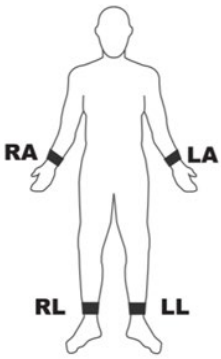
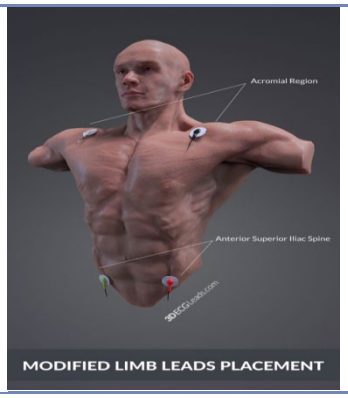
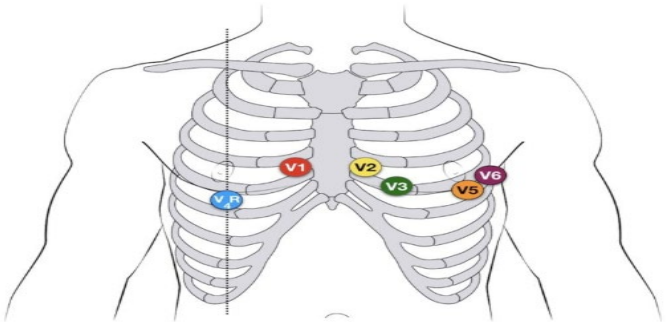
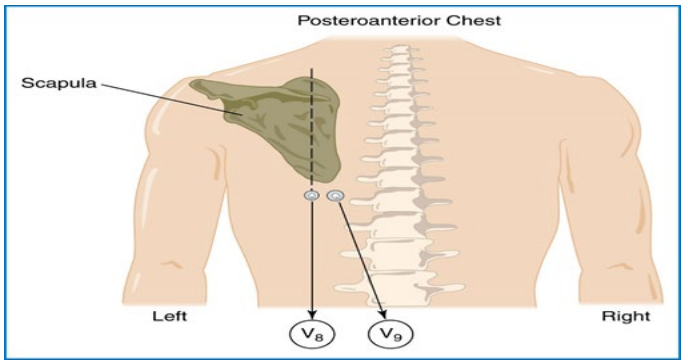
PREHOSPITAL 15LEAD ACQUISITION

Document Owner: Luc Simard Paramedic Practice Coordinator	**Program/Service Area**: Centre for Prehospital Care	**Issue Date:** Nov 2019 **Revision Date:** November 2023
Approval:	Corey Petrie, Interim Regional Manager, Centre for Prehospital Care & Trauma Services	**Frequency:**
Signature:		

Purpose: To ensure a consistent standardized practice for the acquisition of prehospital 15 lead ECGs.

	Content	Details
1.	Ensure that the patient qualifies for a 15 Lead ECG as per the *Advanced Life Support Patient Care Standards* **Indications for 15 LEAD ECG:** Suspected Cardiac Ischemia & Inferior STEMI noted, or ST Depression present in V1, V2 or V3	****Acquiring V4R is mandatory when considering nitro in the setting of suspected cardiac ischemia** ****Acquiring V8 & V9 is currently optional**
2.	Communicate the need for 15 Lead ECG acquisitions, and its effects to the patient/family member whenever possible.	
3.	Place the patient in a supine (preferred) or semi-sitting position.	A 15 Lead may be acquired in the patient's position of comfort if the patient cannot tolerate the supine position.
4.	Obtain consent and bare the patient's chest enough to acquire a 15 Lead ECG.	Take all steps necessary and possible to protect the patient's dignity and privacy.
5.	Prep skin with alcohol or other wipe as necessary. Remove excess chest hair where needed for good contact	
6.	Attach the four limb leads to the patient as per manufacture recommendations. In the event where limb positioning is not possible, paramedics may utilize the Mason-Likar (torso) placement. Paramedics will document the type of placement accordingly on the ECG strip.	 
7.	Input the patient's demographics in the cardiac monitor as per your services requirements and prior to ECG acquisition.	

8.	Attach the chest leads in the following correct anatomical position: **Anterior Chest Leads** **V1** - fourth intercostal space to the right of the sternum **V2** - fourth intercostal space to the left of the sternum **V3** - directly between leads V2 and V4 **V4R** - fifth intercostal space at right midclavicular line **Posterior Chest Leads** **V8-** take the **V5** wire and place it at 5th intercostal space midscapular line, it is now V8 **V9-** take the **V6** wire and place it between V8 and the spine. It is now V9	 
9.	Instruct the patient not to move and acquire the 15 Lead ECG.	Reduce causes of artifact. Stop patient movement. If in transit, wait for traffic light or other stop.
10	If a right ventricular myocardial infarction (RVMI) is suspected (ST segment elevation in Lead V4R), **withhold NTG administration**	You must ***MANUALLY INTERPRET*** the 15 Lead ECG
11.	If ST segment elevation is present in two anatomically contiguous leads, including (V8,V9), follow the HSN CPC STEMI Triage Guideline Policy and pre-alert the receiving facility that you transporting a patient suffering a possible acute myocardial infarction (AMI)	Once a STEMI is confirmed, the paramedic should apply defibrillation pads due to the potential for lethal cardiac arrhythmias. If intravenous access is indicated and established as per the *Advanced Life Support Patient Care Standards*, the left arm is the preferred site.
12.	Notify CACC (STEMI ALERT) as soon as a STEMI is confirmed.	
13.	Provide the receiving facility with a copy of the 12 lead ECG and 15 lead ECG including the patient's name on it.	Ensure to **re-label** your print out - **V4R, V8 & V9** A copy must also be made available to the Base Hospital (electronically or paper copy)
14.	Document the procedure on the patient care record as per the Ministry of Health and Long Term Care Emergency Health Services Branch Ambulance Call Report Completion Manual and applicable Service	Provider policy and must include: • time of 15 Lead ECG acquisition • results of 15 Lead ECG
15.	Document patient condition before and after 12 Lead acquisition	

Expected Outcome: Successfully acquire 15 Lead ECGs in the prehospital setting.