

NEWS RELEASE

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NEW EMERGENCY SYSTEM HELPS HEART ATTACK VICTIMS

VANCOUVER – Patients who are suffering from the severest form of acute heart attacks are now receiving more timely care, straight out of the ambulance.

Vancouver Coastal Health (VCH) and Providence Health Care together with BC Ambulance Service (BCAS) are the first in the province to use new technology for transmitting electrocardiograms (ECGs) directly to an emergency department from specially equipped ambulances.

"Advances in medical technology are helping improve the care of patients and this is a great example as the new emergency system has the potential to help ensure a patient receives the appropriate level of care for a serious and potentially fatal condition," said Health Minister George Abbott. "The most severe form of heart attack has a distinct pattern on an ECG and is easily recognizable to a trained health professional."

Research shows that patients who have complete blockage of blood to their heart muscles and need an emergency angioplasty should have the procedure within 90 minutes. The most severe form of heart attack – one with a complete blockage of a coronary artery -- is called a STEMI (ST Elevation Myocardial Infarction).

Since mid-May, eight ambulances have been outfitted with modems to transmit ECGs directly to the emergency departments of Vancouver General or St. Paul's hospitals. By having this information earlier, specialised treating teams can be mobilized to perform angioplasty sooner.

"Angioplasty is a safe and efficient way to restore normal blood flow in a coronary artery that was blocked and causing a heart attack, but it needs to be performed quickly in order to be effective. This program helps us to achieve this goal," said Dr. Graham Wong, cardiologist and director of the Cardiac Care Unit at Vancouver General Hospital. "Moreover, implementation of this program is an excellent example of how health-care professionals from Vancouver Coastal Health, Providence Health Care and BC Ambulance Service are working together to improve patient outcomes."

Previously, BCAS paramedics took patients suffering heart attacks to the closest emergency department. In many cases this is an appropriate response, but now an emergency department physician will be able to tell whether an incoming patient is suffering a STEMI.

"Time is heart muscle," said Dr. Krish Ramanathan, cardiologist and director of the Cardiac Care Unit at St. Paul's Hospital. "The early knowledge of the diagnosis of an incoming patient will allow treatment teams to be better prepared and mobilised. Treating patients early will lessen the pain, suffering and heart-muscle damage from heart attacks."

About 100 patients a year are expected to benefit from the immediate angioplasty as a result of an ECG transmission from an ambulance in Vancouver, Richmond and the North Shore.

“The BC Ambulance Service is committed to improving the outcome of our patients,” said Dr. Karen Wanger, the BC Ambulance Service Regional Medical Director. “The STEMI program capitalizes on the skills and abilities of BC paramedics to recognize STEMI patients and direct them to the right care in the right time.”

The total cost of the project is \$250,000, which included purchasing of the modems, hardware and software, plus training Advanced Life Support paramedics to recognize STEMI on the ECG and use the equipment. Catheterization lab staff will be on-call for after-hours need for angioplasties. After the procedure, which involves a balloon inserted into a blood vessel to clear the blockage, patients are returned to their community hospitals for further treatment. The usual hospital stay is two to three days in total.

Patients who walk into hospitals suffering STEMI will be immediately treated with “clot busting drugs” or angioplasty in keeping with best medical practices.

Similar systems of prehospital notification of STEMI patients using ECG wireless transmissions are in use in only three other places in Canada: Ottawa, Edmonton and Halifax. Vancouver’s system uses the most advanced technology to date.

Vancouver Coastal Health is responsible for the delivery of \$2.8 billion in community, hospital and residential care services to over one million people in communities from Richmond through Vancouver, the North Shore, Sunshine Coast, Sea to Sky corridor, Powell River, Bella Bella and Bella Coola.

Providence Health Care is Canada's largest faith-based health care organization, operating 14 health care facilities in Greater Vancouver that provide acute, residential, rehabilitation and community kidney dialysis services to more than 450,000 patients and residents each year.

The BC Ambulance Service is the largest provider of emergency medical services care in Canada and one of the largest in North America. Last year the BC Ambulance Service provided care, treatment and transport to over 566,000 patients across the province.

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