Background:

1. Time from onset of chest pain in the presence of a STEMI (ST segment elevation myocardial infarction) to reperfusion is critical to good patient outcome. We can lessen this time by performing field EKGs, interpreting them to the ED by phone or transmitting them to the ED by LifePak, and asking the ED to call a Cardiac Activation.
2. MRMC has 24/7 cardiac catheterization capability. A Cardiac Activation means the cardiologist will be in the ED promptly, usually before arrival of the patient; and the cath team will be in house or on the way to expedite angioplasty and stent placement.
3. During cardiac catheterization the team can also decide to prepare the pt for a flight to another hospital for open heart surgery and can place the pt on a cardiac balloon pump if necessary.

Indications:

1. Symptoms suggestive of cardiac ischemia, such as: chest pain, shortness of breath, abdominal pain, shoulder pain, arm or neck pain, nausea, dizziness, general malaise.
2. History of cardiac problems or predisposing conditions (diabetes, hypertension, stimulant abuse).
3. 12 lead EKG with 1mm or greater ST elevation in 2 or more contiguous leads.

Precautions:

1. In our protocol Left BBB does not mean one box elevations in two contiguous leads should be ignored. If the ED determines that the Left BBB is old, the ED can decide to step down the call for a Cardiac Activation. New Left BBB with chest pain = ischemia.
2. ST segment elevation in all or most leads with no reciprocal depressions can mean pericarditis. The ED can make this determination and decide to step down a Cardiac Activation.
3. ST segment elevation can be seen in aortic dissection. The ED can make this determination and decide to step down a Cardiac Activation.

Technique:

1. Place pt in POC.
2. Treat patient’s signs and symptoms per chest pain protocol.

3. Attempt to obtain 12 lead ECG within 5 minutes of arrival at patient.
4. If 12 Lead ECG is obtained for chest pain that is believed as cardiac in origin, transmit 12 lead ECG to MMC ED. If Inferior M.I. suspected, check for right side involvement. 12 Lead ECG should be transmitted with or without positive findings.
5. Establish 2 peripheral IV's if possible.
6. Contact ED; request a "Cardiac Activation", advise the ED physician of transmitted 12 Lead and advise of patient's presentation.
7. Treat patient per protocols throughout transport along with any direct orders per physician.
8. It will be the ED physician's decision if the Cath Lab team should be activated.
9. Upon arrival at the ED, ED staff may assume patient care or the patient may be directly admitted to the Cardiac Cath Lab.

Notes:

1. Clear communication is vital. If possible, speak to the ED physician. Clearly and directly state that you have a "Cardiac Activation".
2. Transmission of the EKG is not required for a Cardiac Activation. If you are unable to transmit, but see a STEMI on the 12 lead, continue with the Activation.
3. The potential problems of an improper Activation are far outweighed by the potential benefits to patients. Do not hesitate to call an Activation if you believe it is indicated.
4. A negative 12 lead does not rule out cardiac chest pain.
5. Do not delay transport to obtain EKG or to transmit; there is usually time to obtain it while arranging transport into the ambulance.
6. Printout reports are available from the Lifepak Receiving Station, including LP 12 docking.