



Title	Introduction of Advanced Care to Pre-hospital Services in Québec
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Aim

To review the safety, effectiveness, and efficiency of advanced pre-hospital procedures (advanced life support) in North America and the role of the chain of interventions for improving health outcomes in pre-hospital care.

Conclusions and results

Over the past few years, Québec has expanded the scope and geographic availability of primary pre-hospital emergency care (basic life support), while other provinces have moved into advanced pre-hospital care (eg, expanded drug administration, endotracheal intubation, intravenous access, and fluid resuscitation). Québec is poised to adopt advanced pre-hospital emergency procedures.

Research evidence in this area is scarce, but indicates that the potential to save lives with advanced care is greatest for chest pain and respiratory distress. The evidence is less clear for non-traumatic cardiopulmonary arrest, and adverse effects have been noted in certain cases, eg, endotracheal intubation of young children and the treatment of trauma. Nationally and internationally, technological advances and increased training of paramedics are blurring the line between primary and advanced pre-hospital care.

Recommendations

- Limit the use of advanced care to pilot projects, with priority given to treating respiratory distress, chest pain, and cardiopulmonary arrest. Exclude advanced care for children and trauma patients at this time. Assess the effectiveness and efficiency of these pilot protocols and the organizational conditions required for their effective implementation.
- Establish a service-development plan to train emergency medical technicians and to build partnerships between pre-hospital and hospital settings.
- Enhance training for emergency medical technicians to the level of primary care paramedics as defined in

the Canadian National Occupational Competency Profiles (NOCP).

- Expand the general public's training in cardiopulmonary resuscitation (CPR) and improve access to early defibrillation performed by first responders or bystanders.
- Introduce enhanced continuing education, effective medical control, quality assurance tools, and information systems for all regions in Québec.
- Horizon scanning and reasoned introduction of new procedures in pre-hospital emergency care with a significant potential for reducing mortality and morbidity.

Methods

- Comprehensive review of the scientific literature on this topic (special attention was given to the advanced pre-hospital care program in Ontario).
- Analysis of provincial, national, and international advanced care training programs and practices.
- Contextualization of scientific evidence.

Further research/reviews required

Monitor emerging evidence in pre-hospital care. Establish a research program, under the leadership of the Ministère de la Santé et des Services Sociaux (MSSS), to evaluate advanced pre-hospital care.