Mobility Assistance Vehicle Operator (MAVO)

STUDENT MANUAL

A guide for providing licensed mobility assistance transportation in the state of New Jersey

Less Stress Instructional Services

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Objectives:
- Understand the need for MAV services
- Be familiar with the roles and responsibilities of the MAV operator
- Know the regulatory requirements from the NJ Dept. of Health regarding mobility assistance
- Understand the Medicaid, OSHA, and OEMS standards and requirements
- List the requirements and training needed to become an MAO

What is Mobility Assistance?

Mobility Assistance is a specialized transportation service where skilled technicians provide paratransit to individuals who have physical, mental, or psychiatric disabilities. These individuals are not mobile enough by themselves to get to doctor's appointments, hospital procedures, and other critical health visits. Paratransit allows these persons to get to their destinations in a safe and timely manner regardless of their type of disability.

Who performs Mobility Assistance?

There are many types of organizations that provide paratransit services, but the most common type of provider is a medical transportation company such as an ambulance company. Other possible providers include hospitals, nursing homes, public service organizations such as the Red Cross, and charities such as the Association for Retarded Citizens (ARC).

Types of Mobility Assistance

There are several types of paratransit service:

Medical / Livery car service is transportation provided to individuals who are well enough to be transported by conventional automobile. These passengers need minimal to no assistance, and do not generally need a trained technician to assist them.

Mobility Assistance Vehicle (MAV) is a service where the passenger needs assistance to ambulate, is wheelchair-bound, or needs some other form of help or supervision.

Why do people use Mobility Assistance?

There are a number of common reasons people use paratransit services:

- Physician's office appointments
- Dialysis appointments
- Dental or other healthcare appoinments
- School transporation for young patients
- Occasional social engagements

How does a Mobility Assistance Vehicle Operator interact with a patient?

Mobility Assistance Vehicle Operators (MAVO's) have several roles that are important to consider when interacting with a patient:

Driver-Passenger Role
The MAVO is primarily a transportation provider, and as a result certain traits such as punctuality and responsibility are very important. Additionally, safe driving practices are essential to a successful career as an MAVO, as well as compliance with all traffic regulations.

Patient-Provider Role
As the most able-bodied individual in the situation, it is important for the MAVO to understand that he/she is generally responsible for the well being of the patient. He or she should be vigilant for potential safety hazards. The MAVO should be ready to anticipate and/or manage a crisis such as a fall or other injury. He or she must also understand the limitations of Mobility Assistance transportation. For example, if the patient needs to oxygen administration and

bed sores will neeed to be transported by ambulance, not MAV van.

Vendor-Client Role
Even when the MAV transport is provided as a public service, the patient is a 'client' and the MAVO is the 'vendor'. As a result, good customer service skills and attention to the patient's needs are important to insure a pleasant transport.

Professional Image

Appearance leaves a lasting impression. From the moment you walk into a healthcare facility or a patient's home you are being evaluated. Within seconds, people create an opinion of you based on your appearance. It's important to make a positive lasting first impression.

Start your day by taking a look in the mirror and focusing on the image that reflects back at you. What are some thoughts that come to mind while looking at your reflection? Ask yourself…

- Do I look professional?
- Do I look neat?
- Would I want this person transporting my loved one?

Always assess your appearance and grooming. Strive to reflect an image that boasts of neatness and professionalism. Most people tend to remember first impressions so we want the first impression they have of you to be a positive one.

Another part of the first impression is created by body language. So, as you focus on that reflection, stand tall and maintain good posture. This displays confidence. If someone is watching you walk up to a facility or home and you appear on edge or uncomfortable they can get the wrong impression of you. Make sure the image you reflect is one that is neat, professional, calm, and confident.

What is your first impression of the people in these photographs? Who would you feel most comfortable being transported by? It is easy to see the difference appearance has in creating a first impression. Always start your day by checking your image in the mirror.

General Safety Issues

As mentioned before, the MAVO is generally responsible for the well being of the patient when transporting him or her. The MAVO should remain in control of the transport, looking out for potential safety issues and guarding the patient from hazards. Possible hazards during a transport include:

Falls or spills – A loose rug or icy step can cause a slip or fall with serious consequences. A wise MAVO looks for items that can cause possible slips and falls.

Motor vehicle accidents – Like any other type of transportation, the possibility of a motor vehicle collision represents a huge possible hazard. Since you will be driving elderly or medically fragile patients, there is an expectation that you will drive as safely as possible.

Harm from self – Some patients, particularly those with degenerative brain illnesses such as Alzheimer's disease can sometimes behave in ways that are unsafe. A confused patient could, for example, wander into a busy street or unbuckle his seat belt in a car. You must supervise patients to prevent them from doing harm to themselves.

Regulatory Bodies

When working for a company that is licensed in New Jersey as a Mobility Assistance Vehicle provider, an MAVO must comply with the training regulations mandated by the Office of Emergency Medical Services (OEMS). Like many other industries, worker protection issues are regulated under the jurisdiction of the Occupational Safety & Health Administration.

(OSHA) Occupational Safety & Health Administration

OSHA has a number of safety standards designed to protect workers from occupational hazards. They are generally not industry specific; rather, employers are required to evaluate the hazards their workers are exposed to and comply with standards that apply to those hazards.

OSHA investigates complaints regarding unsafe behaviors, and has the authority to cite employers for unsafe working conditions. This manual will discuss one the main OSHA standards that affect MAV operations – the Bloodborne Pathogens standard.

NJ State Department of Health
Office of Emergency Medical Services

The Office of Emergency Medical Services (OEMS) licenses and regulates medical transportation in New Jersey. It has authority to regulate MAV operations, ambulance services, paramedic units, critical care transports, and air medical units. It grants licensures to providers, certifies EMT's and paramedics, approves education programs, and enforces the regulations for the operation of these services.

The main document that defines the operating requirements for MAV operations is NJAC 8:40. NJAC 8:40 requires that the MAVO must have current training in an approved paratransit education program, and have current training in cardiopulmonary resuscitation. OEMS can stop MAV vehicles on the road to inspect for these credentials.

DEFINITION: *Crashworthy*

In a licensed MAV unit, all materials in the vehicle must be *crashworthy*. This means the it must be secured with a belt or other positive locking means so that it will not become a projectile during a collision or rollover and hurt someone in the vehicle. While automotive seat belts are acceptable, Velcro™ or bungee cords are not.

OEMS Inspections

If an individual approaches you at your base of operations or at a medical facility and identifies him or herself as an agent of the Office of Emergency Medical Services, you must comply with their request for an inspection. All OEMS employees carry NJ Employee Idenfication cards and should be prepared to present them during an inspection.

Some of the items an OEMS employee may request to see are:

- Driver's License
- EMT / MAV training certificates
- CPR training certificates
- Company employee identification

A typical roadside inspection may also involve a close examination of:

- the MAV unit's registration and insurance documents
- the MAV license / sticker on the unit
- the interior of the truck
- the general handing of the patient

Medicaid and the Logisticare Transporation Broker

Your company may be a network provider with the transportation broker contracted with New Jersey Medicaid (Logisticare). You will need to be familiar and comply with all relevant requirements relating to transporting patients in the MAV. These requirements include your background checks and your driver history, training, vehicle maintenance, certification, authorizations, and care of the patient. This manual and your training course address the patient care training required for network participation. You may be asked by your employer to undergo fingerprinting, background checks, or other processes. You may also be asked to take a Defensive Driving Course.

HIPAA

HIPAA stands for the Health Insurance Portability and Accountability Act which states that we must ensure patient health information is protected. This law applies to everyone who handles health information including MAVO's.

Protecting health information means that we provide information only to those who are entitled to have it. Once again, educating an MAVO is necessary to provide safety. In this case we are referring to the safety of personal, medical, and demographic information. As an MAVO you will be transporting different types of medical records and/or demographic information with each patient. It will be your responsibility to assure that this information is received by the appropriate party and no one else.

As an MAVO you will also be completing call reports that contain your patient's protected personal information. These reports should never be left out in the open or in the vans. Never put any documents that contain any part of personal or medical information in the garbage. Any and all paperwork, envelopes, etc., that are considered garbage must be shredded. It is necessary that all personal and medical information be protected.

CASE STUDY - BARNEY

A gentleman named Barney is sitting in a chair in a nursing home. He likes his chair, it is very comfortable to him, and it's at the perfect level for him to maneuver around and reach objects he may need. Barney has grown accustomed to his home in the nursing facility. He has grown accustomed to the staff. He rolls through the halls to greet his friends and even pulls over for a nap using the handrails on the walls. He knows where to go to eat and where to go to get help if he needs it. Barney has a sense of security inside his home. The only time he leaves his home is for a medical appointment.

One afternoon right after lunch, a stranger in a funny looking outfit approaches him and wants to take him to an appointment. This person Barney doesn't even know wants to put him in a different chair, put him on a ramp that goes up in the air and drive him around in a world he doesn't recognize anymore. Furthermore, this stranger wants to take him out of his home, which is the only place Barney feels safe.

You see, to Barney, the world around him has changed from what he remembers. Buildings have gone up and some have come down. Roads seem much busier and wider than Barney remembers. Barney can't hear or see as well as he used to. Barney also moves a lot slower due to his medical conditions. Sounds scary for Barney, doesn't it?

It is for reasons like these that we must always remember we transport people. Always treat your patients with dignity, compassion, and respect.

We have taken the time to review customer service so that as an MAVO you can provide your patients with the best possible care. **Never let yourself get so caught up in life's everyday shuffle that you forget you are caring for a human being.**

MODULE 1 WORKBOOK

1. **A _____ _____ is a car service for fully ambulatory passengers that require little to no assistance or supervision.**

2. **A _____ _____ _____ is a specialized vehicle for the transport of persons who need assistance to ambulate or some specific supervision such as wheelchair bound patient**

3. **The _____ of _____ _____ _____ is the regulatory body that licenses MAV services and enforces the regulations that govern their operation.**

4. **The _____ _____ & _____ _____ is the regulatory body that oversees worker protection.**

5. **Addressing the paitent by "Honey" or "Sweetie" is endearing and appropriate when transporting them in an MAV.**

   TRUE FALSE

6. **The _____ role is where the MAVO is generally responsible for the well being of the patient.**

7. **The _____ role is where the MAVO is responsible for the safe and prompt delivery of the patient to his/her destination.**

8. **The _____ role is where the MAVO maintains a professional attitude and attempts to provide a high quality trip.**

9. **An agent from the _____ may spot check a vehicle at a medical facility and check your documents and vehicle.**

10. **An agent performing an inspection should always be prepared to show their _____.**

11. **MAV operators must have the following documents on them during a transport:**

    _____

    _____

    _____

MODULE 2 – Well Being of the MAVO

Objectives:

• Understand the possible safety issues that can pose a risk to the Mobility Assistance Operator
• Be familiar with the roles and responsibilities the employer and employee under 1910.1030, the Bloodborne Pathogens standard

Safety of the Mobility Assistance Operator

A Mobility Assistance Operator, through the daily activities of transporting individuals who are elderly, sickly, or injured faces some possible occupational hazards:

- Physical harm from a safety hazard
- Biological harm from an infection the patient may transmit to the MAVO
- Psychological harm from constant contact with sick or elderly individuals

Physical Harm

Physical harm to the MAVO may occur during the course of his or her duties. Possible sources of harm can include a motor vehicle collision, a slip-and-fall, or (most likely) a bad lift during a transport. Lifting a patient improperly can result in back pain or injury, neurological damage, and other chronic muscular-skeletal injuries. Prudent planning of lifts and adhering to proper body mechanics is critical in preventing injury to the MAVO. Some common ways to minimize the chance of injury from lifting include:

Not risking heavy lifts by yourself – get help when lifting patients that are beyond your comfortable lifting ability.

Plan moves before executing them – think out your lift before commiting to it. Make sure you are going about your lift the best and safest way.

Using good body mechanics – use the safe lifting principles in Box 2-1 to minimize your potential for injury.

Box 2-1: SAFE LIFTING PRINCIPLES

LIFT WITH YOUR LEGS, NOT WITH YOUR BACK. Your legs contain some of the strongest muscle groups in your body, and are much less prone to injury than your back. Squat down and use them to lift heavy loads instead of brending down and using your back.

KEEP WEIGHT CLOSE TO YOUR BODY. Your ability to lift is much stronger near you than far away from your body. By keeping weight close you remain stronger and are less prone to muscle strain or other injury.

PIVOT INSTEAD OF TWISTING. Injury often results when an MAVO carrying a load tries to twist his or her torso during a lift. Keeping your torso facing in the same direction as your legs will minimize your chances of injury. To change direction, pivot your entire body rather than twisting.

Biological Harm

Although an MAVO generally does not make close contact with a patient, there is some potential for an MAVO to be exposed to transmissible disease from the patient. Some illnesses an MAVO should be aware of include bloodborne illnesses such as *HIV or Hepatitis B/C,* and airborne illnesses such as Tuberculosis.

An in-depth discussion of transmission and prevention of bloodborne illnesses is discussed in the Bloodborne Pathogens section of this module.

M. Tuberculosis

Medical transportation, such as that provided in a Mobility Assistance Vehicle, may expose the MAVO to Tuberculosis bacteria. A patient in the MAV who is coughing agressively or sneezing may aerosolize some bacteria in his or her respiratory moisture. Repeated exposure to this type of moisture could create M. Tuberculosis infection in the MAVO – especially after multiple long transports.

Although Tuberculosis infection is possible, it generally requires prolonged exposure of the course of multiple days in a confined environment to create an infection. The incident of Tuberculosis transmission in the medical transportation industry is very small. Some good-sense precautions will minimize the chance of Tuberculosis transmission:

- Be suspicious of patients with productive coughs
- If weather permits, keep windows somewhat open to ventilate the interior of the vehicle during the transport of a suspected Tuberculosis patient
- Wear an N95 or HEPA respirator when transporting a suspected TB patient

Medical Respirator

Psychological Harm

Providing medical transportation can be a rewarding career. Many MAVO's enjoy assisting individuals who need assistance help getting medical appointments and other procedures. Some MAVO's however, may struggle with the psychological impact of dealing with many chronically ill or injured persons. Some cases, such as the death of a long-term patient or transporting a sickly child may be particularly difficult for an MAVO.

An MAVO experiencing mental stress may exhibit some of these symptoms:

- Trouble performing routine activities such as eating, sleeping, and engaging in recreation activities
- Loss of interest in work, friends, or family
- Use of alcohol and/or drugs

MAVO's experiencing these symptoms should speak to their managers about their difficulties. Some strategies for managing stress include:

- Taking some time off
- being temporarily assigned to an alternate duty
- Discussing the stress with peers

The manager may be able to offer helpful advice or professional help.

Bloodborne Pathogens

In 1991, the Occupational Safety & Health Administration (OSHA) created and adopted 29 CFR 1910.1030, the Bloodborne Pathogens standard. This piece of worker protection law required that employers whose employees may come into contact with blood or some Other Potential Infectious Material (OPIM) set up some systems to protect their employees from infection.

While the industries most affected by the standard are healthcare and public safety, an MAVO is also affected by the standard since they may have to render first aid or CPR to a patient who has an emergency during the transport. As a result, the MAVO's employer must set up some systems to protect his operators from harm.

The major illnesses that require discussion in a bloodborne pathogens program include

Infections of the liver such as Hepatitis B or C or Human Immunodificieny Virus (HIV).

These illnesses can have both carrier and active states. In the carrier state, the patient is infected and is infectious to others, but has no visible symptoms. In the active state, the patient has all the characteristics of the illness in question. It is the active state that most people associate with Hepatitis B and HIV.

Both Hepatitis B and Hepatitis C are infections that affect the liver, causing long term liver damage. Individuals who are infected begin to develop the signs and symptoms of the disease within several weeks. These symptoms can include weight loss, fatigue, fever, and a jaundice. Most people infected with Hepatitis will survive the infection, but those who don't will generally die of liver complications such as cirrhosis or liver cancer as opposed to the hepatitis infection itself.

Human Immunodificiency Virus (HIV) is the cirus that causes Acquired Immune Difficiency Syndrome (AIDS) disease. This illness cripples the patient's immune system, and renders them vulnerable to opportunistic diseases. Patients with active AIDS disease will often present with general symptoms of infection such as fever, gland pain and swelling, severe weight loss, and skin lesions. It is estimated that there are approximately 1 million individuals in the United States with HIV/AIDS. Individuals may be carriers for up to 10 years before developing symptoms of any type.

While both illnesses are potentially dangerous, the most likely illness to catch from an accidental exposure such as those created by an MAV transport is Hepatitis B. This is because Hepatitis is a much more hardy virus that survives the hardships of exposure to air and temperature flux better than HIV virus. HIV virus has a tendency of quickly becoming inactivated when it leaves the host.

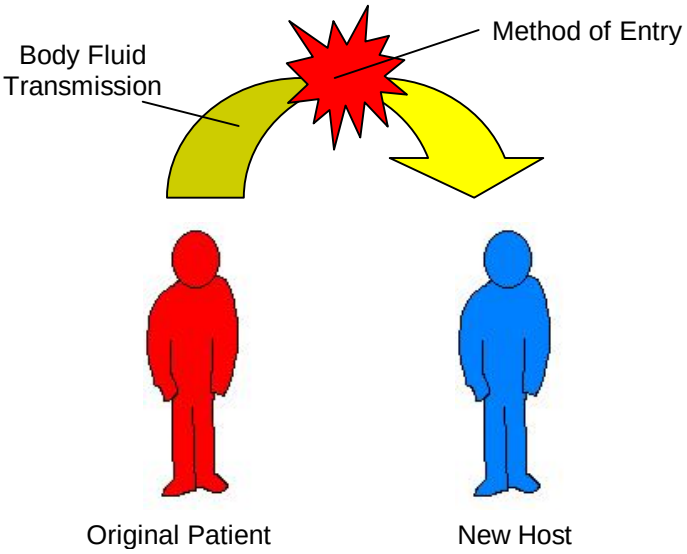
While the MAVO should use caution in protecting him or her from all diseases, the most significant risk of disease transmission comes from Hepatitis infection, not HIV.

Chain of Infection

To have a disease transmission, a few items need to be in place for the infection to take place.

First of all, there needs to be an *infected patient*. Presumably, this is a patient who is being transported in the MAV.

Next, there needs to be a body fluid transmission – blood or some *Other Potentially Infectious Material (OPIM)* needs to go from the infected patient to the *new host*. The new host in MAV transportation is likely to be the MAVO.



Just getting blood or an OPIM on intact skin is not likely to create an infection. For there to be a disease transmission, there needs to be a *Method of Entry*. A method of entry can be a cut, chapped, or otherwise non-intact piece of skin. It can also be a mucous membrane such as the eyes. When an infectious fluid makes contact with a method of entry, it allows viruses to spread throughout the body and create an infection. Wearing protective gear to protect open wounds is an important step to minimize the chances of catching a disease.

Protecting Oneself from Disease

There are several possible ways for an MAVO to protect him or herself from disease. You and your employer will use some of all of the following strategies to prevent the spread of infectious disease in medical transportation:

Engineering Controls

Your employer has likely taken some steps to modifying the workspace to prevent illnesses from occuring. These are called *engineering* controls, and examples in an MAV operation include hand sanitizer dispensers that might be placed on the MAV unit. Some of the facilities you transport patient to and from may also have designated medical waste containers where contaminated products may be disposed of.

Work Practices

As a responsible professional, there are steps you should take to insure that you minimize the chances of being infected with an illness. Steps that you consciously take to minimize the chances of being exposed to disease are called *work practices*. Examples of work practices include frequent handwashing, using proper containers, and avoiding 'bad habits' that increase the chances of being exposed such as driving with used gloves on.

Protective Equipment

Wherever contact with blood or bodily fluid cannot be avoided with engineering controls or work practices, an MAVO should use protective equipment. For example, if an MAVO must assist a patient who fell and cut his head, an MAVO should don gloves before assisting the patient. Other examples of protective equipment include rescue breathing shields.

Body Substance Isolation

Since so many carriers of HIV or Hepatitis have no symptoms and look very normal, it is important for an MAVO to exercise caution when dealing with patients. The expectation from OSHA is that an MAVO use Body Substance Isolation. This means that regardless of the appearance of the patient, the MAVO will use protective gear and good decision making when possibly contacting the patient's blood or bodily fluid. Whether the patient looks young or old, sick or healthy, rich or poor, the MAVO will protect himself with a piece of protective gear before possibly

Fluids Requiring Protection under BSI

The OSHA Bloodborne Pathogens standard requires that trainees learn a few fluids that require protective gear:

- Blood
- Sexual secreation (semen & vaginal secretions)
- Cerebrospinal fluid
- Synovial fluid
- Pleural fluid
- Saliva in a dental procedure
- Any fluid with visible blood/OPIM or any fluid which cannot be identified

While it is useful to know which type of fluids are infectious, an MAVO should exercise caution and protect himself from any fluids coming from a patient.

Protective Gear: Rescue Breathing Mask

Hepatitis B Vaccination

Depending on the level of exposure at your workplace, your employer may choose to offer you vaccination against Hepatitis B. This vaccination is created from a genetically engineered yeast product, and is not derived from real virus. The vaccination is given in three doses over six months, and upon completion of the vaccination series confers better than 90% immunity to Hepatitis B. Your employer will schedule you for Hepatitis B vaccination if he or she offers it in your MAV company.

Steps You Can Take to Prevent Disease

Work Practices

There are some important actions you should take to avoid catching a bloodborne illness.. An important step is to frequently wash your hands – especially after potential exposure to a bloodborne pathogen. You should wash your hands even if you were wearing gloves or some other protective gear.

You should also make sure that after an exposure, you avoid any contact between hands and mucous membranes until your hands are washed. This includes eating, drinking, applying makeup, adjusting contact lenses or smoking. Remember, you should not bring your hands up to your face unless your gloves have been removed and your hands are washed.

Protective Gear

There are several items of protective gear that can be used to avoid exposure to a bloodborne pathogen. In general, you should use a piece of protective gear anywhere you anticipate contact with a potentially infectious material. For example, if you think there might be a change you could get some material on your hands, you should wear gloves. If you are doing rescue breathing as part of CPR, you should use a rescue breathing batrrier device.

Contaminant Storage

You should also make sure you store contaminated items in appropriate containers. If an item becomes soiled with a potentially infectious material, you should dispose of it appropriately.

Decontamination

When an object becomes soiled with a potentially infectious material, it should immediately dispose of the object appropriately if possible so as to minimize the chances of it infecting someone else. If disposal is not an option because the object is too valuable, then the object must be decontaminated. This means that all potentially harmful viruses are removed from the object so as to make safe.

Decontamination is accomplished with a broad spectrum germicide. There are several options available to perform decontamination:

Commercial Germicides are products manufactured specifically to kil microorganisms and clean pathogens off a surface. Your employer may have identified a commercial gernicide he or she wants you to use at work.

Bleach is also a very powerful broad spectrum germicide that is very effective against HIV and Hepatitis viruses. The general recommendation is that an cleaning be done using a 10% bleach – 90% water solution.

Disposal

If a material that needs to be disposed of is saturated with blood or bodily fluid, it should become *biohazarded.* Biohazarded materails become medical waste and end up being incinerated or otherwised processed in a special way. To biohazard a material, it should be placed into a biohazard bag and the bag must be kept isolated from others who might contact it and be exposed to it's contents.

Biohazard bags are florescent red or orange and are identified with a biohazard symbol.

Biohazard Symbol

Sharp Items

If a sharp item becomes soiled with blood or bodily fluid, it cannot be placed into a plasttic biohazard bag since it will break open the bag.

Sharp items must be placed into a Sharps Container, a plastic box that is leak-proof, puncture-proof, spill-proof,and clearly labelled with the biohazard symbol.

Sharps Container

Exposure Control Plan

Your workplace will have a written policy and set of procedures regarding bloodborne pathogens called an *Exposure Control Plan.* This plan should be readilty available to you at your workplace anytime you are working so you can read it or refer to it after an exposure. The exposure control plan will remind you of the appropriate steps to take after an exposure occurs.

Exposure Management

One of the most important concepts in a bloodborne pathogens training program is knowing how to manage exposures. An exposure is an event where blood or some other potentially infectious material makes contact with a method of entry. If you have a bloodborne exposure, you should immediately:

Wash the affected area with soap and water so as to get the infectious material off of you as soon as possible.

Report the exposure to a supervisor. At every workplace with a bloodborne pathogens program there is an individual who is appointed to manage bloodborne exposures called an Exposure Control Officer. This person will coordinate your post-exposure care.

Get the medical treatment and followup that your employer arranges for you. Your employer has a responsibility to coordinate a medical evaluation to evaluate the extend of your exposure, and what follow-up care you may need. The medical care you receive will be at no cost to you and completely confidential. Your employer will not be notified of any diagnosis made as a result of your medical examination.

Employer-Specific Items to Identify:

My employer is _____

The Exposure Control Officer at my workplace is _____

The Exposure Control Plan at my workplace is located _____

MODULE 2 WORKBOOK

1. **One of the Principles of Safe Lifting is to keep weight _____ to your body.**

2. **Working with chronically ill people until they pass away can cause the MAVO to suffer _____ harm.**

3. **_____ is an example of an airborne disease.**

4. **A _____ state is when a patient is infectious to other but has no symptoms.**

5. **A _____ state is when a patient is infectious and looks sick.**

6. **Hepatitis B can live outside of a human body for _____.**

7. **HIV virus can live outside of a human body for _____.**

8. **You should use universal precautions only with patients who look sick.**

   TRUE FALSE

9. **Hepatitis B vaccination is on average only 50% effective against Hepatitis exposure.**
10.

    TRUE FALSE

11. **Examples of methods of entry include:**

    _____

    _____

12. **Decontamination of a soiled object can be accomplished by using _____**

13. **Soiled gauze sponges should be placed in a _____**

14. **Symptoms of Hepatitis B include _____**

11. **Examples of personal protective equipment that can be used against BBP include:**

    _____

    _____

MODULE 3 – Patient Characteristics

Objectives:

- Understand initial contact with a patient and how to get the person ready for transport
- Show familiarity with various patient assistive devices
- Discuss common conditions and special needs of patients with specific diagnosis

Beginning a Transport

When you first approach a patient to transport them, you have an opportunity to make a good first impression and to get the transport off to the right start. As a general rule, you should begin every transport by:

- Introducing yourself to the patient . Do not use informal terms such as “honey” or “sweetie” when addressing patients.
- Confirming the destination and/or appointment time
- Asking if the passenger needs anything before leaving (documents, purse, medical information, etc)
- Evaluating patient’s clothing, keeping the current weather in mind
- Addressing any special needs (locking door, putting out water for pet, etc)

Following these steps will insure that your patient knows the plan for the transport, and that he or she has minimal anxieties about leaving their home or facility.

Types of Disabilities

Patients you transport may need mobility assistance for a variety of reasons. Some will have physical disabilities, others will have mental disabilities, and others may have sensory disabilities. Others still may have a combination of these disabilities. These deficits may pose a considerable challenge to you as you prepare to transport the patient to his or her destination. It is important for you as the MAVO to be familiar with the many types of disabilities so that you can better prepare to assist your patient.

Physical Disabilities

Patients will physical disabilities have some kind of muscular or bone that makes moving or weight bearing difficult. These patients will need more physical help than other patients as they will need to be moved, lifted, or otherwise assisted physically. An important concept with these patients is the idea that the MAVO should provide only the assistance necessary, and should allow the paitent to do as much for him or herself as possible. For example, let us say that a patient is wheelchair bound, but can transfer independently from the bed to the wheelchair. An MAVO should allow the patient to move to the wheelchair himself (staying close to prevent a fall) and then assist the patient by pushing and loading the wheelchair. The MAVO should not overassist by lifting the patient from the bed to the wheelchair.

Examples of physical disabilities

- Broken hip
- Paralysis
- Generalized weakness

Mental Disabilities

Patients with mental disabilities will have a psychiatric or psychological deficit of some type. Patients with mental disabilities can range from developmentally immature (they behave as a child would), to consfused, to occasionally beligerent. When a patient is diagnosed as potentially aggressive, he or she will generally be scheduled for ambulance

Overview 1 - Preparing the Transport

1

Introduce yourself to the patient. Do not use informal terms like “Honey” or “Sweetie”.

2

Insure patient is ready for any weather considerations (jacket, hat, gloves, etc).

3

Insure patient is ready for the length of stay at destination (he may have packed a lunch, etc).

4

Bring any requested items for trip, such as referrals, paperwork, x-rays, etc.

5

Secure location per patient’s request (Lock door, close window, etc)

transportation. On the other hand, patients with mild mental disabilities may have episodes of combativeness.

It's important to realize that intelligence and understanding are not always diminished by handicaps. In other words, the patient may not be able to communicate, but may be able to understand what you say and what is going on around him or her.

Examples of mental disabilities

- Down's Syndrome
- Alzheimer's Disease
- Stroke

Sensory Disabilities

Patients with sensory disabilities have some inability to interact with their surroundings because of their deficit. They may not be able to see, hear, or speak. In some cases, especially if the sensory problem is his/her only disability, these patients may be very independent and need only minimal assistance. In some cases, only alternate communication is required. More verbal communication for blind patients, better positioning of your body when you speak to a deaf patient so they can read your lips, etc.

Examples of sensory disabilities

- Blind
- Deaf
- Mute

Length of Disability

Disabilities can be permanent or temporary, based on patient age, the type and length of injury. For example, a patient with a broken hip may find him or herself unable to bear weight to walk for a few weeks, while someone with a stroke may be unable to move his or her left side permanently. Both these patients will behave differently and pose their own challenges during the transport. A wise MAVO will be aware of how a patient's disability may affect how their behave during transportation so that he or she can better manage the transport.

Permanent Disabilities

Patients with permanent disabilities are often knowledgeable about their conditions due to the fact that they have been living with it for so long. These patients, when sound of mind, are often 'experts' on their own disability, and may be helpful resources during a transport. They may be able to suggest good ways of lifting them, what the best door to use to get in or out of their house is, or provide some other helpful advice for the trip.

Temporary Disabilities

Patients with temporary disabilities may have little experience with their conditions. They may be frustrated with their temporary lack of mobility and be prone to taking risks because of it. They may also lack expertise in using assistive devices, or be tempted to not use them when they should. These patterns can cause an increase in the chance of injury. MAVO's must use good judgement and close supervision to insure that the patient is not harmed during the trip.

Assistive Devices

Patients who have disabilities of various types may have assitive devices to help them through their day-to-day activities. You will need to be familiar with these assistive devices so that you can effectively assist patients during transports.

Canes

Canes are designed to provide support to the paitent. Most patients with canes use them as a "third leg" to improve balance. Others might use a cane to lessen the weight he or she is bearing on that side. A patient will use the cane on their weaker side – you should position yourself on the side with the cane so that you can prevent a fall if the patient begins to falter.

Quad Canes

Quad canes allow those with more serious difficulties to have a more solid platform upon which to balance themselves. A quad cane user is generally less stable on his feet than a regular cane user, and as a result should be closely watched by you during the tranport.

Braces

Braces provide support to a limb and allow it to better bear weight. In some cases, braces will also perform some specific function. For example, for a patient who has had a stroke, a brace may help him pick up his toe when he walks so that he does not trip on it and fall.

White Cane

A white cane is used by a blind patient. It is not designed to bear weight, but rather to tap around the patient's surrounds to determine where objects are. A white cane user will generally be able to move and walk somewhat independently, but should be monitored and lead if the patient requests it.

Guide Dog / Companion Animal

Some patients may have animals that are specially trained to provide special assistance. A common kind of companion animal is a guide dog used by a blind patient.

Handling a companion animal such as a dog is really very simple - do nothing. This animal is "on the job". Do not try to tell him how to do his job. You must allow the animal to ride with his "boss" and do exactly what he knows he is supposed to do.

Do not attempt to restrain or play with the animal. Do not pet the animal. These actions will take the animal out of working mode which could be dangerous for your patient and possibly for you. There is nothing to fear from these animals as long as you let them do their job. If you have any questions during such a transport, ask your patient what to do.

As an MAVO, you may be travelling to locations where pets are generally not permitted such as hospitals and other healthcare facilites. Companion animals enjoy an exception from these types of laws and policies under the Americans with Disabilities Act (ADA). As a result, you can transport a companion animal on your MAV and take them to various healthcare facilites without concern.

Crutches

Crutches lessen the weight that the patient's legs are bearing, and allow the patient to transfer some of that weight to the crutches. Crutches can be permanent or temporary, depending on the patient's situation.

Walkers

Walkers provide patients with major balance disturbances with a platform that they can place down, walk towards, and replace in another position to repeat the process. A patient with a walker should be expected to move slowly, and be very unsteady on his or her feet.

Electric Scooters

These devices are gaining popularity, especially with people who live independently. It provides them a way to get around with little to no assistance from family or friends or the MAVO. Most patients who have their own scooters can be very partial to them. Patients may want to be transported in the electric scooter to their destination.

4 Wheeled Model

The electric scooter should never be used for transportation. It is not designed for MAV use. The scooter is top heavy and is not structurally sound enough to be used as a seat in the vehicle. You must transfer your patient into your standard wheelchair, load him/her into the front position of your van then load and secure the scooter into the rear position of the van. If the scooter cannot be secured using four point tie-downs, do not take the scooter with you in the MAV since it will not be crashworthy.

When you get to your destination, unload both the scooter and your patient, transfer your patient back to their scooter and allow them to be on their way. The point is, it is possible for the scooter to be four-point secured but it is not safe for the patient to be on it during transport.

Wheelchairs

There are many types of wheelchairs. The MAVO will come across the standard wheelchair most often as it is the most common. The standard wheelchair has two large wheels at the back with hand rims and two smaller caster wheels in front. There will be brakes on both sides, foot plates, leg rests, arm rests, crossbar, tilt bars, backrest, handles and, of course, a seat. There are also some variations to the standard wheelchair that are still acceptable for transport, such as leg rests that elevate or that are removable, removable arm rests, and the absence of hand rims.

Box 3-1: WHEELCHAIRS

Wheelchairs are the most common form of mobility device an MAO will see in practice. Become familiar with wheelchairs before starting to work as an MAVO.

Electric Wheelchairs

Electric wheelchairs are also acceptable for transport. You will find that most people who have electric wheelchairs use them to maintain their independence and frequently want to maneuver their wheelchairs into the MAV. You may allow patients to drive themselves onto or off of the lift under your direction *only when the lift is on the ground*. But remember: you *must* switch the motor off when the patient is riding the lift or in the van for transport. The shutoff switch or clutch can usually be found by the motor, but you should always ask before heading outside to your MAV.

Always make sure you know the equipment before leaving. Once you are in a moving vehicle it's too late. The electric wheelchair is also very heavy, watch your toes! If your patient is unable to move on or off the lift, you can push the electric wheelchair like any other if it is in neutral. An electric wheelchair suitable for transport will have the same basic design as the standard wheelchair with the addition of a motor and a device for steering. The steering mechanism will depend on the physical capabilities of the patient. It very often looks like a joystick from a video game.

Gerichairs

Geri-chairs are commonly seen in the long term care setting. The geri-chair is a reclining chair with four tiny wheels. It is meant for the indoor setting and should never be used to transport a patient, or as a seated position inside an MAV. If you find your patient in a geri-chair, transfer the patient into your standard wheelchair before leaving the building. The geri-chair may or may not have the tray on it as in the illustration. You will have to remove the tray and sit the chair upright before moving the patient. Ask for help from facility staff if you need it.

Gerichair

Diagnosis-Based Cases

There are a number of common medical conditions that MAVO's will see frequently. This section will discuss some of those conditions and the concerns associated with those patients.

Diabetes

A condition that may require frequent transportation to and from doctor's offices is diabetes. This disease affects the body's ability to stabilize blood sugar levels.

Diabetes can lead to:

- Peripheral vascular disease
- Change in mental status
- Vision loss
- Kidney disease
- Infections
- Neuropathy

Because diabetes also affects healing and circulation it is important that you use caution when transferring and transporting these patients to make sure you don't bump their arms, legs, or feet. Always make sure they rest their feet on the foot rests of the wheelchair. In addition, due to their condition, people with diabetes tend to feel cold. Make every effort to keep them warm and comfortable.

Orthopedic Conditions
As an MAVO you may also provide transport to patients who have orthopedic diagnoses. Some common orthopedic conditions and guidelines to keep in mind during transport are:

Knee replacements
- Make sure the patient's leg is elevated.
- Use caution when pushing the chair so you don't bump their leg.

Shoulder or arm injuries
- Never assist the patient by holding their injured limb.
- Be aware of the injured limb when assisting the patient with a coat or sweater.

Leg or foot injuries
- Always place their feet on the foot rests
- Always adjust the leg/foot rests to accommodate the patient's condition.

Cancer
You may also transport people who have been diagnosed with a form of cancer. There are many different types of cancer and each one can affect patients differently. If you are taking this patient to or from a treatment keep in mind they may be feeling weak and nauseous. You should always let them move at their own pace and have a basin or convenience bag readily available. Sometimes patients with cancer are in a great deal of pain, or have bones that are frail. Use extra caution when transferring these patients to avoid injury. Use of caution when driving and avoiding bumps and potholes can make for a more comfortable trip for the patient.

Stroke
If you transport a patient who has had a stroke they may have slurred speech and/or paralysis. Always let them speak for themselves. Don't try to finish sentences for them. This can cause the patient to become frustrated. If they have a paralyzed arm or hand, make sure you help them when you transfer them into the wheelchair. Make sure their arms and hands always remain within the arms of the wheelchair to avoid injury. If they have leg or foot paralysis carefully place their leg/foot on the leg/foot rest at an angle that will support the limb during transport.

Loss of Muscle Control
Some patients may have some loss of muscle control. This means they may have many of the same difficulties the stroke patient has. They may not be able to move some parts of their body, or they may just be very weak in those parts. It's important to make sure these patients are assisted carefully and that the affected parts are secured in the wheelchair and not allowed to dangle or become injured during the transport.

Behavioral Health, Alzheimer's & Dementia
Patients you transport may also suffer from diagnoses that affects their behavior. The most common conditions you will encounter are Alzheimer's and types of dementia. Keep in mind it is their medical condition that causes them to act the way they do.

No matter how many times they ask you the same question over and over, or forget what you explained to them, simply answer the question again and never put them down or show them you are frustrated. Don't take their behavior personally even if they say something that hurts your feelings. Focus on your priority of providing a safe trip.

Dialysis
One of the more common transports you may provide will be to and from dialysis centers. People who are on dialysis have kidneys that don't function properly. This condition is referred to as renal failure and causes excess fluids and toxins to build up in their blood. These fluids need to be removed on a routine basis using a procedure called dialysis.

At the dialysis centers patients will be connected to a machine which acts like an artificial kidney by removing the excess fluid and toxins from their blood. They are connected to this machine through an access point most commonly in their forearm, chest, or groin area. Prior to and after treatments, patients are usually weighed to track the amount of fluid removed for that treatment.

Now that you know more about renal failure and dialysis lets look at the following cautions:

- Prior to leaving, ask the dialysis center staff if the patient is clear to leave.
- Be careful when assisting these patients. These patients may be weak, but you should take care not to assist them using the area on their body that contains the dialysis access.

Respiratory and Cardiac Conditions
Another common type of transport may involve taking a patient with a respiratory (breathing) or cardiac (heart) problem to and from a doctor's office. Some conditions that may require transports for medical examinations include respiratory and cardiac conditions such as:

- Asthma
- Bronchitis
- Pneumonia
- COPD (Chronic Obstructive Pulmonary Disease)
- CHF (Congested Heart Failure)
- Angina
- Cardiomyopathy
- MI (Myocardial Infarction)

With these patients, keep their limitations in mind so their medical conditions are not exacerbated. Let them move at their own pace. Overexerting these patients may cause difficulty breathing, or shortness of breath. Keep them comfortable and remember that weather conditions can also impact their health. Respiratory and cardiac patients can be sensitive to strong fragrances such as colognes, perfumes, and air fresheners, which may irritate their disease. You should refrain from using these products since MAVO's are in close contact with patients.

Prosthetic Limbs
Some patients may have prosthetic or artificial limbs. Never attempt to lift or transfer these patients by utilizing their artificial limb. If they have an artificial leg they may move slowly. As with all patients, let them move at their own pace. When assisting them into a standing position make sure they are on even ground that is dry. Uneven wet ground can throw off their balance and cause them to fall.

Consider also that some amputees, such as bilateral leg amputees, have lost a great deal of skin as a result of their amputations. Since skin is one of the most important tools in regulating body temperature, these patients may get easily overheated in warm environments. Be sure to keep the temperature in a range that is comfortable for the patient, and monitor his or her condition carefully.

Children with Special Needs
When transporting children, a parent may ride along in the van to and from the appointment. Make sure you follow all state regulations concerning car seats. To a child, medical transportation can be very scary. Make sure when you communicate with the child you kneel down so you are talking to them at eye level. Children with special needs such as Autism or Down's Syndrome will often have difficulty communicating. You should always handle these patients with respect. Ask the parents for tips on how to best handle the child if you have trouble getting the child to cooperate.

Hearing Impaired
If the patient does not realize you are at their side, move into their line of sight. If that does not get their attention, lightly touch their arm or shoulder. If you transport patients who are hearing impaired, don't scream at them. Instead, talk slowly and clearly while facing them so they can read your lips.

Visually Impaired
Sometimes you may transport a person who is visually impaired in addition to other medical conditions that require an MAV transport. You will not be transporting a patient just because they are blind. With a visually impaired patient, it is just as or even more important to explain what you will be doing before you do it. If you are not sure what assistance the patient may need, ask him directly and respect what he tells you.

Oxygen
As an MAVO you may come into contact with patients who rely on oxygen. In order for you to provide transport to these patients, the patient must provide their own oxygen concentrator or cylinder and be able to operate it themselves. You must secure oxygen containers in an approved oxygen holder.

If the patient requires your company to supply the oxygen or is unable to operate their own oxygen, the transport must be performed by an oxygen-certified MAVO or an EMT. Oxygen certification for MAVO's is a course you can take to allow you to administer oxygen at 6 liters or less in non-emergent situations.

CASE STUDY – DAVID

David is 32 year old MAVO working for a South Jersey service. He's single, likes to party, and his medical transportation job makes him enough money to have a little fun at the local bars on the weekends. He's not terribly enthusiastic about transporting the elderly and handicapped, but the hours are good and there is no boss breathing down his neck all the time so he likes the work. His style is to get the patients to their appointments as quickly as possible, then hang out in the parking lot, listen to his favorite radio station, and smoke cigarettes until his next run. If the dispatcher forgets about him for an hour or two, David thinks that's all the better…

One day when transporting Mrs. Smith, a confused elderly woman, to her appointment, David tries at the last second to push the wheelchair through a door that's about to close. The door strikes Mrs. Smith's foot hard enough to make the her yell out in pain. Since noody saw the incident, and the patient is confused, David decides not to mention it to anyone. Mrs. Smith does not look too hurt, and he hates filling out the paperwork involved in an incident report. David proceeds with the transport as if nothing had happened.

Mrs. Smith becomes one of David's regulars and he transports her once or twice a week for various appointments. He gets to know and like the patient's family, especially the patient's 4 year-old grandaughter. They treat David almost like family, often offering him a cold drink and a snack after he returns the patient from a transport. The "Smith run" quickly become one of David's favorite pickups.

One day, David picks Mrs. Smith up after not seeing her for two weeks. When he arrives, the family tells David that she has been recovering from surgery and has not been able to leave the house. They explain that Mrs. Smith developed a wound on her right foot that was complicated by her diabetes and simply would not heal. After a few weeks of wound care, the doctors had to amputate some of her toes to prevent a massive infection.

David felt terrible! That was the foot that was struck by the door on Mrs. Smith's first transport and that David never reported. Although it seemed that nobody found out about the incident, David had to live the fact that he might have serously hurt the grandmother of a genuinely nice family.

MODULE 3 WORKBOOK

1. **Patients with _____ disabilities may be prone to taking risks due to lack of experience with their problem.**

2. **A patient with blindness is said to have a _____ disability.**

3. **Blind patients may use a _____ _____ while walking.**

4. **The _____ _____ _____ _____ grants companion animals like guide dogs access to public facilities such as hospitals.**

5. **Scooters used as a passenger seat in the MAV should be secured carefully.**

   TRUE FALSE

6. **Patients with electric wheelchairs should be asked to drive themselves backwards on to the wheelchair lift so that you can see their face during the lift.**

   TRUE FALSE

7. **Patients with _____ can be in pain or nauseous. Driving carefully and avoiding bumps and potholes can lead to a more comfortable trip for the patient.**

8. **Patients with _____ can have poor feeling in their extremeties and difficulty healing wounds. Care should be taken not to bump their extremeties during the trip.**

9. **Examples of mobility aids for people with poor balance include:**

   _____

   _____

10. **_____ patients may be weak after treatment. Care should be taken not to handle the patients by the area of their body that contains their treatment port.**

11. **An MAVO should consider asking the _____ about the best way to secure the cooperation of a special needs child for a transport.**

12. **Electric wheelchairs are known for being extremely _____.**

13. **Patients should be allowed to move at _____ _____ _____.**

MODULE 4 – Van Anatomy and Equipment

Objectives:
- Identify the basic parts of an Mobility Assistance Vehicle (MAV)
- Identify unsafe operating techniques in Mobility Assistance
- Identify the most appropriate way to place a wheelchair on and use the hydraulic lift
- List three types of wheelchair restraint systems

The Mobility Assistance Vehicle (MAV) is the van in which you will transport your patients. All MAVs are to be registered, insured and inspected as required by New Jersey State law. As described earlier, the New Jersey Department of Health and Senior Services, Office of Emergency Medical Services (OEMS), will inspect and license the vehicle for use as an MAV. Always be sure the valid documents are in the van before taking to the road. The documents include:

- Your driver's license
- Your CPR training certificate
- Your MAVO training certificate
- The vehicle's NJ registration
- The vehicle's insurance
- The vehicle's OEMS license

When you first begin driving the MAV, keep in mind the extra length, height and weight of this vehicle in comparison to the average car. Make the necessary adjustments in your driving style to accommodate the differences in the MAV such as turning radius, overhangs, and stopping distances.

The vehicle is open from the driver's compartment to the patient's compartment which allows you, the MAVO, to communicate with your patient in transit and to monitor his/her needs. By conversing with patients, the MAVO will put them at ease and be more likely to be told about discomfort or concerns they may have.

The MAV is also equipped with a hydraulic lift which may be located at the rear or on the passenger's side of the van. The lift is used to load and unload patients in wheelchairs.

Side-Loading MAV Vehicle

Rear-Loading MAV Vehicle

All hydraulic lifts have some type of manual back-up device. If the lift fails, there is a manual system allowing the MAVO to raise or lower the lift by hand. Most utilize the hand pump method. There should be a handle along with a place to insert the hand pump. To lower the lift manually, turn the handle to release the hydraulic pressure valve allowing gravity to take over. To raise the lift, crank the handle, like a jack.

The manual back-up procedure is to be used in an immediate situation until repairs can be made. This method is available to allow the MAVO to get their patient either in or out of the vehicle as a last resort until help arrives. The manual procedure should never be used as the normal means of loading and unloading patients.

If your MAV lift does not seem to work appropriately, check the following:

- Is the engine running? There may not be enough power in the battery to work the lift.
- Is the parking break on? In many vans, the lift will only work if the parking break is on?
- Is there a lift belt that is not buckled? Some lifts will not raise or lower unless the belt on the wheelchair lift is buckled.

Make sure your trainer shows you how to manually load and unload a patient as recommended by the manufacturer of the lifts used by your company.

This manual procedure should not be confused with a manual ramp. Some vehicles are still equipped with manual ramps which unfold by hand. If your company still uses manual ramps, your instructor or employer will show you the correct and safe use of the ramp.

Loading the Patient

Manufacturing, installation, and operating specifications for lifts made are established by the National Highway Traffic Safety Administration (NHTSA). Some lifts currently in use are older than when the last regulations went into effect in 2004. Using the methods described in this manual along with the lift-specific training by your employer will minimize risk to both the MAVO and the patient.

Turn off the engine and make sure you engage the vehicle parking brake before deploying the lift. Confirm that the area where the lift will be deployed is clear of obstacles and provides sufficient space. Ideally, the lift will be deployed onto level ground. If this is not the case, use extra caution to position the patient on the lift and when moving the patient on and off the lift.

When deploying the lift, stand clear and unfold it then lower it to the ground according to your lift manufacturer's directions. When you do this, the end of the lift will automatically lower to the ground. This end is called a **roll stop or outboard barrier**. When the lift is raised off the ground, the outboard barrier comes up to prevent the patient from rolling off the end of the lift when in motion. The outboard barrier is meant to stop the small wheelchair wheel, not the large one. In fact the large wheel on a wheelchair, if moving with enough speed can stop abruptly and toss the patient over the outboard barrier. As a result, you should never load the patient on a wheelchair lift facing inward.

At the end of the lift closest to the vehicle there is a **bridgeplate or inboard barrier**. It does exactly what this implies. It bridges between the vehicle and the lift, giving the wheelchair a surface to roll across when going into or out of the van. You may see two types: one is attached to the vehicle, the other is attached to the lift.

The one attached to the vehicle, lays flat at all times when the lift is in use. When loading, the lift goes up under the bridgeplate. When unloading, the lift lowers leaving the bridgeplate in its stationery position. The inboard barrier attached to the lift is only flat when the lift is in the raised position. When loading, the barrier unfolds to meet the floor of the vehicle. When unloading, the barrier will fold up as the lift lowers.

If your lift is attached to the floor of the MAV, make sure your patient is centered on the lift and watch closely to make certain the patient's feet do not get caught between the lift and the vehicle or the bridgeplate when raising the lift.

The outboard and inboard barriers are not intended to be a stop for the wheelchair. It is not safe to rest the wheels or footrests against the barriers.

OVERVIEW 3 – Van and Lift Details

The switchbox controls the hydraulic lift and is positioned next to it – typically hooked onto the door.

Door restraints secure the doors during the load / unload procedure. Make sure these doors are restrained so that they don't blow shut on the patient and lift during the operation. This may cause harm to your patient and damage the MAV.

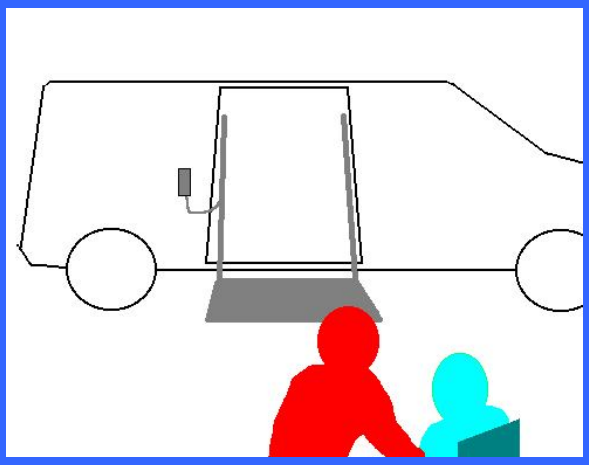
The hydraulic arms bear the weight of the lift and patient. Make sure that they are not leaking fluid when you begin your shift.

The Outboard Barrier keeps small wheelchair wheels from rolling off the lift should the platform tilt. The barrier is not as effective at keeping the large wheels from doing the same, so always load the patient facing away from the van.

The Inboard barrier keeps the chair from rolling towards the van during the operation. Another great reason for not loading the patient facing the van is to avoid getting the patient's feet caught between the lift and the van body during elevation.

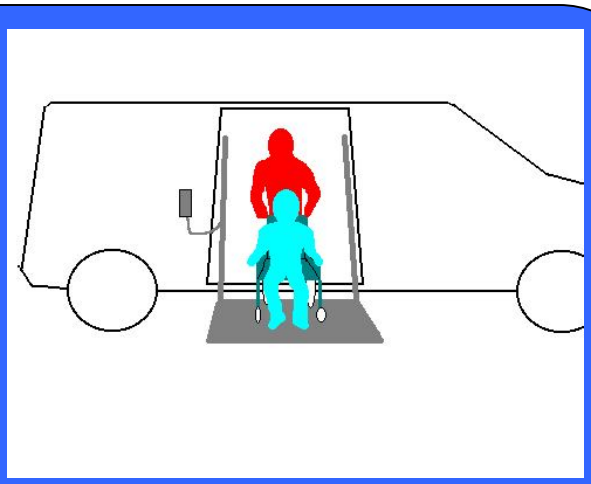
SKILL 1 – Hydraulic Lift – Loading the Patient

1



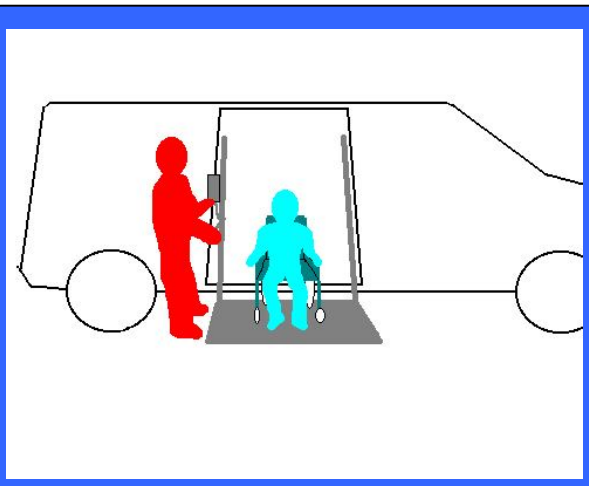
Inform patient of procedure, bring lift to the lowered position

2



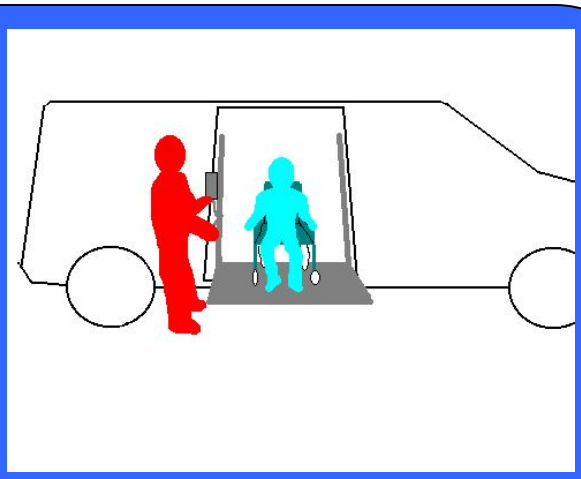
Load patient, secure brakes. Fasten seat belt. Do not load patient facing the van.

3



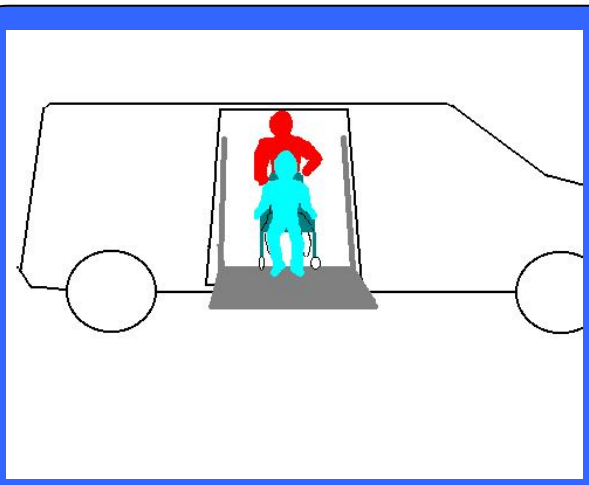
Change positions to side of van.

4



Raise lift to fully elevated position. Do not ride the lift up with the patient.

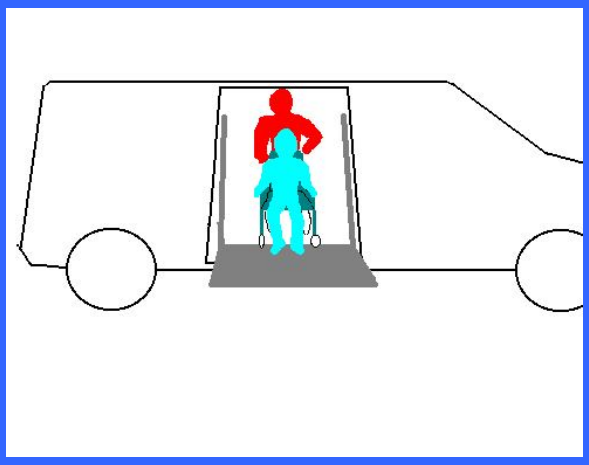
5



Enter the van. Remove the brakes and back the patient into th e van.

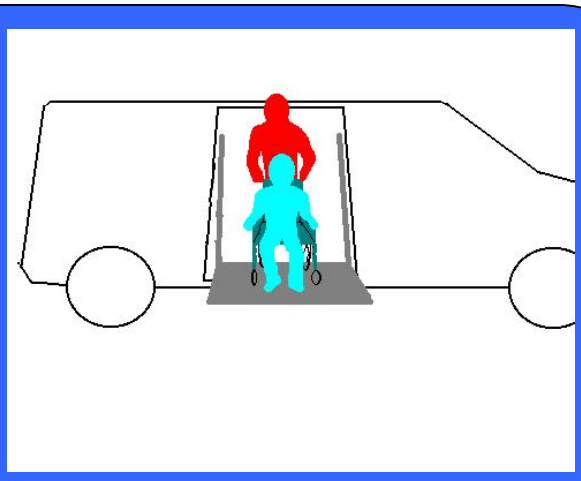
SKILL 1 – Hydraulic Lift – Unloading the Patient

1



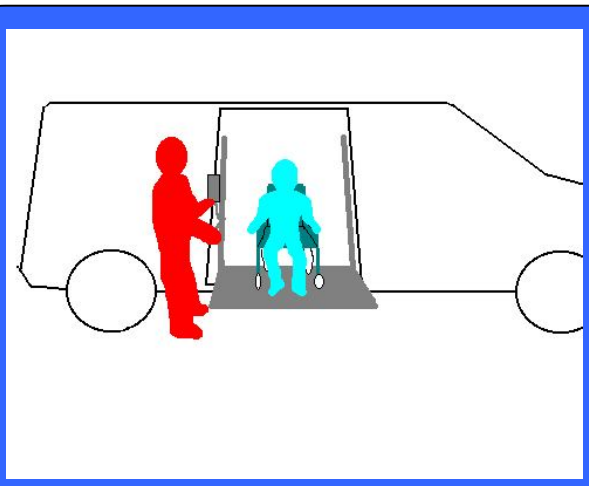
Inform patient of procedure, bring lift to the lowered position

2



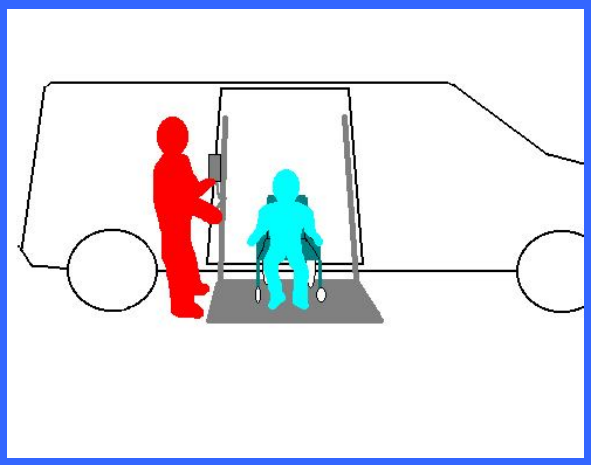
Wheel patient on to hydraulic lift and apply the brakes. Fasten lift belt if applicable.

3



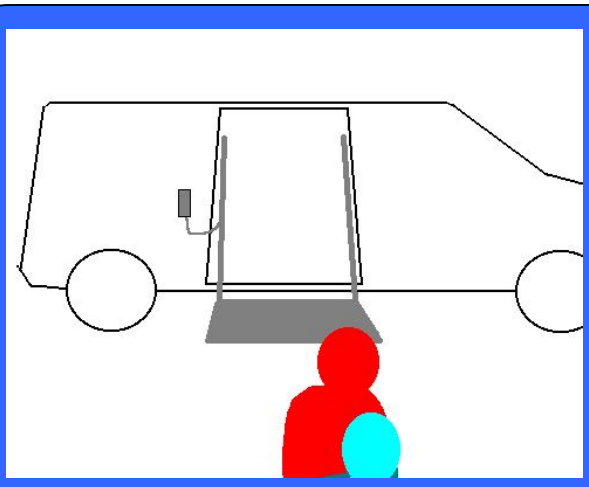
Exit van and position yourself next to patient

4



Lower the lift to th e lowest position. Do not ride the lift up with the patient.

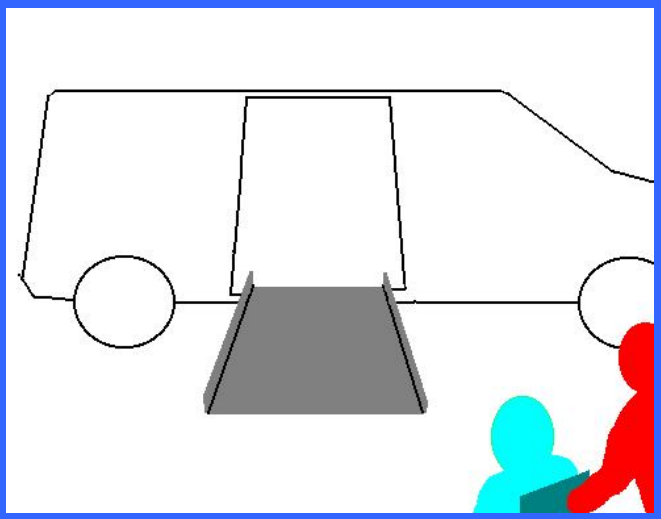
5



Wheel the chair away from the van and proceed with transport

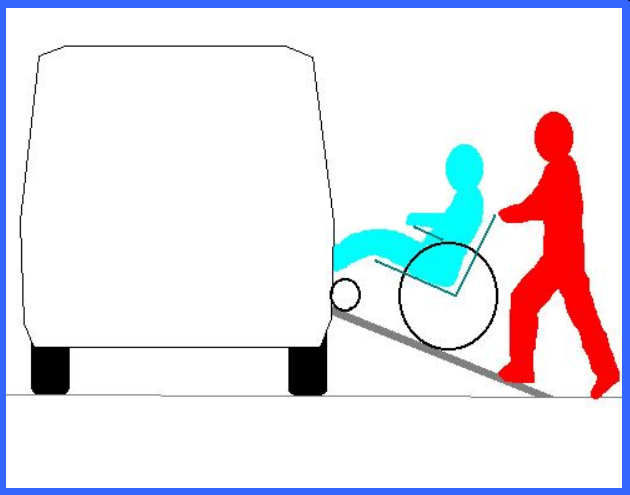
OPTIONAL SKILL – Ramp – Loading the Patient

1



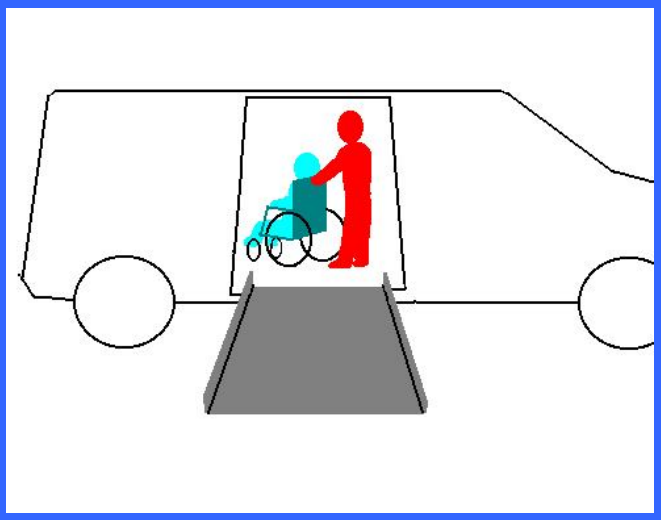
Deploy the ramp, inform patient of the procedure, position patient in front of ramp

2



Push wheelchair up the ramp. DO NOT pull the patient up from the top

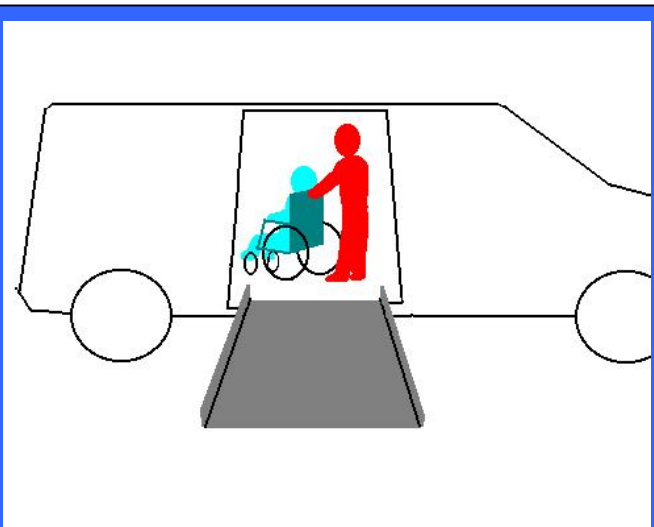
3



Wheel the patient into the van and position the chair for securement and transport.

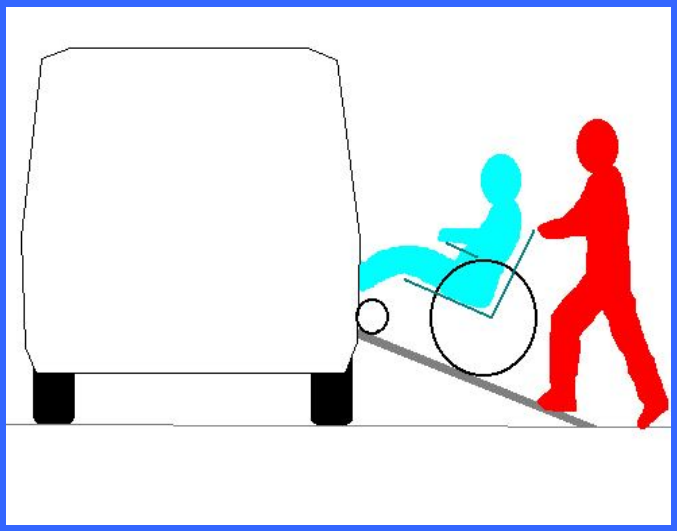
OPTIONAL SKILL – Ramp – Unloading the Patient

1



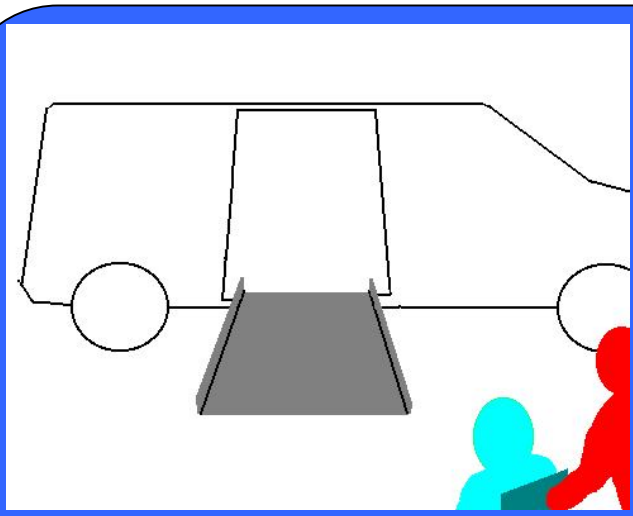
Deploy the ramp, inform patient of the procedure, position patient in front of ramp

2



Roll the chair down the ramp slowly, keeping your body close to the chair to control the weight.

3



Wheel the chair away from the van and proceed with transport

SKILL 1 – LOADING/UNLOADING PATIENTS – HYDRAULIC LIFT

Skills Sheet – Hydraulic Lift – Loading the Patient		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure		
2. Brings lift to lowered position		
3. Places chair on lift facing away from the van. Locks brakes. Fastens seatbelt if applicable.		
4. Positions self next to lift.Raises lift to elevated position.		
5. Enters van. Unlocks brakes and pulls chair into van.		
Instructor Signature: _____ Date: _____		

SKILL 1 – UNLOADING PATIENTS - HYDRAULIC LIFT

Skills Sheet – Hydraulic Lift – Unloading the Patient		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure		
2. Brings lift to raised position		
3. Places chair on lift facing away from the van. Locks brakes. Fastens seatbelt if applicable. Exits van.		
4. Positions self next to lift. Moves lift to lowered position.		
5. Unlocks brakes. Pushes patient off lift and proceeds with transport.		
6. Verbalizes 3 items to troubleshoot lift failure		
7. Demonstrates raising and lowering the manual backup		
Instructor Signature: _____ Date: _____		

OPTIONAL SKILL – LOADING PATIENTS - RAMP

Skills Sheet – Ramp – Loading the Patient		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure		
2. Deploys ramp. Places patient facing ramp.		
3. Pushes chair up ramp, using body close to chair to bear the weight		
4. Pushes chair into van and positions chair for securement.		
Instructor Signature: _____ Date: _____		

OPTIONAL SKILL – UNLOADING PATIENTS – RAMP

Skills Sheet – Ramp – Unloading the Patient		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure		
2. Deploys ramp. Places patient with back facing ramp.		
3. Lowers chair down ramp, using body close to chair to bear the weight		
4. Wheels chair away from van and proceeds with transport.		
Instructor Signature: _____ Date: _____		

When you enter the patient compartment of the van, you will notice tracks on the floor. These tracks allow the MAVO to secure the wheelchair inside the van. The tie-downs snap into the track and attach to the wheelchair frame to keep the wheelchair from tipping during transport. There are two types of tracks, “A” and “L”.

“A” Track

“L” Track

Tie-Downs

Tie-downs are used to secure wheelchairs in an MAV to keep patients safe and to contribute to the crashworthiness of everything in the vehicle. It takes four tie-downs to secure one wheelchair in the back of the MAV. Four different types of tie-downs are available for this purpose:

- Retractable straps
- Ratchet straps
- Overcenter buckles
- Cam buckles

Any of these are acceptable forms of restraint when used properly.

Retractable strap

When using retractable straps, the MAVO must only push a lever to either release or tighten the strap. It works similarly to the cord on an old vacuum. Some also have a tensioner crank to manually take up any leftover slack.

Retractable Strap

Ratchet strap

When using ratchet straps, the MAVO must hand crank the ratchet to secure the wheelchair.

Ratchet Strap

Overcenter Buckle

The overcenter buckle relies on the strength of the MAVO to pull the strap through the buckle. You can crank the handle to assist the webbing through the buckle, snapping it closed when the slack is gone.

Overhead Buckle

.

Cam Buckle Strap

With a cam buckle strap, the MAVO just has to pull the webbing tight. The mechanism itself should grab the strap with its teeth to stabilize the tie-down. Cam buckle straps should only be used to restrain the front of the wheelchair, never the back.

Cam Buckle Strap

An MAVO should carry at least one wheelchair for those patients either without their own chair or without a wheelchair that can be safely secured for transport. This wheelchair should be in four-point tie-downs (even if there is no a patient in it) or an approved wheelchair storage rack at all times.

Remember, everything inside the van should be "crashworthy" to ensure the safety of all passengers in the van at all times. "Crashworthy" means that the wheelchair, patient belongings, equipment or devices of any kind – everything inside the vehicle – is secured and will not become a projectile in the event of an accident.

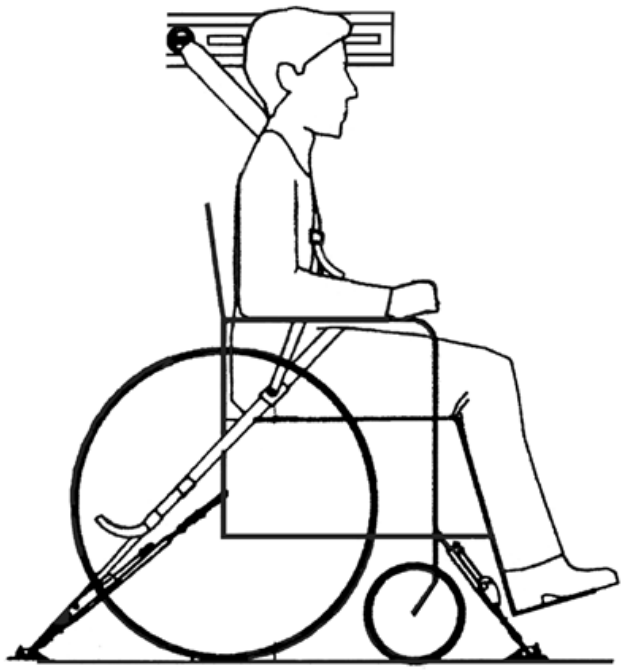
Seat Belts

Other important items in your MAV are the seatbelts that are used to secure passengers in vehicle seats and in wheelchairs. Wheelchair seatbelts are used so that the patient does not slip down or fall out of the chair when stationary or when in motion on the ground. Remember that anytime you are attending to a patient in a wheelchair, they must be seatbelted into the chair. Automotive seatbelts or safety belts in MAV's are used for the same purpose as they are in your car: to keep the driver and passengers secured while the vehicle is in motion and in the event of a crash.

Proper Securement of Wheelchair in Van

A patient who is appropriately secured in the MAV will be in a chair that is firmly tied down to the MAV floor with four restraint straps that are secured to the frame of the wheelchair. The chair will not be able to be moved more than 1" in any direction. The patient will be forward-facing in the van, and will be secured in the chair with a separate restraint system. Although the Office of Emergency Medical Services accepts a single seatbelt in the current NJAC 8:40 regulations, the most current thinking is that the paitent should be in an ADA three point restraint.

Other organizations also require a shoulder harness to restrain the patient. The current Logisticare standards require a shoulder harness, so if you organization does any Medicaid-billable work, you must use an ADA three point restraint. A standard for Transporting Wheelchairs, the WC-19 standards, also require a three point restraint on the patient. Thus, it's recommended that you always utilize a three point restraint when transporting a patient.



Properly Secured Patient in MAV

All seatbelts – automotive and wheelchair – must be positioned low on the patient's body, across the bones of the pelvic area and not across the ribs or soft tissues such as the stomach or waist.

Seat Belts

Your vehicle is equipped with safety belts on both the driver's seat and the passenger's seat. If your van has foldaway bench seats in the patient compartment, they must also be outfitted with safety belts. All passengers in your vehicle must wear their safety belts at all times.

Some companies attach a seatbelt to their wheelchairs to secure the patient in the wheelchair. At the start of your shift, you should inspect seatbelts attached to the wheelchair for wear-and-tear.

All seatbelts or safety belts utilized in your vehicle should have metal buckles, as opposed to plastic buckles or Velcro fasteners. Regardless of the style of belt or fastener, if a patient's chair has its own non-compliant belt, you must still use the 9-foot strap to maximize safety so take it inside with you when you are picking up a patient.

Box 4-1: Seat Belts

Anytime a patient in a wheelchair is attended by an MAVO, the patient should be securely seatbelted into the chair. Since most patients will not have automotive-type belts on ttheir wheelchairs at home, the MAVO should always keep a 9" automotive seatbelt strap handy for transports.

Step Stools

Some patients can walk, but are either too weak or unsteady to take the larger steps necessary to enter the MAV. In these cases, an ambulatory assist stool may be necessary to assist this patient with entering the MAV.

Ambulatory Assist Stool

An appropriate ambulatory assist stool will be solidly constructed from a strong material, have a large surface area for the patient to step on, and have a foot-base that is wider than the stepping area to insure that the stool remains steady when the patient places his or her foot on it.

When using an ambulatory assist stool, make sure you:

- Position stool directly in front of vehicle door
- Stand downhill from the patient
- Insure patient is stepping in the middle of the stool, as opposed to the sides

Do not use a step stool that does not meet the above criteria. You should definitely not use stools made of plastic that are meant for home use by consumers. These products are not meant for use by potentially unsteady people who may have difficulty with balance. A medical-grade product meant for use by sick or elderly persons is a better choice for an MAV application. Having appropriate equipment, knowing how to use it, and properly monitoring your patient are the best ways to prevent an injury and insure a safe transport.

MODULE 4 WORKBOOK

1. **Patients are generally loaded into an MAV via the _____ _____.**

2. **An MAVO must have three credentials on him/her when operating an MAV:**

   _____

   _____

   _____

3. **Should a hydraulic lift stop functioning with a patient on board the MAV, the MAVO should use the _____ _____ to unload the patient.**

4. **Any time a wheelchair bound patient is attended by an MAVO, the patient should be _____ into the chair.**

5. **The two types of tie-downs are:**

   _____

   _____

6. **Two types of straps to tie wheelchairs down with are:**

   _____

   _____

7. **The leg base of an ambulatory assist stool should be _____ than the stepping surface of the stool.**

8. **The three documents that should be readilty available in an MAV for displaying to an OEMS auditor are:**

   _____

   _____

   _____

9. **An MAVO who needs to buckle a patient into his/her own wheelchair might use a _____ _____ _____ to accomplish this.**

MODULE 5 – Wheelchair Anatomy

Objectives:

- Identify the basic parts of a standard wheelchair, and identify acceptable parts to tie down a chair
- Identify some different wheelchairs and their concerns
- Demonstrate opening and closing a wheelchair

Handling a wheelchair efectively is one of the most important skills an MAVO can develop. This module will discuss some of the more common features of a standard wheelchair. At the end of this segment, you should be able to demonstrate understanding of why wheelchairs are designed the way they are, and what advantages this design offers when moving the patient.

Standard Wheelchair

A standard wheelchair is a collapsable metal framed seat with four wheels. In traditional models, the front wheels are smaller casters and steer the chair. The rear wheels are larger, and are intended to roll up and down obstacles such as steps or curbs. Arm and leg rests are typically removable, and most wheelchairs have handles of some type so that they can be pushed or steered from the rear. Some form of brake mechanism is also present on most chairs so that the chair does not accidentally roll away when it is unattended. Seating is typically made out of vinyl or some other long lasting and easily cleaned material.

Less Common Wheelchairs

There are some variations to the standard wheelchair that are still acceptable for transport, such as leg rests that elevate or that are removable, removable arm rests, and the absence of hand rims.

Sports Wheelchairs

Sports chairs are for the independent patient who may enjoy a game of basketball or racing around the track. The back rest is usually very low, there are no hand grips and the framework can make it very difficult to secure the wheelchair safely in the van.

There are many different styles of sports chairs. If you have a patient with a sports chair, it is recommended that you notify your company's management immediately. It is a management decision whether to transport a patient in the sports chair. The chair should be evaluated and the points of tie-down mapped out. The MAVT should be trained to secure this specific wheelchair.

Electric Wheelchairs

An electric wheelchair suitable for transport will have the same basic design as the standard wheelchair with the addition of a motor and a device for steering. The steering mechanism will depend on the physical capabilities of the patient.

Electric wheelchairs are known for being very heavy, so they are difficult to maneuver manually. Luckily, electric wheelchairs are self-propelled, so the patient can maneuver the chair for him or herself. The MAVO will generally not need to push or otherwise maneuver the chair unless the electric wheelchair loses power or otherwise breaks down.

Wheelchair Design Features

While wheelchairs come in various types and configurations, there are some features to wheelchairs that are common and define wheelchair use. Being familiar with them will allow the MAVO to better use wheelchairs to move patients.

Wheelbase

A typical wheelchair has two fixed wheels in the back, and two smaler rotating casters in the front. The rear wheels do not steer the chair – they are designed to roll over obstacles such as steps or curbs. The front wheels provide the chair with all direction changing ability. The small casters rotate 360 degrees and are responsible for the chair's ability to change direction. All the wheels can spin independently of the others.

Brakes

Brakes on most wheelchairs are simple friction mechanisms that prevent the wheels from turning by applying friction to the wheel itself and preventing it from turning. When the brake is engaged, a metal tab applies pressure to the whel and locks it in place.

It is important to understand that wheelchair brakes aren't meant to slow a moving wheelchair down, but rather to prevent a stopped wheelchair from moving or rolling away. While new or well maintained brakes are generally very effective, there are some factors that can make brakes less likely to effectively stop a whelchair:

- <u>Worn Wheels:</u> If the wheelchair's wheels are somewhat worn, they wil make less contact with the brakes and thus be less effective at keeping the chair from moving.
- <u>Under-Inflated Tires:</u> If a wheelchair has pneumatic (inflatable) tires and they are under-inflated, it would cause the brakes to make less contact with the wheels and in turn diminish it's stopping power.
- <u>Poor Brake Adjustment</u> – Occasionally brakes will need to be adjusted so as to make better contact with the wheels. This is especially true of older or poorly maintained wheelchairs.

It is critical that you pay special attention to the condition of the brakes when you transport a patient with his or her own wheelchair. Some patient chairs will be in very poor shape and cause accidents.

OVERVIEW 3 – Wheelchair Inspection

Wheelchair handles are the area from which most of the pushing, pulling, or lifting of the chair will take place. Use caution when beginning to move a chair for the first time. In some wheelchairs, the handles can be loose and come off during a critical point of a move. This can cause the MAVO to lose control of the chair and cause the patient to fall or otherwise become injured.

Arm rests on wheel chairs are sometime removable, but not always. Since arm rests can sometimes come off, they are a poor place from which to lift or maneuver a wheelchair. Make sure the patient's arms don't dangle from off the arm rests and get caught in the wheels where they can become injured by the moving parts.

The wheels in wheelchairs can be solid or pneumatic. In some of wheelchairs the wheels can be either worn or under-inflated, causing the brakes to engage the wheel poorly and not brake appropriately.

Leg rests are also sometimes removable in wheelchairs. When the patient sits in the chair, at the very least the foot rests should be folded out of the way so that the patient does not trip on them. When ready to move the chair, the foot/leg rests should be placed back into position, and the patient's feet should be placed on the foot rests so that they don't get caught under the chair and get injured.

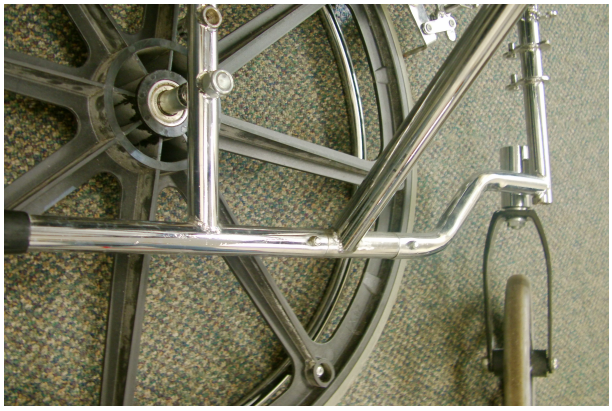
Brakes on wheelchairs are mechanisms that engage the wheels and prevent them from spinning. Remember that the brakes in wheelchairs do not slow a moving wheelchair but rather prevent a stopped wheelchair from rolling unexpectedly. You should the test brakes when you first approach a new wheelchair to make sure they are reliable and can stop the chair effectively.

The wheelchair frame is the only appropriate area to secure wheelchair tie downs to. It is structurally sound, non-movable, and able to withstand the strong force created by a motor vehicle collision.

The crossbar is the main folding axis in a collapsable wheelchair. It allows a chair to be folded to a fraction of it's horizontal width. Since it is a movable part of the wheelchair, you should not use the crossbar as an attachment point for tie downs when securing a wheelchair in the MAV.

Frame

The wheelchair frame is the metal scaffold that supports the weight of the patient. The frame is a unique part of the wheelchair because it is extremely strong and has no moving parts.



These two features are very important to an MAV transport since they make the frame an ideal point to attach tie down straps and secure the wheelchair inside the MAV. The lack of moving parts means the straps will not lose tightness during the transport. The frame's strong construction also means that should there be a motor vehicle collision, the chair (and thus the patient) is more likely to stay attached to the floor and not be tossed inside the vehicle. Never attach wheelchair tie downs to any part of the chair but the frame.

Hand Grips

Hand grips are the main areas an MAVO will use to maneuver a wheelchair. Some of these maneuvers will involve an MAVO pulling on these grips with great force.

In older or poorly maintained wheelchairs, the wheelchair grips may be loose and may come off suddenly. This could potentially cause the chair to fall and the patient to become injured. Always test the hand grips before attempting to maneuver a chair for the first time.

Institutional Features

Some options that a healthcare organization might purchase for a chair that is used in a facility include chart holders, IV poles, oxygen bottle holders, and reclining backs.

Most of these features will create very little functional difference during the transport. As an MAVO, you should simply be familiar with them so that you are not confused by their purpose the first time you transport a patient in such a chair.

Seatbelts

Most patient wheelchairs will not have seatbelts, or will have a light strap system such a Velcro™ strap. An MAV transport however, is much more likely to create a fall. The patient is not in control of the chair, he or she will be elevated on a lift, and the wheelchair will be secured in a moving vehicle. Because of these factors, a patient must be secured in the chair with an automotive-type seat belt whenever he or she is attended by an MAVO.

To insure compliance with this standard, an MAVO will often need to carry a portable seatbelt called a *9' Strap* that can be used to secure a patient in his/her own wheelchair for the transport to the MAV. In the vehicle, the patient will be further secured for the trip.

SKILL 2 – Opening/Closing the Wheelchair

1

Place your hands under the seat and behind the back of the wheelchair

2

Lift up on the seat fabric and push in on the back fabric to collapse wheelchair frame.

3

Place your hands on the metal bars on each side of the seat of the wheelchair

4

Push down on each side of the chair evenly so that the chair's crossbar opens

5

Continue pushing until the crossbar is completely deployed and the chair is fuly open

Armrests

Armrests are an important safety item on a wheelchair, as they help prevent the patients arms from dangling into the moving parts of the wheels and getting hurt. They also prevent a patient with poor motor control from slumping out of the wheelchair.

Since in many wheelchairs the armrests are removable, always be sure to use them when transporting a patient. Also, do not attach tie downs to the arm rests as they could come off and allow the chair to move., A last concern is that placing seatbelts over wheenchair arms creates a void between the patient's lap and the belt. A patient can easily slip through that void and become injured during a collision. Make sure you send the seat belt through or behind the armrest so that there are no voids and the seatbelt lies snuggly over the patient's hips.

Legrests and Extenders

Legrests and lower extremity accessories also serve an important safety task – to keep legs froim dragging under the chassis of the wheelchair. It is very important to use these accessories when transporting a patient as some patients with poor motor control will not be able to keep their feet up safetly during the trip. When you load and unload the chair however, the legrests can be a trip hazard to the patient when he or she stands up or sits down. A wise MAVO always uses the leg rests for the transport, but makes sure he or she moves the pedeals or legrests out of the way for the patient when the patient sits or stands.

MOVING A WHEELCHAIR

In general, moving a wheelchair patient to and from a location is relavively simple. The operator positions himself behind the chair, and grasping the handles pushes the chair towards the destination. There are some situations where additional care is warranted:

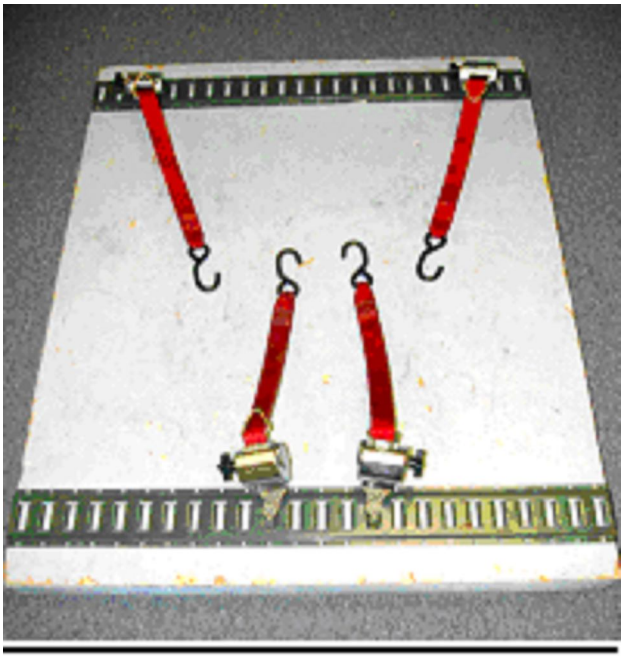
Broken Terrain – Wheelchairs perform well on flat sturdy terrain. They perform less well when they are used on broken sidewalk, grass, or other non-flat surfaces. The uneven terrain shakes the chair considerably and can make the trip unpleasant for the patient. Make an attempt to select solid flat surfaces to transport your patient over when transporting a patient. Even metal grades can pose a danger when transporting a wheelchair bound patient, as the small front casters can fall into the holes in metal grates and cause the front of the chair to sink, tossing the patient from the chair.

Storm grates can trap wheels and toss patients

Doorways - Doorways can be difficult to maneuver by an MAVO as the they are generally more narrow than typical hallways. Some types of hydraulic and spring-loaded doors can close on a passing wheelchair and injure a patient. Always use caution when pusing a wheelchair through a doorway. When possible, lock the wheels on a chair, open a door ahead of time, then unlock the wheels and push the chair through it. Do not under any cirsumtances use the patient and chair to push a door open. Aside from being unprofessional, this can cause damage to the chair and injury to the patient. This is especially true of diabetic patients who have poor sensation in their legs and do not redily heal their wounds.

SECURING THE WHEELCHAIR IN THE VAN

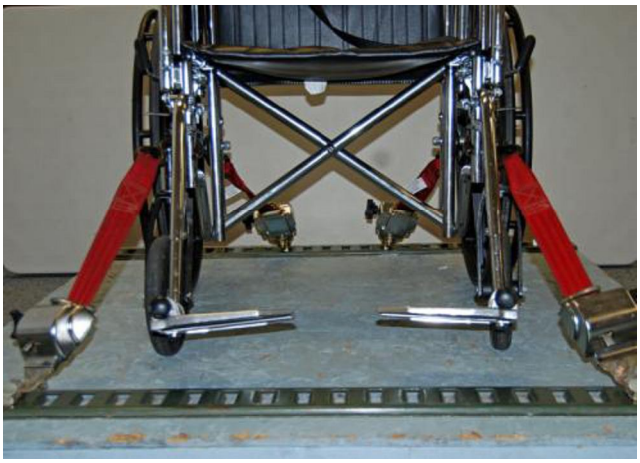
If you only have one patient in the van it is always best to put your patient in the front position. The front position is closer to the MAVT when driving so the patient can be seen and heard. Also, because the rear position is directly over the rear axle, the front is a more comfortable ride. Regardless of which type of tie-downs you are using, the placement will always be the same.



Four tie-downs are going to be used to secure the wheelchair. Two tie-downs will lock in the front of the chair, and two will restrain the back. The tie-downs to be used on the back of the wheelchair should be just inside of the back wheels, while the front tie-downs should be just outside of the caster wheels.

In either case, the purpose of the tie-downs is not to pull the wheelchair apart but rather to pull the wheelchair down into the floor. You need to think about this whenever applying the tie-downs. If the tie-downs are too far wide from the wheelchair, they will be pulling the wheelchair apart but not securing it. The tie-downs should be at an approximately 45 degree angle to the wheelchair when in position.

Never connect the tie-downs to a moving part of the wheelchair, such as the leg rests, arm rests, or the wheels themselves. Connect the tie-downs to the frame of the wheelchair instead. If you practice this in general, you should have no problems securing a custom wheelchair of any kind. The fastening procedure is based on the same concept no matter what type of wheelchair you are working with.



IMPORTANT: The wheelchair should always be in four-point restraints when the vehicle is in motion even if there is no patient on board. Remember to consider "crashworthiness" at all times.

SECURING THE PATIENT

In addition to the four-point wheelchair restraint system, the Americans with Disabilities Act (ADA) recommends the use of a secondary restraint system to secure the patient. While the four-point system is designed to keep the wheelchair in place, the secondary restraint system is designed to keep the patient in place. This system is used in conjunction with the standard seat belt. There is more than one approved system.

The two-point system is a lap belt which attaches to either the floor track or to the base of the rear tie-downs. The lap belt is to be worn across the pelvic region.

The three-point system consists of a lap belt and a shoulder belt. The lap belt should be thread through the arm rests of the wheelchair when possible so that it sits as closely as possible to the lap of the patient. The belt should not be placed over the arm rests as they allow a patient to slide under the belt during a collision. It may also place the belt over the abdomen instead of the pelvis, leaving the patient subject to abdominal injury in the case of a collision. The shoulder belt should attach to the lap belt at the hip of the wearer extending at an angle to cross the patient's chest up to the shoulder region. It should extend beyond the patient to a track system on the wall of the vehicle.

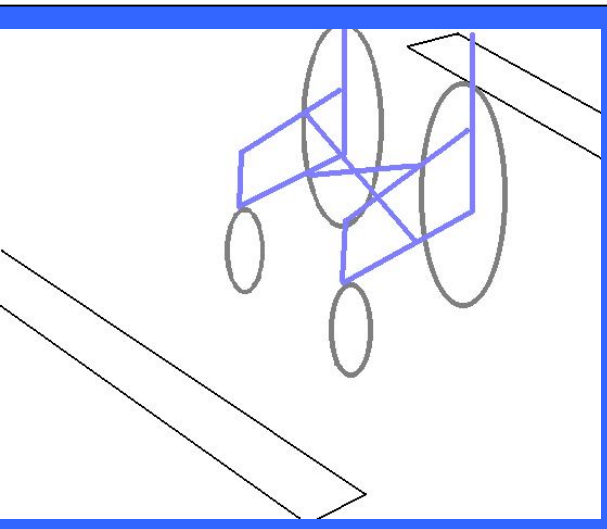
Tip: Use the back of your hand against the patient's body when bringing the lap belt up from the floor and through the wheelchair. Coming into contact with patient's body always use the back of your hand.

FAILURE TO SECURE THE PATIENT

Not securing the patient correctly can cause a patient to become severely injured. In a collision, even if the wheelchair stays secured to the van, the patient will be ejected from his/her seat. The patient can strike the inside of the vehicle and become seriously hurt.

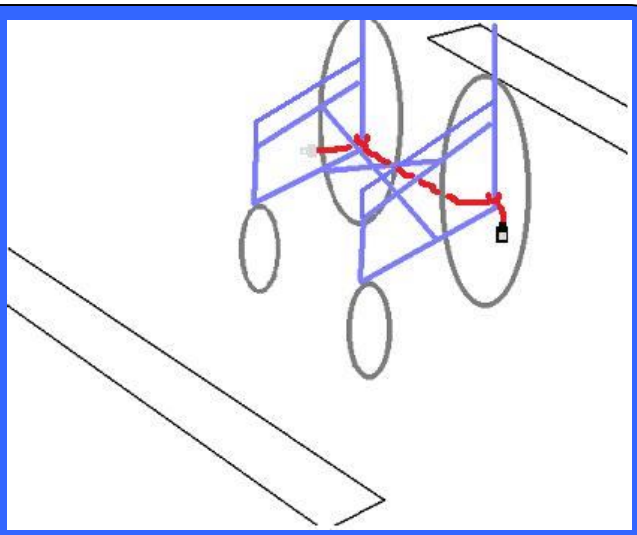
SKILL 4 – Applying a Seatbelt to the Wheelchair

1



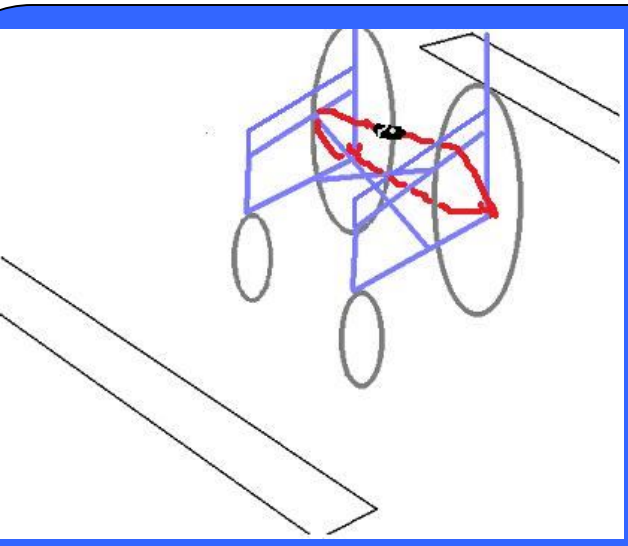
Position chair in van between tie-downs
Facing the front of van

2



Secure two straps to the front of the wheelchair.
Secure the straps to the frame , not removable parts

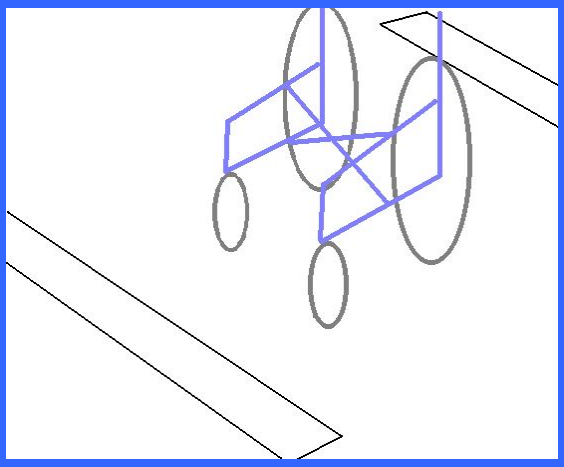
3



Secure two straps to the rear of the wheelchair.
Secure the straps to the frame , not wheels

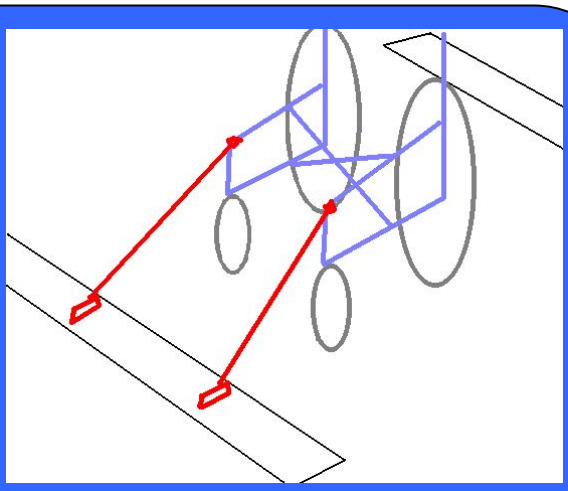
SKILL 5 – Securing the Wheelchair and Patient

1



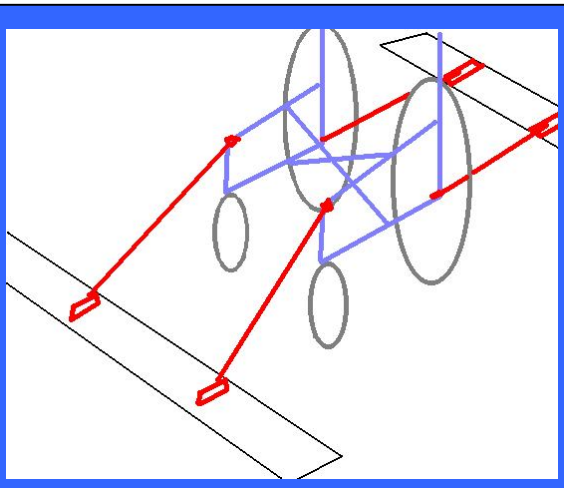
Position chair in van between tie-downs
Facing the front of van

2



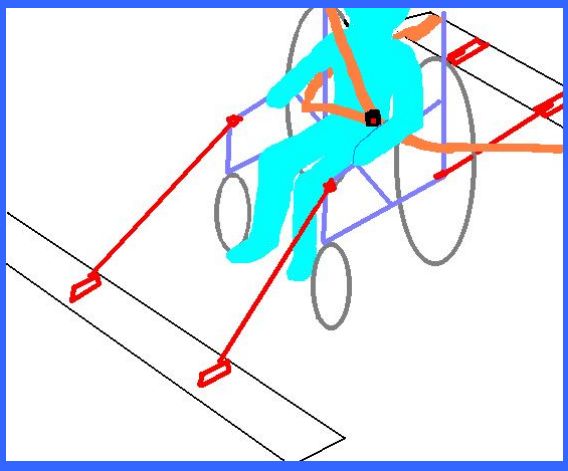
Secure two straps to the front of the wheelchair.
Secure the straps to the frame , not removable parts

3



Secure two straps to the rear of the wheelchair.
Secure the straps to the frame , not wheels

4



Strap the patient to the chair using an ADA 3 point restraint or equivalent

SKILL 2 – CLOSING AND OPENING THE WHEELCHAIR

Skills Sheet – Closing and Opening the Wheelchair		
Step	**Completes Successfully?**	
	Yes	**No**
1. Positions him/herself at the side of chair		
2. Lifts up on the seat of the chair to close the frame		
3. Places hands on metal bars on each side of seat		
4. Pushes down on each side evenly so as to open the frame of the chair		
5. Continues until the crossbar is fully open and the chair is completely deployed		
Instructor Signature: _____ Date: _____		

SKILL 3 – DEMONSTRATING WHEELCHAIR PROFICIENCY

Skills Sheet – Securing the Wheelchair and Patient		
Step	**Completes Successfully?**	
	Yes	**No**
1. Removes and replaces both arms rests		
2. Removes and replaces both leg rests and extenders		
3. Locks and unlocks both brakes		
4. Verbalizes 2 other inspection items on the wheelchair		
Instructor Signature: _____ Date: _____		

SKILL 4 – PLACING A SEATBELT ON WHEELCHAIR

Skills Sheet – Securing the Wheelchair and Patient		
Step	**Completes Successfully?**	
	Yes	**No**
1. Opens wheelchair fully, applies brakes		
2. Wraps seatbelt around rear vertical posts of chair		
3. Threads seatbelt through arms of wheelchair and buckles seatbelt snugly over pateint's lap		
Instructor Signature: _____ Date: _____		

SKILL 5 – SECURING THE WHEELCHAIR AND PATIENT

Skills Sheet – Securing the Wheelchair and Patient		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure		
2. Positions the wheelchair for tie down		
3. Secures two straps to the front frame of wheelchair at no more than 45 degree angles		
4. Secures two straps to the rear frame of wheelchair at not more than 45 degree angles.		
5. Secures patient to chair using ADA 3-point restraint or equivalent.		
6. Alternates straps so that ratchet, pull-through, and folding tie downs are all utilized		
Instructor Signature: _____ Date: _____		

MODULE 5 WORKBOOK

1. **Wheelchair wheels all move _____.**

2. **Large wheels are _____ and are meant to _____ over obstacles.**

3. **Small wheels _____ and they _____ the wheelchair.**

4. **You should always secure wheelchair tie downs to the _____ of the chair.**

5. **A patient should always be _____ into a wheelchair whenever attended to by an MAVO.**

6. **Since most patient wheelchairs will not have an automotive seat belt, an MAVO should carry a _____ _____ to secure the paiient for the transport to the MAV.**

7. **_____ _____ can sometimes come loose and risk injury to the patient during a maneuver.**

8. **The _____ is the main folding axis of the wheelchair and should never have tie downs attached to it.**

9. **A worn wheel or under-inflated tire can cause the _____ to fail and cause an injury if the MAVO is not cautious.**

10. **_____ _____ are self-propelled and known for being very heavy.**

11. **Younger patients sometimes have _____ _____ , which can be difficult to tie down.**

12. **Before seating a patient in a chair, the _____ _____ should be folded out of the way.**

13. **_____ _____ and _____ _____ are commonly removable parts on wheelchairs.**

14. **To close a wheelchair, an MAVO should lift the _____ and push the _____ of the wheelchair.**

15. **To open a wheelchair, the MAVO should push down on the _____ of the seat of the wheelchair.**

16. **Examples of institutional features a wheelchair may have include:**

_____ _____

MODULE 6 – Assitance Skills

Objectives:

- Identify the key elements of safe patient assistance
- Successfully demonstrate each skill under the supervision of an instructor

As an MAVO, you will transport many patients with various levels of ability to get around. Some of your patients will be ambulatory. Ambulatory just means that they are able to walk with little or no assistance. If this is the case and your offer of assistance is refused, you should be standing close enough to your patient to grab them if they get shaky and either keep them from falling or soften the blow if they do fall. We call this an *Unassisted Transfer.*

Many of your patients will need some type of help but you should never have to lift your patient. Remember you are a Mobility ***Assistance*** Vehicle Operator.

There are several acceptable techniques for helping your patient to stand up and turn around to sit in your wheelchair. Choose the method based on your patient's condition.

Assisting with Outer Clothing

As an MAVO, you may at some point need to assit a patient in putting on outer clothing such as a jacket. While this will be easy if a patient has good mobility, it may be more difficult in patients who lack mobility in one or both arms, or patients who cannot sit forward to work the coat around their bodies. The goal is to get the patient as covered as possible, so if you must use some creativity to achieve this, you should. Below are examples of how to assist a patient without outer clothing. Make sure none of the coat is dangling down into the working parts of the wheelchair.

.

Skill 6 - One Arm Assist

Stand facing your seated patient. Place one foot between their feet and place your other foot behind you so your hips are turned slightly. Extend one arm in front of you. This should be the arm on the same side of your body as the leg you put in front. Hold the patients arm above the back of the elbow. Allow the patient to hold your arm the same way. Brace yourself by shifting your weight to your back leg and instruct your patient to stand. This maneuver is for patients who need minimal assistance. You will demonstrate this skill along with assistance with a cane and applying outer garments.

.

Skill 7 - Two Arm Assist

Your stance should be the same as the 1-arm assist. Stand facing your seated patient. Place one foot between their feet and place your other foot behind you so your hips are turned slightly. Bend one arm in front of you and hold your wrist with the other hand. You are essentially making a railing for the patient to pull up on. When you are ready, allow the patient to use both hands on your forearm and pull to a standing position. Remember to keep your weight shifted to your back leg so you don't get pulled forward. This maneuver is for patients who need a little more assistance.

.

Skill 8 - Stand and Pivot

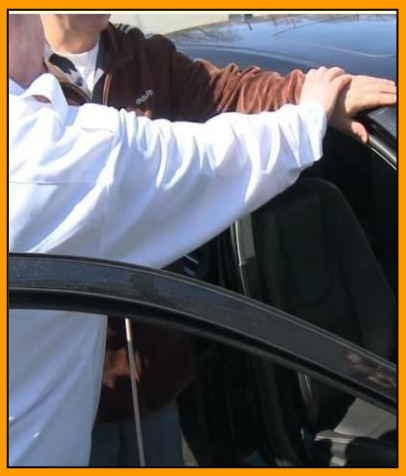
For this procedure you will need to begin by placing the empty chair at a right angle to the chair the patient is sitting in. Place one foot between your patient's feet, the other foot should be behind you. Bending your front leg, slide your arms under your patient's arms and clasp your hands behind his or her back. Instruct the patient to put his/her arms around your neck. Using your front leg, stand the patient up. As you straighten up, shift your weight to your back leg. Now you can turn with the patient to seat him in the empty chair. Take extra caution with this technique. It begins and ends with you bent over the patient. If your patient loses his or her balance, you are in a bad position to protect your back. If your patient appears too large or unsteady to handle, consider another more stable technique and/or additional assistance.

Skill 10 – Assisted Lateral Transfer

This maneuver is more challenging and should only be used on patients who are smaller and lighter than the MAVO. Position the wheelchair next to the patient's chair. Place one foot behind each chair with a strong stance. Lock the brakes and remove the arm and leg rests. Inform the patient of the procedure and ask the patient to cross his/her arms and lock hands tightly. Position your arms under the patient's shoulders, and grasp the patient's forearms tightly. Lift the patient off the chair, and transfer him or her laterally to the wheelchair. Finish by securing the seatbelt and replacing the arm and leg rests.



Skill 11 - Visual Impaired Assist



In providing asistance to the visually impained, you are primarily guiding them through their environment. Position yourself on one side of the patient about one step ahead of them. If the patient has a white can, position yourself opposite the white cane.Offer him or her your arm. As you walk, constantly talk to the patient as you walk and describe the area your are in (hallway, kitchen, hospital lobby), ground surface (sidewalk, asphalt), the the objects that are within the next 10 feet of proximity (chair, door). If the patient is able to ambulate well, he or she will likely not need additional assistance. When entering a vechile, they may need several points of reference to be seated safely. Gently take the patient's hand, and touch it to the top of the door jam, the top of the door itself, and the seat. With those points of reference, an able bodied visually impaired person should be able to seat him or helfself.

SKILL X – Sliding Board Transfers

1

Remove one armrest. Set the brakes. Remove the leg rests. Scoot the person forward in the chair and position their feet flat on the floor.

2

Carefully slide the slide board under the persons buttocks by having them lean slightly away from the board. The other end of the slide board is on the surface they will be transferred to. About a quarter of the board should be under the person.

3

Grasp the patient at the hips or shoulders and at a count of 1-2-3, lift them slightly while they push, and help them slide a few inches. DO NOT let them place their fingers under the slide board.

4

Continue with the count, lift, push and slide sequence until the person has fully transferred to the other surface. Seat the person on the surface and make sure they are stable and secure. Then remove the slide board.

Some patients can be transferred with a sliding board. The use of a sliding board is especially helpful if a patient has some upper body strength and can participate in the moving process. The board is placed between the two surfaces (a chair and a wheelchair for example) and the patient slides with assistance from one surface to another. In some cases the patient has enough strength to lift his own rear end up slightly and slide him/herself down the board towards the other surface in small increments. On other cases, the MAO must assist the patient by helping lift the patient's weight slightly off the board as the patient makes his/her way down the board. It is critical to understand that the MAO must always be in a good position to intervene should the patient lose his or her balance and be about to fall. The MAO must not let a patient with some strength lull him / her into a false sense of security.

SKILLS 6 – ONE ARM ASSIST W OUTER GARMENT, STOOL, AND CANE ASSIST

Skills Sheet – One Arm Assist w Outer Garment, Stool, and Cane Assist		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure		
2. Assists patient with good mobility with outer garment		
3. Positions body appropriately with strong stance		
4. Grasps patient's forearm and back above elbow		
5. Shifts weight to back leg as patient stands		
7. Assists patient for 10 steps or more on side opposite the cane		
8. Assists patient into van using step stool; stays nearby and appropriately positions body downhill to prevent falls.		
Instructor Signature: _____ Date: _____		

SKILLS 7 – TWO ARM ASSIST

Skills Sheet – Two Arm Assist		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure		
2. Positions body appropriately with strong stance		
3. Grasps own forearm and offers it to patient		
4. Shifts weight to back leg as patient stands		
Instructor Signature: _____ Date: _____		

SKILLS 8 – STAND AND PIVOT

Skills Sheet – Stand and Pivot		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure		
2. Positions body in front of patient with strong stance		
3. Slides arms under patient's arms and locks hands		
4. Shifts weight to back leg as the patient stands		
5. Turns patient in front of chair; sits patient down in chair		
Instructor Signature: _____ Date: _____		

SKILL 9 – SLIDING BOARD TRANSFER

Skills Sheet – Sliding Board Transfer		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure; Places wheelchair at 90 degree angle with chair.		
2. Sets brakes and removes arms and legrests from wheelchair.		
3. Bridges both chairs with sliding board insuring that approximately one quarter of the board is under the patient.		
4. Insures chairs don't move and patient does not fall. Assists patient to slide if necessary.		
Instructor Signature: _____ Date: _____		

SKILL 10 – ASSISTED LATERAL TRANSFER

Skills Sheet – Two Arm Assist		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure; Removes arm and leg rests from wheelchair; Stands with one foot behind each chair.		
2. Has patient cross arms and lock hands tightly		
3. Places arms under patient's shoulders and grasps patient's forearms.		
4. Lifts patient from one chair to another while keeping back straight.		
Instructor Signature: _____ Date: _____		

SKILL 11 – VISUAL IMPAIRED ASSIST

Skills Sheet – Visually Impaired Assist		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure		
2. Positions body one step ahead of patient on side opposite of white cane		
3. Describes ground surface, changes in elevation, and objects in path as he/she walks		
4. Touches patient's hand to seat, door frame, and top of door when seating patient into vehicle		
7. Protects patient's head as he/she enters vehicle		
Instructor Signature: _____ Date: _____		

SKILL 12 – Tilt Position

1

Inform patient of the procedure. Place the patient and chair directly in front of you. Place foot on tilt bar.

2

Place foot on tilt bar. Push down on tilt bar and pull back on handles until the chair is balanced on the rear wheel. You should be able to support the chair in this position with minimal effort.

SKILL 13 – Ascending a Curb (Patient First)

1

Position the chair directly in front of curb

2

Place the chair in the tilt position

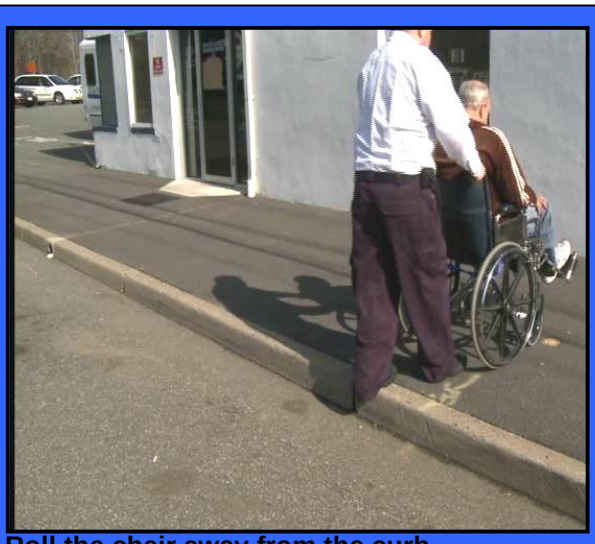
3

Push rear wheels up to curb, and rest front casters on curb surface.

4

Push rear wheels up the step

5



Roll the chair away from the curb

SKILL 13 – Descending a Curb (Reverse Operation)

1

Line wheelchair up with curb

2

Gently roll the rear wheels down the step

3

Roll chair away from the curb; cover tiltbar with your foot

4

Gently place front wheels on ground

SKILL 14 – Ascending a Curb (Backwards)

1

Position the chair directly in front of curb

2

Place the chair in the tilt position

3

Roll the rear wheel up the step

4

Pull wheelchair back until you can see the curb. Gently place front wheels on floor

SKILL 14 – Descending a Curb (Reverse Operation)

1

Line wheelchair up with curb

2

Place the wheelchair in the tilt position

3

Gently roll the chair down the curb

4

Lay front casters down on surface

SKILL 12 – TILT POSITION

Skills Sheet – Tilt Position		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure		
2. Places the chair directly in front of him/her		
3. Places foot on tilt bar		
4. Pushes on tilt bar and pulls on handles until chair is balanced over rear wheel.		
Instructor Signature: _____ Date: _____		

SKILL 13 – ASCENDING/DESCENDING A CURB (FORWARDS)

Skills Sheet – Ascending a Curb (Forwards)		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure; positions chair directly in front of curb		
2. Places chair in tilt position		
3. Pushes rear wheels up to curb and rests front casters on top of curb		
4. Pushes rear wheels up the curb and wheels chair away from curb		
REVERSE OPERATION		
5. Lines rear wheels up with curb		
6.. Gently rolls rear wheels down the curb		
9. Rolls chair way from curb		
10. Gently places front casters on ground		
Instructor Signature: _____ Date: _____		

SKILL 14 – ASCENDING/DESCENDING A CURB (BACKWARDS)

Skills Sheet – Ascending a Curb (Backwards)		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure		
2. Positions chair's back in front of curb		
3. Places chair in tilt position		
4. Pulls the chair up the curb		
5. Pulls chair back until he/she can see curb over patient's feet		
6. Gently places front wheels on ground using tilt bar.		
REVERSE OPERATION		
6. Lines chair up with curb		
7. Places chair in the tilt position		
8. Gently rolls chair down curb		
9. Lays front casters down gently		
Instructor Signature: _____ Date: _____		

SKILL 15 –Ascending Multiple Steps – One Operator

1

Inform patient of procedure; position chair in front of steps

2

Place the wheelchair in the tilt position

3

Roll wheelchair up stes, repositioning feet as necessary to insure a strong stance

4

Atfer climbing the last step, wheel chair backwards until the step is visible over patient's feet

5

Gently lower front wheels

SKILL 15 –Descending Multiple Steps – One Operator

1

Inform patient of procedure; Line chair up with steps

2

Place the wheelchair in the tilt position

3

Gently roll the rear wheel down each step, taking care to support weight of the chair

4

When last step is descended, gently place the front wheels on the floor and proceed with transport

SKILL 16 –Ascending Multiple Steps –Two Operators

1

Inform patient of procedure, Back chair against first step

2

Place the wheelchair in the tilt position

3

Insure bottom operator is grasping a non-removable part of the chair, such as the frame

4

Gently roll the rear wheel up each step. The bottom operator should support the weight while the top operator repositions his feet. Do not lift the chair completely off the ground.

5

After completing the final step, back the chair away from the stps until the last step is visible. Gently lower front wheels

SKILL 16 –Descending Multiple Steps –Two Operators

1

Inform patient of procedure, line wheelchair up with steps

2

Place the wheelchair in the tilt position; second operator should grab frame of chair

3

Gently roll chair down each step one at a time. Second operator should support weight, not lift chair.

4

When last step is decensded, gently lower the front wheels to the ground.

SKILLS 15– ASCENDNG/DESCENDING MULTIPLE STEPS–ONE OPERATOR

Skills Sheet – Ascending/Descending Multiple Steps – One Operator		
Step	**Completes Successfully?**	
	Yes	**No**
1. Informs the patient of the procedure		
2. Places the chair directly in front of steps		
3. Places chair in tilt position against first step		
4. Pulls wheelchair up each step		
5. On landing, pulls wheelchair back until last step is visible over patient's feet		
6. Gently lowers front wheels to ground		
REVERSE OPERATION		
2. Positions chair in front of steps		
3. Places chair in tilt position		
4. Rolls char down each step gently		
5. Places front wheels gently down on ground		
Instructor Signature: _____ Date: _____		

SKILLS 16– ASCENDNG/DESCENDING MULTIPLE STEPS–TWO OPERATORS

Skills Sheet – Ascending/Descending Multiple Steps – Two Operators		
Step	**Completes Successfully?**	
	Yes	**No**
1. Inform the patient of the procedure		
2. Position chair directly in front of steps		
3. Place chair in tilt position against first step		
4. Lower operator grasps chair by non-removable part		
5. Gently roll wheelchair up each step		
6. On landing, insures last step is visible over patient's feet		
7. Gently lower front wheels to ground		
REVERSE OPERATION		
8. Positions chair in front of steps		
9. Places chair in the tilt position		
10. Bottom operator grasps chair by non-removable part		
11.Gently roll chair down each step		
12. Gently places front casters on ground		
Instructor Signature: _____ Date: _____		

MODULE 6 WORKBOOK

1. When assisting the patient with outer garments, the MAVO should carefuly maneuver arms out of slings and into coats.

   TRUE FALSE

2. When maneuvering patients up or down curbs and steps, the MAVO should start the menauver by _____.

3. An MAVO ascending a curb can perform the maneuver either _____ or _____.

4. A second MAVO is necessary when the wheelchair patient is moved up or down two or more steps if the patient weighs more than _____ lbs.

5. A second MAVO is necessary when the patient is moved up or down _____ or more steps, regardless of patient weight.

6. When two operators are performing a lift, the second operator should grasp the non-removble _____ of the wheelchair.

7. Before attempting any lift, the MAVO should make sure the wheelchair's _____ are not loose.

8. When assisting the blind, the MAVO should be on the side _____ of the white cane.

9. The MAVO assisting the blind patient to enter a vehicle should touch the patient's hand to the vehicle:

   _____ _____ _____

MODULE 7 – MAV Operations

Objectives:

- Identify three elements of safe driving
- Identify concerns when parking the MAV
- Name several items that should be inspected before operating an MAV

The MAVO is expected to follow all driving and traffic safety laws. MAVO's are responsible for safety inside and outside their vehicle including when they are on the road. Because driving and parking are a serious part of the MAVO's responsibilities, it is important to be focused on these safety points that you should keep in mind when operating your vehicle.

The information in this chapter covers important topics and safe behaviors. It is not intended to educate MAVO's on all defensive driving techniques. MAVO's are strongly recommended to take a Defensive Driving course to learn how to prevent accidents, protect yourself, your passengers and others who are sharing the roadway. You will carry what you learn with you always, even when driving your own car.

Drive Safely

Driving safely is an important part of being an MAVO. There is no job more important than your safety and the safety of your patient. You will be driving many miles each work day and a motor vehicle incident (MVI) may happen. No one wants to be involved in an MVI. Unfortunately, even the most cautious drivers can find themselves in that position.

It only takes a split second for disaster to strike so prevent accidents by practicing safe driving and minimizing distractions:

- Use your mirrors - know where the other vehicles are at all times.
- Get out of the vehicle and scan the area before backing up.
- Do not use your cell phones for talking or texting at any time while driving.
- Do not eat or drink while driving.
- Do not play loud music while driving.
- Do not smoke while driving.
- Keep a "cushion of safety" around your vehicle.
- Never drive aggressively.
- Always go to work well rested

Driver's License

You must possess a valid driver's license to work as an MAVO. If at any time your driver's license is suspended or revoked, notify your employer at once. Under no circumstances should an MAVO be transporting patients if his/her driving privileges have been taken away.

Seatbelts

Wearing a seatbelt is a requirement for the patient and the driver as well as any other passengers in the vehicle. Do not move the vehicle until each and every person in the van is wearing a seatbelt.

Awareness
MAVO's should take all necessary steps to ensure they get adequate sleep before operating a vehicle. When we are tired, we can make mistakes that jeopardize safety. People who are overly tired may react too slowly, or not at all, to a vehicle in front of or next to them. They may swerve on the road or even fall asleep.

Make sure you read the warning labels on any prescription or over-the-counter drugs you may be taking. If you still have questions, talk to your doctor about the effects the medication may have on your driving skills.

NEVER get behind the wheel if you have been drinking or doing drugs. Alcohol and some drugs delay response time, cause blurred vision, and impair your ability to judge distances. Your dangerous choices should never compromise the safety of your patient.

Speed
Travel at a safe speed; the MAVO should never exceed the posted speed limit. Speeding is a common cause of traffic accidents. Use safe following and braking distances and keep a "cushion of safety" around your vehicle. If the weather is posing a threat, add another second on to account for risky conditions.

Stay Cool
There are times when an MAVO may get caught in a traffic jam that leads to delays in transports and lateness to appointments. In these situations drivers tend to get frustrated and angry. Should this happen to you, remember not to let your frustration or anger turn you into an aggressive driver. Always keep in mind that the most important factor is safety.

Know Your Vehicle
As stated previously, the MAVO should also be familiar with their vehicle. An inspection of the vehicle should be done according to your company's guidelines prior to operating the vehicle. This will help ensure the vehicle is safe to operate.

Some items that should be checked prior to operating the vehicle:

- All tires are properly inflated
- No mirrors are cracked or damaged
- Fluid levels are adequate
- The lift/ramp is in working order
- All tools needed to transport a patient are on board :
    - Wheelchair
    - Seatbelts
    - Securement restraints
    - Trip reports
    - Gloves
    - State required equipment

Parking
Parking your vehicle in an appropriate parking spot is the responsibility of the driver. Make sure that you never park in spots that are designated for handicapped parking. These spots are for people with disabilities who drive themselves and who have special vehicle permits. While your patient is in a wheelchair, your vehicle does not have the required permits nor do you as the driver to park in designated handicapped spaces. If you do park in these spots you can receive parking tickets with stiff fines and you may be taking up a spot needed by someone with the proper permits.

MAVO's should also refrain from parking in fire zones unless you want to be ticketed and impede emergency vehicle access in the event of a fire. Most employers will not pay for fines incurred by a driver ticketed for parking in handicapped spaces or fire zones.

Your driving record is a very important qualification when you work as an MAVO. Operating withing the law is extremetly important to prevent a negative driving record. Employees with poor driving records are cause insurance premiums to rise, and many companies will not employ an MAO if he or she does not maintain a clean driving record.

Immediate Medical Attention Required

While the patients you will be transporting are stable there may be a time when a patient requires immediate medical attention.

Examples of conditions that require immediate medical attention are:

- Seizures
- Chest Pain
- Difficulty Breathing
- Change in mental status
- Injury incurred through patient transfer or transport

If any of these situations occur, the MAVO must immediately pull over to a safe area and access 911 in accordance with their company guidelines. An MAVO should never attempt to transport a patient to the emergency room. Once the MAVO has pulled safely off the road they should remain with the patient while waiting for an ambulance.

Reportable Events

OEMS investigates incidents, patient injuries and complaints that have occurred while being transported under the care of an MAVO. It is necessary for any and all incidents and patient injuries to be reported immediately to your employer. In the event of a patient injury, your employer will give you instructions to make sure the patient receives proper medical care. By reporting incidents and patient injuries, OEMS and your employer can identify trends and develop training necessary for the implementation of improved procedures and re-occurrence prevention.

Your employer is responsible for contacting OEMS and, if necessary, submitting a "Reportable Event" form. The regulations identify the following types of incidents pertinent to an MAVO that must be reported:

1. Any death or injury that occurred to a patient, passenger or crewmember while being treated, transported or riding in the provider's vehicle;

2. Any accident in which one or more of the provider's vehicles is involved, regardless of whether or not the accident is actually reported to the police;

3. Any event occurring on or within the provider's vehicle(s) or place of business that results in any damage to patient medical records;

4. Any instance where a crewmember acts outside of his or her approved scope of practice;

5. Any and all incidents or series of incidents which, upon objective evaluation, lead to the good faith belief that the conduct is in violation of any applicable law, rule and/or regulation (including, but not limited to, any instances of child abuse or neglect, elder abuse, domestic violence and/or the utilization of physical behavioral restraints).

APPENDIX C

New Jersey Department of Health and Senior Services
Office of Emergency Medical Services
P.O. Box 360
Trenton, NJ 08625-0360

REPORTABLE EVENTS

In accordance with N.J.A.C. 8:40-3.7, you are required to complete this form, attach all relevant documents and deliver to the New Jersey Department of Health and Senior Services, Office of Emergency Medical Services within fourteen (14) calendar days of the accident, incident or other reportable event.

Provider Information

Date report filed: ___/___/___
Provider/Program Name: _____
Provider/Program Address: _____
Name and title of person filing report: _____

MAV
BLS Ambulance

Details of Accident/Incident

Accident/Incident date: ___/___/___ Time: ___ am/pm
Accident/Incident location: _____

Type of Accident/Incident
Head On Rear-end
Broadside Roll-over
Pedestrian Struck
Vehicle vs object
Other _____

Vehicle Location
Roadway Parked
Intersection
Other _____

Injuries
Yes No
If Yes (explain): _____

Status at time of Accident/Incident
Responding to 911 call Non-Emergency Transport
Enroute to medical facility with patient On Scene
Enroute to medical facility without patient
Responding for Non-Emergency Transport
Not on Assignment
Other _____

Vehicle Information

Veh #: _____ License Plate #: _____
VIN #: _____
Vehicle Out-of-Service? Yes No
If Yes (explain): _____

At Time of Accident
Emergency Lights On? Yes No
Was Siren On? Yes No

Use of Seatbelts
Driver: Yes No EMT Staff: Yes No
MICU Staff: Yes No Patient: Yes No
Other Passengers: Yes No
If No (explain): _____

Summary of Accident/Incident

REQUIRED DOCUMENTS (please attach)

Police report: Yes No If No (explain): _____

PCR FOR INJURED
(Patient Call Report)

Injured Patient(s): Yes No Injured Staff: Yes No Other Injuries: Yes No
If not attached, please explain: _____

CORRECTIVE ACTION
(To prevent recurrence, include completion dates)

CASE STUDY – GERALD

Gerald is a 22 year old MAVO working for a northern NJ medical transportation company. Gerald has been working as an MAVO fcr three years now, and he likes his job. He takes pride in giving the elderly and handicapped patients he transports a quality ride and a few minutes of entertaining conversation. Gerald's boss likes him, and has given Gerald a supervisor position and put him in charge of training new MAVO's. Gerald has taken this opportunity to save a little money for his newborn daughter 's christening party.

One night, Gerald is asked to go out for a night on the town with some of his high school buddies. Gerald and his friends go out, have a great dinner, head to a bar, and drink late into the night. At the end of the evening, Gerald feels a little tipsy, but since he's the least drunk in the group he decides it is safest if he drives everyone home in his buddy's car.

On the way home, Gerald and his friends are pulled over by the police for a broken tail light. The police officer administers a breathalyzer test and Gerald blows over the legal limit for alcohol. Gerald is given a Driving Under the Influence (DUI) citation and his driver's license is suspected for the minimum of six months.

When Gerald tells his boss about his drivers license status, he gets some bad news. While his boss is sympathetic, he tells Gerald that he'll have to let him go. Gerald's boss has no work for him to do for the six months that he can't drive, and even after the six months the insurance cost to insure Gerald to drive with a DUI on his record will be too high. Because of one night's bad judgement, Gerald will have to come up with a new job and a new way of paying for that christening party.

MODULE 7 WORKBOOK

1. Parking an MAV van in a handicapped zone is legal as long as the patient is wheelchair bound and must be pushed around by the MAVO.

   TRUE FALSE

2. Your driving record is one of the most important credentials you can maintain as an MAVO.

   TRUE FALSE

3. Three things an MAVO should inspect daily before beginning his/her shift are:

   _____ _____ _____

4. Who must wear a seat belt when the MAV is in motion?

   _____ _____ _____

5. Some situations that are considered a medical emergency include:

   _____ _____ _____

6. In a medical emergency, the MAVO should drive as promptly as possible to the closest hospital.

   TRUE FALSE

7. Distractions that can cause an MAVO to become less aware of his/her surroundings while driving include:

   _____ _____

8. An MAVO should maintain a _____ ____ _____ around the vehicle to avoid collisions and other motor vehicle incidents.

9. An MAV can violate the speed limit if the patient is late to a legitimate medical appointment.

   TRUE FALSE

MODULE 8 – Common Operator Errors

Objectives:

- Identify common errors on the part of MAO's
- Understand the reasons why these common errors are dangerous to patients
- Identify the errors in accident scenarios that cause injury to patients
- Identify common regulatory missteps on the part of MAO's

Most MAVO's conduct themselves professionally and provide their patients with comfortable and professional transportation to and from their destinations. Some MAVOs however make common and predictable mistakes when transporting patients, and these can lead to injury to patients. These errors can be caused by ignorance of the best way to transport a patient, by rushing through a tranport, or even by an MAVO putting his convenience over patient safety and cutting corners to make his life easier. Whatever the reason, an MAVO should never use a process or procedure that could put the patient at risk.

Some common common operator errors include:

IMPROPER LOADING OF PATIENT:
MAVO's sometimes load the patient in a way that seems to them quicker or easier. This includes loading the patient facing the van, or riding the lift up with the patient. These are inappropriate and dangerous maneuvers. Loading the patient facing the van places the large rear wheel towards the end plate. The end plate is not designed to stop such a large wheel. Should the van tip and the wheelchair move backwards, there is a chance the wheelchair will tip over the end plate and dump the patient on the sidewalk.

IMPROPER WHEELCHAIR RESTRAINT:
The MAVO must secure the wheelchair with four straps – one tying down each corner of the chair. Common errors involve tying the patient down but not the wheelchair and tying with less than four straps.

The ADA 3-point restraint system does not secure the chair to the floor of the van. If a patient is wearing the ADA restraint but seated in a wheelchair that is not secured, several problematic scenarios could occur. In a frontal collision., the patient wll be tossed forward, will likely shift out of the typical seated position with the wheelchair, and will be squeezed between the seat belt and the advancing weight of the moving wheelchair. In the case of electric wheelchairs especially, this could be a significant amount of weight and cause injury to the patient.

If the chair is secured with less than four straps, or with straps to the crossbar instead of the four corners of the chair, the wheelchair can twist agressively during a collision. This can cause the patient to be jerked agresivelly in a sideways fashion.

IMPROPER RESTRAINT OF PATIENT
Some MAVO's will load and secure the wheelchair, but fail to restrain the patient appropriately in the chair itself. The patient should ideally be secured in the chair with an ADA 3 point restraint. This keeps the patient secure in the seat and his/her torso from moving forwards agressively during a collision.

Securing a wheelchair but not the patient leaves the patient open to a number of serious injuries as he/she may be ejected from the chair during a collision and strike the inside of the van. The Velcro™ straps found on many personal and facility wheelchairs are not considered appropriate restraints for transportation. An MAVO

only use straps that have mechanically interlocking automotive seatbelt restraints, ideally in an ADA 3 point restraint.

Velcro™-type restraints, such as this one, are meant to keep patients from sliding out of their seat during normal daily activities. They are not designed to secure a patient during a violent automotive collision, and as a result should not be used instead of an ADA 3-pont restraint.

NOT COMMUNICATING WITH PATIENT:
A patient should always be informed during the transport. Not keeping the patient advised of the goings on during the transport may cause him or her to get anxious and behave unpredictably at a critical time during the transport. He or she may reach out during an awkward time of a tough lift, or may shift his or her weight in an odd way and throw off an assist. This type of unpredictable behaviour may cause an injury to you or the patient. Always be sure to inform your patient of the procedure before making a lift or move. Remember, every skills station in this course starts with informing the patient of the procedure so that he or she can participate appropriately or simply not get anxious.

NOT INSPECTING THE VEHICLE:
A vehicle inspection should always be one of the first things an MAVO does when he or she starts a shift. All commercial drivers, MAVO's included, should start their day by checking their vehicle for missing supplies or broken equipment. Your employer will provide you with a form with the inspection items for your particular vehicle. An inappropriately equipped vehicle create problems that harm your patient. For example, if a patient gets hurt and your first aid kit has no dressings, he or she may lose blood needlessly. An air conditioner that is not working properly may cause a sickly patient to suffer heat exhaustion during a long transport on a hot day. Be sure to check your vehicle at the beginning of every shift.

LACK OF CARE WHEN MOVING PATIENTS:
At times, the routine of moving patients can make an MAVO somewhat careless when transporting a patient. MAVO's sometimes allow the fact that they've performed a procedure many times before lure them into a false sense of security. The MAVO may not pay as much attention to the procedure or patient as he or she may have when he or she performed the procedure the first time.

Every patient deserves the MAVO's undivided attention, even if the transport is routine. In many cases, injuries occur at unexpected times when the MAVO feels no danger exists. It is important to remember that the MAVO transports people, not cargo. As a result, he or she needs to be ever vigilant for problems and dangers so as to avoid injury to the patient.

Your MAVO Instructor will review these common mistakes with you, as well as show you some scenarios where real MAVO's got into trouble for poor performance. You will see cases where accidents caused injuries, and where OEMS inspections lead to significant fines for the companies commiting the violations. We hope that when you go out and work you will take care not to make the same or similar errors.

After you have demonstrated all of the key skills of this program, and sat through all the lecture segments, the final portion of the MAVO program is to take the written examination. Your instructor will administer a multiple-choice exam on which you will need to score a 70% or higher grade.

MODULE 7 WORKBOOK

1. One thing I can do the prevent improper loading of patient is:

   _____

2. One thing I can do the prevent improper wheelcahir restraint is:

   _____

3. One thing I can do the prevent improper restraint of patient is:

   _____

4. _____ is not an appropriate seatbelt in a wheelchair. An interlocking automotive-type seatbelt is required.

5. One thing I can do the prevent not communicating with patients is:

   _____

6. One thing I can do to prevent not having a supply or item when I need it is:

   _____

7. A patient should always be restrained in a _____ position in the MAV.:

8. An MAV should always exercise _____ when transporting a patient.

Thank you for attending the Mobility Assistance Vehicle Operator training!

The MAVO program is published and accredited by Less Stress Instructional Services, a NJ Health and Safety training agency. At the completion of this program, each participant should have:

- Sat through program modules 1-8
- Return demonstrated each skill correctly to the instructor(s)
- Taken the written test and scored a 70% or greater
- If this is the first time you've taken MAVO, you should have a total of eight hours of training time

Program quality is important to us at Less Stress Instructional Services. If your instructor did not have each participant complete the above four program elements, please contact us:

Less Stress Instructional Services

mav@lessstress.com
888-277-3671

Please complete the course evaluations provided by your instructor and give us some feedback about the program. You can also complete an on-line evaluation by going to:

http://www.LessStress.com/maveval.htm

We wish you luck in your career as a Mobility Assistance Vehicle Operator!

This program published by Less Stress Instructional Services

For information about MAVO provider or instructor training, please contact:

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