



CASUALTY EVACUATION NOTES

NAME: _____

SCHOOL: _____

SINGAPORE RED CROSS YOUTH DIVISION CASUALTY EVACUATION

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CASUALTY EVACUATION BRONZE NOTES

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NOTES OUTLINE:

➤ PRINCIPLES OF CASUALTY EVACUATION

- A. Aim of Evacuation
- B. Definition of Evacuation
- C. Indication of Immediate Rescue
- D. Objectives of Evacuation
- E. General Approach (DUE Approach)
- F. Methods of Evacuation
- G. Decision of Methods (TIDA)
- H. Rules of Transportation (SOSS)

➤ 1-AIDER MANUAL METHODS

- A. Overturning of Casualty (From Prone to Supine Position)
- B. Recovery Position
- C. Cradle Movement
- D. Semi-recumbent Position
- E. Lifting Casualty (From Sitting to Standing Position)
- F. Cradle Carry
- G. Pick-a-back
- H. High Dragging*
- I. Low Dragging*
- J. Human Crutch

*Additional Reading – will not be tested

PRINCIPLES OF CASUALTY EVACUATION

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A) Aim

Transportation of the sick and injured is an **important** branch of/and/or a supplement to First Aid; much may depend on the **careful** manner in which the casualty is moved.

Anything which may **worsen** the injuries or increase shock must be **avoided**. It is a **movement** of victims away from **hazardous** location and the use of **protective** methods to support a victim's body during emergency transfer.

Evacuation of casualty **before** first aid treatment is a necessity when there is an **immediate danger** to the lives of the casualty and the first aiders. In many cases, it will be less disturbing to the casualty if he is left until medical aids arrive. On the other hand, the casualty should **not** be evacuated if **life-threatening problems** such as airway obstructions and severe hemorrhage are not treated.

B) Definition

Evacuation, transportation or emergency rescue is a procedure for moving victim from a dangerous location to a **place of safety**.

C) Indications For Immediate Rescue

1. Fire, danger of fire, or explosion.
2. Danger of asphyxia due to lack of oxygen or due to presence of harmful gases.
3. Serious traffic hazards.
4. Risk of drowning

D) Objective

1. To ensure an open airway and to administer artificial respiration if it is needed.
2. To control severe bleeding.
3. To check for injuries.
4. To immobilize injured parts before extrication of the victim.
5. To arrange for transport.
6. To avoid subjecting the victim to any unnecessary disturbance.

E) General Approach (DUE Approach)

D: Diagnosis

Always find out what had happened to the casualty. (E.g. Is there any major fracture or involvement of his neck and spine)

U: Use Of Priority In First Aid

Do **first things** first. Avoid doing unnecessary treatment. (E.g. if casualty is in danger, evacuate him first.) At other times, we may have to do first aid first i.e. artificial respiration or a severe bleeding has to be controlled first.

E : Evacuate

Evacuate or transport the patient to a safe location or to **hospital** as quickly as possible. Do not delay. Every second is of **vital importance** to a seriously injured patient.

***Note:** Improper handling, frequent handling, or rough and hurried evacuation might aggravate victim's condition; hence his life might be jeopardized.*

F) Methods of Evacuation

1. Manual ----- By hands
2. Stretcher ----- By stretcher
3. Improvised ----- By any materials or items available around the area

G) Decisions of Methods (TIDA)

T: Type of Injuries - E.g. Light or severe

I: Immediate Surroundings - Is the place on fire? Is the building going to collapse? Are there obstacles along the way to get to safety?

D: Distance to Shelter - How far away from shelter?

A: Availability of Personnel or Materials/Equipment - Any stretchers available? How many personnel are available?

H) Rules for Transportation

S: Safety

It is hardly necessary to mention that the route and equipment used must be safe. Cases have occurred in which casualties have fallen off a stretcher or the stretcher itself has become unserviceable and collapsed. Stretchers should be periodically inspected, ensuring it is serviceable.

O: Observation

Observe the casualty for any visible changes in vital signs during transportation. Ensure airway is open, bleeding controlled, fracture properly immobilized.

S: Speed

Evacuate as quickly as possible, provided that safety is not compromised.

S: Steadiness

Avoid jolting of patient while carrying, yet ensuring that evacuation is done as quickly as possible.

1-AIDER MANUAL METHODS

1-AIDER MANUAL METHODS

A) Overturning of Casualty (From Prone to Supine Position)

Objectives:

- 1) For artificial resuscitation
- 2) To check for injury on the other side of the casualty's body
- 3) To carry out cradle movement
- 4) To turn casualty to recovery position

Method:

1. Kneel by the casualty's side in **position**. The first aider's legs should be **opened up**, the knees positioned **at casualty's hip and shoulder** and you should be as **near** as possible to the casualty.
2. **Tuck** casualty's **nearest** hand under the **thigh** nearer to you,
3. Ensure that the **palm** of the casualty's hand is **facing down**.
4. Gently **turn** casualty's head **away** from you.
5. Place casualty's other **hand under** the **cheek** and
6. You will hold on to the casualty's **hand palm-to-palm**.
7. Using your free hand, **cross** the **leg further** away from you **over** the leg nearer to you.
8. **Grab** some **clothing** at the casualty's **waist** and overturn the casualty.
9. While you are **moving back** slowly, **pull** the casualty **towards** you by supporting the thigh, and ensuring that casualty is **supported** on your **lap**.
10. In addition, your **elbow** should also be on the **ground** at all times.
11. Your lower arm should **support** the casualty's **head** instead of the neck.
12. **Straighten** casualty's both hands.

B) Recovery Position

Objectives:

- 1) To place the casualty in a comfortable position while waiting for the arrival of ambulance
- 2) To prevent obstruction of airway by allowing fluid to flow out of the mouth

Method:

1. Kneel by the casualty's side in **position**. The first aider's legs should be **opened up**, the knees positioned **at casualty's hip and shoulder** and you should be as **near** as possible to the casualty.
2. **Tuck** casualty's **nearest hand** under the **thigh** nearer to you,
3. Ensure that the **palm** of the casualty's hand is **facing down**.
4. Grab casualty's other hand and place the **back** of the **hand** on the **cheek nearer to you**.
5. **Turn** the casualty's **head towards** you,
6. While still holding on to casualty's **hand, palm-to-palm**.
7. Using your free hand, **prop up** the casualty's leg that is **further** away from you
8. Wrap your **hand around casualty's leg**.
9. While wrapping your hand around the leg, **grab** some **clothing** near the waist.
10. While you are turning the casualty, pull the casualty towards you, ensuring that the casualty is supported on your lap.
11. In addition, your **elbow** should also be on the **ground** at all times.
12. Ensure the back of the casualty's **hand** is on the cheek and is **raised** so that casualty's chest is **lifted off** the ground.
13. Straighten casualty's **hand** to **45°** and
14. Adjust the **leg** to **90°**.

C) Cradle Movement

Objectives:

- 1) To prop up a casualty to semi-recumbent position
- 2) To stand a casualty in preparation for lifting and carrying

Method:

1. Your starting position should be at the **side** of the **casualty**, **not** at the **head**.
2. The **leg nearer** the head should be bent at **90°** while the **leg** that is **down** should be as **near** as possible to the casualty's **waist**.
3. **Cross** casualty's **arms** over the **stomach**.
4. **Lift** the **head** gently using **both** hands.
5. One hand should **support** the **head** on lower arm with your **palm** on the **shoulder blade** while
6. The **other** hand should be **supporting** the **shoulder blade nearer** to you.
7. Your hands should be supporting the casualty's shoulder blade and thumb should **not** be **squeezing** the casualty's shoulder.
8. In one **swift** movement, **prop** casualty up.
9. While at the same time lowering your leg that is at 90° such that both your knees are down near the casualty's body
10. Your position should be as **close** as possible to the **casualty**
11. And **not resting** on your **heels**. This ensures that casualty's posture is upright. This is the final position of the casualty.

D) Semi-Recumbent

Objectives:

- 1) To prevent obstruction of airway by allowing fluid to flow out of the mouth
- 2) To allow the casualty to sit in a comfortable position

Method:

1. **Tilt** head gently to **one** side with one of your hands **supporting** the **chin**.

E) Lifting Casualty (From Sitting to Standing Position) *Position Zero*

Objectives:

1) To prop the casualty up to standing position to facilitate the use of other evacuation methods

Method:

1. Your starting **position** would be **behind** the casualty's back, with the casualty in cradle movement or semi-recumbent position. You should have your **stronger leg up**, bent at 90°.
2. Position your **arms** under the casualty's **armpits**.
3. **Attempt to lift** casualty up
4. By pulling the casualty upwards while at the same time **leaning towards** the casualty (as opposed to dragging the casualty backwards towards you).
5. In standing position, **support** casualty to **ensure stability**. This is the position of casualty in standing position, also known as **position zero**.

F) Cradle Carry

Objectives:

1) To carry light weight casualty

Method:

1. Start from position zero and place one of your **feet between** casualty's feet, with your other foot at the side of the casualty.
2. Place casualty's **hand** that is nearer to you **over** your **shoulder**
3. **Hold on** to casualty's **hand** and provide support for the casualty by pulling him / her close to you.
4. Your free hand will go around the casualty's **waist** and **grab** some **clothing**.
5. **Let go** casualty's **hand** and move into position.
6. Bend both your knees to lift the casualty and make sure to keep your back straight.
7. **Attempt to lift** the casualty in one swift movement
8. Ensure that your **hand which is under the casualty's legs** goes **right around** BOTH legs.
9. Your other hand should still be **grabbing some clothing** at the waist.

G) Pick-A-Back

Objectives:

- 1) To carry light weight and **conscious** casualty
- 2) For people who are too tired to walk

Method:

1. Start from position zero and place one of your **feet between** casualty's feet, with your other foot at the side of the casualty.
2. Place casualty's **hand** that is nearer to you **over** your **shoulder**
3. **Hold on** to casualty's **hand** and provide support for the casualty by pulling him / her close to you.
4. Your free hand will go around the casualty's **waist** and **grab** some **clothing**.
5. In **one swift movement**, you will **move front** by moving your other foot in front of the casualty. Ensure that it is **beyond casualty's feet** in order to make space for the foot that is currently between casualty's feet to move forward too.
6. At this step, make sure that you are **still holding** on to the casualty's **hand** around your shoulder as well as grabbing the clothing at the waist.
7. **Let go** of the **clothing** at the waist and **grab** casualty's **free hand** to put **over** your shoulder.
8. You will **bend** your **knee** and keep your **back straight**.
9. **Release** the casualty's **hands while at the same time**
10. **Instruct** the casualty to **hold** his/her **hands together**.
11. Position your **hand under** casualty's **thighs** and instruct the casualty to hop on.
12. **Attempt** to **lift** the casualty up.

H) High Dragging

Objectives:

- 1) To move unconscious casualty for a short distance

Method:

1. Start from position zero and place one of your **feet between** casualty's feet,
2. Place your **arms under** the casualty's **armpits** such that the casualty is supported by the crook of your arms.
3. **Turn** to your **side** such that one of your shoulders is facing the casualty's back
4. **Straighten** the **leg nearer** to casualty with **your foot facing sideways** to support casualty's **heels**.
5. **Bend** your **other leg** (the one further away from the casualty's feet)
6. As this leg takes a step to the back, slide your straightened leg back towards yourself. While **dragging**, ensure that **casualty** is **supported** at all times.
7. **Look behind** once in a while to ensure that the **route** is **safe**.

I) Low Dragging

Objectives:

- 1) To move unconscious casualty through low tunnels; low walls, etc.

Method:

1. Start from semi-recumbent position and place your **arms under** the casualty's **armpits** such that the casualty is supported by the crook of your arms.
2. With both legs apart, **bend** your **knees** and keep your **back straight**.
3. Take steps to the **back slowly**
4. While **looking behind** once in a while to ensure that the route is safe.

J) Human Crutch

Objectives:

1) To evacuate a casualty with a slight injury on one leg (e.g. sprained ankle)

Method:

1. Start from position zero and place one of your **feet between** casualty's feet. Place casualty's **hand** that is nearer to you **over** your **shoulder**
2. **Hold on** to casualty's **hand** and provide support for the casualty by pulling him / her close to you.
3. Your free hand will go around the casualty's **waist** and **grab** some **clothing**.
4. **Instruct** casualty to place his/her **injured** foot **on** your **foot which is nearer to the casualty**.
5. At this point, you should **still hold** on to the casualty's **hand** which is over your shoulder and **grabbing** the **clothing** at the waist.
6. As you move, pull casualty towards you to ensure stability of casualty.
7. **Instruct** casualty on the leg movement. The **aider's free foot** should step out **first** followed by casualty's free foot.
8. **Lastly**, you should **move** your foot that is **supporting casualty's injured foot** forward.

CASUALTY EVACUATION SILVER NOTES

CASUALTY SILVER NOTES LESSON OUTLINE:

➤ **2-AIDER MANUAL METHODS**

- A. Mini-skirt Method
- B. 2-hand seat
- C. 3-hand seat
- D. 4-hand seat

➤ **HUMAN STRETCHER METHODS**

- A. 3-aider human stretcher
- B. 4-aider human stretcher

➤ **STRETCHER DRILLS**

- A. Parts of a stretcher
- B. Opening of stretcher
- C. Testing of stretcher
- D. Stand-by mode
- E. Closing of stretcher
- F. Loading of casualty
- G. Advance with stretcher
- H. Inward turn
- I. Outward turn
- J. Wheeling

➤ **FIREMAN'S LIFT***

* **Additional Reading**

2-AIDER MANUAL METHODS

2-AIDER MANUAL METHODS

A) MINI-SKIRT METHOD

Objectives:

1. To carry casualty with light upper limb injury through narrow passage way

Method:

1. Position of casualty would be in semi-recumbent position
2. Aider 1 would **position arms** under the casualty's **armpits** with his / her stronger leg up.
3. Aider 2 would **kneel** on the **uninjured side** of casualty with the **same leg (as Aider 1) up**.
4. Aider 1 would **tell** Aider 2 to place his/her hands **under casualty's leg, above** and **below** the casualty's **knees**. Aider 2's hands must be **between** his/her own **knees**.
5. **Lift** casualty up with **timing**.
6. Aider 2 should **pull** casualty **closer** to his/her body.
7. **Advance** with **timing**, with Aider 2 advancing with **outer leg first**.

Note: Cadet tested would be Aider 1 and has to explain to Aider 2 the steps throughout the practical test.

B) 2-HAND SEAT

Objectives:

- 1) To carry light and **unconscious** or **conscious** casualty

Method:

1. Position of casualty should be in sitting position, between the 2 aiders.
2. Aiders should **kneel** on knee with **different legs up** and **not sitting on heels**.
3. Aiders should **form skeleton**.
4. Aiders should place casualty's **hands over his/her waist** (for **unconscious** casualty or request casualty to place his/her hand **around aiders' necks** (for **conscious** casualty)).
5. Aiders would position hand behind casualty, across casualty's back and **grab** some **clothing** at the **waist area**.
6. The other hand would go **under** casualty's **legs, above the knees**.
7. **Lift** casualty up to knee level with **timing**.
8. **Adjust** the hand to **slip under** the casualty's **buttocks**.
9. **Lift** casualty up to waist level with **timing**.

C) 3-HAND SEAT

Objectives:

- 1) To carry **conscious** casualty with lower leg injury

Method:

1. Position of casualty should be in sitting position, between the 2 aiders.
2. Aiders should **kneel** on knee with **different legs up** and **not sitting on heels**.
3. Aiders would **form skeleton**.
4. Aiders should request casualty to place his/her hand **around aiders' necks**.
5. Place the **hand seat** at the **back** and **request casualty** to prop him / herself up (using the uninjured leg) to **sit** on the **hand seat**.
6. Aider with **free hand** will **hold** casualty's injured **leg**.
7. **Lift** casualty up to knee level with **timing**.
8. **Adjust** the hand to **slip under** the casualty's **buttocks**.
9. **Lift** casualty up to waist level with **timing**.

D) 4-HAND SEAT

Objectives:

- 1) To carry **conscious** casualty

Method:

1. Position of casualty should be in sitting position, between the 2 aiders.
2. Aiders should **kneel** on knee with **different legs up** and **not sitting on heels**.
3. Aiders would **form skeleton**.
4. Aiders should request casualty to place his/her hand **around aiders' necks**.
5. Place the **hand seat** at the **back** and **request casualty** to prop him / herself up to **sit** on the **hand seat**.
6. **Lift** casualty up to knee level with **timing**.
7. **Adjust** the hand to **slip under** the casualty's **buttocks**.
8. **Lift** casualty up to waist level with **timing**.

HUMAN STRETCHER METHODS

Human Stretcher Method

A) 3-AIDER HUMAN STRETCHER

Method:

1. **Position** of aiders. Aider 1 at the head, Aider 3 next to Aider 1 and Aider 2 on **uninjured** side of the body. Aiders should have **same leg up** and should **not sit on the heels**.
2. Aiders should form **skeleton**.
3. Position of aiders' hands. **Aider 1** supports the **head** and **stomach region**. **Aider 2** supports at **stomach region**, with Aider 1 and **buttocks** with Aider 3. **Aider 3** supports **buttocks** and **ankle**. The aiders' **hands** should be **between** their **legs**.
4. **Lift** casualty up to aiders' laps with **timing**.
5. **Lift** casualty up to aiders' **standing** position with **timing** and **ensure stability** of casualty.
6. **Lower** casualty to aiders' **laps**. Aiders must **not** sit on heels.
7. **Lower** casualty to **ground**.
8. Aiders should **remove hands** from under casualty **without jolting** casualty.

B) 4-AIDER HUMAN STRETCHER

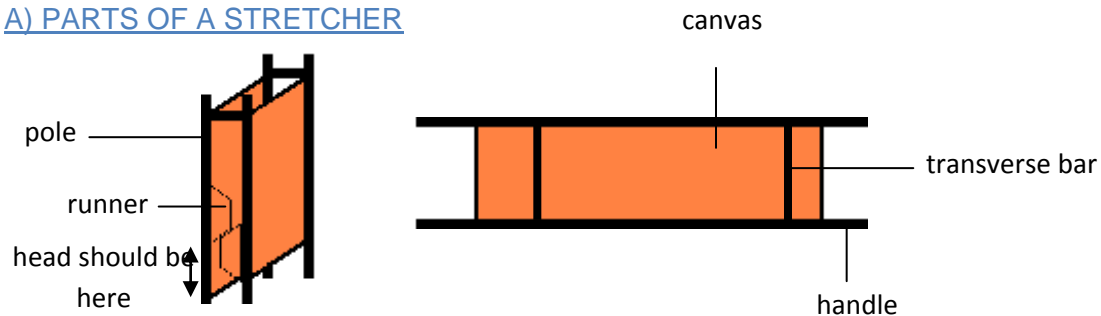
Method:

1. **Position** of aiders. Aider 1 at the head, Aider 3 at the mid-region, Aider 2 opposite to Aiders 1 & 3 and Aider 4 at the leg region of casualty. Aiders should **have same leg up** and does **not sit on the heels**.
2. Aiders should form **skeleton**.
3. Position of aiders hands. **Aider 1** supports the **head** and **chest region**. **Aider 3** supports at **hip** region and **thigh**. **Aider 4** supports at **knee** and **ankle**. **Aider 2** supports at **chest region**, with Aider 1 and **thigh**, with Aider 3. The aiders' **hands** should be **between** their **legs**.
4. **Lift** casualty up to aiders' laps with **timing**.
5. **Lift** casualty up to aiders' **standing** position with **timing** and **ensure stability** of casualty.
6. **Lower** casualty to aiders' **lap**. Aiders must **not** sit on heels.
7. **Lower** casualty to **ground**.
8. Aiders should **remove hands** from under casualty **without jolting** casualty.

STRETCHER DRILLS

Stretcher Drill

A) PARTS OF A STRETCHER



**note: head should be placed on the shorter end of the canvas to transverse bar so that the head can rest on the transverse bar when lying down on the stretcher.*

B) OPENING OF STRETCHER

Method:

1. **Straighten** the stretcher pole, making sure that **lower half** of the stretcher has the joint of the **transverse bar pointing up**.
2. Place a **foot between** the **handle** and **kick one** of the **handle** to spread open the stretcher. Your hand **holding** on to the **poles** will also **assist** in **opening** the stretcher.
3. Still **holding** on to the **upper half** pole, **step hard downwards** on the transverse bar on the lower half. Ensure that it is locked before kicking on the other transverse bar.

C) TESTING OF STRETCHER

Method:

1. **Kneel** on the stretcher, **above** the **transverse bar** and test stretcher by **interlocking** your **fingers** and pressing your **palm** down.
2. **Repeat** for the other side of the stretcher.

D) STAND-BY MODE

Method:

1. **Fold** stretcher into **half** after checking. A stretcher in stand-by mode means that it has been **tested and is safe** to be used.
2. **Hold both runners** and the **hinge** of the pole when walking with stretcher.

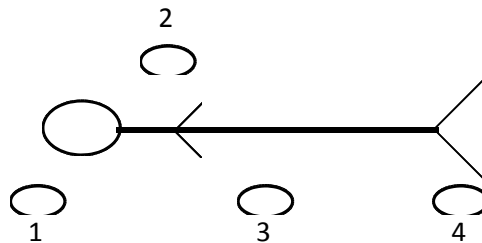
E) CLOSING OF STRETCHER

Method:

1. **Kick** the **transverse bar** of the **upper half** of stretcher first.
2. **Kick** the other transverse bar and **pull** the **canvas away from the pole** before **folding** it into **half**.

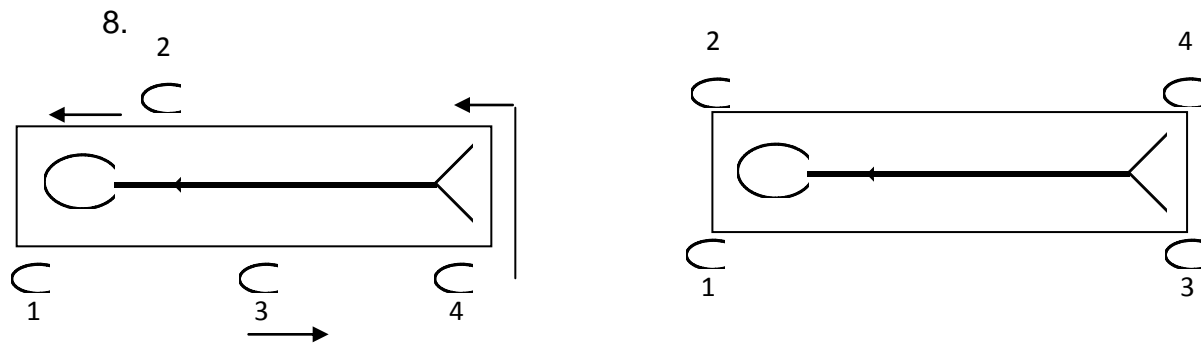
F) LOADING OF CASUALTY

Method:



1. All aiders will be kneeling on the **same leg** as Aider 1. Aider 1's leg nearer the casualty's head will be up.
2. All legs up should be 90° and aiders should **not** be **sitting on their heels**.
3. Forming **skeleton**: **Aider 1** supports the **head and chest region**. **Aider 3** supports at **hip region and thigh**. **Aider 4** supports at **knee and ankle**. **Aider 2** supports at **chest region**, with Aider 1 and **hip region**, with Aider 3. Aiders' **hands** should be **between their legs**.

4. Lift casualty up to aiders' **laps** with **timing**.
5. **Aider 2** will **let go** of his/her hand grip to **fetch** the **stretcher**. Stretcher should be **placed** as **close** as possible to the 3 other aiders, with the **correct side for the head**. He/she will **hook** his/her **hands** back accordingly.
6. **Lower** casualty to **stretcher** with **timing**, **without jolting** casualty.
7. Take up **position** accordingly. (Position of aiders: Aider 1 would proceed to the top right hand side of casualty and still known as Aider 1. Aider 2 would proceed to the top left hand side of casualty and still known as Aider 2. Aider 3 proceed to bottom left hand side of casualty and now known as Aider 4 and Aider 4 proceed to bottom right hand side of casualty and now known as Aider 3.)



Timing:

1. Up to waist level, 2, 3, 4, up
2. Lower to stretcher, 2, 3, 4, down

G) ADVANCE WITH STRETCHER

Method:

1. Aiders should have their **inner legs down** and should **not** be **sitting on** their **heels**.
2. **Aider 1** should **ask** if stretcher squad is ready and remaining aiders should **answer in order**, starting with Aider 2, Aider 3 and lastly Aider 4.
3. With **timing** from **Aider 1**, **lift** stretcher up **without jolting** casualty.
4. With **timing** from Aider 1, advance, timing 1 is left and timing 2 is right. Advance with **casualty's head going first on level ground or going up slope**. Advance with **casualty's feet going first if going down slope**.

Timing:

1. Aider 1: Stretcher squad ready
2. Aider 2, 3 and 4(in order): Ready
3. Aider 1: Stretcher squad: Up to waist level, 2, 3, 4, up

H) INWARD TURN

Method:

1. Timing 1: **Aiders 1 and 2** would step out and **grab** the **pole as far as possible**, but not more than the midpoint between the handle and the hinge, with **body facing** the **stretcher**. Using their **free hand**, **Aiders 3 and 4** would **grab** the **handle**.
2. Timing 2: **Aider 1 and 2** would **reverse the direction** of their **hands on the handle**. **Aiders 3 and 4** would **adjust** their **legs to face inwards** and the **other hand** would **grab** the **pole, as far as possible**, but not more than the midpoint between the handle and the hinge. Aiders 1 & 2, and Aiders 3 & 4 should be **facing each other**.

Timing:

1. Aider 1: Stretcher squad halt
2. Aider 1: Stretcher squad, inward turn, 2, 3, 4, 1 (pause to execute command), 2

I) OUTWARD TURN

Method:

1. Timing 1: **Aider 1 and 2 adjust their legs to face outward and release the hand on the pole to grab the handle. Aider 3 and 4 would reverse the direction of their hand grip on the handle.**
2. Timing 2: **Aider 1 and 2 would let go of the other hand. Aider 3 and 4 would adjust their legs to face outwards and let go of the pole.**

Timing:

To face opposite direction from previous direction before inward turn,
Aider 1: Reverse outward turn, 2, 3, 4, 1 (pause to execute command), 2

To face same direction as previous direction before inward turn,
Aider 1: Outward turn, 2, 3, 4, 1 (pause to execute command), 2

J) WHEELING

Method:

1. Make a **turning** at a **point** with **correct command** given.

Timing:

Aider 1: Stretcher squad right/ left wheel.

FIREMAN'S LIFT

Method:

1. Start from position zero and place one of your **feet between** casualty's feet, with your other foot at the side of the casualty.
2. Place casualty's **hand** that is nearer to you **over** your **shoulder**
3. And **hold on** to casualty's **hand** and provide support for the casualty by pulling him / her close to you.
4. Your free hand will go around the casualty's **waist** and **grab** some **clothing**.
5. The **leg nearer** to casualty should **step out** and place the foot **facing in, between casualty's feet**. The **other foot** should **step out, in front** of the casualty.
6. Your hand will now **let go** of the **clothing** grabbed at the waist. This hand should go **under, between** the **casualty's legs**. You should **bend** your **knee** and not your back at this position.
7. **Let go** of the hand around the **shoulder** and **grab** the **OTHER hand and casualty's leg**.
8. Casualty **whole body** should be **on aider's back** before aider attempt to lift the casualty.

CASUALTY EVACUATION GOLD NOTES

CASUALTY EVACUATION GOLD NOTES

To be awarded to cadets, who have already attained a Casualty Evacuation (Silver) Incentive Badge, completed the Casualty Evacuation (Gold) syllabus listed below and have passed a Practical Test conducted by HQ.

An examiner qualified to assess the Casualty Evacuation (Gold) Test is one who has been accredited and acknowledged by the Casualty Evacuation Chief Specialist.

The Casualty Evacuation (Gold) Syllabus includes:

- 1. Stretcher Movements**
- 2. Improvised Stretchers**
 - a. Blanket Stretcher
 - b. Newspapers Stretcher
 - c. Clothing Stretcher
 - d. Bandage Stretcher
- 3. Obstacle Crossing**
 - a. Under Obstacles
 - b. Over Obstacles
- 4. Casualty Evacuation Sample Case Scenarios**
- 5. Methods of Instruction (MOI)**

STRETCHER MOVEMENTS

STRETCHER MOVEMENTS

There are a few critical points to bear in mind when evacuating casualty:

1. When on level ground, casualty's **head** will **go first**.

Reason: When on level ground, Aiders 3 and 4 being at the front will have to lead the way to evacuate the casualty to place of safety. While Aiders 1 and 2 will take note of the vital signs of the casualty.

2. Heading towards ambulance, casualty's **head** will **go first**.

Reason: Casualties are always loaded onto the ambulance with head going in first. It's because when closing the door of the ambulance, there is impact from the door. Hence, if the head were to go in first, it wouldn't impact on the head to cause or worsen any unnecessary injuries. And the aiders at the back will be able to take note of the vital signs of the casualty too.

3. When going up stairway / slope, casualty's **head** will **go first**.

Reason: When going up a stairway / slope, there are possibilities of casualty slipping off from the stretcher due to the angle of projection. So the aiders at the back will be able to take note of the vital signs of the casualty as well.

4. But when it comes to cases like going over / under obstacles, casualty's **leg** will **go first**.

Reason: When going over / under obstacles, it's always safer to let the leg go first in case anything falls from the obstacle. Even if there is anything that falls down, it would hit the leg instead of the head. The head is the most vital part.

5. When going down stairway / slope, casualty's **leg** will **go first**.

Reason: In case of casualty slipping down from the stretcher, he/she will land on his/her leg first instead of the head.

IMPROVISED STRETCHERS

1. IMPROVISED STRETCHERS

a. Blanket Stretcher



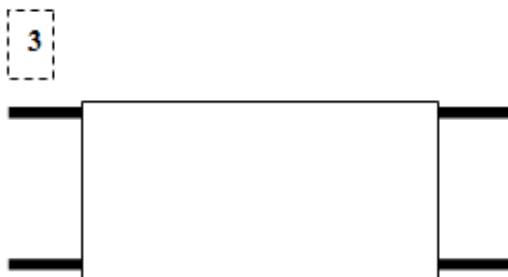
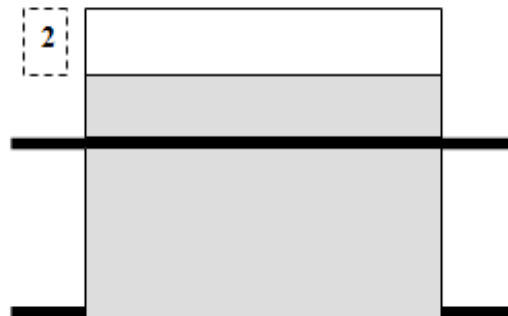
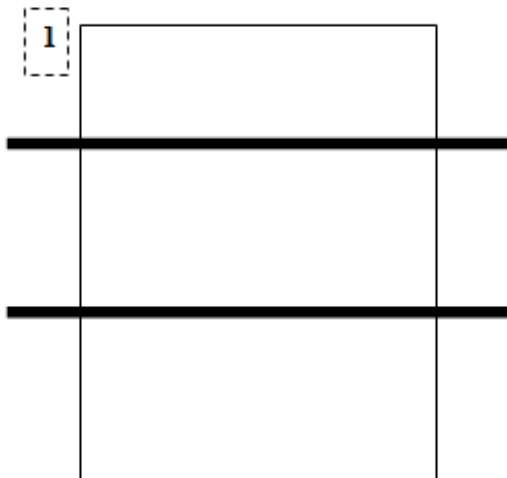
1
 Place poles onto blanket. Make sure the space in between the poles, is sufficient for the casualty.



2
 Fold-in the flap of blanket which has the more cloth first.



3
 Fold-in the other flap, making sure that it reaches the bottom of the pole. This is to ensure better grip and safety.



Points to note:

1. When casualty is loaded onto the blanket stretcher, the head should be on the blanket and legs should be left dangling out of the stretcher.

b. Newspapers Stretcher



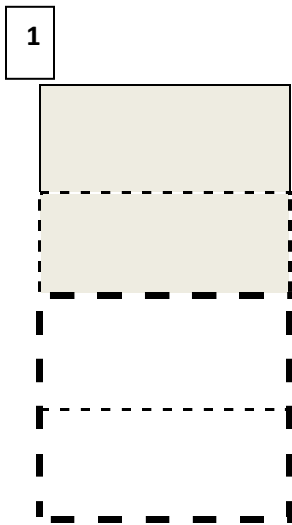
1 Gather 2-3 pieces of newspapers and lay the first layer. Make sure the newspapers are overlapped with each



2 Gather 2-3 pieces of newspapers and lay out the second layer. Ensure all 'joints' are fully covered.

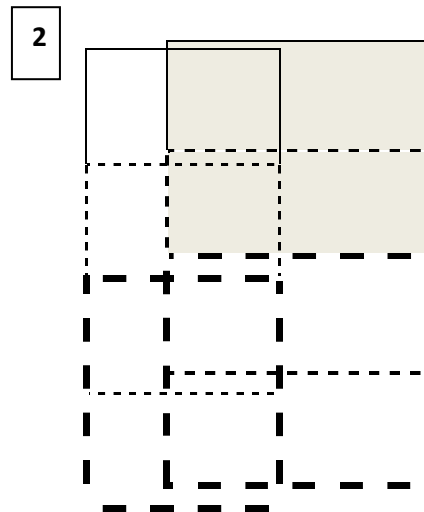


3 Load casualty onto the newspapers using human stretcher method.



1 Note: Newspaper should be in the horizontal position.

3 sets of newspaper are used. Initial set must be overlapping the previous by 50%.



2 Note: First layer is done; second layer begins with newspaper laid in vertical position.

Initial set must also be overlapping the previous by 50%.

Do the same for opposite side.



Aiders at the sides, start 'rolling' inwards at the sides of the newspapers. Roll as close to the casualty as possible. This is to ensure aiders have fuller grip of the newspapers.



Lift the casualty up with timing.

Timing goes like this: Up to waist level, 2, 3, 4, UP.

Casualty's head and leg shouldn't be hanging or dropping.

Points to note:

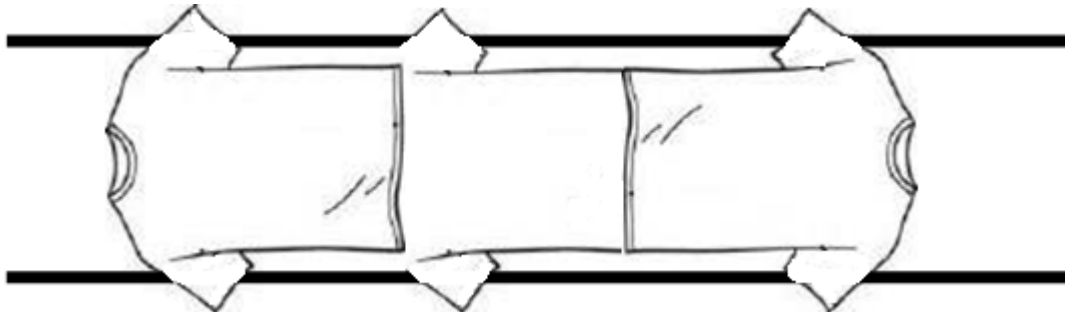
- 1. When layering newspapers, ensure that the newspapers are equally laid and overlapped.*
- 2. Amount of surface area will depend on the size of the casualty.*
- 3. Never leave too big a gap when overlapping of newspapers.*
- 4. Overlapping of newspaper should be around 50%.*
- 5. A set of newspaper is a bare minimum of 3 full pieces.*

c. Clothing Stretcher



Poles should go through the selves of the shirt. Collar of the shirt should be facing out on both ends of the stretcher.

The shirts must overlap each other so that casualty wouldn't slip from the hole.



Points to note:

- 1. The number of shirts used is actually based on the height of the casualty. Hence the amount of shirt used is flexible.*
- 2. If button clothes are used, buttons should be facing up and buttoned up. This is to use the casualty weight to press on the shirt and secure it tightly. (it is not facing down because there will be a tendency of the shirt tearing up once the buttons left its buttoned up position.)*
- 3. The head should be on the clothes stretcher and the legs should be left dangling.*

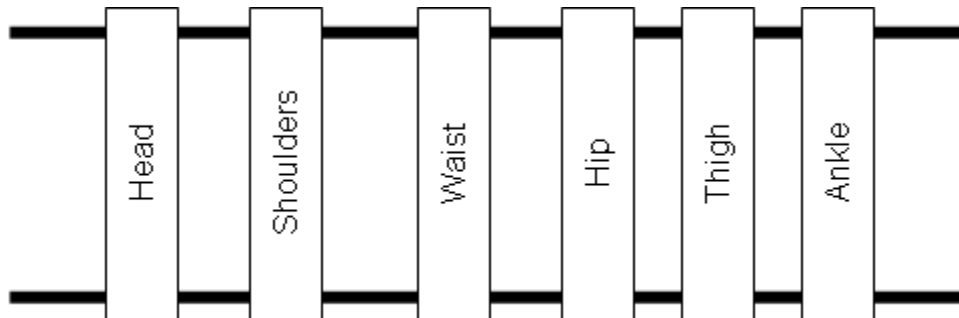
d. Bandage Stretcher



Lay out the positions of the bandages and put the poles into it. The bandages are supposed to be positioned at the Head, Shoulder, Waist, Hip, Thigh and Ankle.



Ensure that there is enough space for the casualty to lie on and use reef knot to secure. Turn the knots facing down. So that it would not hurt the casualty when lying on it.



* The thick black lines indicate poles and the white boxes indicate triangular bandages.

- Adjust poles to the width of the casualty using two feet stepping and securing the ends of the poles.
- Tie bandages across the poles as shown. Adjust bandages as necessary to the height of the casualty. Use a reef knot to secure.
- Load casualty onto the improvised stretcher and it is ready for use.
- When explaining method to cadets, involve thinking skills like for instance, getting them to brainstorm things like which parts of the body that require more support?
- Take note to rotate the people carrying the stretcher.

- Always check whether the knots are tight enough before loading the casualty onto the stretcher.
- As for safety, the aiders will have to be alert and look out for any signs and symptoms of dangers. They must always be ready to support the casualty.

Points to note:

- 1. when the casualty is loaded onto the stretcher, ensure all the bandages are supporting the stated parts of the casualty.*
- 2. Always check whether the knots are tight enough before loading casualty onto stretcher.*

OBSTACLE CROSSING

2. Obstacle Crossing

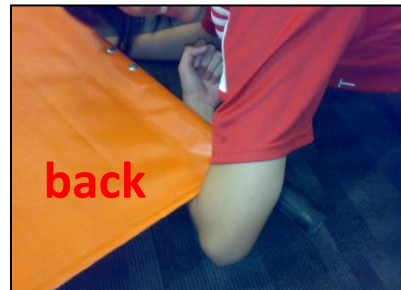
a. Under Obstacles



After loading casualty onto stretcher, assign aider 3 to check for danger. When checking for danger, aider's leg should go first, with one hand at the back for support and the other to check and move away any objects that is in the way.



Aiders' position should be facing inwards.



Aiders get into position. Their hands shouldn't be holding onto the runners, it's supposed to be around the runners. Aiders should be facing inwards.



Aider 1 will ask if his/her stretcher squad is ready. Once everyone is ready, aider 1 shall give command to advance.



Timing goes like this: 1 [*bring stretcher up*], 2 [*move stretcher forward*], 3 [*put stretcher down*], 4 [*push body forward*].



Aiders will continue doing the same method till they have completely evacuated casualty out of the danger zone.

Points to note: Beware of the hands of the aiders when advancing; keep it away from the runners.

b. Over Obstacles

1	
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After loading casualty onto stretcher, check whether the obstacle is safe for crossing over. Aider 1 to command aider 3 to check obstacle and get back to him / her.

2	
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Once obstacle is declared safe, stretcher squad will raise stretcher to waist level.
Timing goes like this:
Stretcher squad ready?
Raise to waist level, 2, 3, 4, UP.

3	
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Advance nearer to obstacle and halt. After which, inward turn.
Timing goes like this:
stretcher squad ready?
Inward turn 2, 3, 4, 1 [*right hand on the handle*], 2 [*left hand let go and hold onto the pole, ensure hand is secured on the stretcher*].

4	
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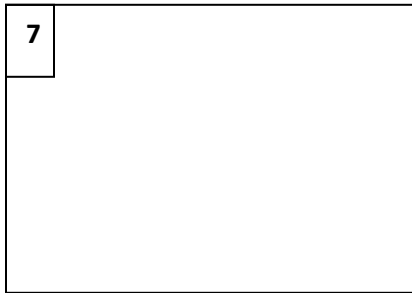
Raise stretcher to shoulder level.
Timing goes like this:
stretcher squad ready?
raise to shoulder level, 2, 3, 4, up.

5	
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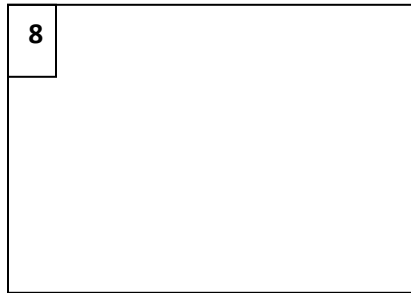
Aider 1 shall command:
“Stretcher squad ready?
Advance to place handle on obstacle, 2, 3, 4, up”

6	
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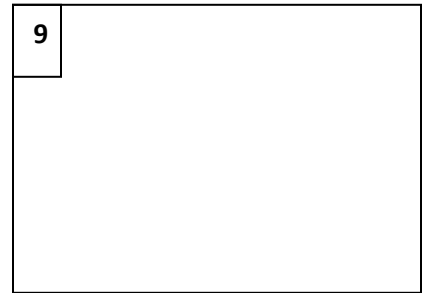
After handle has been placed, Aider 1 will command to place the runners on the obstacle.
Timing goes like this:
stretcher squad ready?
Runners up to obstacle, 2, 3, 4, up.



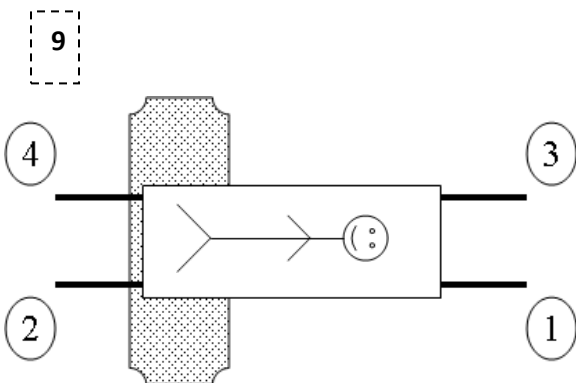
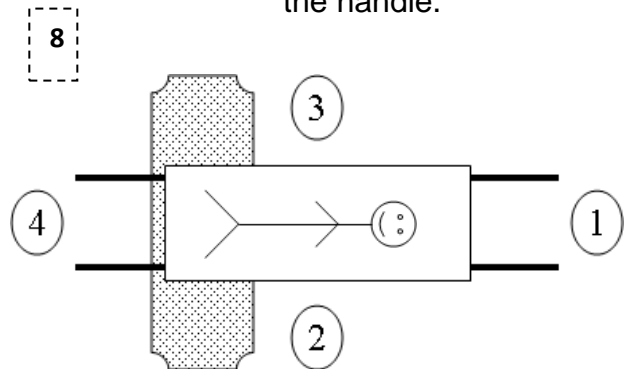
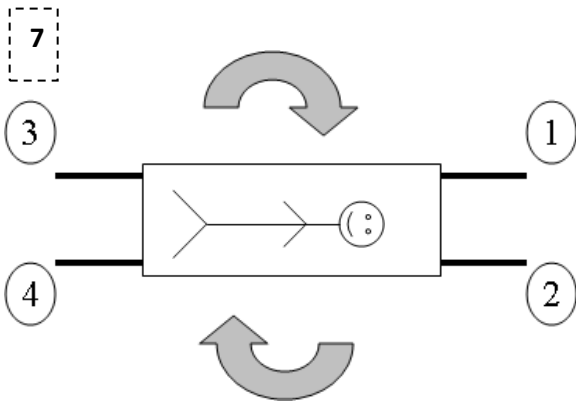
Aider 1 shall now ask Aider 4 to cross over to the other side. Aider 1 will command: "We'll now move in clockwise direction."

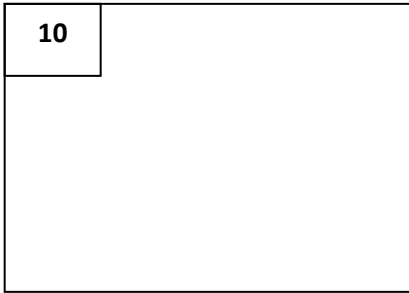


Now, Aider 4 is at the opposite side, he/she will be holding onto the handle. Whereas Aider 2 & 3 are holding onto the side of the pole and Aider 1 is holding onto the handle which hasn't pass through the obstacle.

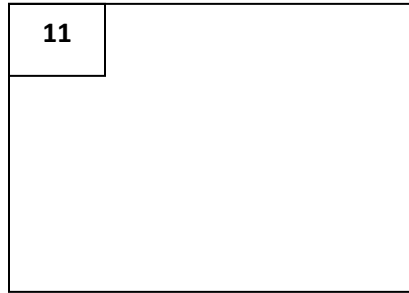


Aider 1 will command: "Stretcher squad ready? Aider 2 you may cross over to assist Aider 4." So now, Aider 2 & 4 is at the opposite side supporting at the side of the handle and Aider 1 & 3 will support the other side of the handle.

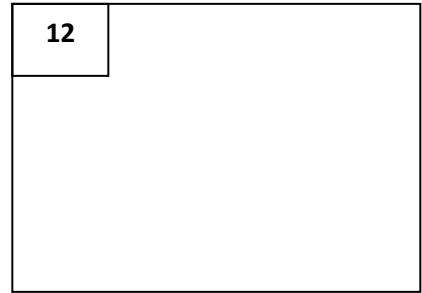




After Aider 2 has cross over, Aider 1 will command for the back runner to be placed on the obstacle. Command: "Stretcher squad ready? We're now going to place the back runner onto the obstacle."

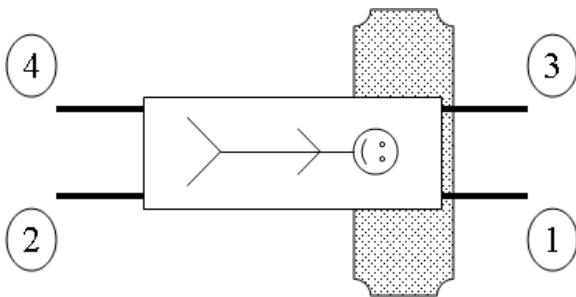


Aider 1 will cross over to the other side. Leaving Aider 3 to support the handle. So, now Aider 1 & 4 will be at the side supporting. And Aider 2 & 3 will be holding onto the handle.

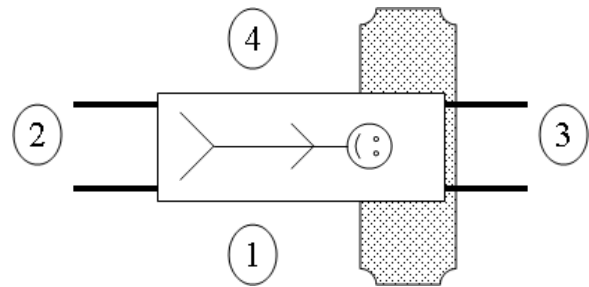


Now, Aider 1 will command Aider 3 to cross over. Once Aider 3 cross over, Aider 3 & 4 will be on standby to receive the stretcher down from the obstacle. They must place their hand as close to the handle as possible.

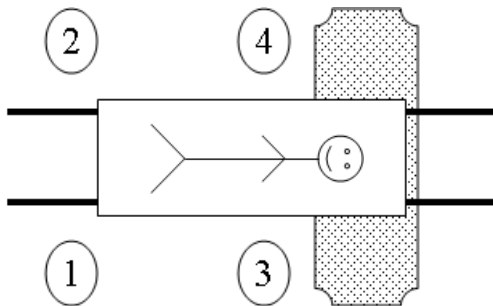
10



11



12



13	

The person commanding will now be changed to Aider 4.

14	

Aider 4 command: “
“Stretcher squad ready?
Remove stretcher from
obstacle.”

15	

Must be a distance away from the obstacle before doing an outward turn. Advance and halt if needed. Timing for outward turn: outward turn, 2, 3, 4, 1 [*hands all to be at the side of the poles and handles*], 2 [*turn to face the front*].

16	

Advance and halt, then place stretcher down. Timing: “Stretcher squad ready? Put stretcher down to ground level, 2, 3, 4, down”

Points to note:

- 1. Aider 3 will command because he is at the back, so he can observe whether his/her stretcher squad is ready*
- 2. NEVER leave casualty's butt on the obstacle. It might cause piercing through injury.*

METHODS OF INSTRUCTION

3. Methods of Instructions & Accreditations

Methods of Instructions (MOI) require cadets to prepare for a lesson with the topic from Evacuation Bronze and Silver. This lesson will only be given during the GOLD Modular Workshop done by Headquarters Evacuation Specialist. This particular lesson can only be cleared strictly at Headquarters Level.

END OF NOTES

**For other queries and doubts, please clarify with your unit
instructors, leaders, Volunteer Instructors.**