



Nursing Level III

NTQF Level III

Learning Guide # 22

Unit of Competence: Transport and Assist Patient by Safe Handling Practice

Module Title: Transporting and Assisting Patient by Safe Handling Practice

LG Code: 3 M05 LO 3-LG-20

TTLM Code: -3 TTLM 0919v1

LO3. Prepare for transport



This learning guide is developed to provide you the necessary information regarding

The following content coverage and topics

- Prepare for transport
 - ✓ Transportation requirements
 - ✓ Explaining procedures and responding to questions
 - ✓ Patient preparations
 - ✓ Equipment for transportation
 - ✓ Patient/client confidentiality

This guide will also assist you to attain the learning outcome stated in the cover page.

Specifically, upon completion of this Learning Guide, you will be able to -

- ✓ Transportation requirements are confirmed with relevant personnel.
- ✓ Procedure is explained to client or relevant personnel and questions answered as required
- ✓ Preparations are made for the safe and timely transportation of the patient or client.
- ✓ Equipment for transportation is selected according to transportation requirements and checked to ensure that it is clean, complete and correctly functioning.
- ✓ Any other Equipment is checked to ensure that it is attached correctly and safely to transportation equipment.

Learning Instructions:

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described in number 3 to 11.
3. Read the information written in the information “Sheet 1, Sheet 2, Sheet 3, Sheet 4 Sheet 5, Sheet 6, Sheet 7, Sheet 8, Sheet 9, Sheet 10 and Sheet 11”.
4. Accomplish the “Self-check 1, Self-check t 2, Self-check 3, Self-check 4, and Self-check 5, in page 6, 10, 15, 23 and 26 respectively.



5. Ask from your trainer the key to correction (key answers) or you can request your trainer to correct your work. (You are to get the key answer only after you finished answering the Self-check 1).
6. Submit your accomplished Self-check. This will form part of your training portfolio.
7. Your trainer will give you feedback and the evaluation will be either satisfactory or unsatisfactory. If unsatisfactory, your trainer shall advice you on additional work. But if satisfactory you can proceed to Learning Guide #2.



- When you use the drag to move a patient, the same basic body mechanics and principles apply as when lifting and carrying.
 1. The back should always be locked and straight, not curved or bent laterally.
 2. Avoid any twisting so that the vertebrae remain in normal alignment.
 3. When you are reaching overhead, avoid hyperextending the back.
 4. When you are pulling a patient on the ground, kneel to minimize the distance that you will have to lean over.
 5. When a patient is at a different height from you, bend your knees until your hips are just below the height of the plane across which you will be pulling the patient.
 6. When pulling, extend your arms no more than about 15" to 20" in front.
 7. Keeping your reach within the recommended distance, reach forward and grasp the patient so that your elbows are just beyond the anterior torso.
 8. Reposition your feet so the force of pull will be balanced equally between both arms, and the line of pull will be centered between them.
 9. Pull the patient by slowly flexing your arms.
 10. When you can pull no further, stop and move back another 15" to 20". When properly positioned, repeat the steps.
 11. If you must drag a patient across a bed, use the sheet or blanket under the patient.
 12. Unless the patient is on a backboard, transfer a patient from the ambulance cot to the bed with a body drag.
 13. Drag the patient in increments until he or she is properly centered on the bed.
- **General consideration for moving**



- ✓ Moving a patient should be done in orderly, planned and slow fashion. This is important to protect you as well as the patient from further injury and reduces the risk of worsening the patient's condition during movement.
- ✓ You should carefully plan ahead and select the method that will involve the list lifting and carrying.
- ✓ Remember always to use the method that will cause less strain to you and your partners.

- **Emergency moves**

Emergency move is performed before initial assessment and care are provided when there is potential danger to you and the patient. Its purpose is to move the patient to a safe place to avoid possible harm or death.

When is emergency move of the patient necessary? Move the patient immediately in the following conditions:

- ✓ Danger of fire, explosion, and structural collapse exists.
- ✓ Hazard materials are present.
- ✓ The accident scene can't be protected.
- ✓ It is otherwise impossible to gain access to other patients who need lifesaving care.
- ✓ The patient has developed cardiac arrest and must be moved to start CPR.



Self-check -1	Written test
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Direction –say true or false put your answer on the answer sheet.

1. Emergency move is performed before initial assessment and care are provided when there is potential danger to you and the patient.
2. Moving a patient should be done in orderly, planned and slow fashion.
3. Avoid any twisting so that the vertebrae remain in normal alignment.
4. When you are reaching overhead, avoid hypo extending the back.

*Note:*Satisfactory rating - 8 points

Unsatisfactory - below 8 points

You can ask you teacher for the copy of the correct answers.

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Answer Sheet

Score =

Rating:

Name: _____ Date: _____

True false answer sheet

1.....

2.....

3.....

4.....



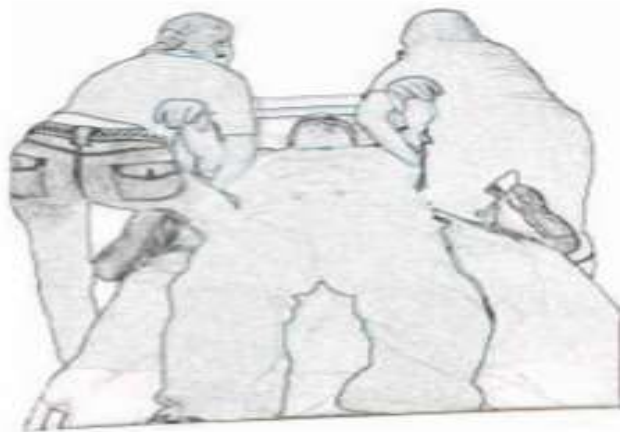
- **Unsafe/High Risk moves**

The Draglift

- ✓ This includes any way of handling the patient in which the handler places a hand or an arm under the patient's armpit (axilla), whether the patient is being moved up the bed, sat up in the bed, being assisted from sitting to standing, or being assisted to change from one seated position to another - and regardless of whether the handler is facing or behind the patient, or whether there is more than one handler.



An example of a draglift



An example of the worst kind of drag lift.

- **Two-Sling Lift**

- ✓ With slings placed under the patient's lower back and thighs, the handlers stand either side of the patient with one knee on the bed; this is a total body lift.

- **When to not lift people**

You must not lift people because:

- ✓ They weigh too much and are unpredictable
- ✓ It is difficult or impossible for staff to get into a safe position to lift
- ✓ Staff are at risk of injury in all manual handling techniques
- ✓ Most lifts include a risk of injuring the patient
- ✓ Manual lifts are not therapeutic; they do not improve the patient's mobility.

- **Procedures for seated patients**

- ✓ **Sitting Back in a Chair**
- ✓ Ensure the patient is sitting in the correct size of chair. The patient should be able to have their bottom at the back of the seat and still be able to have their feet flat on the floor, with their knees at hip height. If this is not possible; i.e. for very short patients, the patient should be given a footrest to rest their feet on.
- ✓ Consider ways to prevent slipping:
- ✓ one way slide sheet
- ✓ Where appropriate, use a moulded or angled chair



- **Think before lifting/handling.** Plan the lift. Can handling aids be used? Where is the load going to be placed? Will help be needed with the load? Remove obstructions such as discarded wrapping materials. For a long lift, consider resting the load midway on a table or bench to change grip.
- **Adopt a stable position.** The feet should be apart with one leg slightly forward to maintain balance (alongside the load, if it is on the ground). Be prepared to move your feet during the lift to maintain your stability. Avoid tight clothing or unsuitable footwear, which may make this difficult.
- **Get a good hold.** Where possible, the load should be hugged as close as possible to the body. This may be better than gripping it tightly with hands only.
- **Start in a good posture.** At the start of the lift, slight bending of the back, hips and knees is preferable to fully flexing the back (stooping) or fully flexing the hips and knees (squatting).



Self –check -2	Written test
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Direction-fill in the blank and write your answer in the answer sheet.

- 1.....should be hugged as close as possible to the body.
2. be prepared to move your feet during the lift to maintain you're.....
- 3.....&.....Consider ways to prevent slipping.
- 4.....Are not therapeutic; they do not improve the patient's mobility.

Note:Satisfactory rating – 8 points

Unsatisfactory - below 8 points

You can ask your teacher for the copy of the correct answers.

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Answer Sheet

Score =

Rating:

Name: _____ Date: _____

Fill in the blank Questions

- 1.....
.....
- 2.....
.....
- 3.....
.....
- 4.....
.....



- Lifting Principles
- Lifting Stages
 - ✓ Preparation
 - ✓ Lifting
 - ✓ Carrying
 - ✓ Setting Down

1. Preparation

- Before lifting or carrying, plan out your lift. Think about:
 - ✓ How heavy/awkward is the load? Should I use mechanical means (e.g. a hand truck) or another person to help me with this lift? Is it possible to break the load into smaller parts?
 - ✓ Where am I going with the load? Is the path clear of obstructions, slippery areas, overhangs, stairs, and other uneven surfaces? Are there closed doors that need to be opened?
 - ✓ Are there adequate handholds on the load? Do I need gloves or other personal protective equipment? Can I place the load in a container with better handholds? Should another person help me with the load?

2. Lifting

- ✓ Get as close to the load as possible. Try to keep your elbows and arms close to your body. Keep your back straight during the lift by tightening the stomach muscles, bending at the knees, keeping the load close and centered in front of you, and looking up and ahead. Get a good handhold and do not twist while lifting. Do not jerk; use a smooth motion while lifting. If the load is too heavy to allow this, find someone to help you with the lift.

3. Carrying

- ✓ Do not twist or turn the body; instead, move your feet to turn. Your hips, shoulders, toes, and knees should stay facing the same direction. Keep the load as close to your body as possible with your elbows close to your sides. If you feel fatigued, set the load down and rest for a few minutes. Don't let yourself get so fatigued that you cannot perform proper setting down and lifting technique for your rest.



4. Setting Down

- ✓ Set the load down in the same way you picked it up, but in the reverse order. Bend at the knees, not the hips. Keep your head up, your stomach muscles tight, and do not twist your body. Keep the load as close to the body as possible. Wait until the load is secure to release your handhold.

Weight of Objects

- ✓ Heavier loads place greater stress on muscles, discs, and vertebrae.
- ✓ Where possible, use mechanical means such as forklifts or hand trucks to transport heavy items. Ramps can be helpful in moving heavy items from one level to another. Materials that must be manually lifted should be placed at “power zone” height: about mid-thigh to mid-chest of the person doing the lifting. Ensure that proper lifting principles (see above) are used. Try to order supplies in smaller quantities and/or break loads up into smaller, lighter quantities where possible. Is the container itself heavy? Perhaps a smaller or lighter container is available. Limit weight you lift to no more than 50 pounds. When lifting loads heavier than 50 pounds, use two or more people to lift the load.
- **Awkward Postures**
 - ✓ Bending while lifting causes several problems for the back. It adds the weight of the upper body to the weight of the object being lifted. Bending and/or reaching moves the load away from the body and allows leverage to significantly increase the effective load on the back, leading to stress on the lower spine and muscle fatigue. Carrying loads on one shoulder, under an arm, or in one hand creates uneven pressure on the spine.
 - ✓ Move items close to the body and use the legs when lifting from a low location to minimize bending and reaching. Ensure proper housekeeping is taking place so that you may get as close to your lifting load as possible. Store and place materials that need to be manually lifted at the “power zone”: mid-thigh to mid-chest height. This can be accomplished by placing objects on shelves, tables, racks, or stacked pallets; or by using



ladders or aerial lifts where necessary to elevate yourself and minimize overhead reaching. Roll-out decks in truck beds can be utilized to bring materials closer to the employee and eliminate the need to crawl into the back of a truck. Ensure that proper lifting principles (see above) are used, including avoiding twisting and holding the load close to the body.

- **High-Frequency and Long-Duration Lifting**

- ✓ Holding items for long periods, even if loads are light, increases the risk of back and shoulder injury since muscles can be starved of nutrients and waste products can build up. Repeatedly exerting, such as when pulling wire, can fatigue muscles by limiting recuperation times. Inadequate rest periods do not allow the body time to recover.
- ✓ Plan ahead when beginning work that will require high-frequency and long-duration lifting. This way, the work can be organized in such a way so as to minimize the time workers spend holding loads. Adequate rest breaks can be planned in, as well as job rotation between employees. This includes both rotating tasks (employees trade off on differing tasks) and team work (two or more employees work together doing different parts of the same activity to reduce strain). Planning can also include the pre-assembly of work items to minimize the time spent handling them during the actual work.



Self-check-3	Written test
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Direction –say true or false and put your answer on the answer sheet.

1. Plan ahead when beginning work that will require high-frequency and long-duration lifting.
2. Holding items for long periods, even if loads are light, increases the risk of back and shoulder injury since muscles can be starved of nutrients and waste products can build up.
3. Carrying loads on one shoulder, under an arm, or in one hand creates uneven pressure on the spine.
4. Heavier loads place greater stress on muscles, discs, and vertebrae.
5. Do not jerk; use a smooth motion while lifting.

Note: Satisfactory rating - 10 points Unsatisfactory - below 10 points

You can ask you teacher for the copy of the correct answers.

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Answer Sheet

Score = _____
Rating: _____
Date: _____

Name: _____

T/F Questions Answers

1.....

2.....

3.....

4.....

5.....



- **Wheeled ambulance stretcher/cot/**

The wheeled ambulance stretcher is the most commonly used device to move and transport patients. Most patients are placed directly on the ambulance cot. However, Patients with a possible spinal injury or multiple-system trauma should be placed and secured on a backboard first. Patients who can tolerate being in a sitting position can be carried down a flight of stairs in a stair chair, then transferred to the cot.



Figure-Wheeled Ambulance Stretcher

- **Portable/folding stretchers**

- ✓ A stretcher with a strong rectangular tubular metal frame and rigid fabric stretched across it. It does not have a second multi positioning frame or adjustable undercarriage. Portable stretchers may be folded in half across the center of each side so that the stretcher is only half its unusual length during storage. Portable stretcher permits easy transfer of a patient down stairs and over rough terrain. It should be carried end to end and can be loaded in ambulance from end to end.



Figure-Portable/folding stretchers

- **Backboards**

- ✓ **Long Spine boards/Trauma boards**

- Backboards are long flat boards, 6' to 7' long, made up of rigid, rectangular material. They are used to carry patients and immobilize supine patients who have suspected spinal injury or other multiple traumas. They have holes on the side and ends for grasping, lifting and carrying the board and for passing the straps to secure the patient on the board.

- **Indication for use**

- ✓ Patient with potential spinal injury
 - ✓ Patient with potential spinal injury who needs extrication from the vehicle
 - ✓ As full-body splint in multi trauma patient

NB: Patient experiences pain in pressure areas during long transport unless the board is padded well.



Figure.-Long spine board

- **Short boards**

A short board, or half-board, should be used to immobilize the torso, head, and neck of a seated patient who has a suspected spinal injury until the patient can be immobilized on a backboard. Short boards are 3' to 4' long. Short wooden backboards have generally been replaced with a vest-type device that is specifically designed to immobilize the patient until he or she is moved from a sitting position to supine on a backboard.

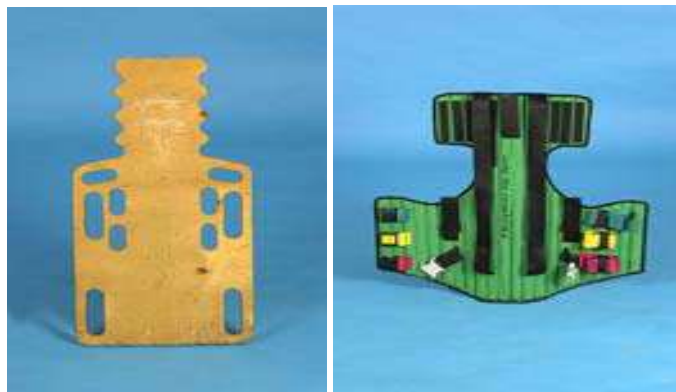


Figure. -Short spine boards

- **Scoop Stretcher (Orthopedic Stretcher)**



A **scoop stretcher** is a device that can split into two long halves or four pieces, patient can be picked up with minimum body requirement. Parts are reconnected and the patient is lifted and placed on a long backboard or stretcher. A scoop stretcher is efficient; however, both sides of the patient must be accessible.

EMT must pay special attention to the closure area beneath the patient so that clothing, skin, or other objects are not trapped. The patient must be fully stabilized and secure before he or she can be moved. Scoop stretchers are not adequate when used alone for standard immobilization of a spinal injury.

Indication

- Patient with hip and pelvic injuries.
- Patient with spinal injuries who needs to be lifted and transferred to another stretcher e.g. backboard.

Advantages

- Fits narrow space where other stretcher cannot be used
- Provide good body support by design



Fig. Scoop stretcher

• **Basket Stretchers (stokes)**



- ✓ A **basket stretcher** is often called a **Stokes litter** is used to carry a patient across uneven terrain in a remote location that is inaccessible by ambulance or other vehicle. If the patient has a suspected spinal injury, he or she should be immobilized on a backboard before being placed in the basket stretcher. Basket stretchers are constructed of hard plastic or wire mesh with a metal frame. The wire basket is very uncomfortable for the patient unless the wire is padded.
- ✓ Basket stretchers surround and support the patient, but their design allows water to drain through holes in the bottom. Some styles can also be used for technical rope rescues and some water rescues. Not all basket stretchers are rated or are appropriate for these specialized rescue uses.



Figure - Basket stretcher

- **Stair chairs**

- ✓ **Stair chairs** are folding aluminum frame chairs with fabric stretched across them to form a seat and seat back. They have fold-out handles that enable the EMT to carry the head and foot ends up or down a flight of stairs.



- ✓ Most stair chairs have rubber wheels at their back with casters in front so that they can be rolled along the floor and then carried down. They serve as an adjunct for moving a patient up or down stairs and are Ideal device for narrow stairways.
- ✓ Stair chairs should never be used for suspected spinal injury and unconscious patients. Patient should be transferred to wheeled cot stretcher ambulance.

Using the stair chairs

1. Move the patient into the chair using the extremity lift.
2. Secure the patient on stair chair with straps
3. EMTs take their places: one at head, one at foot.
4. EMT at the head gives directions.
5. Third EMT precedes.
6. Tilt the chair back to move to ground level.



Figure - Stair chairs

- **Flexible stretcher**

- ✓ **A flexible stretcher** is consists of rigid slats and useful for carrying a patient through narrow corridors and from confined space. Flexible stretcher is the most uncomfortable of all the devices; however, it provides an excellent support and immobilization. When



the stretcher is wrapped around the patient and the straps are secured, the patient is completely immobilized. The stretcher can then be lowered by rope or slide down a flight of stairs by resting it on the front edge of each step.



Figure 3.11 - Flexible stretcher



Self –check-4

Wirreten test

Direction –choose the best answer from the given choice.

1. Which statement is true about Flexible stretcher?
 - A. Provides an excellent support and immobilization.
 - B. The most uncomfortable of all the devices
 - C. Useful for carrying a patient through narrow corridors
 - D. All

- 2..... Are folding aluminum frame chairs with fabric stretched across them to form a seat and seat back?
 - A Stair chair
 - B Backboard
 - C Flexible stretcher
 - D All

3. Which one is Indication for scoop stretcher?
 - A. Patient with hip and pelvic injuries.
 - B. Patient with spinal injuries who needs to be lifted and transferred to another stretcher.
 - C. A&B
 - D. None

4. Which one is Indication for Backboard?
 - A. Patient with potential spinal injury
 - B. Patient with potential spinal injury who needs extrication from the vehicle
 - C. As full-body splint in multi trauma patient
 - D. All



Note: Satisfactory rating - 8 points Unsatisfactory - below 8 points

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Date: _____

Name: _____

Choose Questions answer

1

2.

3.

4.....



Information sheet -5	Patient/client confidentiality
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- Patient confidentiality means that personal and medical information given to a health care provider will not be disclosed to others unless the individual has given specific permission for such release.
- An obligation to preserve the client's privacy and hold certain information in strict confidence has long been a part of nursing and medical ethics.
- As with deception, each of the main types of ethical framework will include a strong presumption against disclosing information about a client that has been obtained under the supposition that it will be held in confidence.
- Duty-based frameworks, which underlie most codes of nursing and medical ethics, will include a duty to protect information acquired within the clinical encounter.
- The rights, well-being, and safety of the individual client should be the determining factors in arriving at any professional judgment concerning the disposition of confidential information received from the client relevant to his or her treatment.
- The standards of nursing practice and the nursing responsibility to provide high quality health services require that relevant data be shared with members of the health team.
- Only information pertinent to a client's treatment and welfare is disclosed, and it is disclosed only to those directly concerned with the client's care.

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Self –check -5	Written test
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Direction –say true or false for the following questions.

1. Only information pertinent to a client's treatment and welfare is disclosed.
2. Patient confidentiality means that personal and medical information given to a health care provider will not be disclosed to others unless the individual has given specific permission for such release.
3. The standards of nursing practice and the nursing responsibility to provide high quality health services.
4. The rights, well-being, and safety of the individual client should be the determining factors in arriving at any professional judgment.
5. An obligation to preserve the client's privacy and hold certain information in strict confidence has long been a part of nursing and medical ethics.

Note: Satisfactory rating - 12 points Unsatisfactory - below 10 points

You can ask you teacher for the copy of the correct answers.

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Answer Sheet

Score = _____
Rating: _____
Date: _____

Name: _____

T/F Questions

1. _____
2. _____
3. _____
4. _____
5. _____



List of reference

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