Check List:
□ Patient supine or Fowlers
□ Skin prep done
□ Placement correct - (must use limb leads on limbs)
□ Validated (in V leads R waves increase in size until between V3 & V4, QRS goes from negative to positive)
□ Artifact - ✓ contact, positioning, keep cables still

Areas of heart tissue | ECG Leads | Possible Coronary Artery Involved
--- | --- | ---
Lateral wall | Leads I, AVL, V5, V6 | Circumflex
Inferior wall | Leads II, III, AVF | RCA - right coronary artery
Septal wall | Leads VI, V2 | LAD - left anterior descending
Anterior wall | Leads V2, V3, V4 | LAD - left anterior descending

STEMI - ST Elevation Myocardial Infarction = ST Segment Elevation >1mm in 2 or more Related Leads

http://www.michigan.gov/cvh
Evaluate ECG:

- QRS complex wide? (>120 ms or 3 little boxes)
- ST elevation? (more than 1mm in 2 leads)
- ST elevation regional and consistent with STEMI?

The goal is to reduce cardiac workload and to maximize myocardial oxygen delivery by reducing anxiety, appropriately oxygenating and relieving pain.

Pre-Medical Control

**MFR/EMT/SPECIALIST/PARAMEDIC**

1. Follow General Pre-Hospital Care Protocol.
2. Inquire of all patients (male & female) if they have taken Viagra (sildenafil citrate) or similar erectile dysfunction medications in the last 48 hrs. If yes, **DO NOT ADMINISTER NITROGLYCERIN.**

**EMT/SPECIALIST/PARAMEDIC**

3. Assist patient in the use of their own Nitroglycerin sublingual tabs (check expiration date) if available and if the patient’s systolic BP is above 120 mmHg, for a maximum of 3 doses.
4. Assist patient in the use of their own aspirin, or administer up to 324 mg/ chew and swallow if no aspirin within 24 hrs.

**PARAMEDIC**

5. Administer aspirin 324 mg (chew & swallow if no aspirin within 24 hrs).
6. Obtain 12-lead EKG if available. Follow local MCA transport protocol if EKG is positive for acute ST Segment Elevation Myocardial Infarction (STEMI) and alert hospital ASAP.
7. Do not delay transport.

**SPECIALIST/PARAMEDIC**

8. Start an IV NS KVO. If patient has a BP of less than 100 mmHg, administer a NS fluid bolus in 250 ml increments and reassess.

**PARAMEDIC**

9. Administer nitroglycerin 0.4 mg sublingual if BP is above 100 mmHg. Dose may be repeated at 3 to 5 minute intervals if chest pain persists and BP remains above 100 mmHg.
10. Contact Medical Control. **See Post Medical Control Protocol**

*July 31, 2009*