

BDPNN Meeting Minutes
22 August 2013
Barbara Morita - First Aid Demonstrations

Norine Smith opened the meeting at the Unitarian Universalist Church at Cedar and Bonita and asked how many people were new to the meetings. About half of the 32 attendees raised their hands. Norine introduced the board members of the Network and announced that the newsletter would be coming soon, asking for volunteers for upcoming projects. These include the Solano Stroll, computer support, webmaster support, marketing support, etc. Most duties only require a few hours per month. She also reminded everyone that the Network needs money for upcoming expenses, such as the Solano Stroll and the IRS tax-exempt status effort. All donations are appreciated.

Today's meeting was dedicated to demonstrations of First Aid by Barbara Morita. She works with federal disaster assistance teams and the Alameda County Health Consortium. She has been to the big disaster areas in the world, such as Hurricane Katrina, Haiti earthquake, Indonesia tsunami, and many others. She went through demonstrations of several techniques of First Aid that will save lives. First, she went through some of the basics to follow in any situation:

- **OVERALL MANTRA:** "Help the most people with the fewest resources in the shortest time, and help those who have a chance for survival." Do not waste your time spending hours helping one person who is probably not going to survive until professional help arrives. You can save dozens more with life-threatening injuries but only require basic First Aid to live.
- **"STAY IN YOUR LANE"** - You should stick to what you were trained to do and what you are comfortable doing. You should not be attempting open heart surgery unless you are a licensed surgeon, for example.
- **STICK WITH FIRST AID:** Even if you are an MD or RN or other medically trained individual, you should stick with First Aid in almost every circumstance during a disaster. First Aid is simple, easy to use, and won't waste time with complicated procedures. And, everyone is covered by the "Good Samaritan Act" when trying to help using these techniques.
- **CPR IS OUT IN A MAJOR DISASTER:** Even in a non-disaster situation, with everything working perfectly in the medical system, CPR only saves about 20% of the patients, and you will use up too many resources trying to save only 1 person when you can help many more.
- **NEVER THROW OUT ANY SUPPLIES OR RESOURCES** that could be useful in an emergency. There is no such thing as an expired medical supply. You will be using dirty towels, rags, and sheets to bandage people because you won't have enough supplies otherwise. It is better to use outdated supplies that were sterile at one point and probably still are. Use anything you can think of, including items from recycling bins.

3 CATEGORIES OF CARE:

1. People who need care within minutes to survive: There is very little you can do for these people, which usually involves injury to the head and/or trunk of the body. You should make them comfortable, but do not spend too much time or resources on these patients.
2. People who need care within hours to survive: These people can easily be helped with First Aid, and these are the people you should focus your resources upon. Primarily you are working with bleeding and shock here. This is where First Aid has its biggest impact.
3. People who need care within days to survive: The primary problems in this area are broken bones that might heal wrong, or infections. Once the urgent need for care is over (bleeding and shock), you should focus your attention on cleanliness and stopping infection of your patients.

BLEEDING

This is the single most important problem that First Aid can help, and you will save MANY lives by just controlling bleeding with simple techniques. The goal is to slow the flow of blood long enough for the body to clot the wound.

- Apply direct pressure and bandages: Use your hands to apply pressure, or have the patient lie on the ground so you can use your body weight to apply pressure to the wound. You should wear gloves to protect yourself from the blood, if possible, but you can also use plastic wrap or plastic baggies between your hands and the bandages as a substitute for the gloves. You are trying to protect yourself from blood-borne diseases that you might pick up if you don't protect yourself. However, the chances of you contracting something in this manner are VERY small.

YouTube video: <http://www.youtube.com/watch?v=vlsMKgg8EO0>

- Artery vs. Vein: If the blood is oozing relatively steady, then the bleeding is a vein, and direct pressure will almost always stop the bleeding. If the blood is spurting like a heart beat, then the bleeding is arterial, and you will need a lot of direct pressure and a lot of bandages. You can try pressure points, if you know how to use them, but they are no longer being taught in First Aid. Use your full body weight if needed to apply as much pressure as possible.
- Cleaning wounds: If you are controlling the bleeding of cuts or abrasions, first you control the bleeding, and then you clean the wound to stop infection. As a guideline, do not use anything stronger than what you would put into your eye. Therefore, you should use clean water in almost all cases, so things like alcohol and iodine are out.
- Do not suture the wounds: The suture is used to make the scar look better. It does nothing to stop the bleeding or save lives. And, the suture will trap infection inside the wound, which will lead to more deaths later on. For all wounds, do the best you can to clean the wound with water, and then stop the bleeding, nothing more. Plastic surgery can be done days to weeks later in a formal hospital setting when available.
- Puncture wounds and impaled objects: If the object is still in the body, leave it where it is. Use bandages to stabilize the wound and stop the bleeding, but do not remove the object because of the risk of additional damage to arteries and veins, plus infection. However, in a disaster, you will have to assess all situations individually, and for a small object, you might have to remove the object because of the long time before the person can receive professional medical assistance. Talk with the patient about it and weigh the pros and cons.

YouTube video: <http://www.youtube.com/watch?v=W6LQ8I5YFWA>

- Missing flesh: If there is a gaping hole, then pack the hole with clean dressing and wrap it tightly. Control the bleeding.
- Crush injuries: For a body part that has been crushed, you need to stop the bleeding on the outside first. Then splint the body part to immobilize it. These injuries need advanced care that First Aid cannot provide.
- Crush Syndrome: If the person has been trapped for more than 1 day, and circulation to the body part has been compromised (such as the person cannot feel the limb, the limb is blue or cold to the touch, etc.), then the accumulation of toxins in the limb is the biggest danger. Once the heavy object is lifted from the limb, the toxins will flood into the rest of the body when circulation is restored. These toxins can kill. Therefore, if you find a trapped victim

with the loss of circulation for more than 24 hours, you should leave them in place until professional help arrives. If you absolutely must move them to save their life (from fire, etc.), then use a tourniquet to stop the flow of all blood and fluids from the trapped limb from getting into the rest of the body, or the person will die. This is the main reason why Search and Rescue is critical in the first 24 hours.

- Tourniquet: If you cannot control the bleeding, and you believe the person is going to die, then you might have to use a tourniquet. This is particularly true with an artery injury (spurting). If you put on a tourniquet, you will probably lose the limb below the tourniquet location. Some First Aid courses are teaching that you should slowly loosen a tourniquet if you think that the bleeding has been stopped, and the body part might be able to be saved, but this is a hard judgment call to make. If you haven't been trained, it's best to leave the tourniquet in place and save the life, not the limb.

YouTube video: <http://www.youtube.com/watch?v=dVhLOD3BJSw>

- Changing bandages: Once the bleeding has been stopped for a MINIMUM of 1 hour, and you have no other people to tend to with immediate critical needs, then you should attempt to change the bandages of your patients. Wet the bandages to make it easier to peel off the layers. You may not be able to get all the way down to the wound, and if bleeding starts again, stop removing layers and put on new layers, using direct pressure again. If you can get to the wound, clean it thoroughly with water (such as using a water bottle with a needle hole in the cap) and then rebandage it. You are fighting infection now.

SHOCK

- Signs of shock: confusion, poor focus, slow and numb, pale color or just the wrong color, unsteady balance, cold and clammy skin
- Treating shock is relatively simple: keep the patient in a warm, comfortable, and horizontal position, if possible. Keep them out of the sun. Keep them off the ground by using blankets, cardboard, air mattresses, tarp, or anything so that they aren't directly in contact with the earth. If they are unconscious, keep them lying on their side as if they are sleeping, and keep them covered with blankets. Use a pillow or other material under their head to keep their head and spine aligned.
- Seldom do you need to elevate the feet. This might only be necessary if the first steps to treating shock are not working, particularly in a situation where the patient has lost a lot of blood, then you are trying to get more blood to the brain.
- If the patient doesn't want to lie down, at least get them to sit so that when they faint, they don't fall as far.
- Right before the patient faints, they will complain of nausea, ringing in the ears, seeing stars, and feeling light-headed. Try to get them to sit down as soon as possible.
- If a person suddenly collapses with no warning signs, this is usually a cardiac event or brain event (stroke) instead of shock. Check to make sure that their heart is still beating if they collapse, and provide any help that you can. Remember, there isn't time/resources for CPR.

FRACTURES AND SPLINTING

- If you think it MIGHT be broken, immobilize the bones. If it is a limb, make sure you immobilize the injury from the joint above to the joint below. DO NOT try to set the bone. You will likely do more harm than good.

- When you immobilize the bone, make sure it is in a neutral position, such as what it would look like when you were completely relaxed or sleeping. Therefore, you don't immobilize a hand with the fingers straight out. Instead, you allow the fingers to relax into a curved position and then immobilize in that position.
- Splint of wrist: You can use common household items for splints, such as cardboard or magazines. Here is an example of how to splint a wrist with cardboard with the proper amount of padding.

YouTube video: <http://www.youtube.com/watch?v=iErTLAje3FE>

- "Buddy splinting": This is commonly used for fingers, where you can use the good fingers to splint the bad finger in place. Remember to splint in a relaxed position (curved). Also, if you are in a search and rescue situation, you can use a good leg to splint a bad leg. Just wrap them together, using the right amount of padding. Then you can rescue the person and get them to your neighborhood clinic to have the leg splinted correctly.
- Arm sling: Once the bone is immobilized, you need to use a sling to keep it from flailing around. The most common sling is the triangular (or cravat) sling. If you use this, make sure the victim has a lot of padding on their neck, because the weight of the arm in the sling will put uncomfortable pressure on the back of the neck. See the video.

YouTube video: http://www.youtube.com/watch?v=W35V_4Qlqyg

- Using a body splint: If there is a lot of damage to the arm, you may decide to splint the arm to the body. You would first immobilize the bones as best as you can with regular splinting, and then you would splint that to the body. See the video.

YouTube video: <http://www.youtube.com/watch?v=4pJPpPnjmww>

- Compound fractures: First you have to stop the bleeding. Once that is accomplished for at least an hour, you will need to clean the wound as best as you can to fight infection. The broken bone is not as important as the bleeding and infection. DO NOT set the bone. The only exception is if there is no circulation in the limb because the damage is severe enough to compromise the blood flow. Talk with the patient and decide what to do. If you try to set the bone, you need to use straight-line traction with increasing pressure above and below the broken area. The muscles might be too tight for you to set the bone, and bleeding might start again, so reassess at every step.
- Dislocated joints: Don't reset the dislocated joint. Dislocations are MUCH more complicated than compound fractures, and there are too many things that can go wrong. More than likely, when the person goes to sleep, their muscles will relax, and the joint might reset itself. If it does, then splint and sling the bone in its current position. If it doesn't reset, then just keep the patient comfortable and immobilize the dislocation.

BURNS

- Types of burns (usually you will find combinations of these types):
 - 1st degree: looks like a sunburn, just red and a little swollen.
 - 2nd degree: you will see blisters in addition to the redness
 - 3rd degree: deep tissue damage (possibly down to the muscle), areas look black and burned, some tissue might be missing, the patient usually doesn't feel pain

- General care: cool clean water, irrigate as much as possible to reduce the heat, apply clean bandages after the heat is gone, and wrap the area to keep it from getting infected. DO NOT break the blisters. If the blisters break on their own, that's fine, but keep the area wrapped and clean to avoid infection. Infection is the worst enemy here.
- Facial burns are the worst possible scenario because the person might have breathed in the fire or hot gases. This will cause nasal, throat, and lung damage. You might not be able to save this person because the body's natural response is to send swelling to the affected area, and this might close off the airway. These patients are in CRITICAL condition and should be moved to a hospital as soon as possible.

EYE INJURIES

- If the eye globe is whole and intact, then simply irrigate the eye with clean water. Make sure you wash from the bridge of the nose to the outside of the eye. You don't want to get the debris into the other eye by washing across the nose.
- If the eye globe is not intact, you will need to bandage both eyes. Do not put any pressure on the affected eye. Make sure the bandage is pressing on the bones around the eye (such as the cheek and forehead) and not the eye itself. You might have to make a special circle out of firm material to make this eye bandage. Also, you should bandage both eyes so that the person can concentrate on not moving the eyes, just looking straight ahead inside the bandages to avoid damaging the eye any more.
- If the eye has an object impaled in it, you need to immobilize the impaled object and bandage it the same way as the instructions above, without any direct pressure on the eye itself.

BACK/NECK INJURIES

- If possible, do not move someone with a back or neck injury. Leave them where they are and make them comfortable.
- If they must be moved (such as a fire or imminent collapse of the house), then keep their back and neck straight and aligned as you slowly roll them onto their side (use multiple people to help). Then place a stretcher (or other flat object such as a closet door) or blanket under them and slowly roll them back onto the stretcher. Fasten them to the stretcher so they don't move or fall off. Then carry them on the stretcher to safety, slowly. Or, if you are using a blanket, pull them flat along the floor towards the exit. Once you get outside, use many people to grab a handful of the blanket along the side and use it as a stretcher.
- Keep them warm and treat for shock. Do not change the position of the bones if possible.

COMFORT CARE FOR TERMINAL PATIENTS

- There will be situations where there is nothing that First Aid can do to save someone. You will know this pretty obviously, such as a serious head injury, a heart attack, a stroke, or serious body injury (such as severe bruising in the abdomen). You should not waste time trying to save these people. You can save a lot more people with your time and resources.
- If the patient is conscious, tell them that you are there to take care of them, that they will not be alone. Do a full examination of the person to let them know that you are not giving up on them, even though you might be. Take down as much history as you can, including their name, address, social security number if they know it, medical history, names of relatives or friends, etc. They are likely going to die, and you will need to be able to identify them later. Having this information will help immensely in that process.

- If the person is not conscious, get as much information from the rescuers or the people who brought in the person, such as where they were found, if they said anything when they were conscious, etc.
- Have a separate area nearby to the clinic but not where the living patients are located, and make sure there are people who can sit with these patients and talk to them. Once they pass away, get some helpers to move them quietly to the morgue area.

DECEASED

- The most important is IDENTIFICATION. You must get information about them before they die, if you can.
- Take a picture of everything that is unique about the person. Take photos of their face right away (before they die if possible), also wedding rings, tattoos, scars, etc. This will be important for next-of-kin identification later.
- Give each person an identification number, and make sure that number is located in each photograph. Make sure that number is on the body securely.
- Most people will just wrap the body in a sheet and keep them in a cool, private area if possible (not in the sun). This will work for a few days.
- The coroner or other medical specialists should come by to collect the deceased in a few days. Be ready to give them all the information about that person that you have.
- If 3 days has gone by, and there is no word about the coroner or a formal morgue, then you may have to bury the bodies in shallow graves. Make sure there are labels above ground indicating who is buried there. Using the ID numbers would really help. Put all their personal belongings in a ziploc baggie attached to their wrappings.
- You may also decide to use extra large garbage bags to double-wrap the bodies. This will be more airtight and might allow you to leave them above ground for a few more days than wrapped in sheets.
- Remember that all the bodies will need to be dug up eventually, so make sure you keep track of where they are buried.