

STEMI IDENTIFICATION FOLLOWED BY VENTRICULAR FIBRILLATION (VF)-A NEW TREATMENT STRATEGY

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ST segment elevation myocardial infarction (STEMI) continues to be a common presentation for patients presenting with ischemic chest pain in Halton and Peel Region. With the advent of our bypass protocols these patients receive world best "EMS to balloon times" with outstanding outcomes due to early recognition by paramedics and timely percutaneous coronary intervention.

We recently have reviewed a number of cases both in Peel and Halton Region of one of the most serious complications of STEMI, that being cardiac arrest due to ventricular fibrillation (VF). We know that approximately 5% of STEMI's go into VF as a complication of myocardial ischemia. The treatment is immediate defibrillation. The issue in the cases identified has been delayed defibrillation (up to 3 minutes in some cases) as opposed to immediate defibrillation. The cause of the delay is consistent, time to remove monitoring electrodes and place treatment pads (Zoll CPR D pads) to provide defibrillation. With each minute delay in defibrillation of VF the greater the likelihood of failure to convert VF into a perfusing rhythm. Therefore these situations do present a significant treatment concern.

Effective November 18, 2013 I wish to begin the following treatment protocol for paramedics in Peel and Halton Region:

- 1/ When STEMI is identified (remember once a single ECG identifies STEMI or an ACP reviews the ECG as STEMI no further ECG's need be done) paramedics must be extremely vigilant with respect to the potential for cardiac arrest.
- 2/ Once a STEMI is identified remove monitoring electrodes and replace them with treatment pads. This change in protocol will allow the paramedic to provide defibrillation to these patients's as soon as VF occurs saving critical minutes and optimizing the chance of defibrillatory success.

If you have any questions, please feel free to contact myself directly or Scott Gorsline at Sunnybrook Centre for Prehospital Medicine. I feel with the slight protocol modification above we can assure optimum care for our STEMI patients.