General Care Protocols

-Baker Act

-Behavioral Emergencies

-Crime Scene Management

-CISM

-Determination of Death in the Field

-Firefighter Rehabilitation

-Helicopter Procedures and Safety

-Infectious Disease Exposure Guidelines

-MCI

-Medical Communications

-Patient Refusal

-Patient Safety

-Protocol Change and/or Modification Contacts

-R.A.C.E. Scale

-Universal Patient Care

-Well Person Check

Baker Act

Florida Statute chapter 394.463 mental health relates to the authorization of police, physicians, mental health professionals and the courts to dictate certain medical care for persons who pose a threat to themselves or to others.

Chapter 394 of the Florida Statutes is known as "The Baker Act" and as "The Florida Mental Health Act". A Baker Act proceeding is a means of providing an individual with emergency services and temporary detention for mental health evaluation and treatment, either on a voluntary or involuntary basis.

A voluntary Baker Act admission occurs when a person 18 years of age or older, or a parent of a minor, applies for admission to a facility for observation, diagnosis, and treatment.
An involuntary Baker Act admission occurs upon a finding by a court that (1) a person is mentally ill and, because of the mental illness, he/she has refused voluntary placement for treatment or is unable to determine whether placement is necessary; (2) he/she is incapable of living alone or with help, and without treatment is likely to suffer from neglect or refuse to care for him/herself, or there is a substantial likelihood in the near future that he/she will inflict serious bodily harm on him/herself/others as evidenced by recent behavior; and (3) all less restrictive treatment alternatives are not appropriate.

In the pre-hospital setting a voluntary baker act must be escorted with a police office, after (if) EMS makes patient contact.

Behavioral Emergencies

1. Respect the dignity and privacy of the patient, the establishment and all those involved with the scene.

2. Assure physical safety of the EMS personal, the patient and all on scene.

3. Use reasonable physical restraints only if attempts of verbal control are unsuccessful. Police should be on scene for physical restraints when possible.

4. Consider medical complications that cause irrational behavior.

5. See adult medical protocols for possible Excited Agitated Delirium

Initial Approach

1. Communicate in a calm non-derogatory, non-threatening type manner

2. Ask the patient if they would like assistance.

3. Identify yourself as a medical provider and offer assistance.

4. Contact law enforcement if the person is a threat to themselves or others.

Use of Restraints

1. Physical

a. Use standard accepted restraining techniques

b. Use sufficient padding on all restraints as to protect patient.

2. Chemical

a. Use chemical restraints in conjunction with physical restraints.

3. All restraints

a. Constant monitor and observe patient, vital signs and airway to prevent injury or harm.

b. Carefully and thoroughly document the rationale for the use of restraints and all persons involved including PD.

Transportation

1. All individuals being transported for psychological evaluation under the Baker Act Statute must be accompanied by a police officer. The paramedic in charge shall determine whether the police officer will ride in the back or follow behind the rescue unit.

2. In those situations where a female patient is being transported and a female is not part of the crew, the paramedic should attempt to have a female police officer accompany the patient to the hospital. Document the beginning and ending mileage with dispatch via radio communication.

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INCAPACITATED PERSONS LAW

Florida Statute Chapter 401.445 allows for examination and treatment of incapacitated persons in emergency situations. (Patients who are not capable of informed consent as provided in FS Chapter 766.103 cannot refuse medical care.) Florida Statutes may be viewed online at www.leg.state.fl.us/statues

Crime Scene Management

A. Purpose: To ensure the protection of patient welfare as well as to ensure the ability to conduct an effective and thorough investigation.

B. Response/on-scene situations.

1. Only those units assigned will respond to the call.

2. When approaching a potential crime scene that is being protected by law enforcement personnel, the paramedic/EMT may request entry into the area to determine the life status of the individual.

3. If law enforcement personnel refuse access to the crime scene, do not become confrontational. Notify the EMS Agency Supervisor or Battalion Chief and complete an PCR as required.

4. When personnel are allowed access into the scene, the minimum number of required

EMS personnel should enter.

5. Do not attempt resuscitation if the patient has no pulse, has no spontaneous respiration, and meets criteria outlined in, Death in the Field.

6. If treatment and/or resuscitation are warranted, follow the appropriate protocol.

7. When on scene:

a. Keep your medical equipment close to the victim.

b. Stay close to the body.

c. Keep your hands out of any blood that has pooled.

d. Do not wander around the scene.

e. Minimize destruction of the patient's clothing. If the patient's clothing has a punctur , do not use the hole in the clothing to start cutting. Begin cutting at another part of the garment. Removed clothing should be left with the patient or turned over to law enforcement personnel.

f. Do not go through the victim's personal effects, clean the body, or cover the body with a sheet or other material (if expired).

g. Do not move, take, or handle any object at the scene or litter the crime scene with medical equipment, dressings, bandages, or other supplies.

h. If resuscitation efforts are deemed necessary, transfer the victim from the scene to the vehicle expeditiously and stabilize the victim in the vehicle, when possible.

i. If the patient relates any information relating to the crime document in your PCR and inform .L.E.O.

Critical Incident Stress Management (CISM)

Critical Incident Stress Management (CISM) is a comprehensive, integrated, multi-component, systematic program of crisis intervention. Its purpose is to provide education, support, assessment, and intervention for emergency service personnel who are often exposed to and/or affected by critical incidents. CISM was born out of emergency services and has become a world standard of care for first responders. Formulated and standardized by the International Critical Incident Stress Foundation (ICISF), CISM has proven to be effective in mitigating many of the common symptoms of critical incident stress. The goal when applying any of the CISM components is to assess, educate, and intervene as necessary and return individuals to their work with the tools and support needed to reduce the effects of a critical incident. The benefits of the intervention include a reduction in symptoms of post-traumatic stress, quicker return to normal productive functioning, increased job satisfaction, reduced worker's compensation claims, reduced absenteeism and reduced errors, enhanced group cohesion, increased personal confidence and extended longevity.

OVERVIEW

The Broward Region CISM Team is made up of trained and credentialed members of law enforcement, fire/rescue, corrections, communications, and others, as well as trained, credentialed, and licensed mental health professionals, all of whom have completed at least three (3) of the core ICISF courses. Broward's CISM Team is independent of any other organization or department in Broward County. The team is designed and organized to respond to any incident that occurs in any emergency services department or agency in Broward County on a 24 × 7 × 365 basis, within a maximum of two (2) hours after a critical incident has occurred and CISM services are requested. The team meets on a periodic basis for additional training and information.

CONFIDENTIALITY

Florida Statute 401.30(4) (e) protects the discussions held during a CISM intervention as being "confidential and privileged communication under section 90.503." Therefore, all information shared during any part of a CISM intervention is held in the strictest of confidence.

CISM SERVICES The following types of services can be provided by the Broward CISM Team.

A. Pre-event planning and preparation.

1. Educational and informational programs about CISM.

2. Pre-incident planning and education.

B. Strategic planning and assessment.

1. Pre- and post-incident assessment of needs.

2. Development and implementation of a strategic plan for major events.

C. Individual intervention.

1. One-on-one services with a qualified CISM team member.

2. Individual support and follow-up.

D. Small group defusing.

1. Recommended within the first 12 hours after a critical incident occurs.

2. Best delivered as soon as possible after a critical incident.

3. Homogeneous groups.

4. Assessment and education with possible referral and follow-up.

E. Small group debriefing.

1. 12-72 hour's post-critical incident.

2. Prior to demobilization from extended deployment or upon return home from extended deployment.

3. Events of significant personal loss (expanded-phase defusing within first 12 hours).

F. Crisis management briefing.

1. Appropriate for large incidents, incidents with high media involvement, respite/rehab centers, and demobilizations.

2. Best for large groups or mixed groups.

3. Primary focus on assessment and information.

G. Family crisis intervention.

H. Organizational consultation.

I. Assessment of organizational needs.

J. Development and recommendation for coordination and delivery of services.

K. Pastoral/spiritual crisis intervention.

L. Referral and follow-up.

CISM CALL-OUT BASIS A critical incident is any situation that is either out of the norm or that challenges or would appear to challenge a person's normal coping mechanisms. Examples include the following situations:

-Pediatric injury or death

-Multiple youth fatalities

-Events with severe operational challenges

-Line-of-duty death or line-of-duty injury

-Officer involved in a shooting

-Off-duty death, suicide, homicide, or injury

-Events with multiple or mass casualties

-Prolonged events with loss of life

-Events when the victim(s) is (are) known

-Events with excessive media interest

-Any incident that could perceivably cause emotional impact

Emergency responders work under stressful conditions and situations. Training and continuing education about stress management contribute to the development and maintenance of improved emotional health, stress resistance, and resilience. Statistics demonstrate significantly higher instances of drug and alcohol abuse, marital and family strife, intimate-partner and domestic violence, heart attack, and suicide rates among emergency services personnel compared to the general population. These facts underscore the need for CISM services in any situation similar to those in the preceding list. Because one of the positive benefits of a group intervention is stronger group cohesion, all members of the group are encouraged to be present.

CISM ACTIVATION PROCESS EXAMPLE (BROWARD REGION)

A. Requesting agency officer contacts the Communications Captain on duty at the Broward Regional Communications Center, requesting a CISM Team response.

B. Communications Center number: 954-476-4720

C. Requesting agency shall supply the following information:

1. Agency name.

2. Type of incident.

3. Number of members involved.

4. Call-back contact number or pager number.

D. The Communications Captain shall page out the on-call CISM Team Leader.

CISM CALL-OUT PROCEDURE

1. When a critical incident event occurs or when an on/off scene command determines that an incident may or could have an emotional impact on the responding personnel, department, or agency, any person authorized to do so shall contact the Broward Regional Communication Center at 954-476-4720 and requests a CISM response, giving a brief description of the event, the caller's name, and his/her contact information.

2. The Broward Regional Communication Center shall contact the on-call CISM Team coordinator and, at the same time, pages and/or sends a text message to all members on the CISM Team list.

3. The CISM Team Coordinator contacts the CISM Team Clinical Director or designee and provides the incident contact name and number. The CISM Team Coordinator then begins assembling peer team members for a response. No team member from the affected department, agency, or organization will be part of the responding CISM Team.

4. The CISM Clinical Director contacts the site or incident contact person, receives details about the incident, and advises the contact of the appropriate type and timing of the response.

5. Once the type, timing, and location of the response are determined, the Clinical Director contacts the Team Coordinator with the information necessary to conduct the appropriate intervention. The Clinical Director then contacts mental health members for the intervention as needed.

6. Upon arrival at the determined site, the CISM Team members assemble for a briefing with the Team Leader and then meet with the contact person or designee.

7. Personnel are assembled according to type, in a quiet and secure location. All personnel shall be either off-duty or out of service for the duration of the intervention and related services.

8. In the case of a critical incident stress defusing or debriefing, personnel are assembled according to rank, involvement in the incident, proximity to the incident, as determined by the responding Team Leader.

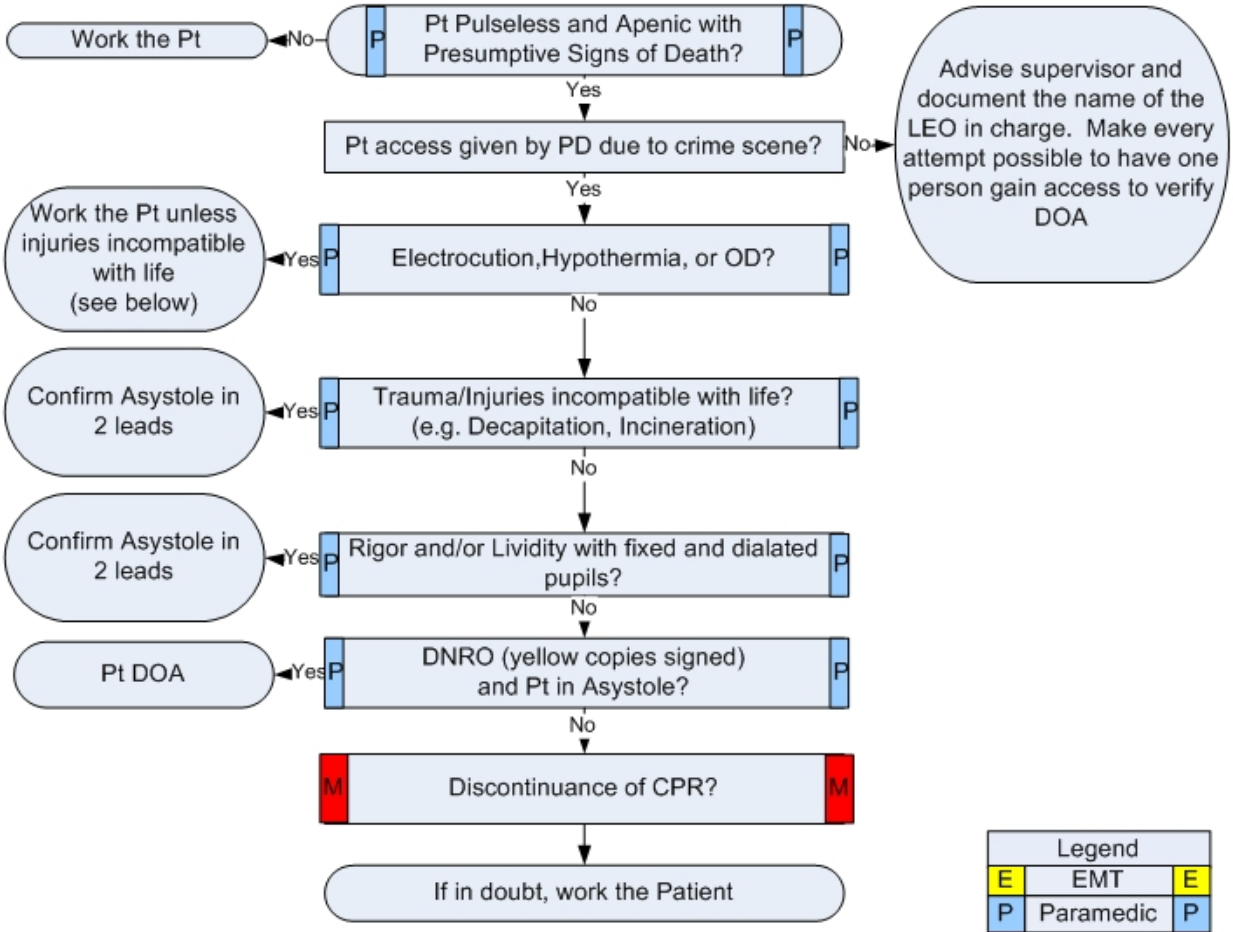
9. No written, audio, or video recording of the intervention shall be permitted.

10. The CISM Team consults with the contact person to provide general recommendations or for possible follow-up.

11. The CISM Team gathers for a team debriefing

Determination of Death in the Field

Presumptive Signs of Death:	History:	Clinical Signs of Death
• These all **must** be present Pulseless Apenic Unresponsive Fixed and dilated pupils	• Pt has not been seen for many hours • Injuries/Trauma incompatible with life	• Rigormortis • Lividity • Tissue Decomposition • Incineration • Decapitation



Legend		
E	EMT	E
P	Paramedic	P
M	Medical Control	M

Pearls:

- The body of a deceased person must be transferred to a police officer to determine the cause of death and release the body to the appropriate place. (Funeral home, Medical Examiner, etc)
- Trauma/Injuries incompatible with life (Examples: decapitation, obvious broken neck with no pulses, Severe crushing injury with body badly deformed and no pulses)
- If family wants all measures done start efforts

Firefighter Rehabilitation

Emergency Worker Rehabilitation (Broward Region)

MEDICAL EVALUATION OF EMERGENCY WORKERS ON EMERGENCY

INCIDENTS OR TRAINING EVOLUTION

A. Purpose: Emergency operations require significant physical activity, but no rescuer will be required to perform emergency operations beyond safe levels of physical or mental endurance. This protocol is intended to examine and evaluate the physical and mental status of emergency workers working on an emergency incident or a training exercise and determine which treatment, if any, is necessary. Personnel rehabilitation using appropriate protocols in this area will decrease injury risk and enhance recovery for later emergency operations.

B. Implementation: A Rehabilitation Area (Rehab Area) will be set up at the discretion of the Incident Commander. It is recommended that a Rehab Area be utilized at all working incidents to provide a staging area for on-scene personnel, as well as an immediate source of personnel for rescue or aid, and an area for recovery and rehabilitation of emergency workers. When a Rehab Area has been deemed necessary by the Incident Commander (IC), the first available EMS unit will be responsible for the management and coordination of the Rehab Area.

C. Location: Establish a Rehab Area away from environmental hazards (e.g., in a shady, cool place that is, upwind and away from smoke and traffic) that is readily accessible to rescue personnel for transport and supplies. Air truck and canteen service will be stationed in this area. Multiple Rehab Areas may be needed on large incidents. If a specific location has not been designated by the IC, the Rehab Officer shall select an appropriate location based on the following site characteristics:

1. The Rehab Area should be in a location that will provide physical rest by allowing the body to recuperate from the demands and hazards of the emergency operation or training evolution.

2. It should be far enough away from the scene that members may safely remove their turnout gear and self-contained breathing apparatus (SCBA) and be afforded mental rest from the stress and pressure of the emergency operation or training evolution.

3. It should provide suitable protection from the prevailing environmental conditions. During hot weather, it should be in a cool, shaded area. During cold weather, it should be in a warm, dry area.

4. It should enable members to be free of exhaust fumes from apparatus, vehicles, or equipment (including those involved in the rehabilitation group operations).

5. It should be easily accessible by EMS units.

6. It should allow prompt reentry back into the emergency operation upon complete recuperation.

D. Resources: The Rehab Officer shall secure all necessary resources required to adequately staff and supply the rehabilitation area. The supplies should include the following items:

1. Fluids—water, activity beverages, oral electrolyte solutions, and ice.

2. Food (for extended operations where crews are engaged for 3 hours or more) soup, broth, or stew in hot/cold cups.

3. Medical equipment—blood pressure cuffs, stethoscopes, oxygen administration devices, cardiac monitors, intravenous solutions, thermometers, and pulse oximeters (which include the ability to monitor SpCO).

4. Other - awnings, “cool zone” misting fans, cooling chairs, heaters (according to climate), towels, and tarps.

E. Staffing: Assign a minimum of two rescue personnel to monitor and assist fire fighters in the Rehab Area. An appointed Rehab Officer shall oversee the rehab operations. Their responsibility is to oversee provision of food, fluids, medical monitoring, establish and maintain an appropriate environment for rehab and rehabilitation operations in the area.

These personnel will oversee the rehabilitation and availability for work of all emergency responders placed in this area.

F. Medical evaluations: When the Incident Commander has established a Rehab Area, firefighters and other emergency responders shall be evaluated following (a):

1. The use of two SCBA bottles and/or 30 minutes of strenuous activity (e.g., use of chemical PPE, advancing hose lines, forcible entry, ventilation) (b).

2. SCBA failure.

3. Weakness, dizziness, chest pain, muscle cramps, nausea/vomiting, altered mental status, difficulty breathing, and other stress-related symptoms (c).

4. At the discretion of the Incident Commander, Rehab Officer, Safety Officer, CISM Coordinator, and Company Officer.

Note:

(a) A medical evaluation form shall be completed on all personnel entering the Rehab Area and before they return to emergency work.

(b) This does not preclude an officer from having a team member evaluated if he/she deems it appropriate. A member may be evaluated any time he/she feels it necessary.

(c) All personnel receiving ALS treatment and transport will have a patient care report completed for them.

G. Examination: EMS personnel should evaluate persons arriving to the Rehab Area as they appear. Arriving emergency workers must be questioned regarding any medical symptoms, be asked about any injury resulting from incident work, and have assessment of appropriate vital signs. Examination shall occur at 10-minute intervals and will involve a minimum of:

1. Glasgow Coma Scale (GCS) score.

2. Pupillary response.

3. Vital signs (BP, P, R, CR).

4. ECG (if applicable).

5. Lung sounds.

6. Skin condition.

7. Signs and symptoms.

8. Oral temperature.

9. Pulse oximetry.

a. Arterial oxygen saturation (SpO2).

b. Carboxyhemoglobin saturation (SpCO).

An EMS Run Report and a Casualty Report shall be completed for each fire fighter or other emergency worker who is not routinely returned to emergency operations.

H. Guidelines for rehab: The following will occur:

1. Normal presentations: The emergency responder will rehydrate and rest before reporting to Manpower. Rest shall not be less than 15 minutes.

2. Abnormal presentations:

a. Blood pressure values that are higher or lower than the person's usual level.

b. SpO2 values less than 94%.

c. Values for the pulse rate in an emergency responder will normally be less than 100 beats per minute (BPM) at rest and less than 120 BPM at a working incident. At no time should the pulse exceed 180 BPM.

d. Values for carbon monoxide (CO) oximetry will normally be 5% for a nonsmoker and less than 8% for a smoker. A CO oximetry reading of more than 12% indicates moderate CO inhalation; a reading of more than 25% indicates severe inhalation of CO.

e. Body temperature greater than 100.6 F

3. Management.

a. The emergency responder will rehydrate and rest. The emergency responder will report to Manpower when presentations are normal. Presentations should return to normal within 15 minutes.

b. If a team member's heart rate exceeds 110 BPM, an oral temperature should be taken. If the oral temperature exceeds 100.6 F, the member should not be permitted to wear protective equipment and should be treated for heat stress and monitored for worsening of the heat emergency (i.e., heat exhaustion and heat stroke).

c. The emergency responder will receive ALS treatment and transport if presentations are abnormal for more than 15 minutes. Abnormal presentation includes the following signs and symptoms:

1) SpO2 value less than 94%.

2) Persistent heart rate greater than 120 BPM (lasting for 15 minutes or longer).

3) Any emergency worker with a CO oximetry reading of more than 8% but less than 15% must be given the opportunity to breathe ambient air for 5 minutes.

4) If the CO oximetry reading is still higher than 8%, the emergency worker should be given oxygen via mask until the value drops below 5%. Any worker with a CO oximetry reading of more than 25% must be completely evaluated and removed to a hospital, preferably one that has a hyperbaric chamber. No emergency worker should leave the Rehab Area until his/her CO level is less than 8%.

5) Blood pressure above or below the emergency worker's normal level.

6) Symptoms of heat stroke.

7) Oral temperature greater than 100.6 F, lasting longer than 15 minutes (after oxygen administration).

d. Any emergency responder with chest pain, difficulty breathing, and altered mental status will receive immediate ALS treatment and transport.

e. Any other abnormal presentation not specified herein, where the examining paramedic's judgment determines a need for treatment and transport will be managed accordingly.

I. Treatment: Treatment will consist of one or more of the following measures. Prior to taking anything orally, the emergency responder will clean his/her hands and face. On-scene rescue personnel will provide water and a cleaning agent.

1. Remove bunker gear

2. Rest

3. Oral rehydration and nutrition (air truck, canteen service); minimum of 1 to 2 quarts of fluids over a 15-minute time period (water then full strength electrolyte drink). Avoid any substance containing caffeine (e.g., sodas, coffee, tea).

a. Members should consume at least 1 quart of water per hour.

b. Members shall rehydrate with at least 8 ounces of fluid while SCBA cylinders are being changed.

4. Oxygen.

5. Cool environment utilizing “cool zone” fans and/or “cooling chairs” if available (e.g., shade, electric fan, air conditioning, showers).

6. For extended operations lasting 3 or more hours, the Rehab Area should provide food such as soup, broth, or stew; these items are digested much faster than sandwiches and fast-food products. In addition, foods such as apples, oranges, and bananas provide supplemental forms of energy replacement. Fatty and/or salty foods should be avoided.

7. Follow ALS/BLS protocols for further treatment.

J. Return to emergency duties: Members assigned to the rehabilitation group shall enter and exit the Rehab Area as a crew. The crew designation, number of crew members, and the times of entry to and exit from the Rehab Area shall be documented by the Rehab Officer or his/her designee on the check-in/out sheet. Crews shall not leave the Rehab Area until authorized to do so by the Rehab Officer. Report to Manpower or Incident Commander when the following criteria have been met:

a) Vital signs within normal limits.

b) Absence of abnormal signs and symptoms.

c) Minimum period of 15 minutes for rest and rehydration.

d) Released by Rehab Officer.

K. Documentation: A Rehab Medical Evaluation Form shall be completed for all personnel evaluated in the Rehab Area and forwarded to the appropriate Rescue (EMS) Division following all applicable patient confidentiality guidelines (e.g., HIPAA). A complete patient care report (PCR) shall be completed for any member who receives treatment/transport.

Joint EMS Protocols
Firefighter Rehab Form

Incident #		Date	/ /	Unit	

Name							Time In	:		Time Out	:
Time	B/P	Pulse	Resp	SaO2	CO	Skin	Temp	Cap Refill	GCS	Lung Sounds	Pupils
:	/			%	%						
:	/			%	%						
:	/			%	%						

Name							Time In	:		Time Out	:
Time	B/P	Pulse	RR	SaO2	CO	Skin	Temp	Cap Refill	GCS	Lung Sounds	Pupils
:	/			%	%						
:	/			%	%						
:	/			%	%						

Name							Time In	:		Time Out	:
Time	B/P	Pulse	RR	SaO2	CO	Skin	Temp	Cap Refill	GCS	Lung Sounds	Pupils
:	/			%	%						
:	/			%	%						
:	/			%	%						

Name							Time In	:		Time Out	:
Time	B/P	Pulse	RR	SaO2	CO	Skin	Temp	Cap Refill	GCS	Lung Sounds	Pupils
:	/			%	%						
:	/			%	%						
:	/			%	%						

Name							Time In	:		Time Out	:
Time	B/P	Pulse	RR	SaO2	CO	Skin	Temp	Cap Refill	GCS	Lung Sounds	Pupils
:	/			%	%						
:	/			%	%						
:	/			%	%						

Forward the completed form to the EMS Bureau.
Fort Lauderdale/BSO/Tamarac

Helicopter Procedures and Safety

Helicopter Safety

• If you are assigned to patient care, your primary concern is proper patient care.

• Additional unit should be assigned to Heli-spot landing zone (HSLZ)

• If the HSLZ crew cannot locate a clear LZ, contact Air Rescue to advise if they can locate a clear HSLZ.

• The Pilot in Command (PIC) can elect to land without assistance from land based crew.

• The HSLZ crew should then be assigned to security of LZ, safety of crews and proper patient loading.

• The final decision to land rest on the PIC

Considerations:

- Take off and landings into the wind

- If unsure of wind directions wait for assistance from PIC

- No obstacles in approach or departure more than 40 feet tall or within 100 feet of HSLZ

- HSLZ should be cleared of any possible flying debris

- If time permits, hose down landing zone to minimize blowing dust and sand.

• Once landed Mashaller should post a minimum of one (1) tail rotor guard.

• No unauthorized personnel shall be permitted to approach helicopter.

• There should be enough personnel to assist in the safe and efficient loading process into the helicopter.

• The Marshaller should confer with PIC as to helicopters departure.

Marshalling

1. The Marshaller should stand at the outer edge of the HSLZ on the windward side, with their back to the wind.

2. The officer in charge of HSLZ will have primary responsibility for the marshalling duties.

3. An additional Marshaller will maintain constant radio contact with the helicopter as well as visual and verbal contact with the Marshaller.

4. Remain in eye contact with the pilot at all times.

5. Do not approach the helicopter; remain at your post.

Equipment

1. Helmet with chin strap tightly secure.

2. Goggles on or visor down

3. Full bunker gear with collar up.

4. Flash lights with wands for night ops.

Safety Precautions and procedures

1. Stay clear of the tail rotor

2. Approach the helicopter in the pilot's field of vision and ONLY after an "ALL CLEAR" signal has been given by PIC.

3. Use a low crouch when approaching and departing the helicopter

4. Do not use road flares as signals. Do not shine any lights toward helicopter.

Helicopter Patient care Procedures

1. Decide if you would like transport by helicopter early in the call if possible. Have Air Rescue dispatched via Fire communications.

2. If you are unsure that the patient meets criteria to be transported by air, you can place Air Rescue on standby status until decision is made.

3. The ground rescue unit will contact the receiving facility as soon as possible, preferably prior to Air Rescues arrival on scene. Air Rescue should monitor the Medical communication channel and receive any patient information while it is given to the receiving facility.

4. Advise Air Rescue, number of patients and the designated facility.

5. Any treatment such as bandages or dressings needs to be firmly secured to patient.

6. All patients flying out need to be secure to a backboard with three (3) straps.

7. A minimum of four (4) persons will carry the patient. Each member approaching the helicopter will have a helmet with the strap secure under their chin and face shield down.

8. If the patient is difficult to carry without a stretcher, a stretcher may be used. Remove all pillows, sheets and mattress.

9. Advise Air Rescue if you have any need for additional equipment or assistance.

10. Remain at least 100feet from HSLZ until Air Rescue crew member accompanies you to the helicopter.

11. In the event that the Air Rescue crew requires assistance with patient care, the ground paramedic in charge of the patient will accompany the patient during air transport.

Infectious Diseases Exposure Guidelines

Recommended Guidelines for Exposures to Infectious Diseases

PREVENTION AND IMMUNIZATION PRACTICES

Purpose each employer shall identify "at risk" workers based on job descriptions. (OSHA CFR

1910.1030)

Risk Levels:

At-risk Workers: Emergency medical and public safety workers are at risk for exposure to blood, body fluids, feces and/or respiratory secretions.

Low-risk Workers: These workers are identified through job descriptions as having job tasks that are low or not "At-risk" to exposure to blood, body fluids, feces and/or respiratory secretions. For these workers timely post exposure prophylaxis rather than pre-exposure vaccination may be considered.

Special Risk Workers: Periodic evaluation of job description may be done as indicated to evaluate certain tasks that may be considered at a higher level.

History of Immunity: Workers who are "at risk" for exposure to and possible transmission of vaccine preventable diseases should have on record of employment all immunizations currently recommended by the US Public Health Service. A medical evaluation that includes childhood immunity or immunization history for Measles, Mumps, Rubella, Tetanus, Diphtheria, Polio, Pertussis (Whooping cough) and Varicella zoster (chicken pox) should be obtained and recorded for these workers. This program should be completed at the time of hire or as part of a catch-up program. (CDC MMWR November 25, 2011/60(RR07); 1-45). (NFPA 1581; 2010ed., 4.5.2.1).

INFECTION CONTROL PROGRAMS.

Infection Control Officer: Employers shall identify a Designated Infection Control Officer.

Education: Workers shall have Bloodborne/Airborne Pathogen Training.

Immunization Programs: Employers with vaccination programs shall offer vaccine product information and declination statements as determined by CDC and OSHA regulation. Employers shall make vaccines available to workers who initially decline and later decides to accept the vaccines within 10 days.

Medical Records and Test Maintenance: All workers' medical records, immunization records and baseline testing shall be maintained according to applicable laws governing medical confidentiality. (29 CFR 1910.1030(h)).

Needle-Stick Prevention Programs: Employers shall provide needleless systems (where applicable). A needleless system means a device that does not use needles for:

(1) The collection, of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established.

(2) The administration of medication or fluids.

(3) Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps. (OSHA 29 CFR 1910.1030(e) (2)).

Hepatitis Vaccination Programs

All "At-Risk" workers shall have made available to them at employment (within 10 days) of initial assignment the Hepatitis vaccine and education, unless the worker has documentation of the following: completed vaccination series, record of immunity (positive titer), or medical contraindications. (29 CFR 1910.1030(f) (2)). Hepatitis A vaccination is strongly recommended and may be offered if specific local conditions dictate. (NFPA 1581; 2010 ed., 4.5.2.1).

Influenza Vaccination Programs

"At-Risk" Workers are considered to be at significant risk for acquiring or transmitting influenza (the common Flu). Influenza vaccine should be made available to workers from October through February annually. (CDC MMWR November 25, 2011/60(RR07);1-45) (NFPA 1581).

Tdap Vaccination Programs

"At-Risk" Workers are considered to be at significant risk for acquiring or transmitting tetanus toxoid, diphtheria toxoid and acellular pertussis. Tdap vaccines should be made available to workers from October through February annually. . (CDC MMWR November 25, 2011/60(RR07);1-45).

Periodic Titer Screening for Immunizations

Routine periodic post vaccination screening is not recommended after initial titer level has been determined. Booster doses are not currently recommended. If the US Public Health Service recommends a routine booster dose(s) at a future date, such booster dose(s) shall be made available. (29 CFR 1910.1030(f) (1) (ii).

BASELINE AND ANNUAL SCREENING

Baseline Screening. Baseline screening for TB, Hepatitis A, B and C is indicated for presumptive laws requirements. Meningitis is also covered in the presumptive law but does not require a baseline screening. (FS 112.181 6(a) (b)). (Florida Pension Statue for police and firefighters only)

TB Screening. A tuberculin skin test (PPD) or Quantiferon-TB (CPT 84480) Test shall be performed for all "at-risk" annually. Workers who have previously tested negative and now test positive shall have a baseline chest x-ray and one follow-up a year later. All new positive TB test results shall have

prophylactic treatment offered. (CDC MMWR 1994:43(RR13) or for Quantiferon MMWR 2003: January 31 (RR02; 15-18).

Postexposure Management

A. 1. Provide first aid

2. Secure area to prevent further contamination

3. Remove contaminated clothing

4. Wash the injured area well with soap and water, or waterless hand cleanser, and apply an antiseptic.

5. If the eyes, nose, or mouth are involved, flush them well with large amounts of water.

B. Notification and Relief of Duty: The worker's supervisor should be immediately notified if a worker experiences an exposure involving potentially infectious source material. The supervisor should determine if the worker needs to be relieved of duty.

C. Assess the Exposure/Blood or Body Fluid: A significant bloodborne exposure is considered a combination of one or more of the types of body fluids and one or more of the injuries listed below:

Body fluids:

- Blood, serum, plasma, and all fluids visibly contaminated with blood

- Pleural, amniotic, pericardial, peritoneal, synovial, and cerebrospinal fluids

- Uterine/vaginal secretions or semen

- Saliva

Injuries:

- Percutaneous (needle stick, laceration, abrasion, bites, etc.)

- Mucous membrane (e.g. eyes, nose, mouth)

- Skin (e.g. cut, chapped or abraded skin). The larger the area of skin exposed and the longer the time of contact, the more important it is to verify that all the relevant skin area in intact.

D. Assess the Exposure/Air or Droplet: A significant airborne exposure is considered a combination of a subject (source) exhibiting signs/symptoms of suspected airborne illness and an activity that would place the worker at risk of droplet or airborne exposure:

1. Source: Any aerosolized exhalations, sputum, or saliva, either by source coughing, spitting, breathing; any pulmonary (lung) secretions either brought forth by patient (source) or by manual suctioning and exposed individual has not worn appropriate barrier protection.

2. Activity: Suctioning of nasopharyngeal airway; active gag/cough reflex upon suctioning or insertion of nasogastric tube and/or intubation.

E. Report the Exposure: The worker or immediate supervisor should begin filling out an "Infectious Disease Exposure Report Form" and submit it to the Designated Infection Control Officer/Nurse.

Section 6 - Medical Attention, Counseling, Consent and Testing

A. Transport: A significantly exposed worker should be transported to a designated facility for medical evaluation, counseling and testing within 2 hours after the exposure. The worker and source patient should be transported to the same medical facility, preferably one that offers rapid HIV testing if the source material was blood or body fluids.

B. Triage: The worker should be triaged as quickly as possible. The worker should present to the facility an Infectious Disease Exposure Reporting Form and an Employer Information Sheet that contains information about the employer; its Worker's Compensation policy, Designated Infection Control Officer/Nurse contact information, and contact information for the designated medical provider that will provide follow up care.

C. Post exposure testing for Blood and Body Fluid Exposures: Counseling should be provided to and consent shall be obtained from both source of the exposure and exposed worker. (29 CFR 1910.1030 (f)(3)). The facility should perform Acute Hepatitis Panel (CPT 80074), HIV and RPR (syphilis) tests.

D. Source Blood Sample Available: If consent cannot be obtained from the source of the exposure and a blood sample is available, the facility may conduct testing without consent as long as the worker has the same series of tests run on his/her blood sample and a licensed physician documents need in the medical record of the worker.

E. Source Blood Sample Not Available: If the source of the exposure will not voluntarily submit to testing and a blood sample was not obtained during treatment for a medical emergency, the worker, or the employer of the worker acting on behalf of the worker may seek a court order directing the source of the exposure to submit to testing. A sworn statement by a physician that a significant exposure has occurred constitutes probable cause for the issuance of an order by the court. The results of the test should be released to the source of the exposure and the exposed worker.

F. Post exposure Testing for Airborne or Droplet Exposures: For airborne exposure, screening is recommended for communicable disease once counseling is provided and consent is received, for the source of the exposure and the worker. If a TB exposure is suspected, a PPD test following the exposure should be performed. Do not administer a PPD test if worker has been tested within the previous 12 weeks and/or workers reports a history of positive skin test reaction.

G. Discharge: The receiving facility should provide the exposed worker with a complete discharge summary and a completed Infectious Disease Exposure Report Form that includes a description of all diagnostic tests performed on the worker.

H. Filing the Exposure Report: The Infectious Disease Exposure Reporting Form should be signed by both the exposed worker and the agency's Designated Infection Control Officer/Nurse. A copy of the form should be provided to the exposed worker with the original filed into the worker's infection control (medical) records.

I. Post exposure Medical Follow-Up: The worker is responsible for following postexposure monitoring and periodic testing as directed by the medical provider. Follow-up testing to detect seroconversion will be performed at week six, week twelve and week twenty-six after the exposure. Testing one year after the exposure is optional.

Section 7 - Master Forms and Instructions

A. Infectious Disease Exposure Report Form:

1. This is an exposure reporting form that should be made readily available to all workers at risk for occupational exposure to infectious diseases.

2. The form is intended as a "real time" documentation tool to collect and maintain vital information about the exposure incident; demographic information for the exposed worker and source patient; and associated medical evaluation and testing. Data collected on this form may be used to develop programs aimed at preventing future exposures.

3. As soon as an exposure occurs, the worker and/or supervisor should begin documenting the exposure incident on this form. If medical evaluation is needed, the form should be carried by the exposed worker to the receiving medical facility (if applicable) for completion, then brought back to the Designated Infection Control Officer/Nurse for review and copy distribution to the worker, risk manager and medical examiner.

4. The "Infectious Disease Exposure Report Form" shall be combined with the "Exposure Information Form" as a back/front copy.

B. Exposure Information Form:

1. This is the post exposure management assessment tool taken from the "Recommended Guidelines for Occupational Exposures to Infectious Diseases". This form should be available to all workers and reviewed at the time of a potential exposure.

2. The "Exposure Information Form" shall be combined with the "Infectious Disease Exposure Report Form" as back/front copy.

C. Infectious Exposure Reference Sheet (Disease Matrix):

1. This is a quick reference sheet that includes the sources of most common occupational exposures. The matrix includes transmission, prevention, and exposure follow-up information. Workers should have direct access to this form.

2. The "Infectious Exposure Reference Sheet" shall be combined with the "Employer Information Form" as a back/front copy.

D. Employer Information Form:

1. This form is intended to communicate current information about the Employer, the Worker's Compensation plan, and Occupational Medical Provider to assist the receiving medical facility in managing admissions. The employer should complete the information on one master copy.

F. Forms Availability:

1. All forms should be readily available to workers by placing them in areas where workers have immediate access such as: in the station; in emergency response vehicles; in administrative offices; and in emergency rooms.

2. All workers receive training on the location of, and appropriate use of these forms.

3. All required forms are located in the Public Folder's section of Outlook and in Fire Station file cabinets.

What You NEED To Know.

What You NEED To Know

v2.0

Post Exposure Handbook v2.0

Contents:

Introduction:

If you are reading this handbook, you have been involved in some type of exposure. This handbook was designed as a tool to help you through the process. The only thing that comforted me after I had been exposed on shift in 2001 was information. I'm hoping all of your questions can be addressed here. Initially, here is some important information may calm your fears and anxiety.

(The following article was written by a group of 10 different doctors from the San Francisco metropolitan area)

Risk of Transmitting the Human Immunodeficiency Virus, and Hepatitis B Virus to Health Care Workers Exposed to Patients with AIDS

This prospective cohort study was designed to evaluate the risk of occupational transmission of Human Immunodeficiency Virus (HIV), and Hepatitis B virus (HBV), to health care workers **with intensive exposure to HIV-infected patients**. 75% of the 270 subjects had been exposed to patients with AIDS for at least one year before enrollment, 18% worked in specialized AIDS units, and 35% sustained a total of 342 accidental parenteral exposures to HIV-infected body fluids.

None of the 175 subjects retested 10 months later had acquired the HIV antibody!

These results indicate that health care workers are at minimal risk for HIV, and HBV transmission from occupational exposure to patients with AIDS, even when intensively exposed for prolonged periods of time.

So take a deep breath. Let's move on…

START HERE

Call the *Infectious Disease Clinician's Hotline*:

(888) 448-4911

The Hot-Line: For piece of mind and a direct link to an Infectious Disease Clinician call this number now. The hotline operates on a 24/7 basis and is staffed by infectious disease physicians. They will be able to give you an educated response regarding the significance of your exposure. (The service is for healthcare workers only, Sheriff Officers and Life Guards need only to let them know that you were working with a patient and are considered a healthcare worker in the State of Florida.)

What To Do Immediately After an Exposure:

1. Wash the penetration site with soap and water

2. Flush splashes to the nose, mouth, or skin with water

3. Irrigate eyes with clean water, or saline

Note: No scientific evidence shows that using antiseptics or squeezing the wound will reduce the risk of transmission of a bloodborne pathogen. Using a caustic agent such as bleach is not recommended.

NEXT STEP:

1. Go out of service. Call for another rescue to transport the patient.

2. Report the exposure to your Lieutenant and/or EMS Supervisor.

3. Get to Broward General Medical Center.

4. Be advised, it is *your* decision to leave work after an exposure in the field. It is my recommendation you do so.

How Where We Exposed:

*Percutaneous injuries (injuries through the skin) with contaminated sharp instruments such as needles and scalpels (82%)

*Contact with mucous membranes of the eyes, nose, or mouth (14%)

*Exposure of broken or abraded skin (3%)

*Human bites (1%)

What you need to know about a Needlestick Exposure:

Needlestick Injuries are the most common type of pre-hospital exposures and considered the most dangerous.

The Good News: Fortunately, most needlestick injuries do not result in exposure to an infectious disease, and of those that do, the majority do not result in the transmission of infection.

The Bad News: Needlestick exposures were associated with 89% of the documented work related acquired infections.

It is estimated that annually there are 66,000 infections with HBV, 16,000 with HCV, and 1,000 with HIV worldwide.[2] In addition, a needlestick injury may lead to significant stress and anxiety for the affected injured person.

Hepatitis B carries the greatest risk of transmission, with 37 to 62% of exposed workers eventually showing seroconversion and 22 to 31% showing clinical Hepatitis B infection. The hepatitis C transmission rate has been reported at 1.8%, but newer, larger surveys have shown

only a 0.5% transmission rate. The overall risk of HIV infection after percutaneous exposure to HIV-infected material in the health care setting is still 0.3%.

The specific risk of a single injury depends on a number of factors when the patients harbor the virus of concern. Injuries with a hollow-bore needle, deep penetration, visible blood on the needle, a needle that was located in a deep artery or vein, or with blood from terminally ill patients are known to increase the risk for HIV infection.

While the vast majority of needlestick injuries occur when the source-person does not carry the HBV, HCV, and HIV and thus do not carry a risk of infection, these events nevertheless cause stress and anxiety and signal a breakdown in protocol and prevention.

Important: Needlestick injuries may occur not only with freshly contaminated sharps, but also, after some time, with needles that carry dry blood. While the infectiousness of HIV and HCV decrease within a couple of hours, HBV remains stable during desiccation and infectious for more than a week.

What You Need To Know about a Mucous Membrane Exposure:

The risk of converting after being exposed to a Mucous Membrane is very small. There is a 0.09 % risk of **HIV** transmission after a mucous membrane exposure to HIV infected blood. The risk of transmission of **HepB** and **HepC** has not been documented well. It is believed that it is less than in a percutaneous injury, but it is not negligible.

What body fluids are potentially infectious during an occupational exposure?

When evaluating occupational exposures to fluids that might contain Hepatitis B virus (HBV), Hepatitis C virus (HCV), or Human Immunodeficiency Virus (HIV), health care workers should consider that all blood, body fluids, secretions, and excretions contain transmissible infectious agents. Blood contains the greatest proportion of infectious bloodborne virus particles of all body fluids and is the most critical transmission vehicle in the health-care setting. If blood is not visible within the fluid, it is still likely that very small quantities of blood are present, but the risk for transmitting HBV, HCV, or HIV is extremely small in this situation. Despite this small transmission risk, a qualified health care professional

should evaluate any occupational exposure to fluids, regardless of visible blood.

HIV Facts:

What is HIV?

HIV (human immunodeficiency virus) is the virus that causes AIDS. This virus may be passed from one person to another when infected blood, semen, or vaginal secretions come in contact with an uninfected person's broken skin or mucous membranes*. In addition, infected pregnant women can pass HIV to their baby during pregnancy or delivery, as well as through breast-feeding. People with HIV have what is called HIV infection. Some of these people will develop AIDS as a result of their HIV infection.

What is AIDS?

AIDS stands for Acquired Immunodeficiency Syndrome.

Acquired – means that the disease is not hereditary but develops after birth from contact with a disease causing agent (in this case, HIV).

Immunodeficiency – means that the disease is characterized by a weakening of the immune system.

Syndrome – refers to a group of symptoms that collectively indicate or characterize a disease. In the case of AIDS this can include the development of certain infections and/or cancers, as well as a decrease in the number of certain cells in a person's immune system.

What causes AIDS?

AIDS is caused by infection with a virus called human immunodeficiency virus (HIV). This virus is passed from one person to another through blood-to-blood and sexual contact. In addition, infected pregnant women can pass HIV to their babies during pregnancy or delivery, as well as through breast feeding. People with HIV have what is called HIV infection. Some of these people will develop AIDS as a result of their HIV infection.

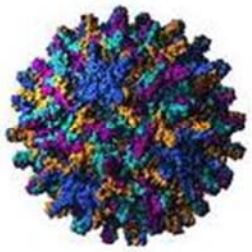
How does HIV cause AIDS?

HIV destroys a certain kind of blood cell (CD4+ T cells) which is crucial to the normal function of the human immune system. In fact, loss of these cells in people with HIV is an extremely powerful predictor of the development of AIDS. Studies of thousands of people have revealed that most people infected with HIV carry the virus for years before enough damage is done to the immune system for AIDS to develop. However, sensitive tests have shown a strong connection between the amount of HIV in the blood and the decline in CD4+ T cells and the development of AIDS. Reducing the amount of virus in the body with anti-retroviral therapies can dramatically slow the destruction of a person's immune system.

Hepatitis B Facts:

HepB Question: What is it?

Hepatitis B infection s a liver disease caused by the hepatitis B virus. Symptoms may include fever, lack of energy, nausea, vomiting, and abdominal pain followed by jaundice (yellow color to the skin or whites of the eyes and dark urine). Some persons who have hepatitis B, including younger children, have no symptoms. A small number of hepatitis B infections are rapidly fatal. Although most infected persons recover completely, some develop chronic infection, and can spread this infection. Cirrhosis (scarring of the liver) and liver failure are serious risks with this disease, but may take decades to develop.



How common is hepatitis B?

There are 50 to 100 newly diagnosed acute hepatitis B cases in Washington each year and an estimated 20,000 persons chronically infected.

HepB Question: How is it spread?

The virus is spread by blood, serum, or sexual fluids of an infected person even if the person has no symptoms. This can happen by sharing needles or having sex with somebody infected

with hepatitis B. Transmission can also occur for people living together for a long time in the same household or institution. Infected women can pass the virus to their babies. Donated blood is now tested to prevent spreading hepatitis B but in the past some cases resulted from blood transfusion. Medical personnel are at risk of exposure due to needle sticks.

HepB Question: How soon do symptoms appear?

Usually within 60 to 90 days of infection, but can take as long as six months

Hepatitis C Facts:

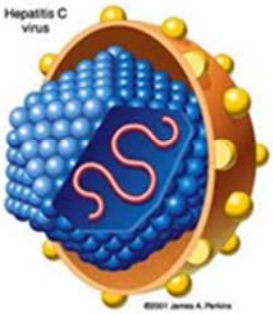
HepC Question: What is it?

HCV infection is the most common blood-borne infection in the United States.Hepatitis C is a liver disease caused by the hepatitis C virus. Many persons who have hepatitis C have no symptoms. Symptoms may include fever, lack of energy, nausea, vomiting, abdominal discomfort and jaundice (yellow color to the whites of the eyes or skin and darkening of urine). Most infected persons develop chronic, long-term hepatitis C (carrier) and can spread the infection. Cirrhosis (scarring of the liver) and liver failure are serious risks with this disease, but may take decades to develop.

HepC Question: How common is it?

It is estimated that almost 4 million persons in the U.S. are infected with hepatitis C. It accounts for most of the hepatitis cases that used to be referred to as non-A, non-B hepatitis. Hepatitis C is the leading cause for liver transplantation and accounts for nearly 8,000-10,000 deaths each year in the U.S.

HepC Question: How is it spread?



The virus is spread mainly by direct contact with the blood from an infected person. About 80% of people who have ever injected street drugs and/or shared injection drug equipment are infected with hepatitis C. It can also be spread when health care workers are exposed to an infected person's blood, or through organ transplants or blood transfusions, especially those received prior to the development of a hepatitis C test in the early 1990s. Infected mothers can pass the virus to their babies but this is thought to occur at a low rate and accounts for about 5% of cases in the United States. The risk of sexual transmission also appears to be low, accounting for about 5% of cases in this country. Other persons at risk include kidney dialysis patients.

Hepatitis C is not spread by sneezing, coughing, hugging, sharing eating utensils or drinking glasses, or other casual contact. It is not spread by food or water.

HepC Question: How soon do symptoms occur?

Many people with hepatitis C have no symptoms. If symptoms occur, they do so an average of six to seven weeks after exposure but may occur two weeks to six months after exposure.

HepC Question: When and for how long is a person able to spread Hep C?

Some people carry the virus in their blood for the rest of their lives. Acute hepatitis C infection may be followed by recovery but usually becomes chronic and causes symptoms for years. An infected person with no symptoms can still spread hepatitis C to others.

HepC Question: Is there a vaccine available?

Not yet. While there are vaccines for both hepatitis A and B, they do not provide protection against hepatitis C. There is no vaccine for hepatitis C because the virus changes easily, making it very difficult to develop an effective vaccine.

What I Need To Know About TB:

TB is considered a moderate exposure and not an immediate time sensitive issue. After being notified there has been an exposure, you must have a PPD within 10 days at a facility of your department's choosing to obtain a baseline. You will receive another PPD test to determine if you have been exposed. Tuberculosis exposure is detected through a test known by its initials, "PPD" which stands for Purified Protein Derivative. (*We all received this test after we were hired.*) In this test, a small amount of purified TB protein (which is not capable of causing disease) is injected just under the skin. If the body has been exposed to TB previously, the immune system will recognize and attack the protein, causing localized redness. A nurse or physician reads the test negative, or indeterminate. If the test is positive, the individual has most likely been exposed to TB at some point, and should be referred to an Infectious Disease doctor for treatment.

Update: In December 2002, the FDA approved a new TB blood test. This new test by Cellestis is called QuantiFERON-TB or QFT. QuantiFERON-TB is based on a blood test, it doesn't require a second visit and it eliminates reader bias or confusion common with the old TB test where people looked at their arms and wondered, "Is this really a positive or not?"

Source TESTING:

For Blood Borne Exposures…

The source will be tested for HIV and the various forms of hepatitis as soon as consent has been obtained. If it is impossible to draw blood from the source individual, but some other sample of his or her blood was drawn for any other reason, this sample legally can be used. If the source individual is unable or unwilling to give consent, the EMS organization should consider seeking the legal authority to act without his or her consent. This can be obtained through a court order.

Concerning bloodborne exposures, time is an issue. A Rapid HIV test should be conducted in "*hours, but not days*" from the time of the exposure. The use of rapid HIV testing has become the standard and has eliminated the need to place healthcare workers on very toxic drugs even for short periods of time. The test takes approximately thirty minutes to one hour to complete. This test is able to identify the HIV-1 antibody as soon as two weeks after an exposure.

Some protocols state that if the source of the exposure is found to be negative with a Rapid HIV test, the physician is not going to offer or prescribe treatment medications. The chances of converting HIV from a recent infection outweigh the potential risks of taking the "HIV Cocktail". But, you can still request treatment.

After your Rapid HIV test, you will have baseline blood tests drawn for Hep B and C. This may be done in the ER or at another facility on the following day per each department's protocols.

Question: What about exposures to blood from an individual whose infection status is unknown?

If the source individual cannot be identified or tested, decisions regarding follow-up should be based on the exposure risk and whether the source is likely to be a person who is infected with a bloodborne pathogen. Call the **Infectious Disease Hotline (888) 448-4911** and consult with a physician. Follow-up testing should be available to all workers who are concerned about possible infection through occupational exposure.

Illustration by Chris Gash

EXPOSURE:

What is Post Exposure Prophylaxis (PEP)?

PEP is just what the name suggests: prophylaxis or preventative medications given after an exposure in hopes of decreasing the likelihood of infection from the exposure. The PEP medication combinations used depends on the degree of exposure and the status of the source of the exposure. But before any medications are prescribed, it has to be determined if PEP is indicated and appropriate.

When is PEP Indicated?
The following scenarios warrant PEP.

Two Drug PEP Recommended:

1. Exposure to asymptomatic HIV+ person by solid needle stick or superficial injury that break the skin.
2. A mucous membrane exposure to a large volume of HIV infected blood that's source is symptomatic.
3. A mucous membrane exposure to a small volume of HIV infected blood that's source is symptomatic.

Three Drug PEP Recommended:

1. Exposure to asymptomatic HIV+ person via deep puncture from a large bore hollow needle
2. A puncture from a needle with visible blood on the needle

3. A puncture from a needle used in a patient's vein or artery

Two Drug PEP under Certain Circumstances:

1. Needle stick with any type needle and any degree of exposure if the source has an unknown HIV status but has HIV risk factors
2. Needle stick with any type needle and any degree of exposure if the source has an unknown HIV status and unknown risk factors but a setting in which exposure to HIV+ persons is likely
3. A mucous membrane exposure to any volume of blood whose source has an unknown HIV status but has HIV risk factors
4. A mucous membrane exposure to any volume of blood whose source has an unknown HIV status but is in a setting where HIV exposure is likely

NO PEP Warranted:

1. Any needle stick injury involving a known HIV negative source
2. A mucous membrane exposure to any volume of HIV negative blood

Question: What Medication Combination is Used?

PEP regimens are chosen depending on the type of exposure. Typically regimens are prescribed for a four-

week period. PEP should be started within hours of the potential exposure not days. The sooner PEP is begun the better.

Preferred Two-Drug Regimen:

1. Option One- **Combivir** (Retrovir + Epivir) twice daily is typically substituted for ease of administration. This twice a day regimen is a bit harder to take but is recommended in pregnancy.
2. Option 2- **Truvada** (Trenofovir + Emtricitabine) taken once daily. This one drug regimen is easier to take but does have the risk of liver toxicity.

Preferred Three-drug Expanded Regimen:

1. Basic two drug regimen option 1 or 2 above with the addition of **Kaletra** (Lopinavir + Ritonavir) twice daily.

The Last Word on PEP

PEP is a viable option for occupational exposures to HIV. While it is not without it's downfalls, it is effective in reducing the risk of HIV infection from a needle stick. But, without addressing the problem of needle sticks, more people are going to become infected by this route, health care cost will continue to rise and the epidemic will continue to grow

Treatment and Pregnancy:

HIV

Pregnancy should not rule out the use of post-exposure treatment when it is warranted. If you are pregnant you should understand what is known and not known regarding the potential benefits and risks associated with the use of antiviral drugs in order to make an informed decision about treatment.

HBV

Yes. Women who are pregnant or breast-feeding can be vaccinated against HBV infection and/or get HBIG (Hepatitis B immune globulin, which contains antibodies to hepatitis B virus and offers prompt but short lived protection.) Pregnant women who are exposed to blood should be vaccinated against HBV infection, because infection during pregnancy can cause severe illness in the mother and a chronic infection in the newborn. The vaccine does not harm the fetus.

TB

Pregnant women with TB must be given adequate therapy as soon as TB is suspected. The preferred initial treatment regimen is isoniazid, rifampin, and ethambutol (ethambutol may be excluded if primary isoniazid resistance is unlikely). Streptomycin should not be used because it has been shown to have harmful effects on the fetus. In addition, pyrazinamide should not be used routinely because its effect on the fetus is unknown. Because the 6-month treatment regimen cannot be used, a minimum of 9 months of therapy should be given. To prevent peripheral neuropathy, it is advisable to give pyridoxine (vitamin B_6) to pregnant women who are taking isoniazid.

The small concentrations of TB drugs in breast milk do not have a toxic effect on nursing newborns, and breast-feeding should not be discouraged for women

undergoing anti-TB therapy. Similarly, drugs in breast milk should not be considered effective treatment for disease or infection in a nursing infant.

FOLLOW-UP AFTER AN EXPOSURE:

Remember: **YOU** are responsible to keep track of your own follow-up schedule.

What follow-up should be done after your exposure?

HIV

•Perform HIV-antibody testing for at least 6 months postexposure (e.g., at baseline, 6 weeks, 3 months and 6 months.)

•Perform HIVB antibody testing if illness compatible with an acute retroviral syndrome occurs.

.

•Evaluate exposed persons taking post exposure meds within 72 hours after exposure and monitor for drug toxicity for at least 2 weeks.

HBV

•Perform follow-up anti-HBs testing in persons who receive hepatitis B vaccine

-Test for anti-HBs 1-2 months after last dose of vaccine.

-Anti-HBs response to vaccine cannot be ascertained if HBIG (Hepatitis B Immune

globulin) was received in the previous 3-4 months.
-Check again at 6 months if no antibody detected.

HCV
•Perform baseline and follow-up testing for anti-HCV 4-6 months after exposures.
•Perform HCV RNA at 4-6 weeks if earlier diagnosis of HCV infection desired.
•Confirm repeatedly reactive anti-HCV enzyme immunoassays (EIAs) with supplemental tests.

TB
Within 10 days perform baseline PPD and at 10-12 weeks perform follow-up testing for TB exposure. If indicated by development of symptoms of active disease or a PPD skin test conversion, follow with an Infectious disease physician. Understand that once treatment begins, a patient ordinarily quickly becomes noninfectious; that is, they cannot spread the disease to others.

Treat ɜautions:

HIV
During the follow-up period, especially the first 6-12 weeks when most infected persons are expected to show signs of infection, you should follow recommendations for preventing transmission of HIV.

These include not donating blood (for one year), semen, or organs and not having sexual intercourse. If you choose to have sexual intercourse, using a condom consistently and correctly may reduce the risk of HIV transmission. You must also continue to use a condom at least 30 days after you discontinue the drug regiment. In addition, women should consider not breast-feeding infants during the follow-up period to prevent exposing their infants to HIV in breast milk.

HBV
If you are exposed to HBV and receive post-exposure treatment, it isn't likely that you will become infected and pass the infection on to others.
No precautions are recommended.

HCV
No precautions are recommended.

TB
During follow-up you must never deviate from your medication schedule. After you have successfully started treatment for tuberculosis, within a short time you are no longer able to pass it on to others. Re-infection in a normal healthy person is rare. However, in rare circumstances it may be possible to become re-infected, particularly if the immune system becomes compromised for any reason.
If a person has resistant TB, he/she can remain infectious to others for a longer period of time.

APPENDIX:

HIV:

CDC National AIDS Hotline
(1-800-342-2437)
Information specialists here can answer questions or provide information on HIV infection, AIDS and the resources available in your area.

www.AIDSmeds.com

www.TREATHIV.com

The HIV/AIDS Treatment Information Service
(1-800-448-0440)
can also be contacted for information on the clinical treatment of HIV/AIDS.

For free copies of printed material on HIV infection and AIDS, please call or write:
CDC National Prevention Information Network
P.O. Box 6003, Rockville, MD 20849-6003,
1-800-458-5231
Internet address www.cdcnpin.org

Additional information about occupational exposures to Bloodborne pathogens is available on CDC's Hospital Infections
Program's website at www.cdc.gov/hai/ or on CDC's National Institute of Occupational Safety and Health's website at
www.cdc.gov/niosh or call
1-800-35 NIOSH (1-800-356-4674).

Hepatitis:

For additional information about Hepatitis B and hepatitis C you can call the *hepatitis information* line at **1-888-4-HEPCDC (1-888-443-7232)**

or visit **CDC's** hepatitis website at http://www.cdc.gov/hepatitis/

The Vaccine Adverse Event Reporting System
1-800-822-7967

Tuberculosis:

AG Holly State Hospital TB Hotline-
1-800-4TB-INFO
AG Holly TB State Hospital Web Site-
www.doh.state.fl.us/agholley/

Orange County Health Department
www.orch

Notes:_____

_____

_____

MCI

Definition- The number of patients/victims exceeds the capabilities of the first arriving units.

Standard- Florida Incident Field Guide section 14

MCI Levels-

MCI Level 1 (5-10 victims)

MCI Level 2 (11-20 Victims)

MCI Level 3 (over 21 Victims)

MCI Level 4 (over 100 Victims)

MCI Level 5 (over 1,000 Victims)

Responsibilities

1. Count patients to determine MCI level,

2. Declare level, MCI 1, MCI 2, MCI 3,MCI 4, and MCI 5.

3. Triage and tag injured patients with triage ribbons

Triage categories- Ribbon Colors:

BLACK - Deceased (Non-Salvageable)

RED - Immediate Care

YELLOW - Delayed Care

GREEN - Ambulatory (Minor)

RPM

RPM mnemonic used to initiate START triage.

Respirations, Perfusion, Mental Status.

1. CONSTRUCTION.

The triage tag is constructed of Synthetic Paper making it 100% resistant to all commonly used decontamination solutions. This feature allows the patient to be decontaminated while wearing the tag.

2. SLUDGEM

The tag's features will help alert first responders to the possibility of Nuclear, Biological or Chemical agents. Using the mnemonic SLUDGEM responders can record signs and symptoms displayed by victims and record findings by marking or circling boxes. Check appropriate boxes if any of the following symptoms exist such as Salivation, Lacrimation, Urination, Defecation, G.I., Distress, Emesis, and Miosis (pinpoint pupils).

3. AUTO INJECTORS

Indicate type of Auto Injector and number of Auto Injectors administered.

4. CONTAMINATED STRIP

“Contaminated” Tear-off. This is the magenta strip that:

• MUST be removed if the patient is not contaminated.

• If the patient is contaminated, when the patient’s clothes are removed, and decon procedures have commenced, the strip should be removed and placed in with the patient’s clothes for evidence collection.

If the magenta strip is not removed, the patient is considered CONTAMINATED and the Triage Tag will be used to record DECONTAMINATION.

5. PERSONAL PROPERTY RECEIPT

The “Personal Property Receipt” is used when:

• Patient’s valuables must be removed from the patient. The tag is removed and placed on a plastic zipper bag with the patient’s belongings.

6. PATIENT TRACKING

The second perforated tag provides for Patient Tracking. This part of the tag shall be removed at the ambulance loading area to record patient destination. To expedite patient processing the name of the victim should be recorded on the back of this part of the tag. It is this tag that the Transportation recorder uses to capture patient data.

7. DECON

The tag provides an area to record patient decontamination information, gross decon, secondary decon, as well as the solutions used. This information shall be recorded prior to the victim leaving the contamination reduction zone.

8. AGENT SYMBOL IDENTIFICATION

Check agent if known:

-Radiological

-Biological

-Chemical

Medical Communications

Medical Communication

Med Com

The following information should be used as an outline when contacting the Emergency Physician via radio or cell phone:

1. Priority code and name of facility receiving your call
2. Unit number
3. Patient age/gender
4. Patient complaint(s) or issue and time of onset
5. General assessment: mental status, ROM, vital signs, pertinent information to condition.
6. Glasgow Coma Score (GCS)
7. Mechanism of injury
8. SAMPLE/OPQRST
9. Treatment given or request being made
10. Estimated time of arrival (ETA)

Medcom Priorities

<u>Priority 1: Critical/Life Threatening</u>

Patients that present with and immediate life threatening illness or injury.

<u>Priority 2: Serious</u>

Patients that present with an illness/injury requiring immediate attention or intervention due to the possibility of becoming a life-threatening illness/ injury or critical patient.

<u>Priority 3: Stable</u>

Patients that present with an illness/injury not requiring immediate intervention. Also used for notification of impending patient arrival to receiving facility.

Priority 4: Administration Traffic

Used for all communications not involving patient care.

Medcom Classifications

Adult

Pediatric

OB

Medical

Trauma

Cardiac

Stroke

Pre-Alerts:

A pre-alert is communicated via FireCom after initial patient contact and assessment. This should be used on specialty classifications such as STEMI, Cardiac, Stroke, MCI, Level 1 and Level 2 Trauma.

A pre-alert must include the following information:

1. Unit number

2. Number of patients

3. Patient age and gender

4. Classification or category

5. Name of receiving facility

6. ETA via ground or air

Patient Refusal

Florida Statue 401

401.445 Emergency examination and treatment of incapacitated persons.--

(1) No recovery shall be allowed in any court in this state against any emergency medical technician, paramedic, or physician as defined in this chapter, any advanced registered nurse practitioner certified under s. 464.012, or any physician assistant licensed under s. 458.347 or s. 459.022, or any person acting under the direct medical supervision of a physician, in an action brought for examining or treating a patient without his or her informed consent if:

(a) The patient at the time of examination or treatment is intoxicated, under the influence of drugs, or otherwise incapable of providing informed consent as provided in s. 766.103;

(b) The patient at the time of examination or treatment is experiencing an emergency medical condition; and

(c) The patient would reasonably, under all the surrounding circumstances, undergo such examination, treatment, or procedure if he or she were advised by the emergency medical technician, paramedic, physician, advanced registered nurse practitioner, or physician assistant in accordance with s. 766.103

(2). Examination and treatment provided under this subsection shall be limited to reasonable examination of the patient to determine the medical condition of the patient and treatment reasonably necessary to alleviate the emergency medical condition or to stabilize the patient.

(3) In examining and treating a person who is apparently intoxicated, under the influence of drugs, or otherwise incapable of providing informed consent, the emergency medical technician, paramedic, physician, advanced registered nurse practitioner, or physician assistant, or any person acting under the direct medical supervision of a physician, shall proceed wherever possible with the consent of the person. If the person reasonably appears to be incapacitated and refuses his or her consent, the person may be examined, treated, or taken to a hospital or other appropriate treatment resource if he or she is in need of emergency attention, without his or her consent, but unreasonable force shall not be used.

(4) This section does not limit medical treatment provided pursuant to court order or treatment provided in accordance with chapter 394 or chapter 397.

History.--s. 17, ch. 89-275; s. 15, ch. 89-283; s. 3, ch. 89-336; s. 1, ch. 90-192; s. 25, ch. 92-78; s. 3, ch. 93-12; s. 25, ch. 93-39; s. 802, ch. 95-148; s. 1, ch. 2007-176.

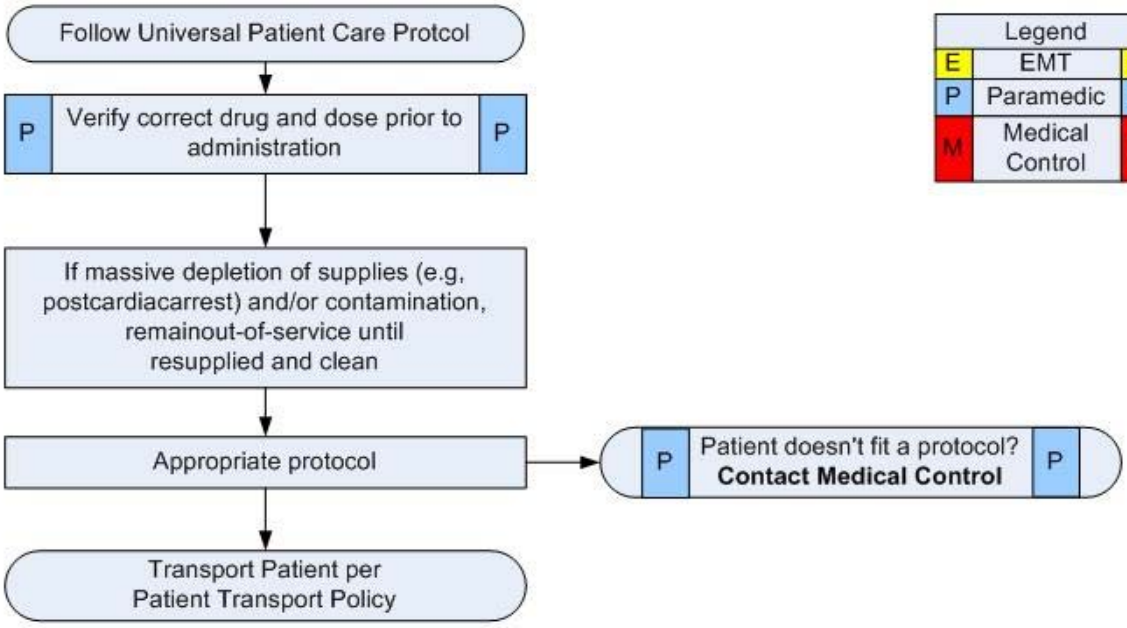
401.45 Denial of emergency treatment; civil liability.--

(1)(a) Except as provided in subsection (3), a person may not be denied needed prehospital treatment or transport from any licensee for an emergency medical condition.

(b) A person may not be denied treatment for any emergency medical condition that will deteriorate from a failure to provide such treatment at any general hospital licensed under chapter 395 or at any specialty hospital that has an emergency room.

(2) A hospital or its employees or any physician or dentist responding to an apparent need for emergency treatment under this section is not liable in any action arising out of a refusal to render emergency treatment or care if reasonable care is exercised in determining the condition of the person and in determining the appropriateness of the facilities and the qualifications and availability of personnel to render such treatment.

Patient Safety



Pearls:

Medical Director Notification Policy:
If any other adverse clinical outcome, notify the medical director as soon as possible via email and/or cell phone.

Protocol Change and/or Modification Contacts

Medical Director

Dr. Nabil El Sanadi

nelsanadi@gmail.com

Tamarac Fire Rescue

Chris Dixon

Captain

ChrisD@Tamarac.org

Sunrise Fire Rescue

Jason Massa

Captain

jmassa@sunrisefl.gov

Fort Lauderdale Fire Rescue

Karl Yeager

Captain

kyeager@fortlauderdale.gov

Broward Sherrifs Fire Rescue

Dave Erdman

Captain

R.A.C.E. Scale

Stroke is a major cause of death and disability, and patient outcomes depend on how quickly the blood flow can be restored to the damaged area of the brain. Stroke scales are standardized assessment tools used to identify stroke and clear a path to reperfusion. Treatment options for stroke include thrombolytic medications that aim to dissolve the clot, and interventional endovascular procedures (similar to a cardiac catheterization) to remove it. Successful stroke care requires early recognition, transporting the patient to a designated stroke center, and early activation of a stroke team at the hospital.

PREHOSPITAL/HOSPITAL

Rapid Arterial oCclusion Evaluation (RACE) scale

Time – LAST KNOWN NORMAL -

Event Witness Name	Cell #	Home #
Closest Relative (If different from above)	Cell #	Home #

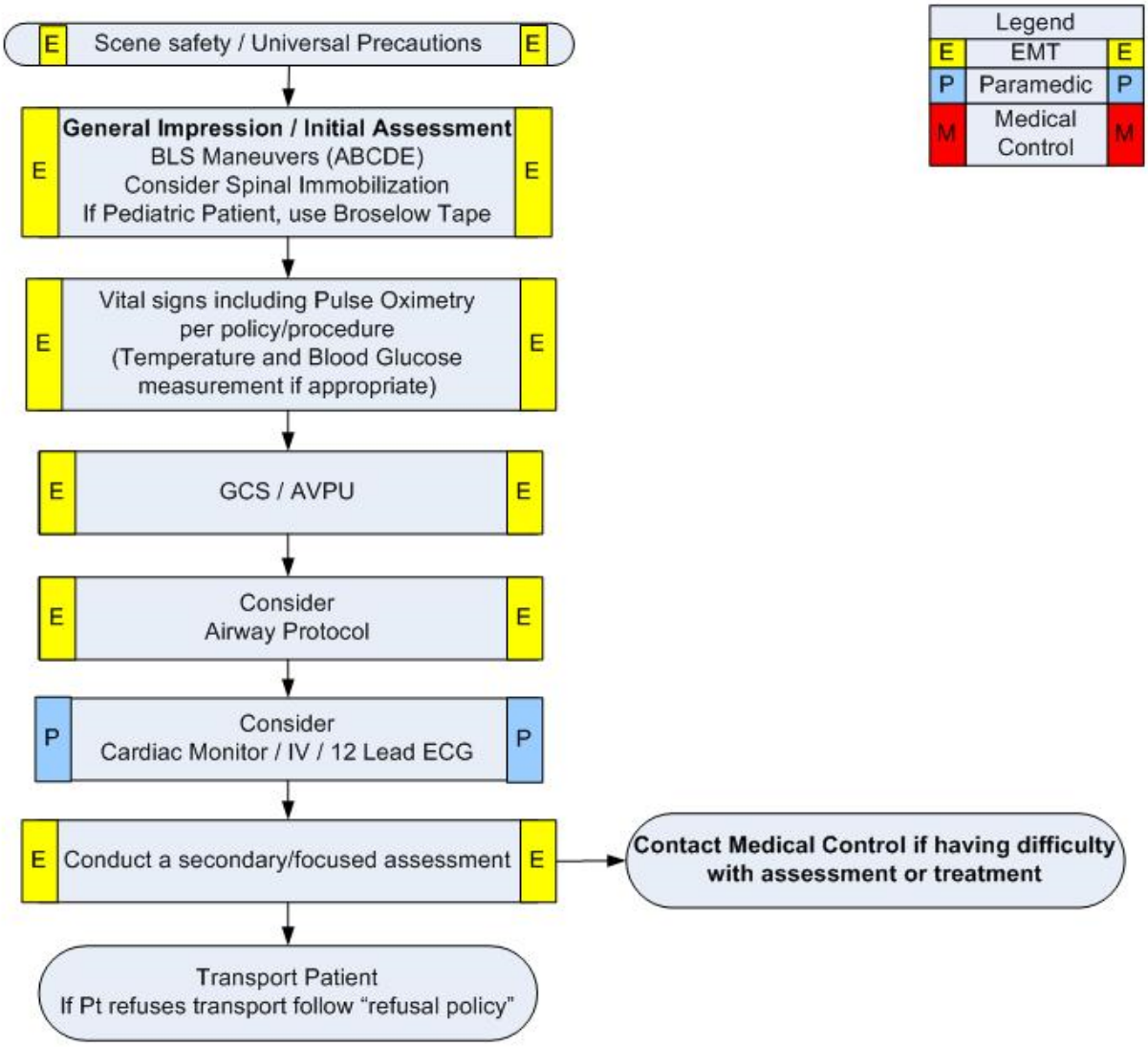
Check the appropriate boxes

Assessment	Instructions	Evaluation	Score
Facial Palsy	Smile and show teeth	Equal symmetrical smile	☐ 0
		Mild weakness crease still in nasolabial folds	☐ 1
		Severe weakness w/absent nasolabial folds and facial droop	☐ 2
Arm Motor Function	Sitting extend arms out 90 degrees or lying down extend arms out 45 degrees, palms up, eyes open, and hold out for 10 seconds	Limb upheld for 10 seconds	☐ 0
		Limb upheld for less than 10 seconds	☐ 1
		Limb does not rise against gravity	☐ 2
Leg Motor Function	Extend each leg out 30 degrees for 5 seconds	Limb upheld for 5 seconds	☐ 0
		Limb upheld for less than 5 seconds	☐ 1
		Limb does not rise against gravity	☐ 2
Head or Gaze Deviation	Observe eyes or head deviated to one side after requesting patient to look forward	Absent eye or head deviation	☐ 0
		Eyes or head deviation	☐ 1
If Right Sided Weakness, Perform Aphasia Assessment	Instruct patient to "close eyes" and "make fist" with left arm	Performs both tasks correctly	☐ 0
		Performs one task correctly	☐ 1
		Performs neither task	☐ 2
If Left Sided Weakness, Perform Agnosia Assessment	Ask patient while showing his/her left arm "Whose arm is this?" and "Do you feel weakness in this arm?"	Identifies his/her arm and feels weakness	☐ 0
		Does not recognize either arm or feeling of weakness in the arm	☐ 1
		Does not recognize both arm and feeling of weakness in the arm	☐ 2
		Total score	

DESTINATION DETERMINATION PAGE

Transport to Comprehensive Stroke Center	*Transport to Nearest Stroke Center*
If RACE scale score ≥ 5 ***or*** ***IF ANY OF THE BELOW IN THIS COLUMN ARE CHECKED***	***(Primary or Comprehensive Stroke Center)*** ***IF ANY OF THE BELOW IN THIS COLUMN ARE CHECKED***
Check all appropriate boxes	
REGARDLESS OF RACE SCALE SCORE ☐ **Last Known Normal > 3.5 hours and < 8 hours** ☐ **Pt awoke with symptoms** ☐ **Estimated arrival at Emergency Department is greater than 3.5 hours since Last Known Normal** ☐ **Seizure (at onset)** ☐ **Patient is on any of the following blood thinners: Coumadin (warfarin), Pradaxa (dabigatran), Brilinta (ticagrelor), Xarelto (rivaroxaban), Lovenox (enoxaparin) or Fragmin (dalteparin)** ☐ **Recent (within 14 days) or current bleeding, trauma, surgery, or invasive procedure** ☐ **Bleeding / Clotting disorders (history of GI GU bleeding within last 21 days)** ☐ **Pregnancy or Completion / Termination of pregnancy less than 30 days** ☐ **Intracranial pathology (Tumor, Aneurysm, Arterio Venous Malformation (AVM), Intracranial hemorrhage)** ☐ **Sudden onset of worst headache ever** (Call a Stroke Alert) ***Transport to Comprehensive Stroke Center***	☐ RACE scale score < 5 ***AND*** ***Last Known Normal < 3.5 hours*** ☐ Time Last Known Normal > 8 hours and ***did not*** wake up with symptoms ☐ Patient Last Known Normal < 3.5 hours ago and is permanently bed or wheelchair confined, do they require **constant** care OR is assistance **essential** for activities of daily living ***prior to today's event***? ***If yes*** ☐ Resolution of stroke symptoms prior to arrival in the ED (TIA) ☐ Glucose less than 60 and symptoms improved with administration of D 50 (the above deemed ***NOT a STROKE ALERT***) (Call a Stroke Alert) ***Transport to Nearest Primary Stroke Center***

Universal Patient Care Protocol

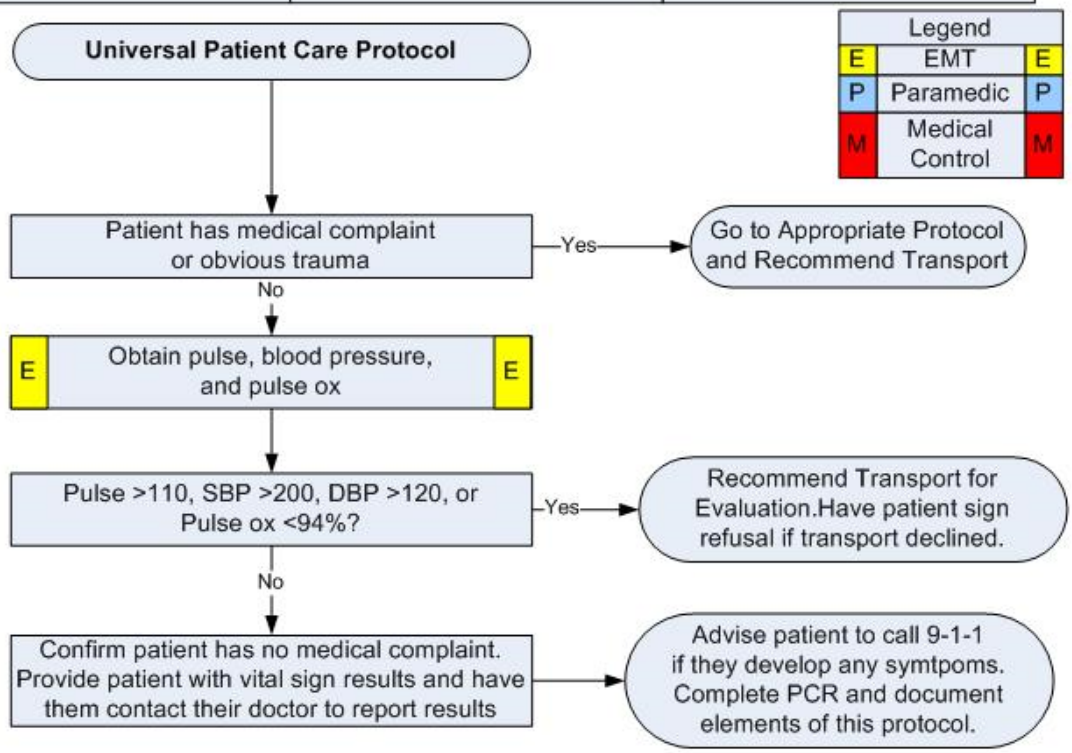


Pearls:

- Depending on initial impression proceed to appropriate protocol (e.g. respiratory distress protocol for respiratory distress)
- Any patient contact which does not result in an EMS transport must have a completed report.
- Required vital signs on every patient include blood pressure, pulse, respirations, pain / severity.
- Pulse oximetry, glucose measurement and temperature documentation is dependent on the specific complaint.
- Timing of transport should be based on patient's clinical condition and the transport policy
- Document all rhythm changes and all therapeutic intervention

Well Person Check

History:	Signs and Symptoms	Differential:
• Patient presents requesting "blood pressure check" • EMS responds to "assist invalid" • Other situation in which patient does not have a medical complaint or obvious injury	• Assess for medical complaint • For patients with hypertension, particularly check for chest pain, shortness of breath, and/or neurologic changes • For assist invalid calls, particularly check for syncope, chest pain, trauma from a fall, or inability to ambulate.	• Hypertensive urgency • Hypertensive emergency • Syncope • Cardiac ischemia • Cardiac dysrhythmia • Fracture • Head Trauma



Pearls:

- Patients who are denying more severe symptoms may initially present for a "routine check." Please confirm with the patient at least twice that they have no medical complaints.
- All persons who request service shall have an PCR completed.
- For patients in this category, the PCR may be brief but must include vital signs and documentation of the lack of a medical complaint. Additionally, patient's with a potential mechanism for trauma should have a trauma exam completed.