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| RAPP AUSTRALIA PTY LTD | | |
| | FULL SPINE IMMOBILISATION APPLICATION OF NEANN VIM (VACUUM IMMOBILISATION MATTRESS) | SKILL SHEET VIM |
| | <u>EQUIPMENT REQUIRED:</u> Cervical Collar; VIM (including Mattress & 25mm Forehead Strap); Towel; Combine Pad; Stretcher Canvas or Sheet; Hand & Wrist Airsplint; Vacuum or Suction Pump. | Version 1.3 12 October 2006 |

| STAGES | KEY POINTS | RATIONALE |
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| Apply manual head stabilization. | 1. Ensure manual head stabilisation is maintained during application of the VIM, even once C-Collar is applied. | C-Collar only provides 50% immobilisation of the cervical spine. |
| Apply Cervical Collar. | 1. Refer to current Service Protocols | |
| Apply Long Spine Board or Scoop Stretcher. | 1. Refer to current Service Protocols | Used to lift patient onto VIM. |
| Prepare patient. | 1. If appropriate, remove all bulky items from all pockets. 2. Inform and reassure patient of procedure. | Prevents discomfort when lying on VIM. |
| Prepare VIM. | 1. Remove VIM from storage bag. 2. Lay VIM out flat on ambulance stretcher 3. Undo straps, fully extend, and lay all straps to the side of VIM. 4. Ensure carry handles are not under VIM. 5. Spread beads out evenly on the VIM. 6. Place Canvas down full length of VIM. 7. Place Hand & Wrist fully opened under the thoracic lumber spine region with the bottom of airsplint level with the green pelvic strap | Eases removal of patient off the VIM at Hospital. Fills the gap under the thoracic & lumber spine created when the air is evacuated out of the VIM. |
| Place patient onto the VIM. | 1. Lift the patient onto the VIM using the Long Spine Board or Scoop Stretcher. 2. Ensure the patient's shoulders are level with the red line on the VIM 3. Ensure the patient is centred longitudinally on the VIM. 4. Remove the Long Spine Board or Scoop Stretcher. | Essential for strapping to work effectively. Essential for proper lateral support. |

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| <p>Pad under patient's head.</p> | <ol style="list-style-type: none"> 1. Place combine pad between the patients occiput and VIM. 2. If required, place towel between the VIM and the stretcher to bring head into neutral in-line position. | <p>Improves head comfort</p> <p>Failure to maintain correct alignment may cause cervical spine hyperflexion or hyperextension injury.</p> |
| <p><u>WHEN SECURING STRAPS</u></p> | <ol style="list-style-type: none"> 1. Straps should be tightened with a 'feed and pull' method. 2. Use bystander if available to push laterally inwards on the sides of the VIM whilst tightening straps. | <p>Prevents twisting of the patient.</p> <p>Will greatly assist in tightening the straps.</p> |
| <p>Secure green pelvic strap.</p> | <ol style="list-style-type: none"> 1. Place the <i>Green Pelvic Strap</i> across the pelvic bone or iliac crest and tighten. 2. Ensure that the strap goes over the bone rather than the soft abdomen. | <p>Otherwise abdominal organ damage may occur. This strap will help prevent lateral movement of the spine.</p> |
| <p>Secure upper yellow leg strap.</p> | <ol style="list-style-type: none"> 1. Place the <i>Yellow Upper Leg Strap</i> across the upper legs and tighten. | <p>If the legs are able to move laterally, spinal column movement can still occur.</p> |
| <p>Secure lower yellow leg strap.</p> | <ol style="list-style-type: none"> 1. Place the <i>Yellow Lower Leg Strap</i> across the lower legs and tighten. | <p>Again, if the legs are able to move laterally, spinal column movement can still occur.</p> |
| <p>Secure red foot strap.</p> | <ol style="list-style-type: none"> 1. Using the <i>Red Foot Strap</i>, apply a 'Figure Of Eight' around the patient's ankles and tighten. | <p>This strap will prevent downward sliding of the patient on the VIM that may occur if the foot end of the VIM is tilted downwards, or when the Ambulance accelerates. Also help prevent lateral movement of the legs.</p> |
| <p>Secure blue shoulder straps.</p> | <ol style="list-style-type: none"> 1. Apply right <i>Blue Shoulder Strap</i> across the chest and attach to the blue strap at the left pelvic region. 2. Tighten strap ensuring there is just enough slack to allow one hand to be placed between the chest and the strap. 3. Apply left <i>Blue Shoulder Strap</i> across the chest and attach to the blue strap at the right pelvic region. | <p>These two blue straps will prevent upward sliding of the patient's body when the VIM is tilted head down, or when the brakes of the vehicle are applied during transport.</p> |

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| <p>Secure black arm strap.</p> | <ol style="list-style-type: none"> 4. Tighten strap ensuring there is just enough slack to allow one hand to be placed between the chest and the strap. 1. Apply the <i>Black Arm Strap</i>, coming from under the arms and over the chest. 2. Ensure black strap is positioned just above the patient's elbows. 3. Tighten only enough to adequately support the arms from flopping around. | <p>They will also help prevent lateral movement of the torso if the VIM needs to be tilted sideways (vomiting patient). Over tightening may compromise respiratory effort by up to 25%.</p> <p>Prevents the upper arms of the patient from moving laterally or above shoulder height. Raising the arms above the shoulder level as required for such maneuvers as the Canadian Log-Roll is in general CONTRA-INDICATED in spinal injuries, as studies have shown this to cause sagging of the thoracic and lumbar spine. Over tightening may compromise respiratory effort by up to 25%.</p> |
| <p>Recheck all torso straps.</p> | <ol style="list-style-type: none"> 1. Recheck all the torso straps before immobilising the patient's head to the VIM. | <p>Essential for proper stability of the VIM when head is immobilized.</p> |
| <p>Apply head section.</p> | <ol style="list-style-type: none"> 1. Ensure the correct amount of firm padding remains under the head section of the VIM. 2. Wrap the head section of the VIM around the patient's temporal region. 3. Continue to hold this section firmly against head until air is evacuated. 4. Apply the <i>25mm Forehead Strap</i>. 5. Tighten strap ensuring foam pad is centered on the patient's forehead. 6. Place thumbs on the center of forehead, and pull both ends with equal pressure. 7. Velcro into place. | <p>To maintain the patient's spine in the neutral in-line position.</p> |

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| Evacuate air from VIM. | <ol style="list-style-type: none"> 1. Ensure Officers (when available) are placed holding sides of the VIM against the patient during air evacuation at the following positions: <ol style="list-style-type: none"> a) 1st Officer at head flaps b) 2nd Officer at the chest, holding the patient's upper arms firmly against the VIM. c) 3rd Officer at pelvic area. d) 4th Officer at knees. 2. Attach the hand pump, foot pump or battery powered suction pump to valve. 3. Ensure valve is closed.. 4. Evacuate all the air out of the VIM until it feels solid. 5. Disconnect pump. | <p>Ensure beads remain close to the body to improve immobilisation.</p> <p>Prevents build up of a beads under the armpits (as this may cause discomfort).</p> <p>Air is fully evacuated generally when cracking stops or it is hard to pump.</p> |
| Re-check straps. | <ol style="list-style-type: none"> 1. Re-adjust straps following evacuation of the air out of the VIM. | <p>Straps will loosen off as air is evacuated.</p> |
| Inflate Airsplint. | <ol style="list-style-type: none"> 1. Inflate the <i>Hand / Wrist Airsplint</i> until patient states void is filled and comfort. | <p>Fills void created under spine as air is evacuated from VIM. Improves long term comfort for the patient.</p> |
| Secure VIM to Stretcher. | <ol style="list-style-type: none"> 1. Secure the VIM to the stretcher as per Service protocols required for transport. | <p>The VIM allows for the current 20G stretcher restraints to be effectively used.</p> |
| <u>PLEASE NOTE:</u> | <p><u>SPINAL INJURY PATIENTS: THE VIM'S LIFTING HANDLES SHOULD NOT BE USED FOR LIFTING THE VIM OVER ANY DISTANCE. ONLY LIFT THE VIM IN CONJUNCTION WITH A LONG SPINE BOARD OR SCOOP STRETCHER.</u></p> <p><u>NON SPINAL INJURY PATIENTS: THE VIM'S LIFTING HANDLES CAN BE SAFELY USED TO LIFT THE VIM</u></p> | |

THIS SKILLSHEET SHOULD BE USED IN CONJUNCTION WITH THE VIM INSTRUCTION MANUAL PRODUCED BY RAPP AUSTRALIA PTY LTD. AND IS AVAILABLE AT www.neann.com/vim%20Training%20Manual.pdf

THIS SKILLEET SHOULD NOT BE USED IN ISOLATION