



Report To: Manitoulin-Sudbury District Services Board
From: Michael MacIsaac, Chief of EMS
Date: March 26, 2015
Re: Community Paramedicine Update - Issue Report

Recommendation

That the Board approve the phase in of the Community Paramedicine Program across the Manitoulin-Sudbury DSB jurisdiction station by station as resources, partnership agreements and necessary approvals are in place.

Only Paramedics who are on regular duty or who volunteer will participate in the Community Paramedicine program. The cost to the DSB will only be nominal ancillary costs.

Further, in the case of the Paramedic Community Referral program, this will be implemented in all stations effective April 1, 2015 by all paramedics who are on regular duty.

Background

Over the course of the last year the EMS Department of Manitoulin-Sudbury DSB has embarked on a new initiative regarding the roles of its paramedics. Community Paramedicine encompasses many different programs involving traditional paramedic roles in non-traditional environments mostly developed through partnerships with other health agencies. According to the Paramedic Conduct Standard located in the Ministry of Health's Basic Life Support Patient Care Standards, *the paramedic will... Conserve life, alleviate pain and suffering and **promote health***. Prevention and promotion of health is often overlooked facet of the role of the paramedic. Community Paramedicine presents an improvement on promoting health; from public relations and public education to proactive illness and injury prevention. Generally speaking, the goals of Community Paramedicine are the early detection and health promotion of seniors, the reduction of emergency department visits, hospitalizations, and demand for long term beds (allow aging at home), and most importantly to the DSB the reduction of 911 calls.

There have been previous reports to the Board on this matter; on March 26, 2014, [Community Paramedicine - Issue Report](#) and on September 25, 2014 [Community Paramedicine Update – Issue Report](#) were approved by the Board. Most of the background information on this initiative can be found within these reports. Additionally,

the successful proposal for funding to the Ministry of Health & Long Term Care (MOHLTC) can be taken as a reference document.

History

As noted in previous reports, a [joint proposal](#) was submitted by Manitoulin-Sudbury, Algoma and Cochrane DSSABs to the MOHLTC with the goal of obtaining a portion of the \$6 Million Community Paramedicine funding from the Province of Ontario. Unique features of the proposal include:

- being a joint proposal by three DSSABs covering 25% of the geographical area of Ontario (mostly non-urban),
- educational modules that will be made available to the whole province, and
- a relationship with Laurentian University (as referred by the Northern Policy Institute) to analyze the program using quantifiable benchmarks from an educational/research perspective

On August 27, 2014, The MOHLTC announced that 30 proposals out of more than 50 that were submitted were approved in part or whole. The Manitoulin-Sudbury, Algoma and Cochrane DSSAB joint proposal was [approved](#), in part, at a total of \$212,000 (The total budget submission was \$272,000).

With the announcement, the Chiefs of the joint initiative met and decided to put together a joint implementation team with representatives from all three services including Deputy Chief Paul Guertin (Algoma), Commander Derrick Cremin (Cochrane) and Commander David Wolff, (Manitoulin-Sudbury) as the lead for the project.

Community Paramedicine Initiatives

Basically within the joint proposal staff are looking at four initiatives that the paramedics will take part in. These initiatives will be introduced to the paramedics by way of additions to EMS procedures. The four main identified Community Paramedicine initiatives are summarized below:

1. Community Referrals

A program which will be implemented province-wide where all paramedics will be able to refer patients to other care providers. In the case of the Manitoulin-Sudbury DSB, the ZOLL electronic patient care reports will be used to make electronic referrals to other care providers. This initiative is aimed at filling some gaps in terms of what a patient could require in their home. Paramedics tend to patients in urgent care in their homes and can present a unique perspective in terms of what a patient may be missing in follow up care.

The concept of community referrals has been under development for some time and was the first of the global Community Paramedicine initiatives. Dr. J. Lee, from the Sunnybrook Research Institute initiated a study called Paramedics Assessing Older

Patients at Risk of Independence Loss (PERIL study) that continues the research of five previous studies conducted by other scholars in an attempt to predict the potential of an adverse outcome for patients discharged from hospital.

The PERIL study originally utilized 42 questions to assess the potential of an adverse outcome for patients discharged from hospital over the following 30 days. The study not only provided positive results, it also identified that paramedics are in a unique situation enabling them to correctly predict the potential for adverse outcomes for patients recently discharged from hospital and for hospitalizations of those already in the community. The PERIL questions assist paramedics in making this assessment and have been narrowed down using randomized controlled trials to three questions that are proven to be quite accurate. They are:

- a) Is there any reason that might cause you to believe that the individual cannot be safely discharged home or safely remain in their home without additional assistance?
- b) Are the individual's medications disorganized?
- c) Has the individual called 911 in the last 30 days?

If the answer is yes to 3/3 of the questions, there is a 93% chance of an adverse outcome in the next 30 days. If the answer is yes to 2/3 of the questions, there is a 54% chance of an adverse outcome in the next 30 days.

2. Circle of Care Partnerships & 3. Paramedic Directed Home Services

These 2 initiatives are grouped together as they basically encompass the same procedures when dealing with patients, the difference being how the visits are scheduled. In a circle of care partnership, formal agreements may be entered into with other health care teams and agencies enabling the Paramedics to be the eyes and ears of the physician/agency, to assess patients in home as requested, to report on results, and/or provide education, appropriate referrals or transportation to a hospital if required. Regarding community paramedic directed home services, Paramedics can conduct ad hoc visits with patients identified through operational knowledge, acquaintances, wellness clinics and statistical analysis. During these visits Paramedics will provide in home paramedic assessments and provide education, appropriate referrals and/or transportation to a hospital if required.

In both cases the assessments that the Paramedics will be providing can include:

- Vital signs obtained & review
- Medical history & medication review
- Initial/follow-up independent living /falls/home safety
- PERIL prediction tool
- Mobility/TUG test
- Mini-mental state examination (MMSE)
- Head to toe examination

4. Community Paramedicine Wellness Clinics

Clinics can be easily set up within DSB Social Housing Properties which will help identify health problems through paramedic assessments, provide education and referrals to other care providers. Areas such as blood pressure clinics, diabetes information clinics, and CPR blitzes are programs that can be implemented under this initiative.

Accomplishments to Date

Site visits and communications with other municipalities with currently operating successful Community Paramedicine programs took place in December. Commander David Wolff, together with Commander Derrick Cremin, visited Renfrew County EMS to review their program and were able to witness a successful program and gained valuable insight.

Multiple meetings and teleconferences have occurred between the joint implementation team, the Researcher from Laurentian University, the Educational Designers from Northern College as well as local physicians, health clinics and community services. Many public and professional presentations were made to educate the healthcare community and to gain feedback and buy-in on the programs. All participants showed great interest and provided advice and support, and in many cases indicated their desire to participate.

Subsequently, all Community Paramedicine initiative procedures, flowcharts and forms have been designed, reviewed and refined and are ready to be implemented.

The first two (of 5) educational modules created by Northern College are complete and available for all paramedics.

The Laurentian University researcher is ready to begin; the research proposal and accompanying surveys have been approved by the University's Research Ethics Board (all research using people must be approved prior to implementation).

All paramedics have completed the Community Referrals Toolkit. The toolkit was a grass roots provincial initiative that created a standardized training program for all paramedics for the Community Referrals program. Commander David Wolff was an active member and one of the leads of the educational design team.

The Zoll ePCR electronic documentation system has been reconfigured to allow paramedics to submit the community referrals using current and familiar methods. EMS managers will be vetting all referrals in the beginning and automatic referrals should be ready to implement within two or three months.

Final training for the participating paramedics will be provided jointly with the researcher from Laurentian University on March 28th with a target start date of April 1, 2015. (Cochrane has completed their training and began their program March 10, Algoma hopes to begin later this month).

Pilot Program Locations

To assess the effectiveness of a Community Paramedicine program there had to be a limited and manageable number of locations in a study. As such two locations were sought. To be considered there were a number of factors reviewed. There had to be a determined need, there had to be local interest from both the healthcare community and the paramedics, and there had to be the ability to deliver the services while on duty. The two locations that met all the needs were Gogama and Gore Bay.

More specifically, in Gogama staff reviewed call volumes and noted a marked number of patients with chronic type illnesses that are leading to increased trips to Timmins District Hospital. Staff understand that each of these calls takes the only ambulance in Gogama out of the coverage area for upwards of 4 hours. In Gore Bay the paramedics have been on board with the concepts involving Community Paramedicine from the start. Furthermore, looking at the state of local healthcare, staff have been advised that there are many gaps in the current model due to lack of resources able to service the community. Both these communities have call volumes that are not so overwhelming that the paramedics can perform Community Paramedicine initiatives while on regular duty. Additionally it is felt that the DSB should see some improvements in call volumes with the implementation of the initiatives listed above and possibly a reduction in call outs at night.

Discussions have taken place with paramedics who will be participating in the pilot Circle of Care, Home Visit and Wellness Clinic programs in Gore Bay and Gogama. Meetings have occurred with physicians/clinics in those areas and strong interest was revealed. They all look forward to the initiatives and are willing to participate.

Dependent upon the success of the initial pilot project sites, it is intended that the DSB will look to expand these programs in an attempt to provide greater benefit for as many communities within the area as possible.

Conclusion

The research, design and implementation phases of the joint Community Paramedicine Initiative have been completed. Staff are now ready to start the program initiatives in earnest. Staff are excited to see the programs begin and to receive the future results of Laurentian University's evaluation, research and documented successes of the program, not to mention the improved care provided to the citizens within the DSB communities.

The DSB will operate these programs using regular on duty paramedics, when not otherwise occupied by emergency calls, and the cost to the DSB will only be nominal ancillary costs.