

Protocols In The Emergency Department

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The purpose of written protocols is to have specific criteria set in place to ensure quality care to local and national standards. There are basically two types of protocols used in the Emergency Department: protocols meant to speed patient care and protocols meant to standardize patient care. (Protocols used by EMS personnel are not addressed here.) Although protocols were designed to protect patients, to ensure the highest quality of care, they also set standards that can and often are used in determining if that standard was breached. Subsequently, they are used by both judges and juries as a yardstick to measure your performance in any particular case. It is therefore incumbent upon each physician to familiarize himself/herself with not only the protocols at the institution where you work, but with other protocols in your local region, and most importantly, with national protocols, especially those published by the American College of Emergency Physicians. Each physician may be retrospectively judged in accordance with nationally published protocols wherever he/she practices and whatever the circumstances. In Emergency Medicine, there is a national standard presumed to be equal throughout the U.S. In other words, when there is a nationally recognized protocol, the standard of care is the same whether you are in a small rural hospital or a large university center! Although, only a few protocols will be mentioned here, the Director of Emergency Services in each hospital keeps a complete list of protocols used in that hospital. National protocols in Emergency Medicine are available through ACEP and are kept by most Emergency Physicians.

Protocols to speed care (Standing Orders)

The MCG Emergency Department has 13 protocols designed to expedite care. A patient who presents to the ED with any of the below listed complaints, may be a candidate for the protocol. The patient is triaged as per policy. If the complaint meets the criteria for the "standing orders", the EM attending or the senior EM resident may sign the orders for the triage nurse. The triage nurse then implements the orders. Thus, when the patient actually is put into a room, appropriate lab and X-ray may already be under way.

The MCG "Standing Orders" are:

1. Asthma
2. Chemical burns to the eye
3. Chest pain (or admitted cocaine use within 24 hours)
4. Dialysis patients
5. Fever
6. Altered level of consciousness
7. Care of laceration
8. Abdominal pain in women
9. Renal transplant patients
10. Patients with seizures
11. Minor trauma
12. Sickle cell crisis
13. Patients with dizziness, faintness, or resting tachycardia

Protocols meant to standardize care

Although there are numerous protocols published that standardize care, listing them all with a discussion is beyond the scope of this manual. Suffice it to be known that there are national protocols (policies). Some examples include the care of patients with chest pain, pediatric fever (in process), sexual assault, child abuse, elder abuse, spouse abuse, AIDS, advanced life support, multiple trauma, pediatric resuscitation, behavioral emergencies, access to care, admission orders, disasters, DNR orders, Emergency Physician qualifications, patient transfers, use of restraints, telephone orders, etc. If you work in an Emergency Department, or if you plan to moonlight (not recommended) and you do not know these protocols- you should! "Patients today are better educated and more aware of how Emergency Departments function; they expect to have their rights honored and their care rendered by prudent and knowledgeable practitioners. When illness strikes, they expect

nurses and physicians to follow specific standards and protocols at any given emergency department in which they would seek help." Emergency Medicine Risk Management ACEP, page 350, 1991.

Tetanus Immunization Protocol

Recommendations for tetanus prophylaxis are based on 1) condition of the wound and 2) the patient's immunization history. The table below outlines some of the features of wounds that are prone to develop tetanus. A wound with any one of these features is a tetanus-prone wound.

<u>CLINICAL FEATURES</u>	<u>TETANUS PRONE</u>	<u>CLEAN, MINOR WOUNDS</u>
Age of wound	6 hours	6 hours
Configuration	stellate, avulsion	linear, abrasion
Mechanism of injury	missile, crush, heat	sharp surface (knife, glass)
Signs of infection	present	absent
Devitalized tissue	present	absent
Contaminants (dirt, saliva)	present	absent

Previously immunized individuals

- a. for fully immunized individuals for tetanus prone wounds if more than 5 years has elapsed, give 0.5 ml absorbed toxoid.
- b. If excessive prior toxoid injections have been given, the above may be deleted.
- c. Partially immunized patients who received the last dose more than 10 years ago, give 0.5 ml of absorbed toxoid for both tetanus prone and nontetanus prone wounds. Passive immunization is not necessary.

Individuals not adequately immunized, i.e. when the patient has only one or no prior injections of toxoid give:

- a. Nontetanus prone- 0.5 ml absorbed toxoid and begin the normal immunization schedule for full immunization(three injections)
- b. Tetanus prone- 0.5 ml absorbed toxoid and 250 units of human, tetanus immune globulin

Rabies Prophylaxis Protocol

LOCAL WOUND CARE

Scrub wound with Betadine[®] soap solution

Flush with water copiously

Provide tetanus prophylaxis as needed

Apply dressing

POST EXPOSURE IMMUNIZATION

For all bite exposures in which rabies can not be excluded and for all non bite exposures (mucous membranes) if the animal is suspected of having rabies:

Hyperrab[®] Rabies Immune Globulin (human)- give one dose only

AND

Human Diploid Cell Vaccine- give 1 ml dose on days 0, 3, 7, 14, & 28

Needlesticks, AIDS, AZT and the Health Care Worker

All hospitals have a needlestick policy to deal with health care workers exposed to infectious materials. Mostly, this involves the risk of contracting syphilis, Hepatitis B and HIV although there are other, less common illnesses transmitted as well.

The policy involving hepatitis B is clear- all health care workers who come in contact with patients should be immunized against hepatitis B. All clinical health care workers are considered at risk and since the vaccine is benign, as far as side effects, it is recommended for everyone. If you are stuck with a sharp and have not had the vaccine- you have proven that you are at risk and should begin the vaccine as soon as possible. If you are

stuck with a sharp from a patient with active hepatitis B or at high risk for hepatitis B and have not been vaccinated, you will also be offered hepatitis B immune globulin at the same time you begin your vaccination process. There is almost no reason for a health care worker to refuse to be vaccinated.

Unfortunately, the issues surrounding HIV transmission are not as clear. In the event that you have a significant exposure to a patient with known HIV disease or at high risk for disease, an HIV test can be ordered on blood drawn from the patient for other purposes for which the patient consented. An HIV test can be done on this blood without the consent of the patient, even against the patient's will, with the concurrence of two physicians.

MCG policy defines exposure as:

MASSIVE EXPOSURE*

Transfusion of blood

Injection of a large volume of blood/body fluids

Parenteral exposure to lab specimens with a high HIV titer

DEFINITE PARENTERAL EXPOSURE*

IM injection with a blood/body fluid contaminated needle

Laceration or similar wound which causes bleeding in HCW produced by visibly contaminated instrument with blood/body fluids

Laceration or similar wound inoculated with contaminated blood/body fluid

POSSIBLE PARENTERAL EXPOSURE*

Subcutaneous injury with blood/body fluid contaminated needle

A wound caused by a blood/body fluid contaminated instrument that does not cause visible bleeding

Mucous membrane inoculation with blood/body fluid

DOUBTFUL PARENTERAL EXPOSURE

Subcutaneous injury with non-bloody, body fluid contaminated needle

A superficial wound that does not cause bleeding

Mucous membrane inoculation with non-bloody body fluid

NON-PARENTERAL EXPOSURE

Intact skin visibly contaminated with blood/body fluid

*At MCG, you are offered an HIV test as well as AZT and other drug prophylaxis if you have a significant exposure to HIV (e.g. massive exposure, definite parenteral exposure, possible parenteral exposure). It is wise for every health care worker to ponder the implications of an exposure to HIV infected material, both from a medical and social perspective. Needless to say, all HCW's should be compliant with universal precautions. Also, each one should decide what he/she would do in the event of an exposure so that when AZT is offered, a decision can be made rapidly. Consider the following, circulated by MCG's infection control committee: (paraphrased by WK)

1. AZT is effective in HIV infected persons and those with AIDS by inhibiting the replication of the virus.
2. The effectiveness of AZT prophylaxis is not known after exposure to HIV. One AZT prophylaxis trial failed to show benefit. Limited animal studies demonstrated a possible "modification" in the course of HIV infection (infection still occurred but was slightly delayed)
3. The risk of developing infection with HIV after needlestick exposure to HIV infected material (Definite/possible parenteral exposure) is low, 0.4%. Exposure to other HIV infected body fluids is not known, but is probably lower.
4. Adverse effects of short term AZT prophylaxis most often are nausea, vomiting, and decreased hemoglobin. Instances of severe anemia, peripheral neuropathy and hepatitis have occurred and were reversible. The long-term effects are more serious and are not listed here.
5. Interval between exposure and initiation of AZT prophylaxis, if selected, should be as short as possible, preferably within 2-4 hours with the exceptions of HCW with preexisting illness which would preclude the use of AZT (HIV infection, pregnancy, breast feeding, history of malignancy, treatment with a myelosuppressive or

nephrotoxic agent in the preceding 4 weeks, compromised bone marrow, creatinine > 2 times normal or liver dysfunction)