

**BUKU PANDUAN INSTRUKTUR SKILLS LEARNING  
SISTEM EMERGENSI DAN TRAUMATOLOGI  
STABILISASI DAN TRANSPORTASI**



**KOORDINATOR SKILLS LAB  
SISTEM EMERGENSI DAN TRAUMATAOLOGI  
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## **STABILISATION AND TRANSPORTATION**

- Definition :**
1. Prepare safe transportation for patients
  1. Give first aid and secondary survey on patients with medulla spinalis trauma

**Aim:**

Students are expected to :

1. Demonstrate the techniques of examination to check patients with medulla spinalis trauma
2. Discuss the principals of immobilization and log roll on patients with neck trauma/medulla spinalis trauma and indications to remove protections aid.
3. Do neurological examination and estimate the level of trauma
4. Decide whether transferring to other hospital is needed and how to immobilize patient correctly when transferring.
5. Limitize patients risk to worsen with doing the right mobilizaiton
6. Prepare safe transportation for the patient

**Learning media and tools :**

1. Skill guide book of emergency and traumatology system
2. Video and slide
3. Patient models (students may role as patient)
4. Semirigid cervical collar
5. Desk or stretcher or bed.
6. Folded towel to support .
7. Blanket
8. Bandage
9. *Scoop stretcher*
10. Long spine board.
11. Vacuum mattress
12. KED (Kendrick Extrication Device)

**Learning method :**

- Scenario by the instructor, demonstrated by students

**Activity description :**

<b>Activity</b>	<b>Time</b>	<b>Description</b>
1. Introduction	5 minue	1. Tools introduction 2. Primary and secondary survey scenario judgement
2. Scenario I	10 minute	1. Give help on spot using long spine board and cervical collar only 2. Log Roll
3. Scenario II	10 minute	1. Help patient on spot, using cervical collar, scoop stretcher, and long spine board
4. Scenario III	10 minute	1. Evacuate patient using vacuum matras
5. Scenario IV	10 mintue	1. Extrict patient with KED

## LEARNING GUIDE

### STABILIZATION AND TRANSPORTATION SKILLS

STEPS/Activity	Description
<b>Preparation</b>	
Check list all tools	
<p><b>I. PRIMARY SURVEY RESUSCITATION – SPINAL CHORD TRAUMA JUDGEMENT</b></p> <p><b>II. Airway</b>            Judge the airway while positioning the cervical spine. Open and clean up the airway, do the jaw thrust, place oropharynx tube, and do intubation if necessary</p> <p><b>A. Breathing</b>            Judge and give adequate oxygen, and ventilation if necessary</p> <p><b>B. Circulation</b></p> <ol style="list-style-type: none"> <li>a. Judge the circulation by checking pulsations, blood pressure and perifer perfusion. If hypotension occurs, it has to be differiated by hypovolemic shock ( decreased blood pressure, increased heart rate and cold extremities)</li> </ol> <p><b>C. Solution</b> to correct hypovolemia</p> <p><b>D. Disability- brief neurological examination</b></p> <ol style="list-style-type: none"> <li>a. Judge the conciousness and pupil.</li> <li>b. Decide whether to use AVPU or GCS to judge patient’s conciousness</li> <li>c. Identify paralysis or paresis</li> </ol> <p><b>II. SECONDARY SURVEY – NEUROLOGICAL JUDGEMENT</b></p> <p><b>A. AMPLE History Taking</b></p> <ol style="list-style-type: none"> <li>1. History and mechanism of trauma</li> <li>2. Medical record</li> </ol> <p><b>B. Identify and write down any medication given to the patient before, during, and after treatment</b></p> <p><b>C. Re-examine conciousness and</b></p> <p><b>D. Re-examine GCS score</b></p> <p><b>E. Examine spinal chord</b></p> <ol style="list-style-type: none"> <li>1. <b>Palpation</b>            Palpate the whole posterior spinal chord by doing log roll carefully            Examine ::           <ol style="list-style-type: none"> <li>a. Any deformities/ swelling</li> <li>b. Crepity</li> <li>c. Increasing pain when palpated</li> <li>d. Contusion and laceration.</li> </ol> </li> <li>2. <b>Pain, paralyze and paresthesia</b> <ol style="list-style-type: none"> <li>a. Yes/No</li> </ol> </li> </ol>	

- b. Location
- c. Neurological level

**3. Sensation**

Pinprick test to estimate sensation, is performed in all dermatoms and write down the most caudal dermatom which gives sensation

**4. Motoric Sensation**

**III. PRINCIPALS IN IMMOBILIZING THE SPINAL CHORD AND LOG ROLL**

**A. Log roll:**

1. One person hold the head and neck to maintain the immobilization in one line.
2. One person stand by on the side to hold the patient's body ( pelvis and hips )
3. Another person hold the pelvis and limb. With the command from the person on the head, move the patient in an angle position carefully
4. The 4th person check on the spine chord and place the long spine board

**B. Placing the ong spine board**

1. Maintain the head and neck in one line when the second person holds the patient on its shoulders and wrists. Third person holds the patient;s hand ad hips with one hand, the other hand holds the bandage that cords patient's ankles pergelangan kaki.
2. With the commandments from the rescuers whose holding the patient's head and neck, perform log roll as a unit towards the other persons/rescuer whose beside the patient. It only needs a minimal rotation to place the spine board underneath the patient. Maintain the one line principal of the head and neck in this procedure
3. Spine board is placed underneath the patient, afterwards perform log roll towards the spine board.
4. *Long spine board* with its rope/band is inserted to the thoracal regio, above crista iliaca, thighs and ankles. Band or bandage is used to fixate the head and neck to attach to the spine board
5. Perform inline immobilisation of the head and neck manually, then place the semirigid collar
6. Straighten the arms and place it beside the patients body
7. Straighten the limbs carefully and place it in one line with the spine chord.Both ankles are tied together with a bandage
8. Place a pillow/support under the patient's neck to avoid any overextended movements and to comfort the patient
9. Pillow, blanket or any other supports is place on the right and left side of the patient's neck, while the head is tied, attached to the long board
10. Place a bandage above the cervical collar to guarantee there is no movement of the head and neck.

**C. Scoop Stretcher**

<ol style="list-style-type: none"><li>1. Prepare scoop stretcher</li><li>2. Open the lock to divide in two</li><li>3. Arrange the scoop to match patient's height</li><li>4. Place scoop under the patient</li><li>5. <i>Scoop stretcher</i> is not for immobilizing the patient.</li><li>6. <i>Scoop stretcher</i> not a transport device, do not lift scoop on the edges because it could fold on the middle and will lose the straightnes of the vertebrae</li></ol>	
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