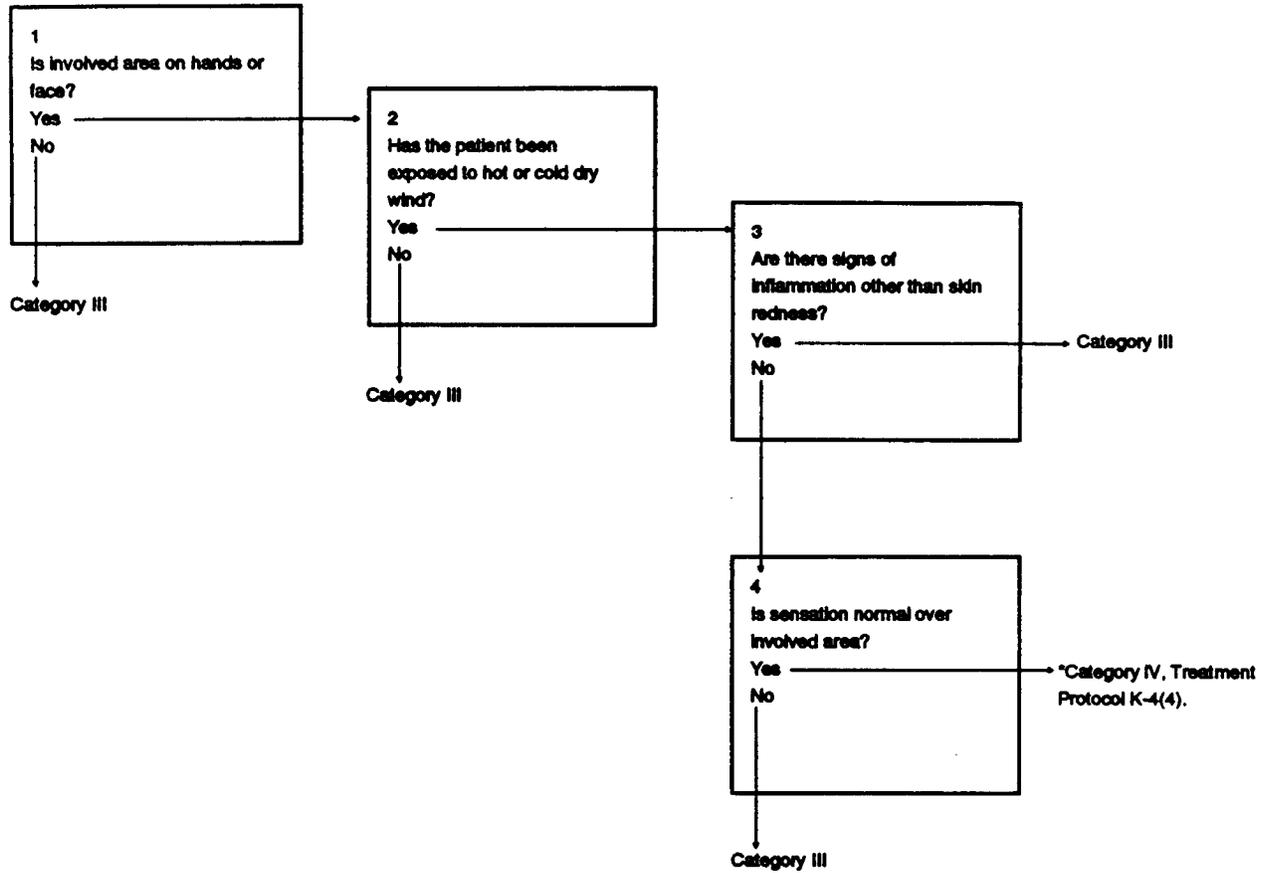
- TREATMENT PROTOCOL K-4(4)

Cover the involved area so it is no longer exposed to the drying wind. Symptomatic improvement may occur with the use of an oil base hand cream or cold cream; vaseline, or lip balm may be used for the lips. The application of cream will also decrease wind effects.

CHAPPED SKIN/WINDBURN, K-4

Associated Complaints:

Affected area is dry,
rough and may be
cracked



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

FROSTBITE, K-5

Frostbite is a condition that results from the skin (usually on the toes, fingers, or face) being exposed to extremely cold weather for an extended period of time. In severe cases, permanent destruction of tissues may occur from the crystallization of tissue water in the skin and adjacent tissues. The lower the temperature and the higher the wind, the shorter the time required to produce injury.

FROSTBITE IS A VERY SERIOUS CONDITION. Often it is extremely difficult to determine the extent of the damage of the affected area; immediate evaluation is appropriate.

FROSTBITE, K-5

Associated Complaints:

Pain, redness, and loss
of feeling in the affected
area

Skin around the affected
area is white and has
waxy appearance

Refer the patient with frostbite symptoms to Category II care.

CRABS/LICE (PEDICULOSIS), K-6

Crabs/lice are tiny insects that are visible to the naked eye that infest the hairy areas of the body (groin, underarms, and scalp). The insects deposit their eggs (nits) and attach them at the base of hair shafts. These shiny oval bodies are also visible to the naked eye. The bite of the insect causes intense itching which can cause a serious secondary infection. The three forms of blood-sucking lice are named:

- head lice (*pediculus humanus capitis*),
- body lice (*pediculus humanus humanus*), and
- pubic lice (*pthirus pubis*), also known as crabs.

These insects require a diet of human blood. The adult insect will die a few days after removal from the body. The possibility of spreading infection to close associates by intimate contact or common use of clothing, beds, or toilet articles is real. Crabs/lice can be seen moving in and about the hairs. Effective treatment generally requires:

- A pediculicide.
- Instructions on laundering clothing and bed linens.

Refer the patient to Category III, if a nonprescription pediculicide (Rid) is not available.

CRABS/LICE (PEDICULOSIS), K-6

Associated Complaints:

Intense itching

Scratch marks in affected
area

Refer the patient with crabs/lice to Category III if a nonprescription pediculicide (Rid) is not available.

INSECT BITES (NOT CRABS/LICE), K-7)

Insect bites are characterized by itching, local swelling, mild pain, and redness. All of these reactions represent a local reaction to the sting of the insect. Document any history of tick bites.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Swelling or pain located at a distance from the site of the original bite along with respiratory wheezing, shortness of breath, or hives indicates a systemic allergic reaction. These symptoms represent a life-threatening situation. Send the patient either to the emergency center or to see a medical officer immediately. Use a bee sting kit if emergency first aid is indicated.

Block 2. When ticks bite, the mouth parts will frequently remain behind. Remove these with tweezers before the treatment protocol is used.

Block 3. If the patient complains of an insect bite but the screener is unable to find a typical insect bite related symptom, the problem may indicate another form of illness. In this case, the patient should be evaluated as Category III.

- TREATMENT PROTOCOL K-7(2)(3)(4)

1. Remove any stinger or biting apparatus left in the bite site. Cleanse with Betadine solution.
2. Apply Calamine lotion or hydrocortisone 0.5% (1% if available) cream, 3 or 4 times daily.
3. Apply cold compress or ice pack.
4. If condition worsens or symptoms persists for more than 48 hours, return for further evaluation.

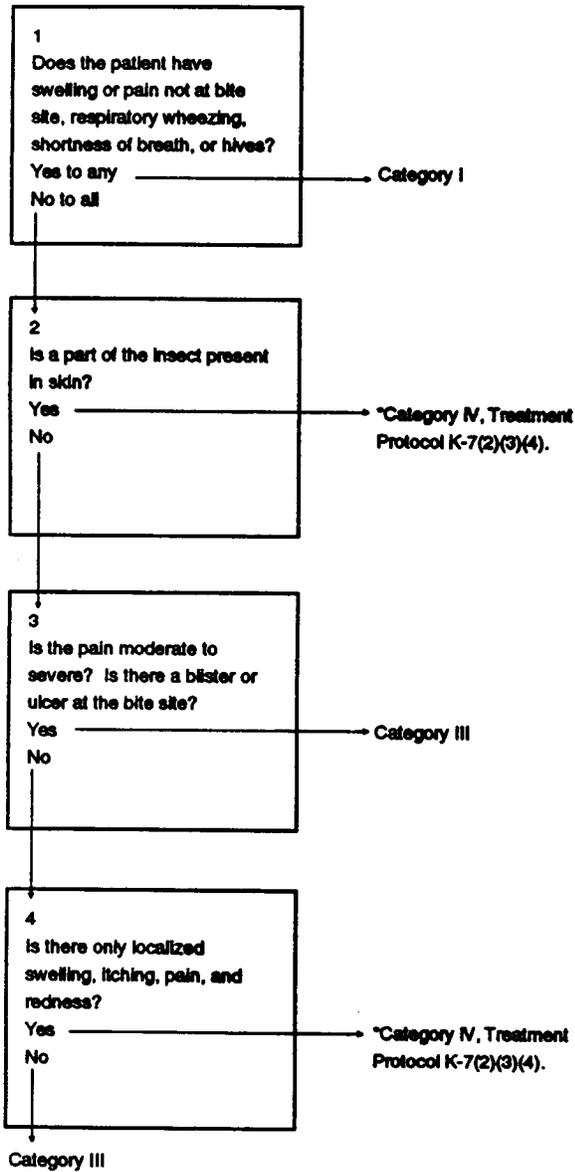
INSECT BITES (NOT CRABS/LICE), K-7

Take complaint-specific vital signs:

- Temperature
- Pulse
- Respiration
- Blood pressure

Associated Complaints:

- Itching
 - Swelling (hives)
 - Shortness of breath
 - Wheezing
 - General discomfort
 - Redness of affected area
-



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

SUNBURN, K-8

Sunburn is generalized redness of the skin produced by overexposure to sunlight. Sunburn should be avoided since repeated overexposure to the sun over a long period of time can damage the skin permanently. This overexposure has been confirmed as contributing to skin cancer.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. The patient who does not have typical sunburn symptoms should be referred to the medical officer for evaluation.

Block 2. Patients with severe burns (characterized by the presence of blisters) or generalized weakness that can be associated with heat exhaustion should not be treated with self-care and should be seen by the medical officer.

Block 3. If the patient is unable to perform daily duties due to sunburn, he should be seen by the medical officer.

- TREATMENT PROTOCOL K-8(3)

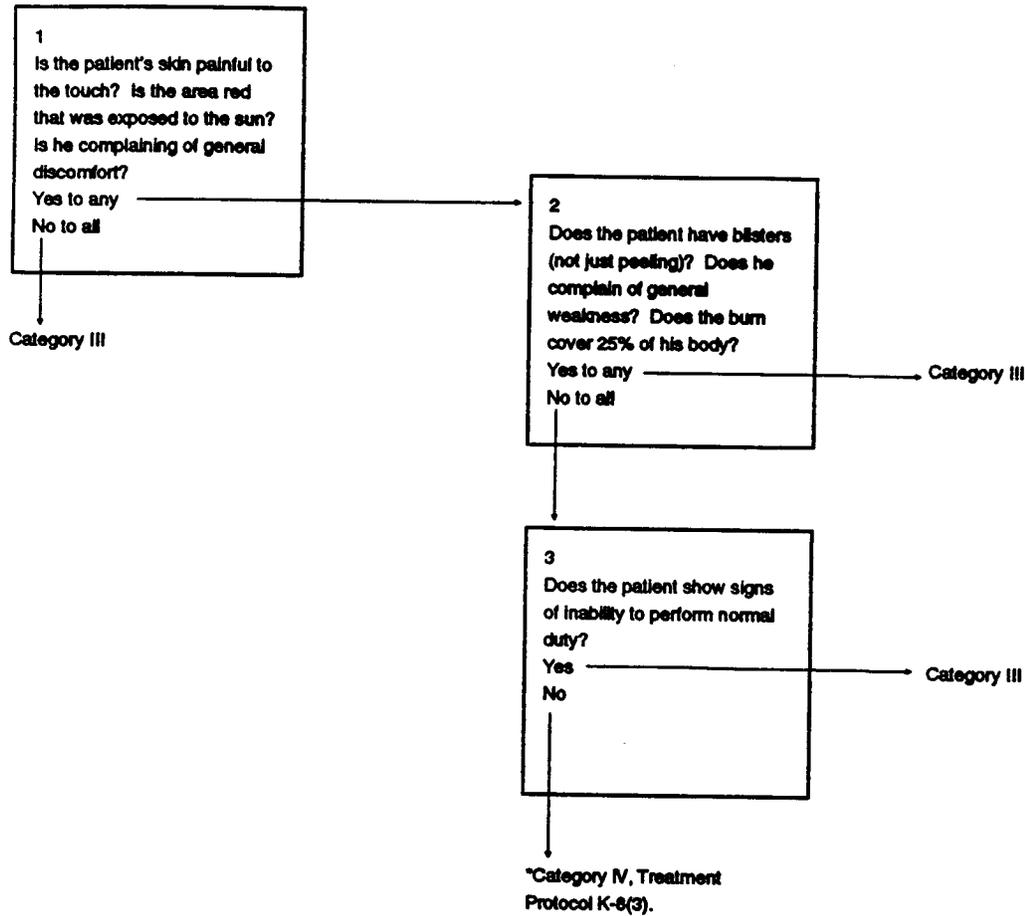
1. Apply Calamine lotion liberally to the affected areas 3 or 4 times daily.
2. Take two aspirin tablets every 4 hours for 2 to 3 days.

SUNBURN, K-8

Take complaint-specific vital sign:
Temperature

Associated Complaints:

- General discomfort
 - Redness of skin
 - Pain on contact
-



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

CONTACT DERMATITIS (INCLUDES PLANTS POISON IVY, OAK AND SUMAC), K-9

Contact dermatitis results when the skin comes in contact with anything in the environment that causes an inflammatory reaction. Such items can be shoe materials, watchbands, earrings, and poison ivy. Poison ivy is the most common example of this group. The skin reaction to poison ivy is caused by the oil secreted from the ivy leaves. The oil can be transported directly from the plant to the skin by way of a person's hand or it may even be inhaled if the plants are being burned. A poison ivy rash is usually confined to the arms, legs, or face since these body parts readily come in contact with the plant. Other contact dermatitis reflects the area of contact. Symptoms usually develop within 24 to 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 plant oil on further contact can do that.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. The absence of typical poison ivy symptoms makes other causes for the rash likely. Refer the patient to Category III care.

Block 2. Numerous blisters involving large areas or major complaints of pain require that the patient be referred to Category III care.

Blocks 3 and 4. The patient should be instructed to continue the prescribed treatment unless his condition becomes worse or, if after 5 to 7 days, the condition fails to show signs of improvement. In any unimproved or worsened case, the treatment should be considered a failure, and the patient should be reevaluated by the medical officer.

- TREATMENT PROTOCOL K-9(3)(4)

1. Avoid further contact with the plant.
2. If the area is small and if intense itching with blistering is evident, apply Burrow's solution compresses every 4 hours for 30 minutes. This will provide relief.
3. Apply hydrocortisone 1% cream to the affected area 3 to 4 times daily.
4. If condition worsens or if symptoms persist for more than 7 days, return for further evaluation.

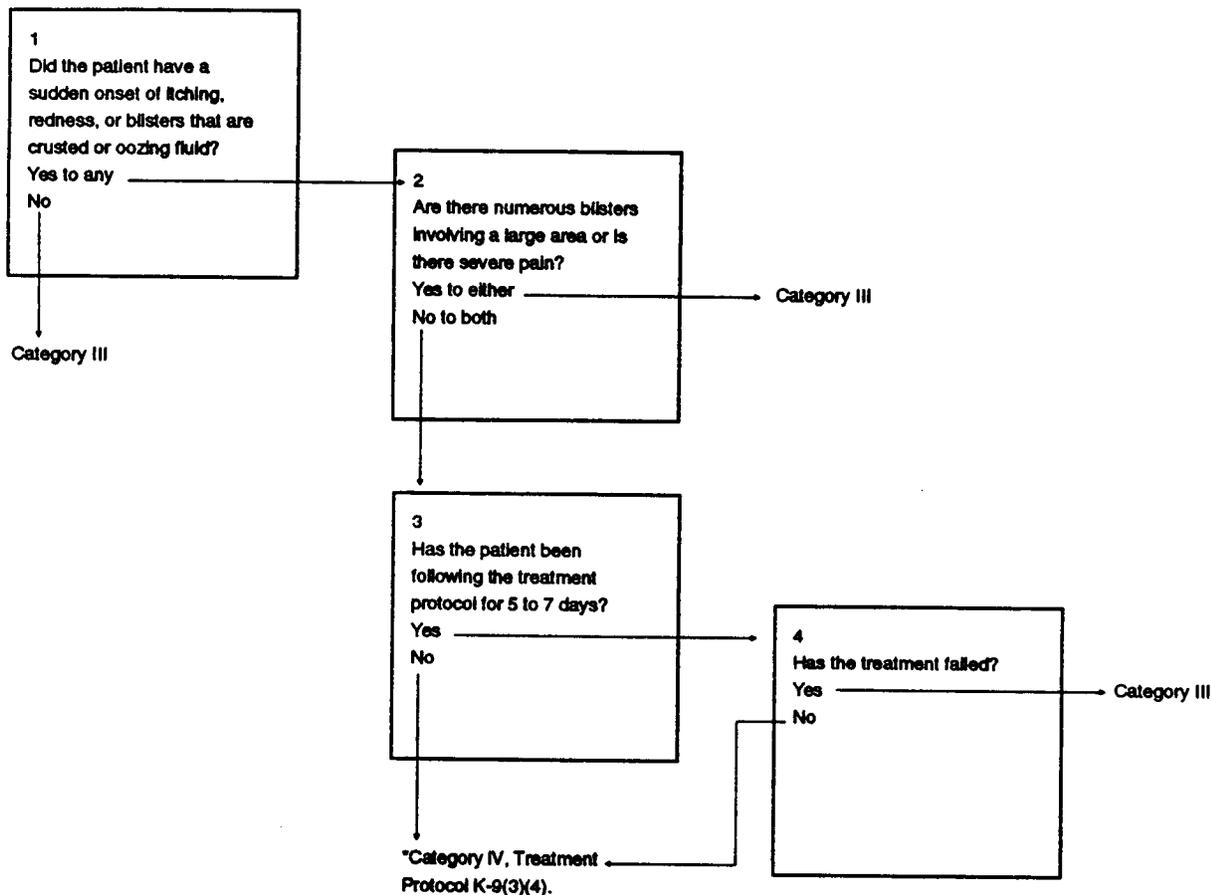
CONTACT DERMATITIS (INCLUDES PLANTS—POISON IVY, OAK AND SUMAC), K-9

Take complaint-specific vital signs:

- Temperature
- Pulse
- Respiration
- Blood Pressure

Associated Complaints:

- Itching
 - Redness
 - Swelling
 - Blisters, either crusted or oozing fluid
-



*NOTE: If the patient has already tried the treatment protocol or if he will not accept it, enter Category III as the disposition.

MISCELLANEOUS COMPLAINTS

*Algorithms for	<u>Number</u>
Prescription Refill	L-1
Wants a Vasectomy	L-2
Needs an Immunization	L-3
Exposed to Hepatitis	L-4
Dental Problems	L-5
Sores in the Mouth	L-6
Lymph Node Enlargement	L-7
Blood Pressure Check	L-8
Preparation of Replacements for Overseas	
Movement (POR) Qualification	L-9
Weight Reduction	L-10
Complaint Not on List	L-11
Request for Nonprescription Medication	L-12

PRESCRIPTION REFILL, L-1

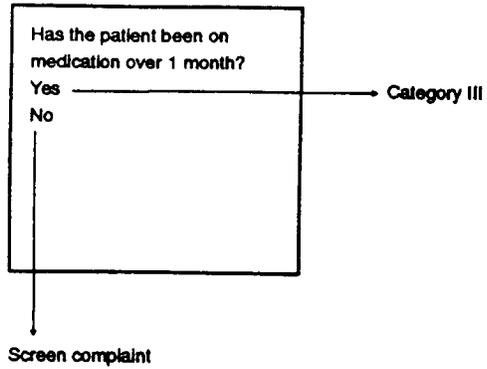
Use this algorithm for all prescription refills except birth control pills.

+ IMPORTANT INFORMATION ON THE ALGORITHM

Some patients request a refill of medication prescribed for an acute illness. Patients are normally given enough medication initially to cover the anticipated period of illness. If the patient wants additional medication, the illness may not be responding to the treatment as expected. In this case, the patient needs to be rescreened by his complaints. The only exception would be the patient who lost his original prescription.

Patients who require refills of long-term medications should be evaluated by the medical officer to make certain the underlying problem is being appropriately treated.

PRESCRIPTION REFILL, L-1



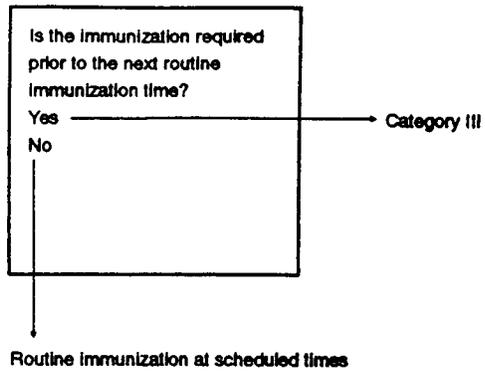
WANTS A VASECTOMY, L-2

For the patient who wants a vasectomy, schedule a routine appointment with a medical officer, Category III.

NEEDS AN IMMUNIZATION, L-3

Routine immunizations are normally provided only at scheduled times. If the immunization is required prior to the next scheduled time, the patient must be seen by the medical officer.

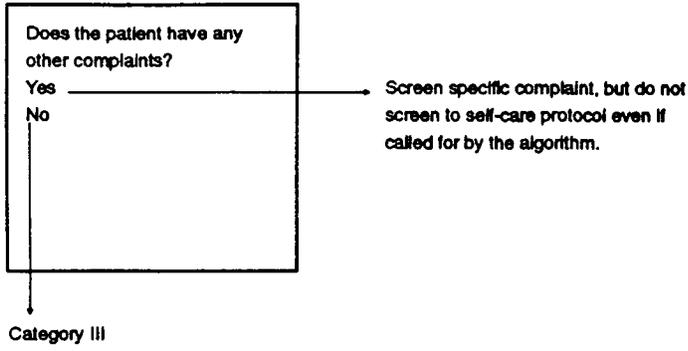
NEEDS AN IMMUNIZATION, L-3



EXPOSED TO HEPATITIS, L-4

Refer all patients who know or suspect exposure to hepatitis to Category III care. These patients may require gamma globulin injections. If the patient has any symptoms, screen them.

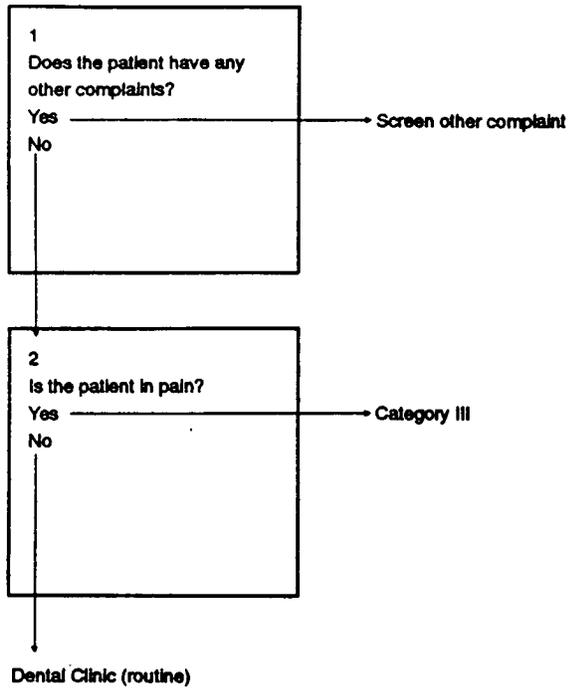
EXPOSED TO HEPATITIS, L-4



DENTAL PROBLEMS, L-5

Problems with the teeth are usually self-evident. However, pain in and around the teeth may be associated with other types of illnesses. Always inquire about other complaints before referring the patient to a dentist.

DENTAL PROBLEMS, L-5



SORES IN THE MOUTH, L-6

Sores in the mouth are usually inflammatory or ulcerative in nature and may be associated with many upper respiratory infections or may result from trauma. Refer patients with sores in the mouth to Category III care.

LYMPH NODE ENLARGEMENT, L-7

The patient may complain of swollen glands, a swelling, or a lump. Enlarged lymph nodes are most commonly found in the neck, armpits, and groin. Localized swellings in other areas are less likely to represent lymph nodes. A lymph node enlargement may result from an inflammation in the area of the body drained by node or from systemic illness. In the former case, the enlarged nodes are likely to be confined to that area. In the latter case, lymph nodes in several areas of the body may be involved.

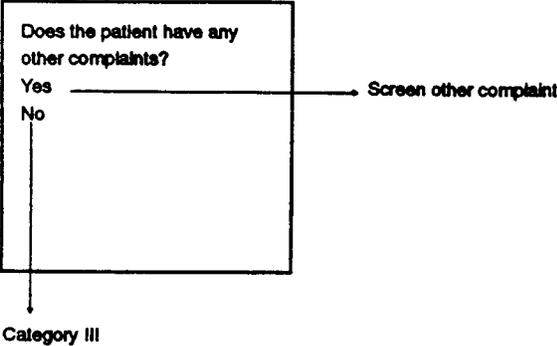
+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Other more specific complaints may give a clue to the cause of the lymph node enlargement. If the node(s) are in the neck, specifically ask about URI symptoms. If in the armpit or groin, ask about sores in the arms or legs, respectively. Most lymph node enlargements secondary to local inflammation will subside within 2 weeks if the primary problem has subsided. Persistence of lymph node enlargement beyond this time raises the possibility of more serious disease that must be evaluated by a medical officer.

LYMPH NODE ENLARGEMENT, L-7

Take complaint-specific vital sign:

Temperature



BLOOD PRESSURE CHECK, L-8

+ IMPORTANT INFORMATION ON THE ALGORITHM

Block 1. Patients who have been told to have their blood pressures checked need to have it checked at times directed by the medical officer. Upon completion of the checks, results are reported to the responsible medical officer.

Block 2. If this is the final day of the check, the patient should be referred to the ordering medical officer. If not, the patient should be reminded to come back for all future parts of the blood pressure check.

Block 3. Patients who were not told by the medical officer to have their blood pressure checked but simply want it checked may well have other complaints that need to be evaluated. If so, screen those complaints.

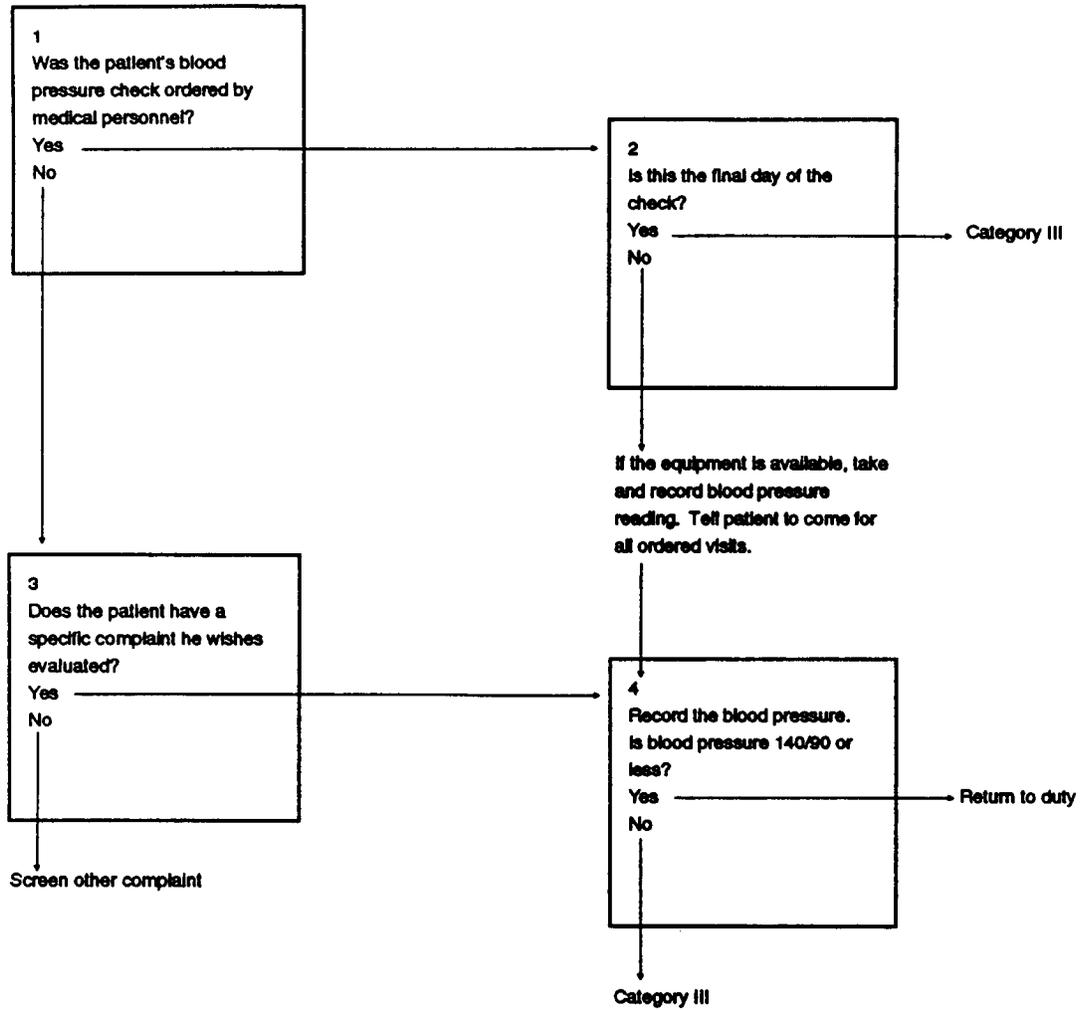
Block 4. If the patient does not have other complaints, obtain his blood pressure if the equipment is available. Refer the patient to Category III care if his blood pressure is greater than 140/90 (greater than 140 systolic and/or greater than 90 diastolic). Blood pressure should be checked in both arms. Any significant difference in readings between the arms should be reported to the medical officer immediately while the patient waits.

BLOOD PRESSURE CHECK, L-8

Take complaint-specific vital signs:

Blood pressure

Pulse



**PREPARATION OF REPLACEMENTS FOR OVERSEAS MOVEMENT
(POR) QUALIFICATIONS, L-9**

Active duty personnel on orders for overseas assignments require review of their medical records to determine if they have a medical condition that would preclude the assignment and to ensure their immunizations are current.

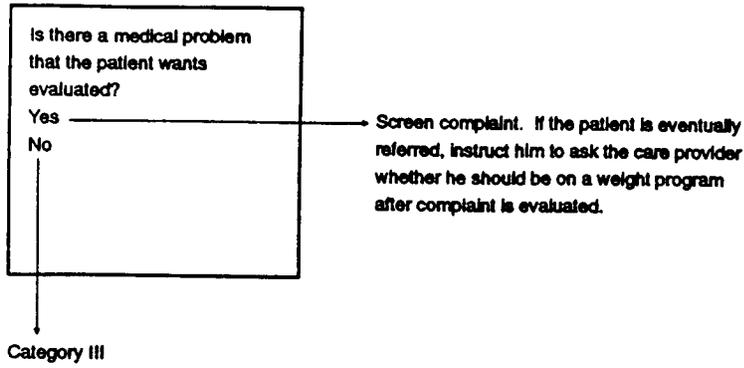
**PREPARATION OF REPLACEMENTS FOR OVERSEAS
MOVEMENT (POR) QUALIFICATIONS, L-9**

Refer the member who needs to be POR qualified to Category III.

WEIGHT REDUCTION, L-10

Individuals who come on sick call requesting assistance with weight control or diet therapy to reduce their weight should be seen by the dietitian if there are not medical problems that require evaluation. If a dietitian is unavailable, the patient should be seen by a doctor.

WEIGHT REDUCTION, L-10



COMPLAINT NOT ON LIST, L-11

Any patient with a complaint not covered in this screening manual must be referred to the medical officer for disposition. If the patient complains of any symptoms, take the patient's vital signs. If all vital signs are normal, referral will normally be as Category III.

NOTE

If, for any reason, you feel that the disposition of the patient as determined by the algorithms is inappropriate, do not hesitate to consult the medical officer.

COMPLAINT NOT ON LIST, L-11

If the patient's complaint is not listed among the algorithms, evaluate as Category III.

REQUEST FOR NONPRESCRIPTION MEDICATIONS, L-12

This algorithm refers to patients requesting specific nonprescription medications for self-care. Medications are not to be handed out to people who are seeking to fill their medicine cabinets just in case they get ill. Since nonprescription medications can be dangerous if not properly used, the patient should be screened first to ensure that the medication requested is appropriate for his immediate symptoms.

REQUEST FOR NONPRESCRIPTION MEDICATIONS, L-12

Screen appropriate complaint to ensure that the requested medication is appropriate for the patient's immediate symptoms.

MISCELLANEOUS REASONS FOR RETURN

*Algorithms for	<u>Number</u>
Showing No Signs of Improvement (Not Getting Better)	M-1
Return Requested by Care Provider	M-2

**SHOWING NO SIGNS OF IMPROVEMENT
(NOT GETTING BETTER), M-1**

This refers to a patient who returns even though he was not told to do so by the original care provider. He should not be given self-care as his is not a new problem and, therefore, is more likely to require detailed evaluation. Refer all such patients to a medical officer.

RETURN REQUESTED BY CARE PROVIDER, M-2

This refers only to patients originally seen by a medical officer or in a specialty clinic.

Many patients are told to return for follow-up. Write the name of the original care provider on the screening note and explain to the patient that if that individual is not on duty at the time, someone else will see him. If the patient seems acutely ill, rescreen him by complaint prior to referral.

RETURN REQUESTED BY CARE PROVIDER, M-2

If possible, refer the patient to the same care provider either as Category III or Category II.

APPENDIX B

LIST OF MEDICATIONS

The following is a list of medications prescribed in the self-care protocols in the manual. Medications can be deleted, but cannot be added.

Antihistamine (Benedryl)
Aspirin
Analgesic Balm (Ben Gay)
Anesthetic Ointment
Antidandruff Shampoo
Antifungal Foot Ointment, Powder or Solution
Antibacterial Ointment
Bulking Agent
Betadine
Calamine Lotion
Decongestant
Domeboro's Solution
Expectorants (Robitussin)
Gargle
Hemorrhoidal Suppositories
Heat Rub
Hydrocortisone 0.5% or 1% cream
Kaopectate
Laxatives
Nasal Spray Decongestant
Pepto-Bismol
Stool Softener
Throat Lozenges (Cepacol lozenges)
Tincture of Benzoin
Tylenol
Visine Eye Drops

APPENDIX C

INTERNAL/EXTERNAL AUDIT FORM FOR ADTMC

Instructions pertaining to the use of this form are in paragraph 12c and d of this pamphlet.

INTERNAL/EXTERNAL AUDIT FORM FOR ADTMC

For use of this form, see HSC Regulation 40-5.

TMC OR BAS NAME/NUMBER:

Date of Patient Encounter:

Terminal 4 Digits of Medical Record:

Name of Screener:

Algorithm Number:

Finding:

Corrective Action Taken:

Signature of Medical Officer

Date

APPENDIX D

SCREENING NOTE OF ACUTE MEDICAL CARE, DA FORM 5181-R

1. To ensure appropriate documentation of patient care, screeners will use DA Form 5181-R (Screening Note of Acute Medical Care) to record the use of ADTMC in TMCs and BASs. The form will be a permanent part of the patient's health record. Use of this form is mandatory when screeners provide treatment and disposition of active duty patients.
2. The form may be locally reproduced. A copy for local reproduction is in AR 40-66.
3. Special instructions.
 - a. Vital signs—Record as required by individual algorithm.
 - b. Algorithm/Code—Using the patient's chief complaint, enter the algorithmic code in parentheses following the algorithm title (e.g., Headache, F-2). If the patient presents two related chief complaints, the more serious of the two must be determined and the appropriate algorithm utilized. When two complaints appear to be unrelated or if the screener is unable to determine the more serious of the two, each complaint will be screened separately utilizing both spaces.
 - c. Algorithm summary—Following the flow chart for the selected algorithm, the screener must summarize—by numbered narrative statements—the question and answer for each box number until an endpoint is reached. In certain instances (e.g., Extremity Pain/Joint Pain, B-2), the logic may involve skipping one or more boxes. In this case, DO NOT enter a response for any boxes skipped.
 - d. Comments. If the algorithm disposition results in a level I,II, or III, the screener may gather more subjective data, examine the patient where appropriate, and make a tentative assessment. At the point of assessment, there must be evidence of the direct involvement of the medical officer. The medical officer must physically evaluate the patient, confirm the screener's data, independently assess the patient's complaint, and direct the plan of care. This evidence will be a note, in the medical officer's handwriting on DA Form 5181-R. Post script signatures and comments are prohibited.
 - e. Final Disposition. Check the health care provider level indicated by the algorithm endpoint. If self-care protocol is called for, the screener must enter the protocol number. The screener will enter prescribed medications in the "comments" section. If two algorithms are used and the endpoints direct the patient to different health care provider levels, the screener will enter the higher level.
 - f. Record of Acute Medical Care (reverse side). Entries in this section are for use by a medical officer for documentation of further evaluation and treatment of complaints previously screened.
4. This form will accompany the patient to the next level of care and be a part of the health record when evaluation and audit are complete.

M

TAB

TAB

TAB

SCREENING NOTE OF ACUTE MEDICAL CARE

For use of this form, see AR 40-86; the proponent agency is the TSG

TIME PATIENT DEPARTS UNIT <i>(From DD Form 689)</i>	SCREENER LOCATION		
	TIME PATIENT ARRIVES	TIME ENCOUNTER BEGINS	TIME PATIENT LEAVES
DATE	SCREENER LOCATION	CHIEF COMPLAINT	DURATION
PATIENT RESIDENCE <input type="checkbox"/> BARRACKS <input type="checkbox"/> POST HOUSING <input type="checkbox"/> OFF POST <input type="checkbox"/> TRANSIENT		VITAL SIGNS TEMPERATURE _____ ALLERGIES _____ PULSE _____ BP _____ RESP _____	
FIRST VISIT FOR THIS COMPLAINT <input type="checkbox"/> YES <input type="checkbox"/> NO. IF NO, WAS RETURN SCHEDULED/REQUESTED BY CARE PROVIDER? <input type="checkbox"/> YES <input type="checkbox"/> NO			

ALGORITHM/CODE	ALGORITHM/CODE
ALGORITHM SUMMARY	ALGORITHM SUMMARY

COMMENTS *(Reasons for referral, method of referral, hospital appointments, self-care protocols, and patient instructions/precautions)*

PATIENT'S IDENTIFICATION <i>(Use mechanical imprint if available; for typed or written entries give: Name, SSN, Unit, Sex, Birthdate and Duty Phone)</i>	FINAL DISPOSITION <input type="checkbox"/> I—PHYSICIAN STAT <input type="checkbox"/> IV—SELF CARE PROTOCOL <input type="checkbox"/> II—PA STAT <input type="checkbox"/> V—HOSP CLINIC REFERRAL <input type="checkbox"/> III—PA	
	AIDMAN'S SIGNATURE AND CODE	AUDITOR'S INITIALS AND DATE

GLOSSARY

TERMS

Occasionally the screening aidman may be uncertain of the definition of some of the medical terms used in this manual. Since many battalion aid stations do not have access to a medical dictionary, the following glossary of terms is provided.

Acne—A common skin condition occurring primarily in the late teens and early twenties but may 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 the air, forming what is known 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 lifelong side effects.

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 at the TMC.

Atrophy—Degeneration, wasting away.

Boil—Also known as a furuncle if it has a single “core”, or carbuncle if multiple cores. A painful nodule formed in the skin by inflammation enclosing 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 to 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 (characterized by a leathery, whitish appearance; results when the outer layer of skin is destroyed).

Chancere—The primary sore of syphilis characterized by an elevated painless ulceration which indicates the point of entry of the infection.

Confusion—A disturbance in the patient’s understanding to the point that simple questions directed to the patient are not understood.

Conjunctivitis—Inflammation of the membrane that lines the eye and eyelids; also referred to as “pink eye.”

Constitutional—Affecting the entire body; not local.

Contact Dermatitis (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, watchband, 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 leaves. This oil can be transported directly from the plant to the skin by way of a person's hand or even inhaled if the plants are being burned. 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 plant 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 abnormal frequency.

Diastolic Pressure—A measure of the blood pressure during the stage of dilation 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.

Drug Reaction (Rash)—An acute widespread temporary reddish eruption on the skin which can develop in individuals sensitive to a particular drug (prescription or non-prescription). The rash is characterized by itching that can interfere with sleep or performance of normal duties/activities. The rash results from the entire 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.

Dysphagia—Difficulty in swallowing.

Dysuria—Difficulty in or pain during urination.

Epidermis—see Skin.

Epistaxis—Nosebleed (normally resulting from the rupture of small blood vessels inside the nose).

Eustachian Tube—Auditory tube, channel extending from the middle ear to the nasal passages.

Exudate—A substance found out of the normal or usual place deposited in or on tissue, usually resulting from inflammation.

Fatigue—State of increased discomfort and decreased efficiency resulting from prolonged or excessive exertion.

Fissure—A line-like crack in the skin.

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—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 urine.

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

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 (Co) dissolved in the blood.

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

- 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.
- Lesions**—A wound, injury, or pathological alteration of tissue.
- Malaise**—A vague feeling of body discomfort.
- Medical Officer**—As used in this pamphlet, includes the following health care providers: physicians, physician assistants, and nurse practitioners.
- Meninges**—The three membranes that surround the brain and spinal cord.
- Menopause**—Cessation of menstruation in the female, usually occurring between the ages of 46 and 50.
- 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.
- Myalgia**—Pain in a muscle or muscles.
- 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 to detect the presence of a cancerous process.
- Pediculosis (Crabs)**—This condition affects hairy areas such as the groin, underarms, and scalp and is the result of infestation by tiny insects that are visible to the naked eye. The bite of the insect causes intense itching which can result in a serious secondary infection. The three forms of blood-sucking crabs are:
 Head lice (pediculosis capitis)
 Body lice (pediculosis corporis)
 Pubic lice (pediculosis pubis) also known as “crabs”.
- These insects require a diet of human blood. The adult insect will die a few days after removal from the body; nits must receive a blood meal within 24 hours of hatching or they too will die. The possibility of spreading infection to close associates by intimate contact or common use of clothing, beds, or toilet articles is real and should be considered.

Pseudofolliculitis Barbae (Shaving Problem)—A chronic condition characterized by inflammation of the beard area resulting from reentry of the growing hair into the upper layer of the skin. It can occur in any male with curly hair. The genetic predisposition of the black male to tight coiling hair makes him highly susceptible to this condition. The most common locations for lesions are the face and neck. The lesions can be painful and interfere with shaving although they rarely become secondarily infected.

Sebaceous Gland—see Skin.

Skin—The skin is the largest organ of the body and its main duty is to protect man from the external environment. As a result of our constant exposure to a potentially harmful environment, diseases of the skin are common in all occupations and can cause many forms of disability.

PRINCIPLE STRUCTURES OF THE SKIN

- a. **Horny Layer (Stratum Corneum)**—The outer layer of the skin. This outer layer is composed of dead, tightly-packed layers of cells that develop in the deeper layers of the skin, have moved upward, and are slowly being rubbed off or shed. This layer of dead skin is watertight thus protecting the body from water seeping in and out of the body.
- b. **Epidermis**—Composed of living cells which, as they mature, serve as a constant renewal source for the stratum corneum. The epidermis contains the pigment cells which determine skin color. The epidermis does not contain blood vessels, hair roots, or sweat glands. Damage to this layer does not result in scarring, but chronic or repeated damage can alter the number of pigment cells in the layer resulting in an overall change in the color of the skin. An example of this effect is a suntan. The darker color is a result of an increase in the pigment cells following injury of the epidermis by the ultraviolet rays of the sun.
- c. **Dermis**—The supporting layer of the skin containing blood and lymph vessels, sweat glands, and hair follicles. Injury to the dermis can often result in bleeding. Found in the dermis are:
 1. **Hair Follicles**—originate deep in the dermis and are composed of tightly-packed cells serving to support the growth of the hair shaft. Injury to either the dermis or deeper layers can cause death of the hair follicle and result in the absence of hair after the injury heals.
 2. **Sweat Glands**—are also located deep in the dermis and are capable of secreting salt and water which rise up through the dermis and epidermis to the surface of the skin through pores. Evaporation of this sweat is part of the body's natural cooling process.

3. **Oil Glands**—(sebaceous glands) are connected to the hair follicle and have as a primary duty the secretion of an oily substance called “sebum.” This sebum reaches the surface through the channel that the hair shaft occupies. This substance is not to be confused with sweat which is made up mostly of water.

d. **Subcutaneous Tissue**—situated beneath the dermis and filled with large arteries, veins, nerves, lymph glands, and supportive tissue. Within the subcutaneous layer, fat (adipose) tissue is distributed. Injury to this layer will always result in scarring. Injury or illness to the skin can involve any or all of these parts. Signs and symptoms of diseases of the skin depend on the degree of the injury or illness and the structures affected.

Skin Lacerations—Caused by any injury that results in damage to the outer layer of skin. If the injury is to a portion of the skin carrying blood vessels or nerves, bleeding and pain often result. A skin laceration involving a puncture wound or animal/human bite may require a tetanus shot and is serious due to the possible spread of infection.

Spinal Meningitis—Inflammation of the meninges of the spinal cord.

Stratum Corneum—see Skin.

Subcutaneous Tissue—see Skin.

Sunburn—Result of overexposure of the skin to sunlight and characterized by a general redness of the skin. Fair-skinned individuals are more prone to freckling and sunburn quickly and frequently. Repeated overexposure to the sun should be avoided as permanent skin damage characterized by atrophy, dryness, wrinkling, and discolored areas can develop.

Sweat Gland—see Skin.

Systolic Pressure—A measure of the blood pressure during which the blood is driven from the heart throughout the body to the extremities; the high point of a blood pressure reading.

Tinea Versicolor—Common superficial fungal infection which appears on the chest, back, arms, and abdomen usually with no other symptoms. A patient with this condition complains only of the unsightly yellowish-tan or brown scaly lesions which may be localized in small patches or cover large areas of skin. Normally the rash is sharply demarcated. Affected areas do not tan and become more noticeable during the summer. The responsible fungus is abundant in warm moist climates.

Trauma—A wound or injury (whether physical or psychological).

Trench Foot—Results from prolonged exposure to wet, cold foot gear or outright immersion of the feet at temperatures usually below 50°F. At 50°F, exposure of 12 hours or more will cause injury. A shorter duration of exposure is needed at or near 32°F. The duration of exposure needed for trench foot decreases as the temperature approaches freezing.

URI—Upper respiratory infection.

UTI—Urinary tract infection.

Vertigo—An illusion of movement; sensation as if the external world were revolving around the patient or the patient himself was revolving in space. Not to be confused with dizziness which is a feeling of unsteadiness.

Vesicle—Superficial elevations of the skin formed by free fluid beneath the skin layer as in a blister.

TERMS OF LOCATION

Anterior (Ventral)—Pertaining to the front surface of the body or part.

Caudal—Pertaining to the tail end of the body.

Cephalic—Pertaining to the head or to the head portion of the body.

Deep—Not superficial; situated far beneath the surface of the body or part.

Distal—Part farthest from the point of attachment.

Inferior—Beneath or below some part of a structure.

Lateral—At or near the side surface of the body or part.

Medial—At or toward the midline of the body or part.

Midline—Along the line extending down the middle of the body dividing the body into right and left sides.

Pelvic—Pertaining to the basin-shaped ring of bones which supports the spinal column and rests upon the lower extremities.

Proximal—Part nearest to the point of attachment.

Substernal—Situated below the breast bone.

Superficial—Pertaining to the outer surface of the body or part.

Superior—Over or above some part of a structure.

TERMS OF MOTION

Abduction—Movement away from the midline.

Adduction—Movement toward the midline.

Eversion—Turning outward (e.g., sole of foot away from midline).

Extension—Movement that results in a straightening of an extremity.

External (Lateral) Rotation—To rotate from the midline; outward rotation.

Flexion—Movement that results in a bending of an extremity.

Internal (Medial) Rotation—To rotate from the midline; inward rotation.

Inversion—Turning inward (e.g., sole of foot towards midline).

Pronation—Refers to hand and forearm movement; results in the palm of the hand facing backward.

Supination—Refers to hand and forearm movement; results in the palm of the hand facing forward.

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