

Exposure Control Plan



Appalachian Search & Rescue Conference, Inc.
P.O. Box 440
Newcomb Station
Charlottesville, Virginia 22904



APPALACHIAN SEARCH & RESCUE CONFERENCE, INC.

P.O. BOX 440

NEWCOMB STATION

CHARLOTTESVILLE, VIRGINIA 22904

DIRECTIVE NUMBER: 1.100

DIRECTIVE SUBJECT: INFECTION CONTROL

ISSUE DATE: 02/01/97

1.100.01 POLICY/PURPOSE

To provide guidelines to ensure **ALL** personnel have a full understanding of potential risks in a biological environment and can protect themselves, the patient and the general public from contamination.

1.100.02 PROCEDURES/RESPONSIBILITIES

A. Personal Health Maintenance

1. Group personnel share in the responsibility for his/her own safety and must learn the basics of infection control, including modes of disease transmission and exposure risk. Each person is responsible for ensuring compliance with the policies and procedures outlined in this directive.
2. An Infection Control Coordinator (ICC) shall be appointed at the conference level.
 - a. The ICC shall be responsible for:
 1. Training personnel in infection control.
 2. All post-exposure follow-up investigations.

3. The compilation of all appropriate documentation and reports.
2. Maintenance and security of exposure reports of group personnel during search operations.
 - a. Original Workers Compensation documentation and all documentation related to exposure event follow-up shall be maintained.
 - b. Such records to be available on a need-to-know basis only, and then only to the affected personnel and the ICC.

1.100.03 GENERAL STATEMENT

- A. In reference to infectious diseases, all patients have varying degrees of infection and susceptibility.
 1. Efforts are made to assess each patient's status and initiate appropriate precautions whenever indicated.
 2. Personnel shall be aware that, most often, the presence of a communicable disease or immune-deficiency is not known at the time of treatment. Therefore, **ALL** patients shall be treated as potentially infectious and/or susceptible. The Center for Disease Control recommends "Body Substance Isolation" when personnel work with blood or body fluids from any patient. This precaution states that personnel must consider **ALL** body substances from any patient as potentially infectious. Body Substance Isolation exceeds universal precautions which states blood or certain body fluids may be potentially infectious.
 3. The primary infection control measure — careful hand washing — shall be practiced by all group personnel before and after each

direct patient contact (refer to directive 1.100.06).

4. Each situation shall be visually assessed to determine the application of gowns, protective eye wear and masks. **LATEX GLOVES SHALL BE WORN IN ALL CIRCUMSTANCES THAT INVOLVE CONTACT WITH PATIENTS.** (Refer to directive 1.100.15).
5. All contaminated (used) supplies shall be isolated from sterile supplies or usable stock at all times. Care shall be taken to insure that no contaminated material is permitted to contact reusable or sterile items. If such an event occurs the newly contaminated item shall be discarded or properly sanitized.
6. Inventory levels of the following items shall be maintained:

gloves	1 box
Respiratory Mask	6 ea
ID Kits	2 ea
goggles	4 pairs
water less handwash	2 cans

*Note: Mask's must meet OSHA regulations 1910.1243

7. Personal items shall be maintained as follows:

gloves	4 pairs
masks (molded surgical)	2 ea
goggles	1 pair
pocket mask or micro-shield ...	1 ea

1.100.04 PERSONNEL INFECTIONS & EXPOSURE GUIDELINES

- A. The following precautions against exposures shall be taken:
 1. Appropriate protective equipment shall be used at all times.
 2. If CPR is necessary, use of a bag-valve mask device is recommended until other advanced

airway measures become available. If a bag-valve mask device is not available, personnel shall use a pocket face mask in preference to direct mouth-to-mouth contact.

Note: In the unexpected event that absolutely no equipment is available, CPR will not be withheld, unless there is a perceived risk to the rescuer. As there has been no data presented to support such a risk.

3. Separate all equipment and supplies used for patient care which need to be decontaminated and destroyed.
4. After patient contact, even if gloves are worn, hand washing is required. (Refer to directive 1.100.06).

3. In determining the degree of risk associated with a suspected or potential exposure event, group personnel and infection control officers shall consider the following definitions:

1. "Occupational Exposure means reasonable anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties." Occupational Exposure to Blood borne Pathogens; Final Rule, Department of Labor, OSHA, 29 CFR Part 1910.1030
2. "Exposed: With respect to HIV disease or any other infectious disease, to be in circumstances in which there is a significant risk of becoming infected with the etiologic agent for the disease involved." Ryan White Comprehensive AIDS Resources Emergency Act; Emergency Response Employees; Notice, Department of Labor, Centers for Disease Control and Prevention
3. "Exposure Incident means a specific eye, mouth, other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious materials that results

from the performance of an employee's duties." Occupational Exposure to Blood borne Pathogens: Final Rule, Department of Labor, OSHA, 29 CAR Part 1910.1030

4. "Parenteral means piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, and abrasions." Occupational Exposure to Blood borne Pathogens: Final Rule, Department of Labor, OSHA, 29 CAR Part 1910.1030

C. Some general examples of exposures would be:

- contaminated needle stick injury
- blood or body fluid with mucous membrane of eyes, nose or mouth
- blood or body fluid contact with non-intact skin
- cut with sharp instruments covered with blood or body fluids
- any injury sustained while cleaning contaminated equipment

D. Personnel who have been exposed to, or possibly exposed to, a communicable disease shall:

1. Take immediate action to limit further exposure.
2. Restrict the number of personnel in contact with the individual to those essential for patient treatment.
3. Advise any personnel on the scene who may be at risk of exposure (e.g., police) of the potential exposure. **This information shall be exchanged in a discreet and confidential manner.** All patient related information must be considered confidential.
4. Initiate proper wound care if applicable.
5. Initiate proper decontamination of clothing and supplies.
6. If there is any doubt whether an exposure has occurred, the incident shall be discussed with

the designated or assigned ICC.

E. Exposure Documentation

1. The Incident Commander and or Group representative shall notify conference medical officer and/or on-duty ICC immediately upon exposure. The following forms will be completed by the ICC or CMO within 24 hours of the incident:

- FORM 154
- workman's compensation form (Employers First Report of Accident)
- Injury/exposure report form

F. Notification Procedure

1. Personnel are responsible for notifying his/her Team Leader ASAP after the exposure has taken place.
2. The Team Leader shall notify:
 - the Incident Command on all exposures.
 - the ICC\CMO on duty if occurred during non-mission event.
3. The IC shall notify the ICC and or the CMO.
4. ICC/CMO will be responsible for notifying ER attending physician receiving the source patient, if any. If ICC or CMO is not available, this will become the responsibility of the IC.

Note: NOTIFICATION OF PHYSICIAN(S) RECEIVING SOURCE PATIENTS MUST TAKE PLACE AS SOON AS POSSIBLE AND PRACTICAL. The goal is to notify the attending physician before the source patient is discharged or transferred from the emergency department.

G. Verification Procedures

- u x p o s e d
1. The ~~infected~~ personnel will notify the ICC of the date, time and treatment he/she received. This information should be sent to the ICC within 24 hours of the treatment.
 2. The ICC shall be responsible for follow-up with the receiving hospital if lab tests are

required from source patients that were transported to that facility.

3. The ICC shall have the abovementioned hospital notify him of the test results. The ICC will notify the infected personnel if further treatment is needed. The personnel shall schedule the follow-up treatment.

H. Treatment

1. Treatment is medical care given to reduce the chance of contracting a communicable disease after an exposure. The type and timing of treatment varies with different diseases. Depending on the disease, treatment may be short-term or long-term.
2. Diseases that usually require post-exposure treatment include, but are not limited to:
 - HIV
 - Hepatitis B
 - Hepatitis C
 - Meningitis
 - Tuberculosis
 - Syphilis
3. Personnel will be informed by the ICC of the results of their tests and any further treatment. The attending physician shall be responsible for informing the personnel of any medical condition resulting from the exposure and precautions to take in his/her personal and professional life.

I. Occupational exposures with a **KNOWN** contamination source should be handled as follows:

1. The emergency department attending physician at the hospital receiving the patient will be contacted by the ICC and informed that an Occupational Exposure has occurred.
2. The Infection Control Coordinator will contact the Infection Control Practitioner at

the receiving hospital to determine whether the patient is a carrier for HIV, Hepatitis B, Hepatitis C or Syphilis. The ICC will ask that serologic testing be done if the above is **not known**.

3. Determination of risk will be based on:

- a. interview of patient
- b. interview of patient's physician
- c. review of patient's chart

• Pathologist?

4. (The hospital will be asked to inform the ICC of the source patient's test results.) → won't happen unless the ICC is a licensed physician

5. According to the Code of Virginia, section 32.1-45.1, blood will be drawn from the source patient and the following tests completed:

- a. Hepatitis B Surface Antigen (HB_sAG)
- b. Hepatitis B Core Antibody (HB_cAB)
- c. Hepatitis C
- d. HIV antibody I & II
- e. VDRL and RPR (syphilis test)

+ HBeAG

The above tests will be done at the expense of the individual personnel.

6. The exposed personnel should be interviewed regarding any history of Hepatitis, risk factors for exposure to Hepatitis B, and Hepatitis B immunization status. The following tests will be recommended:

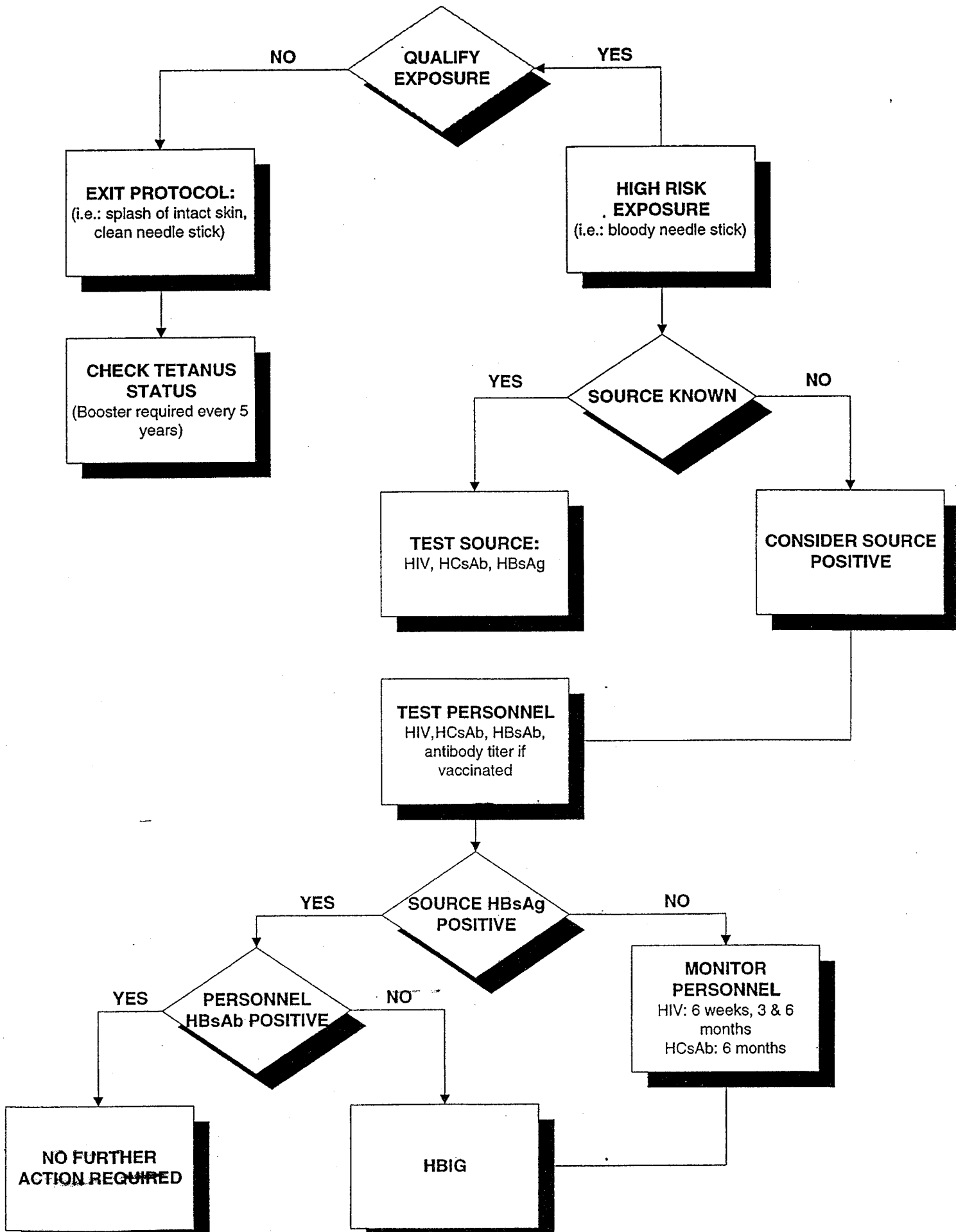
By whom?
Most likely the
Hospital ER Doc

- a. HB_sAG (antibody to Hepatitis B surface antigen)
- b. If personnel have had Hepatitis B vaccine a HB antibody titer should be done.
- c. HIV antibody (ELISA)
- d. Any personnel receiving a documented exposure from a Hepatitis B positive patient should have an additional Hepatitis B antibody test done six weeks post exposure.
- e. The HIV antibody test needs to be redrawn

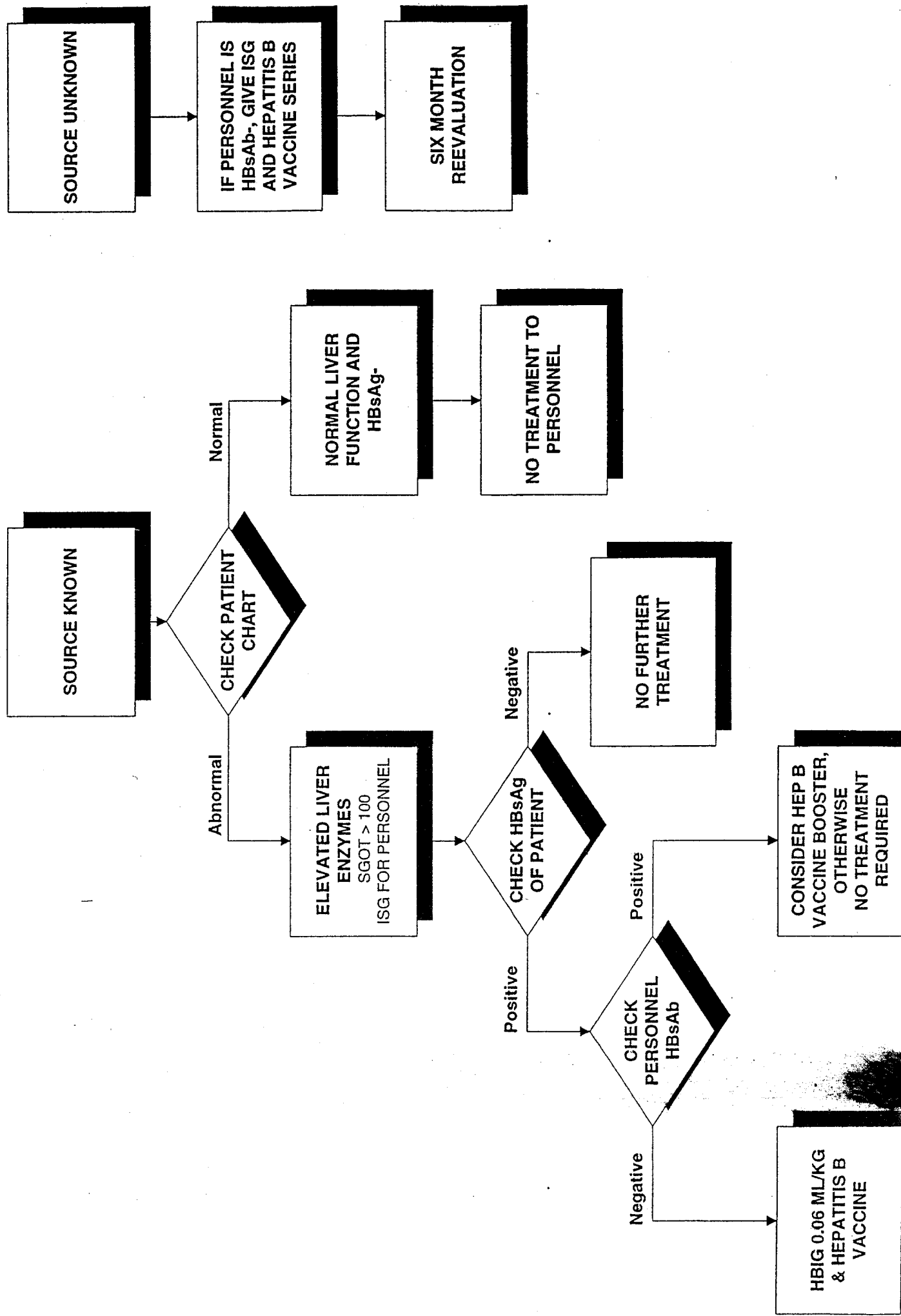
for follow-up testing at 3 and 6 month intervals.

7. The results of these tests will be provided to the personnel with counseling from the attending physician. The results of these tests will remain in strict confidence between the personnel and the attending physician. The personnel will provide the ICC with information necessary to comply with workman's compensation laws.

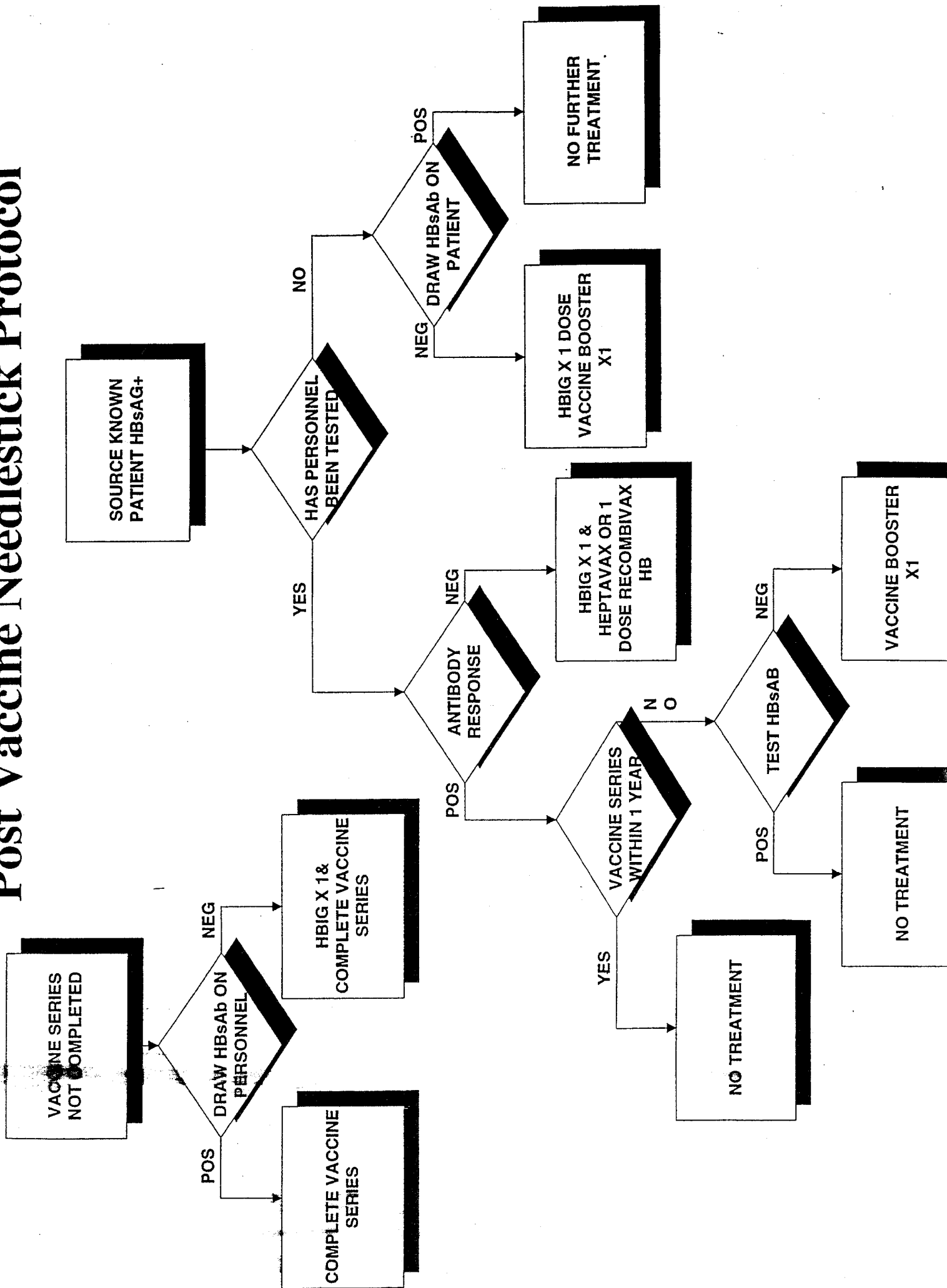
Infection Control Officer's Response to an exposure Report



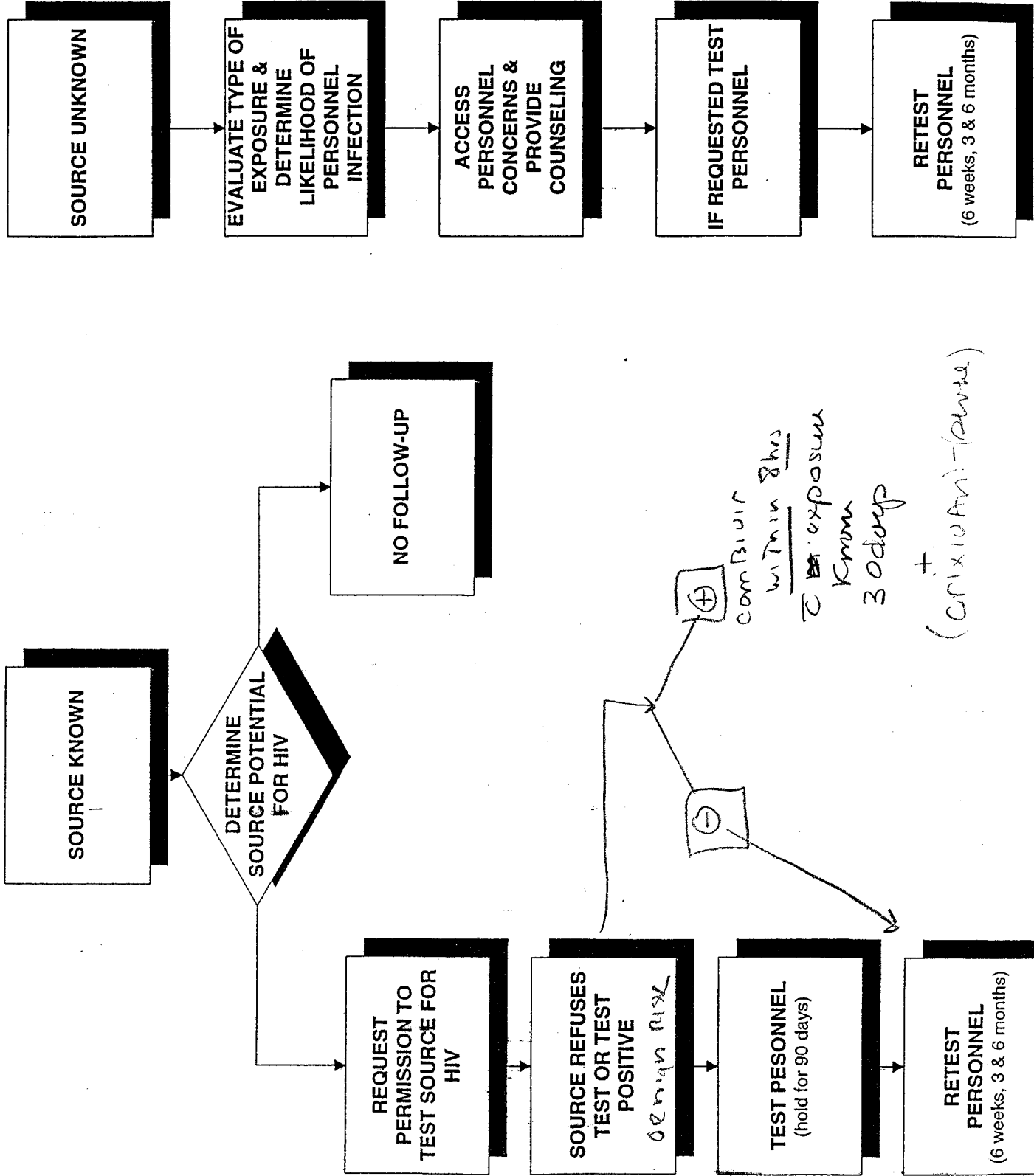
Needle stick follow-up Protocol



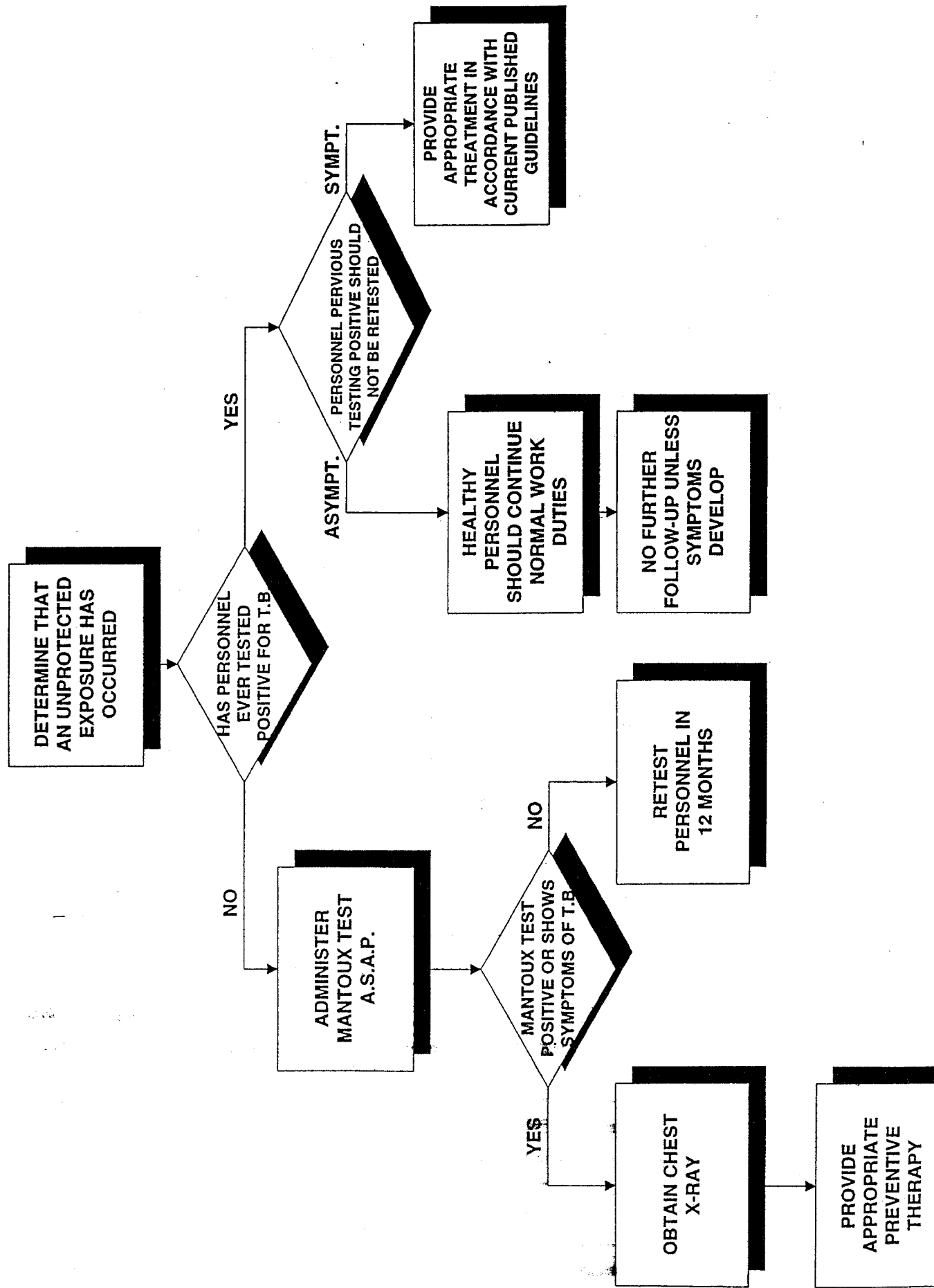
Post Vaccine Needlestick Protocol



Follow-up for Direct Exposure to HIV



Tuberculosis Exposure Follow-up



Exposure to NON-A, NON-B Hepatitis

MOST SIGNIFICANT
NEW PROBLEM TO
EMERG IS Hep C

(Hep C)

DETERMINE
UNPROTECTED
EXPOSURE TO
BLOOD

REPORT EXPOSURE
TO INFECTION
CONTROL OFFICER

DETERMINE RISK
FOR EXPOSURE

YES

NO

NO FURTHER
TREATMENT

NEG.

POS.

CHECK PATIENT
BLOOD

NO TREATMENT

COUNSEL
PERSONNEL

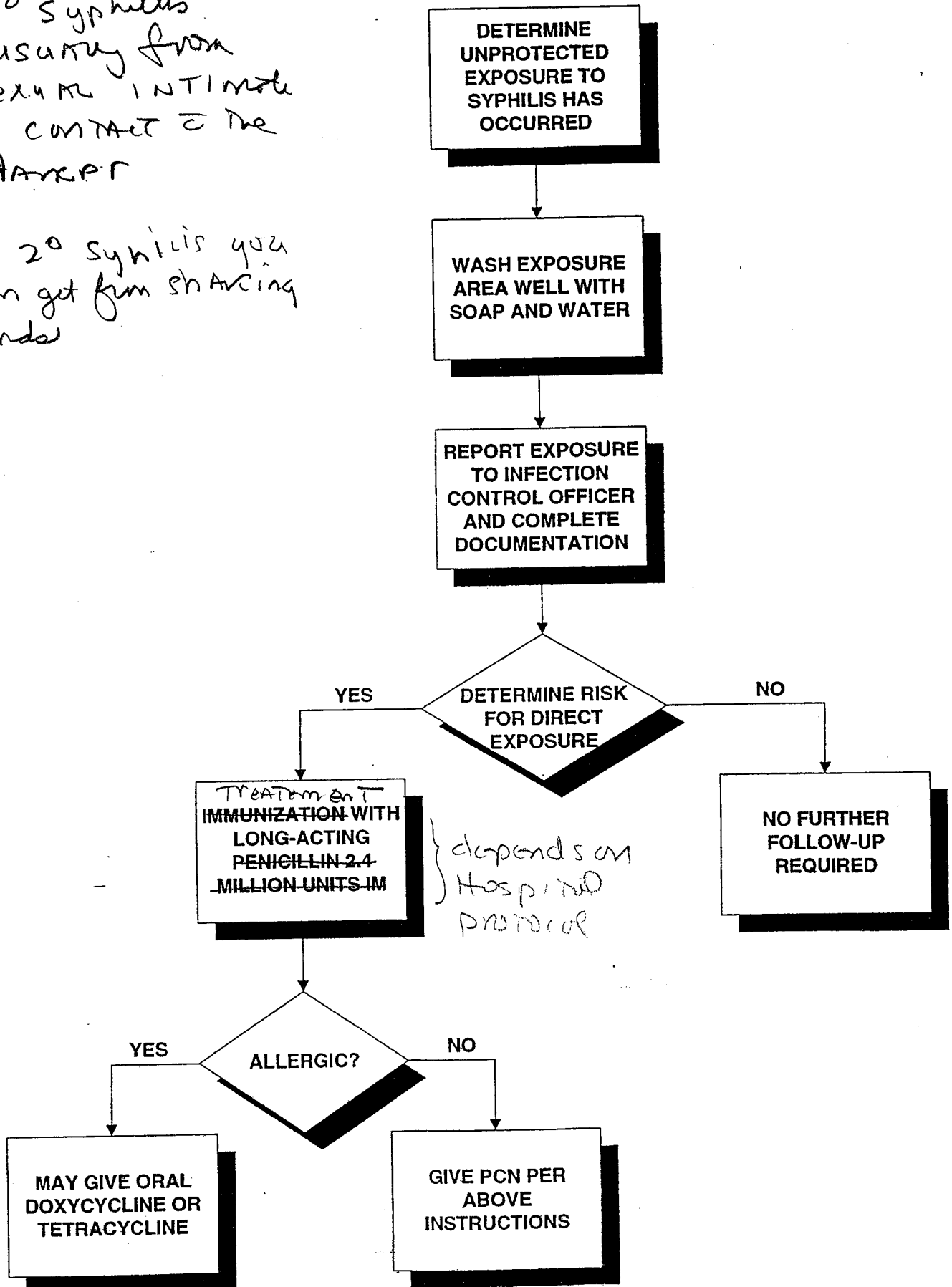
LIVER ENZYMES IN
6 MONTHS

NOT
NECESSARILY
IT IS UP TO YOU &
ENRDC.

Exposure to Syphilis

1^o Syphilis
is usually from
SEXUAL INTIMATE
CONTACT & the
chancre

2^o Syphilis you
can get from sharing
hands



1.100.05

DAMAGED SKIN PROTECTION

- A. Prior to any contact with patients, personnel shall cover all areas of abraded, lacerated, chapped, irritated or otherwise damaged skin with an occlusive (waterproof), adhesive dressing.
- B. Personnel with extensive skin lesions or severe dermatitis shall consult with his/her Team Leader before participating in patient care or handling patient care equipment.
- C. If there is any question regarding whether the personnel should perform patient care, the Team Leader shall notify the ICC and/or the IC before allowing the personnel to perform his/her duties.

1.100.06

HAND WASHING POLICY

- A. Hand washing is one of the most important factors in both prevention and control of infectious diseases. It is the single most effective preventive measure for personnel. The principle is mechanical removal of dirt and microorganisms by sudsing, friction and flushing with water.
 - 1. Proper hand washing shall be followed after each patient contact to include the following steps:
 - a. Use an acceptable soap.
 - b. Work up a lather, using friction for 15 seconds.
 - c. Rinse hands well and dry them with a paper towel.
 - d. Important: use the paper towel to turn off the faucet to prevent recontamination.
 - 2. Plain soap and water are adequate for routine hand washing, but for high-risk patients, an antiseptic solution shall be used.

3. In field situations, when running water is not available, alcohol based foam or gel solutions shall be used. When applying the solution, rub hands together. The friction causes the solution to evaporate, killing surface organisms.

Note: This is a temporary preventive measure until you are able to perform a more thorough hand washing.

4. Even when gloves are used, hand washing shall take place after removal of gloves.
5. A review of hand washing techniques is presented below:

Hand washing <u>Agent</u>	Brand <u>Names</u>	<u>Action</u>
Bar soaps	Safeguard Ivory, Dial	Helps remove organisms, but doesn't kill them
Liquid soap antiseptic	Safe n' Sure Kindness Kare	Helps remove organisms but doesn't kill them
Alcohol foam	Alcare	Kills staph, strep and Fungus organisms
Providone-iodine	Betadine Acu-Dyne Prepadyne	Kills staph, strep and Fungus organisms

1.100.07 EQUIPMENT CLEANING AND DISINFECTION

- A. Cleaning is defined as the physical removal of dirt and debris. Soap and water should be used, combined with scrubbing action. The scrubbing action is the key to rendering all items safe for patient use. All equipment requires a minimum of cleaning. Cleaning must take place prior to any required disinfection.

B. Disinfection is reducing the number of disease-producing organisms by physical or chemical means. Personnel should clean all items with soap and water, and disinfect with the provided disinfecting solution (Powder Keg). A fresh disinfecting solution should be mixed every disinfecting session. A bleach and water solution in a ratio of 1:100 may be substituted in the event Powder Keg is unavailable.

C. High-level disinfection is the use of chemical agents for sterilization. Whenever possible, equipment inventory shall be maintained in such a way as to eliminate the need for sterilization. Any equipment required to be sterilized shall be provided as a single-patient-use item.

D. All equipment shall be cleaned and disinfected after each use and as needed thereafter.

E. Equipment disinfection efforts shall be concentrated on high contact areas including blood pressure cuffs, shock trousers, stretchers, head immobilization devices, backboards and litters.

1.100.08

SCHEDULE OF CLEANING

A. Cleaning Agents

1. Isopropyl alcohol 70% is bactericidal, effective against Staphylococcus (Staph), Streptococcus (Strep), and Tuberculosis (TB). It is effective against spores. Do not immerse rubber or plastic articles.

2. Powder Keg is designed for cleaning and disinfecting hard surfaces such as floors, walls, woodwork, furniture and equipment (stainless steel, chrome, glass, tile, etc.) Use of this agent shall conform to the following guidelines:

a. Mix one pre-measured ½ ounce water-soluble packet to 1 (one) gallon of water (70 to 80 degrees F). Mix gently for uniform solution **DO NOT** add other chemicals.

- b. Apply the solution with a brush, mop, cloth, or spray bottle. Thoroughly wet all surfaces to be cleaned, then remove excess solution. Treated surfaces should remain wet for 10 (ten) minutes. Powder Keg with the spray bottle shall be utilized as follows:
 - 1. Fill the spray bottle from the bucket before cleaning has begun.
 - 2. Discard any unused Powder Keg daily. Rinse the spray bottle thoroughly and allow to drain and dry before reuse.
- c. Discard the solution in a sink (**not used for food preparation**) or toilet and prepare fresh solution according to the following guidelines:
 - 1. When it becomes dirty.
 - 2. **Every 24 hours.**
- 3. In the event Powder Keg is unavailable, 1:100 chlorine bleach solution may be substituted. **Higher concentrations are to be avoided, as such mixtures can be very caustic, particularly to plastics.**

B. Personnel shall wear utility gloves during the cleaning procedure.

C. Utility gloves shall be disinfected, washed and hung to dry for reuse if the integrity of the glove is not compromised. Utility gloves must be discarded if they are cracked, peeling, discolored, torn, punctured or exhibit other signs of deterioration.

D. Care of Specific Contaminated Equipment

The following are recommended guidelines for cleaning contaminated equipment:

CLEANING KEY

- 1) Dispose
- 2) Cleaning (Powder Keg)
- 3) Disinfecting (Powder Keg)
- 4) Launder

ARTICLE

CLEANING PROCEDURE

Airways (including ET tubes, oropharyngeal, nasopharyngeal, PTL's & combitubes)	1
B/P Cuffs	2
Backboards	2
Bite Sticks	1
Bulb Syringe	1
Cannulas & Masks	1
Cervical Collars	1 or 2
Dressings & Paper Products	1
Electronic Equipment	3
Humidifiers	1
Regulators & Tanks	2
KED	2
Laryngoscope/Blades	1
Handles	1 or 3
Linens	1 or 4
MAST Suit	2 or 3
Needles/Syringes	1
Penlights	1 or 2
Pocket Masks & Valves	1 or 3
Restraints	1 or 2
Resuscitators (BVM)	1 or 3
Scissors	2 or 3
Splints	2
Stethoscope	2
Straps	2, 3 or 4
Stylets	1
Suction Catheters	1
Suction Unit	3
Uniforms/Personal Clothing	4

Note: Mast suits and velcro straps (i.e. "spider straps") shall not be machine dried. These items are to be air dried only.

In cases where the level of contamination is low (i.e. blood and vomitus is present on the bag-valve mask exterior) it should be cleansed and disinfected. Personnel should make sure the device is still materially sound before placing it back in service.

When contaminants such as blood and vomitus get into the BVM's interior it should be discarded. It is acceptable to dispose of only the contaminated face piece while salvaging the resuscitator.

1.100.09 COMMUNICABLE DISEASE TRANSPORTS

- A. After transporting a patient either suspected of or diagnosed as having a communicable disease, the transport vehicle shall be cleaned.
 - 1. High contact areas shall require a 10 minute cleaning with disinfectant.
 - 2. Items that were in direct contact with infectious material require special handling and bagging.

1.100.10 BLOOD SPILLS

- A. Blood spills can be hazardous since the Hepatitis B virus can survive for long periods of time on surfaces. Cleaning blood contaminated areas is crucial and shall be performed before any other areas are cleaned.
 - 1. Wear utility gloves.
 - 2. Collect all gross blood by mopping or absorbing prior to cleaning the area.
 - 3. Clean all areas covered with blood with disinfecting agent (Powder Keg). For guidelines on the use of this solution refer to directive 1.100.08, item A-2.
 - 4. Refer to directive 1.100.13 for guidelines on cleaning clothing contaminated with blood.

1.100.11 CONTAMINATION

A. Grossly soiled linen for any patient shall be handled as follows:

1. Wear protective attire if the situation warrants (i.e. gown/mask). If linen is heavily soiled, these shall be worn. Gloves shall be worn whenever handling used linen.
2. Gently fold soiled linen so contamination is inside. Take care not to shake and create aerosols. If soiled linen cannot be folded with dry surface out, wrap it with another dry linen article.
3. Assure that non-linen articles are not folded up in linen (instruments, supplies, patient belongings, etc.)
4. Soiled linen shall be turned over to emergency medical personnel for proper disposal at hospital.

B. Contaminated Blankets

1. Grossly contaminated blankets shall be turned over to EMS personnel for proper disposal. Lightly soiled blankets shall be spot cleaned with disinfecting agent and placed in red plastic bag for proper cleaning at a later time.

1.100.12 WASTE DISPOSAL GUIDELINES

A. Solid Waste

1. Compactable trash shall be placed in a plastic bag and disposed of in conventional receptacles.
2. Trash to be incinerated shall be placed in red plastic bags and turned over to emergency medical personnel for proper disposal at the hospital.

B. Dressings and Tissues

1. Lightly contaminated dressings, gloves, paper towels, tissues, etc., are not considered regulated waste, and therefore may be safely disposed of in the regular trash.
2. Items so heavily soiled they are unable to contain the blood or fluids (i.e. "dripping") shall be bagged in red plastic bags and turned over to emergency medical personnel for proper disposal at the hospital.
3. Worn or used disposable items not contaminated with blood or body fluids shall be discarded in a plastic bag and disposed of in conventional receptacles.
4. At **NO TIME** shall trash, medical debris or any other articles used by personnel be left at a scene or incident.

C. Sharps

Refer to directive 1.100.20 for directions as to the handling and proper disposal of sharps.

1.100.13 CONTAMINATED CLOTHING

- A. Contaminated clothing shall be changed as soon as possible.
- B. Small stains from blood or body fluids shall be spot cleaned and then disinfected. The stain shall initially be cleaned with a mild detergent and water. Utility gloves shall be worn and cleaning shall take place at a sink that is **not used in food preparation or personal hygiene**. The affected area shall then be disinfected by washing with Powder Keg.
- C. Clothing that is contaminated by blood or body fluids shall be pre-washed with Powder Keg. Cleaning shall take place at a sink that is **not used in food preparation or personal hygiene**.

- D. Clothing that is **grossly** soiled should be placed in a red plastic bag and disposed of as biomedical waste.
- E. Personnel shall wear utility gloves when washing any contaminated clothing.
- F. Leather boots shall be scrubbed with soap and hot water to remove contamination.
- G. If any manufacturer warns that the textiles or components used in their clothing cannot be cleaned and disinfected in the above manner, such clothing shall be cleaned according to the manufacturer's instructions or otherwise placed in plastic bags and disposed of in conventional receptacles.
- H. Each person shall be responsible for maintaining at least one extra set of clothing which is readily accessible with a minimal delay to allow for replacement.

1.100.14 MASKS

- A. A molded surgical style mask shall be placed on the patient when the patient is:
 - 1. Suspected of having an infection that is spread by aerosol droplets (e.g. meningitis/ tuberculosis).
 - 2. Coughing/sneezing
- B. Masks shall be worn by personnel if the patient refuses to wear one.
- C. Refer to the "Infectious Disease Quick Reference" section of the Infectious Disease Handbook for Emergency Care Personnel, Second Edition by Katherine H. West, for measures recommended for various diseases.

1.100.15

GOWNS & GLOVES

- A. Gowns and gloves shall be worn by all personnel having direct contact with patients or contaminated articles when the mode of transmission of bacteria could result from splashes of blood or other body fluids (e.g. trauma, childbirth, vomitus). **Arms shall be covered in all cases where splashes or contamination from body fluid may occur.**
- B. All situations shall be visually assessed. Gowns, gloves, masks and eye protection shall be worn when excessive body fluids are evident.
- C. Refer to the "Infectious Disease Quick Reference" section of the Infectious Disease Handbook for Emergency Care Personnel, Second Edition, by Katherine H. West, for measures recommended for various diseases.
- D. Disposable latex or vinyl gloves shall be donned prior to initiating emergency patient care. **GLOVES SHALL BE WORN IN ALL CIRCUMSTANCES THAT INVOLVE CONTACT WITH PATIENTS.** The donning of gloves prior to arrival at the scene is discouraged, as the gloves may be damaged while handling equipment.
- E. Under no circumstances shall contaminated gloves be discarded at the scene.

1.100.16

PROTECTIVE EYE GEAR

- A. Protective eye gear and mask is mandatory when intubations or childbirth procedures are performed.
- B. Protective eye gear shall be worn when body fluids and spillage are visually assessed as excessive or a splash hazard is deemed to exist. (eye protection = goggles, mask/shield combination or prescription glasses fitted with side shields). Eye protection is required when there exists a possibility for exposure from contaminated body fluids to mucosal membranes, eyes, ears or nose where splashes or aerosols of materials are likely to occur.

- C. Protective eye gear shall be optional for starting I.V.'s.
- D. Helmet face shields do not protect the eyes, nose and mouth from liquid splashes coming from below and shall not serve as protective eye gear in relation to infectious disease control.
- E. Contamination of eye and mouth through blood or body fluids shall be handled as follows:
 - 1. Flush eyes with water for 15 minutes.
 - 2. Wash mouth out with water. Rinse with mouthwash.
 - 3. Refer to directive 1.100.04.

1.100.17 STETHOSCOPES

- A. Stethoscopes may harbor bacteria.
 - 1. Stethoscopes shall be wiped down after each patient use with alcohol pads.

1.100.18 ANTI-SHOCK TROUSERS

- A. Anti-shock trousers shall be cleaned when soiled to remove blood and secretions.
 - 1. Removable bladders (gladiator)
 - a. Bladder
 - 1. Remove and close air chambers.
 - 2. Wipe with a cloth dampened with antiseptic soap and Powder Keg. Allow to soak for 15 minutes.
 - 3. Rinse with warm water.
 - 4. Allow to air dry. Do not machine wash or machine dry.
 - 5. Never wash the M.A.S.T. garments with other items.

- b. Outer garment
 - 1. Hand or machine wash at a medium temperature setting with a detergent soap. Do not wash with other items.

2. Non-removable bladders (David Clark)

- a. Hand or machine wash at a medium temperature setting with a detergent soap. Do not wash with other items.
- b. Allow to air dry.
- c. Anti-shock trousers shall never be stored wet or damp.
- d. Never use dry cleaning solutions or chemical solvents.
- e. Do not bleach, boil or steam sterilize.
- f. Do not iron or press.

1.100.19 SUCTION EQUIPMENT

A. Suction equipment shall be cleaned after each use.

- 1. Non-disposable suction equipment shall be cleaned as follows:
 - a. The bottle shall be emptied carefully so that splashing does not occur.
 - b. The bottle shall be washed out with a germicidal or viricidal agent and air dried.
 - c. Latex tubing shall be cleaned as the bottle is cleaned and allowed to air dry. Disposable tubing shall be used whenever possible.

- d. Catheters shall be placed in a red plastic bag and turned over to EMS personnel for disposal.
- e. Gloves shall be worn when handling contaminated/dirty suction equipment.

1.100.20 NEEDLE AND SYRINGE DISPOSAL

- A. Sterile, disposable needles and syringes shall always be used. Sharps containers **must be** taken to the patient.
- B. Used disposable needles and syringes shall be disposed of as a unit in a disposable, impermeable container. Used needles must be discarded directly after use.
- C. Contaminated needles shall **NEVER** be cut or bent prior to disposal.
- D. Contaminated needles shall **NOT** be recapped including those used to administer controlled substances (e.g. morphine, Valium, etc.). With controlled substances, any remaining medication is to be expelled before properly disposing of the needle.

Note: When limited quantities of multi-dose medications (which are likely to be needed during extrication) make it necessary to transport an open needled syringe, that needle shall be recapped using a one-handed technique without assistance from other personnel.

- E. If a needle is attached to I.V. tubing, the tubing shall be clipped close to the needle rather than trying to remove the needle by hand.
- F. When the needle container is **THREE FOURTHS FILLED**, the container shall be sealed tightly and the entire container shall be turned over to EMS personnel for disposal at the hospital.

- G. Needle containers shall be carried to the victim anytime needles are used. The needles shall be promptly disposed of into the needle container at time of use. The lid of the container shall be in the **closed** position when not in use.
- H. Extreme caution should be used when passing a contaminated, uncapped needle from one person to another for discarding. **THIS ACTIVITY IS HIGHLY DISCOURAGED.**

1.100.21 DISCARDING OPEN VIALS & SOLUTIONS

- A. All irrigation solutions shall be discarded after use on the individual patients.
- B. Vials (NSS, sterile water) shall be discarded in the regular trash.
- C. All vials for injection shall be discarded in sharps container after use on the individual patient.

1.100.22 DISINFECTION OF LARYNGOSCOPE

- A. Non-Disposable Laryngoscope
 - 1. Used, non-disposable laryngoscope blades shall be:
 - a. Disassembled from handle.
 - b. Washed with disinfectant soap (vespore).
 - c. Rinsed with hot tap water.
 - d. Rinsed or wiped thoroughly with 70% alcohol.
 - e. Allowed to air dry.
 - f. Returned to normal storage area.
 - 2. Laryngoscope handle shall be:
 - a. Wiped thoroughly with alcohol sponges.
 - b. Allowed to dry.
 - c. Returned to normal storage area

B. Disposable Laryngoscope

1. A non-sterile disposable laryngoscope blade shall be included in each airway kit for use in testing the operation of the lighted laryngoscope handle. This blade shall be painted orange or red and shall be used only for the purpose of equipment inspections. **Sterile blades are not to be used for the testing of handle operations.**
2. Used disposable laryngoscope blades shall be:
 - a. Disassembled from handle.
 - b. Disposed of in accordance with directive 1.100.12.
 - c. Replaced with a prepackaged sterile blade and returned to the normal storage area.
3. Laryngoscope handle shall be:
 - a. Washed thoroughly with disinfectant solution (Powder Keg). (Immersion is to be avoided and batteries are to be removed prior to washing).
 - b. Wiped thoroughly with alcohol sponge.
 - c. Allowed to dry.
 - d. Returned to normal storage area.

Note: Although considered to be "reusable" grossly contaminated or otherwise damaged disposable laryngoscope handles may be disposed of in accordance with directive 1.100.12 and replaced with a new handle.

1.100.23 REUSABLE EQUIPMENT

- A. B/P cuffs and trauma equipment (C.I.D., backboards, splints, etc.) require no special precautions unless this equipment is contaminated. Contaminated equipment shall be wiped off with the provided disinfectant solution.

1.100.24**THERMOMETERS**

- A. Thermometers shall be wiped thoroughly with alcohol pads after use.
- B. Gloves shall be worn when obtaining patients temperature.
- C. Hands shall be washed after removal of gloves.

1.100.25**I.V. THERAPY****A. Hand Washing**

- 1. Hands shall be disinfected prior to venipuncture and prior to any manipulation of an I.V. system.

B. Needles

- 1. Plastic radio-opaque catheters shall be utilized whenever possible, as they provide a more secure route for medication administration.

C. I.V. Fluid

- 1. Examine fluid container against a light and dark background. Inspect for cracks, turbidity, particulate matter or any other sign of contamination. Check for leaks (compress flexible containers). Check for vacuum. Check for expiration date.
- 2. Label every fluid container with date and time opened.
- 3. I.V. tubing shall not be pre-connected until needed or use during patient care activities.

D. Tubing, Changing Site

- 1. Tubing shall be labeled with date and time of initiation.

2. When administration of any I.V. solution is temporarily discontinued, the I.V. system shall be maintained as a closed system.

E. Preparation of the Skin

1. The I.V. site shall be disinfected with an antiseptic prior to venipuncture. The antiseptic shall be applied liberally and allowed to remain in contact with the skin at least 30 seconds prior to venipuncture.
2. Iodine antiseptics are recommended.
3. Wash off the iodine with 70% alcohol after 30 seconds.
4. Never mix iodine with hydrogen peroxide.

F. Cannula Insertion

1. Gloves shall be worn for insertion of the cannula.
2. Aseptic technique shall be used for insertion of the cannula. The entire cannula shall be inserted into the vein.

G. Site Dressing

1. The puncture site shall be treated as an open wound. Cover it with a sterile dressing (transparent, semi-permeable dressings are approved for this). Strict attention to aseptic technique and frequent observation of the patient for early recognition of I.V. complications can reduce the incidence and severity of complications.

H. Discontinuing the I.V.

1. The catheter shall be removed aseptically and pressure applied to the puncture site using a sterile dressing. Ensure that the bleeding has stopped and dress the wound site. All tubing and the bag(s) shall be discarded.

References: Employers First Report of Accident

Form 154

OSHA 1910.1030 -- Blood borne Pathogens; Final

Ryan White Law -- Public Law 101-381, Subtitle

Mandatory Exposure Notification

Infectious Disease Handbook for Emergency Care

Personnel, First and Second Editions, Katherine H

West