

Accident Scene Management

a talk by Slider Gilmore

Given at a motorcycle safety instructor conference in Rochester, MN (10/11/92)

Notes taken by Jason Molenda (molenda@cygnus.com) with copious notes, edits, and suggestions shamelessly plagiarized from Bruce Leung (bleung@urbana.mcd.mot.com) and Stacy Heinrich (sjh@cray.com). These are the notes as best as I can remember them; if something in here is incorrect or misleading and it worsens a trauma victim, don't come crying to me. I am NOT a medical professional and have NO medical training. This is a summary of what Slider talked about as best as I could understand/remember. It is well worth catching Slider's talk if he is ever in your area. I cannot guarantee the accuracy of my notes.

The first hour of trauma is termed the “**Golden Hour**” by the Emergency Medical Services (EMS). The idea is that trauma victims have the best survival chance if they are in surgery within one hour after the accident. Qualified medical personnel are really the people who should be handling everything, but until they arrive there are things that we, untrained motorcyclists, can do to help the medical professionals before they arrive.

Slider talked a lot about “psychological management.” At an accident site, peoples' adrenaline will be going full-blast and the most important thing is for at least one person to keep calm and to think. He emphasized this a lot; he had a whole slide for –

REMAIN CALM ... THINK!

The first thing you need to do when arriving on an accident scene is to stop, take two deep breaths to help you remain calm. This was especially important for Slider as he fit the `bad biker' image well; the sight of him being overly excited would not be terribly reassuring to anyone. Anyway, the idea of psychological management is that all the other people who are pumped and want to help will do whatever they are told to do by a calm person who seems to be in control and knows what he or she is doing. If you're excited and out of control as well, everyone will run around wasting precious time in an unorganized fashion (not to be confused with everyone running around wasting precious time in an organized fashion, mind you).

This seminar was designed to give us the basic background and some guidelines to follow so that we can be the calm person who has some idea of what needs to be done without overreacting. All of this should be regarded as “guidelines;” real situations may require adaptation in the field.

1) Get to victim, reassure, establish communication

After a person has gone down, they will be in a confused and scared state. They probably don't know what happened when they went down. They may be confused, frantic, etc., and often the only thing on their mind will be their bike. It is important to reassure them and to make sure they will not try to move or get to their bike. Slider suggests something on the order of, “You've been in a motorcycle accident. It is important that you do not try to move. My name is Jason (whatever your name is; Jason is just a cool name to use).” Tell them the ambulance is coming (assuming someone has been sent to get one!) If your name is something like “Chainsaw” or “Mega-death,” tell them your name is John.

Be careful what you say around the victim, even if they are unconscious. Hearing works in the unconscious state and if you say something like, "Boy, is this dude messed up bad! Maybe we shouldn't call an ambulance after all!," it's going to register at some level with the person and can do nothing but harm. How you say things will be important as what you say; keep (or at least sound) calm and it will reduce the panic of everyone else present.

2) Safety factors

An accident scene can be a hectic place with a lot of things going on at once. It is important to keep safety in mind; if you are helping someone lying in the middle of the road and a semi comes barreling down on both of you, you aren't going to do that person much good.

a. Traffic

If people are available, get someone uproad and downroad to wave down traffic. This is especially important in tight twisties where they may not have time to stop after seeing the accident site.

b. Hazardous material spills (gas, oil, brake fluid)

People and vehicles will slip on this stuff. If ambulance personnel slip on oil while carrying the victim, it is bad. Either clean it off the road or indicate to everyone where it is.

c. Power lines

If power lines are down around or near the victim, ambulance crews may not be able to get near the person until they are shut off. It is important to call the local utility company to get these live wires turned off at the same time an ambulance is called. If the ambulance arrives and they are still live, they will have to call the utility company and wait for them to come out, wasting a lot of precious time in the Golden Hour.

d. Fire

People who smoke tend to light up under stress. Ask these people to either extinguish their smokes or move away from the flammable materials and/or bikes. It is easy to forget something obvious like this in a stressful situation like an accident scene.

e. Safety circle

Establish a few people around the immediate accident scene to help direct traffic, to point out fluid spills, and to warn people who may want to light up.

3) Best-trained individual (medically-wise) attends to victim (U-ABCC)

The person with the most training (first aid, CPR, etc.) attends directly to the victim. Assuming the victim is lying on the ground, this person should sit behind their head and should stabilize his or her head to avoid unnecessary movement (i.e. hold their head still). Assume the person has a back/neck injury and any unnecessary movement could risk paralysis.

This person should be doing "U-ABCC" at the arrival on the scene and every 5 minutes thereafter

U Urgency

Try to determine if the person's injuries are (a) minor or (b) major, i.e. urgent. If unsure, it is urgent.

A Airway

Is there something to impede their airway? Gravel in the helmet, something down the throat? This needs to be cleared immediately, without helmet removal if at all possible.

B Breathing

Is the person breathing? Determined by listening, watching their chest, feeling for breath, etc.

C Circulation

Check the pulse on the throat initially and subsequently on their wrist. This is the carotid artery, right next to the wind pipe/adam's apple on either side. If pulse is not present, remove helmet if necessary and begin CPR immediately. When checking pulse on their wrist, do not check with thumb; use the two fingers next to the thumb.

C Cervical Spine Immobilization

Support the victim's head and make sure they don't move it. **CONSIDER EVERY MOTORCYCLE ACCIDENT A HEAD INJURY, CONSIDER EVERY MOTORCYCLE ACCIDENT A CERVICAL/BACK INJURY!** This is important even if they feel they can move their head normally! When you talk to the victim initially, add on a short bit to reassure them;

“You've been in a motorcycle accident. It is important that you don't move. My name is Jason. Answer me without moving your head. We don't know if you have a neck injury or not. An ambulance is on the way.”

Again, make sure that the victim does not move at all, their head or any other part.

4) The three questions

Ask the victim three questions and document their responses;

- Who are you?
- Where are you?
- What time of day is it? (Or asking what day of week it is would be fine also. Many people do not know what time of day it is without a watch even in a normal state.)

5a) If breathing is taking place normally, LEAVE HELMET ON!

It is very dangerous to remove someone's helmet if they have some type of cervical/back injury. The only time it should be removed is if the airway is blocked and cannot be cleared with the helmet on or if it is necessary to perform CPR.

5b) helmet removal procedure if airway blocked or no respiratory action.

This is the method recommended by the American College of Orthopedic Surgeons. It requires two people.

Remove glasses and unbuckle the chinstrap. One person should be to the side of the head of the victim and the other person should be directly behind the head of the victim, stabilizing the head to avoid excess movement.

The person on the side puts one hand behind the victim's head supporting at the base of the skull (not on helmet). They put their other hand on the jaw bone/chin (again, not on helmet).

They will be supporting the head, so it is important to get a good solid grip. Keep some tension in the arms so that if the person pulling the helmet slips the victim's head won't drop. The person sitting behind the head will then slowly pull the helmet directly back and off of the head. Watch out for catching the nose on the chin-guard on full-face helmets, as well as ears and earrings.

After the helmet is off, put a leather jacket or something under the head of the victim! If the person supporting their head lets go, their head will drop a good 4 inches or so. This would not be good. If possible, it would be best to have a third person ready with something to place under the victim's head once the helmet is off.

After the helmet is off, the person behind the head should again hold the victim's head to promote cervical immobilization.

AGAIN, THIS IS ONLY TO BE USED IN SITUATIONS WHERE THERE IS NO OTHER OPTION! Leave the helmet on until the ambulance personnel arrive if at all possible!

6a) After initial evaluation of seriousness of injuries, call for ambulance

After there has been a quick evaluation of the number of injured people and just the most preliminary guess of seriousness, someone has to be sent to get an ambulance. Remember that an ambulance can only support one truly injured person.

It is important to remember that a lot of the injuries that don't look serious to us could very well be life-threatening and injuries that look fatal are relatively minor. Slider had some pictures of someone with an arm partially ripped off and some scratches on their chest. The scratches were potentially more threatening to the life of the victim than the arm was. Don't get fancy with the initial seriousness evaluation. If you can't tell, assume it's Urgent!

Send one or two bikes to the nearest house. Slider says to send a woman. The idea is that you don't have time to be turned away from someone's house and they are more likely to be receptive to a lady than some Scary Biker Dude. It may sound silly, but if you are turned away from a country home due to looking like a Scary Biker Dude, you may lose several minutes trying to find the next one. Selection of who goes to call is very important. He also says to have the person going to the door wearing light colors; if someone else has a white jacket trade jackets before heading out for the house. Chances are the person going to the door will look friendlier wearing a light-colored outfit than black leathers. In short, Slider says, "Send a female to the door." When you go to the door, REMAIN CALM ... THINK! Take a second and a couple of deep breaths. It will not help to have this biker person in a very excited state on the doorstep of some person's home. The people will be far more receptive to someone who looks like they have a grip on themselves.

Do not ask directly for entry into their house; something like "There has been an accident. Please call 911." There is no need to specify that it was a motorcycle accident to them (it is important to let the Emergency Medical Services dispatcher know that it was a motorcycle accident, however). It is less threatening to ask to call 911 than it is to ask to come in and use their phone.

6b) Things to tell Emergency Medical Services dispatcher

1. There has been a motorcycle accident

2. Need an ambulance
3. The # of injured people (and how badly injured they are). A severely traumatized person will require an entire ambulance to themselves, so it is important to give the EMS dispatcher some idea of the scope of the accident. If they only send one ambulance and there are two people who need one immediately, it will be a problem.
4. Location of accident
(get help from the people whose phone you're using, they should know how to describe their location best)
5. You (the caller) hangs up last!
The EMS dispatchers are well-trained and will get all the information they need from you before hanging up. Stay on the line until they do.

6c) Things that may be necessary for victim

It is helpful if you know some special equipment is going to be necessary to tell the dispatcher;

Helicopter – Most rural areas cannot handle severe trauma and they may need to get the victim to a trauma center via helicopter. If they know there may be a need, they can get the helicopter ready to leave for the rural hospital when a doctor establishes the extent of the injuries. Slider says that in Iowa at least, if the helicopter comes out and it turns out it wasn't necessary, there is no charge for the service.

Fire – should the fire department be called in?

Jaws of life

Utilities (e.g., downed power lines)

7a) Document personal information if possible (victim may pass out)

Before the ambulance arrives, if possible, document information about the victim. They may become unconscious and it will be helpful to have information like

- Full name
- Next of kin (plus phone number)
- Age, date of birth
- Doctor

7b) AMPLE documentation

Slider says the way to remember this is to remember that “There is AMPLE time to document this before the ambulance arrives.” Again, this will be very helpful to the paramedics if the victim passes out.

A Are you allergic to anything?

M Are you on any medications? Street drugs?

P What's your past medical history?

L Last meal - when did you eat last? (will help anesthesiologist if one is necessary)

E What were the events leading up to the injury? Document the mechanisms of injury. If the doctors and paramedics have some idea how accident occurred, it will give them better ideas on

what kind of injuries to look for. Did the person low-side and slide for a while on one of their sides? Did they go over the bars? Did they head-butt a solid object, such as a car? If they went over the bars, is there any obvious damage to the tank/handlebars which might indicate they hit the lower abdomen/groin area? This kind of stuff could help the doctors/paramedics.

8) Wallets, purses, rings

Do not go rooting through personal effects of the person. There should be no need to go through their wallet or purse for insurance information; the hospital personnel will deal with all of that. If there is some important reason that you need something from their wallet or purse, make sure you have at the very least a witness! Preferably a law enforcement officer if possible. If the person is conscious, ask first and if they say “no” then don't push it.

If the person has rings on, the fingers may swell up and it is important to get them off. Consent is paramount if the person is conscious. Make sure there is at least one witness when removing them.

9a) Have person check pulse every 5 minutes & document it

Every 5 minutes the pulse should be checked at the wrist. If the pulse goes away at the wrist, check at the throat. This is a late sign of shock.

Write down the number of beats per minute and the time you took the measurement.

9b) Have person check breathing every 5 minutes & document it

Just like the pulse, check number of breaths per minute, the most reliable method being by placing your hand on the person's chest. Obviously if the victim is female it would be best to have another lady do this if at all possible.

Try to check their breathing rate without their knowing it. If they know you are counting their respirations, they may unconsciously alter their breathing rate.

Record this number along with the pulse every 5 minutes. Also note the type of breathing; fast, shallow, yodelling, gurgling, labored, easy, whatever. Even in layman's terms it may be useful to the paramedics.

10) Watch for signs of person going into shock

Slider didn't talk much about signs of shock short of losing the radial (that is, wrist) pulse. Most of this comes from Bruce Leung.

Slider says, “People invariably die due to shock – you don't die by the gunshot wound but by the shock of the gunshot wound.”

Signs of shock:

1. Inability to answer the 3 questions coherently (Who are you, etc.) (see 4)
2. Pale, cool, clammy skin
3. Delayed capillary refill press your fingernail so that it turns white. It should turn back to pink in less than 2 seconds. If it takes longer, that is not a good sign.
4. Radial pulse (pulse at the wrist) goes away but there is still a pulse on the neck

There isn't much we can do once someone starts going into shock, but a few minor things that may help:

1. Assure adequate breathing. This really comes with the AB of U-ABCC.
2. Loosen restrictive clothing.
3. Reassure victim.
4. Keep the person warm (not too hot though).
5. Elevate the feet ~6 in. This is actually a judgement call since you shouldn't really do that with suspected spinal injuries.
6. Control bleeding. This is probably obvious but if you don't realize the victim is bleeding and they are rapidly going into shock, this should tell you something.
7. Immobilize fractures. This helps relieve pain and control bleeding.

11) Stop bleeding, using sterile bandages/dressings if available

Two important things here are to (a) stop any bleeding as soon as possible and (b) keep the wounds sanitary as much as possible. (a) is far more important than (b). Peripheral limbs are commonly lost to infection, but given the choice between stopping bleeding and using a nonsanitary cover, using the nonsanitary wrapping is preferred. Blood loss is bad. Wounds can be cleaned at a hospital.

If sterile dressings are not immediately available, women in the group may be carrying sanitary tampons, or Kotex napkins. Either can be used as a sterile dressing, although obviously the sanitary napkins would be superior.

Personally, I carry some sterile dressings with me in my tankbag. They cost about \$1 at your local drugstore.

EXCEPTION: If there are cuts anywhere on the head, do NOT apply pressure. If there is a bone chip it is possible to push it into the brain. It is also possible that stopping the flow of blood or cerebral spinal fluid can lead to a buildup of pressure on the brain which is not good. You should still bandage the cuts loosely.

12) In case of femur injuries (extremely common in moto accidents), check for blood loss

80% of motorcycle accidents involve someone going over the top of their motorcycle.

Femur (the ``thigh bone") injuries are very frequent. There are huge arteries that run along the inner thigh; if these are compromised the person can bleed to death in a very short amount of time. It is important to minimize bleeding in this region! Use a pressure point above the cut to control blood flow out of the femur artery.

13) When ambulance arrives

Before the ambulance arrives, send people to the intersections in all directions to watch for/direct the ambulance.

When the ambulance arrives, it is important to stay out of their way as much as possible. Meet them and identify yourself as being ``in charge" and to be the person to contact if they need anything (bikes moved, people moved, whatever). Make sure you

1. Provide accessible parking for ambulance

2. Let EMT's know who's in charge
3. Give factual account of accident (“And then the car comes along at 154 feet per second and hits our buddy here!” is probably not going to help anything). At 40 MPH, there are 60,000 units of kinetic energy. At 50MPH, there are 120,000. It is IMPORTANT for medical personnel to have an HONEST estimate of the speed and circumstances at the time of the accident.
4. Give them all of the information that has been written down (periodic vital signs and the three questions from U-ABCC at 5 minute intervals, personal information about the victim, etc.)
5. Give EMT's an honest evaluation of patient's drug/alcohol consumption
6. Stay back or leave if told
7. Give EMT's time to work

It is important to give the ambulance people the most accurate information possible! If the person just had 10 beers in the past hour, tell them! They are not the law enforcement officials and their only immediate concern is the safety of the patient. By underestimating, trying to cover up, or not telling the whole truth, you are only keeping important information away from them which may be necessary for the safety of the patient.

If the helmet was removed, send it along in the ambulance. The doctors may use the visible damage to the helmet to assist them in what to look for in terms of injuries.

If there were leaking fluids, let the medical personnel know. The fluids may have gotten on the patient and they need to know if there was oil, gas, brake fluid or something like that on an open wound.

14) At the hospital

Only have one or two people in the Emergency Room at a time. If the doctors have questions and neither of the people in the ER know the answer, send one of them out to the other people to find out the answer. Crowding everyone into the ER will only make it more stressful and difficult for the ER staff to do their jobs.

15) Dealing with law enforcement

As with the ambulance, when law enforcement arrives identify yourself as being “in charge.” Let them know that if there is anything they need, such as bikes moved or people moved, you are the person to talk to.

For them, walking on to a scene of bikers who are all in a very excited state is intimidating and this will help calm them and give them some easy way to control the bike people. Again, this is the psychological management that Slider talked about.

It is obviously important to do whatever the law enforcement officials ask.

Before the officers do arrive, try to not move motorcycle parts any more than necessary! They may need to take accident scene notes and by moving things around you may confuse the situation for them. Parts will need to be moved off the road to avoid further accidents, but move them directly to the side so the law enforcement officials can determine roughly where it stopped if necessary. Try not to disturb the bike any more than necessary. (Petcock should be shut off, electrics turned off, bike propped up vertically, etc.)

16) Thank yous

80% of the ambulance people are volunteers. Officers often get little or no recognition for helping out on the scene. It will cheer all of them up to no end to receive some kind of thanks for their help; any of the following are appropriate –

- cards
- in newspaper
- in person

It will improve our image as bikers and rewards all those people who take time out of their own lives to help others. It is important!

17) Couple of miscellaneous notes

Leathers will have to be cut off by medical personnel. Be mentally prepared for it. If they do not cut off your clothes, they will not be able to do a proper assessment of the wounds and you are not being treated properly! If you are conscious and insist that they do not cut your leathers, they cannot by law. If you are unconscious, it is implied consent and they will remove them if in doubt.

Over 50% of fatalities are alcohol related. I know it's a cliché but don't let friends drink and ride unless you're prepared to lose that friend.

Like I said earlier, in 80% of the accidents involve going over the handlebars. If your bladder is full, the extreme pressure can easily cause it to break. Slider says, “If you won't pee for yourself, pee for Slider.” Make a pitstop by the bathroom before you leave.

In an emergency situation, psychological management is important. If a central person takes charge and is remaining calm, this will transfer to all of the other people on the scene and will help the victim far more than if everyone is overly excited and pumped with adrenaline. Take two deep breaths when you feel yourself losing it.

Take basic first aid and CPR courses! They are offered through the Red Cross and several other organizations periodically. Go with some riding buddies or get your club to have a class!

18) Four most important points from talk

The four most important things Slider said (according to Slider) were –

1. Stay calm
2. U-ABCC
3. The three questions -- Who are you/Where are you/What time of day is it?
4. AMPLE