

# Nurse practitioners in the emergency department: a discussion paper

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## Introduction

In Canada there is a growing appreciation that alternative health care providers may have a useful role in the provision of emergency care. Given the increased utilization and overcrowding of emergency departments (EDs), it is understandable that government would look to the nurse practitioner (NP) for assistance.

Although the introduction of NPs into the ED setting is unlikely to have a meaningful impact on ED overcrowding, we believe that NPs may have a positive role in primary care delivery in EDs. That role is, as yet, ill defined, and we caution against a “one size fits all” approach. Canadian EDs have diverse needs and the function of NPs will vary between institutions.

Unfortunately, as we strive to define the role of the NP in the ED, we cannot rely on the literature for assistance. The bulk of published literature describes the practice of NPs in primary care settings and in other countries, and most is either descriptive or opinion based. This paper will identify potential roles for NPs, and discuss possible benefits and pitfalls of introducing NPs into Canadian EDs.

## What is a nurse practitioner?

This is not a simple question, and the answer differs from province to province. In Ontario, the term “nurse practitioner” is not a protected title and, theoretically, anyone

can call himself or herself an NP. There are, however, two specific groups who are commonly referred to as NPs.

### *Acute care/specialty nurse practitioners*

Acute care/specialty nurse practitioners (ACNP) are members of the general class of nurses who have taken specialty training at the graduate level and are working within an extended scope of practice by means of medical directives that are institution specific. These people typically work in acute care areas and specialty clinics.<sup>1</sup>

### *Extended class nurse practitioners*

Extended class NPs (RN[EC]) are registered nurses who have successfully demonstrated competence to the College of Nurses of Ontario (CNO) as primary health care NPs (PHCNPs). They are experienced nurses with additional education at a baccalaureate or masters-prepared level who have completed an approved PHCNP program and successfully completed a registration examination demonstrating that they are competent to provide primary health care services safely and effectively. They possess advanced knowledge and decision-making skills in health assessment, diagnosis and health care management. As defined by the CNO, PHCNPs have an expanded scope of practice and provide comprehensive health services encompassing health promotion, prevention of diseases and injuries, cure, rehabilitation and support services. In addition to the controlled acts authorized in the Nursing Act (1991) the

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RN(EC) has the authority to perform 3 additional controlled acts: communicating a diagnosis of disease or disorder; ordering a diagnostic ultrasound; and prescribing a limited range of drugs.

Through changes to other legislation, RN(EC)s have the authority to order specific x-rays and laboratory tests, and to pronounce death in prescribed circumstances. They have the right to practise independently in the community without the use of medical directives.<sup>1-5</sup> The Public Hospitals Act in Ontario does not currently allow NPs to practise independently in the hospital; however, this is expected to change with the introduction of regulatory amendments later this year.

### **International perspectives on ED nurse practitioners**

The international literature on NPs in the ED cannot necessarily be extrapolated to the Canadian system. For example, in the US, NPs initially became involved in emergency care because of the need to deliver care to a large number of patients with non-urgent problems in rural EDs.<sup>6,7</sup> That role gradually expanded to urban settings,<sup>8</sup> but despite several decades of experience, the percentage of emergency patients seen by alternative health care providers remains small.<sup>9</sup> To illustrate, the American Academy of Nurse Practitioners estimates that only 1% of US NPs practise in EDs.<sup>6</sup>

Accident and emergency department NPs are more common in the United Kingdom.<sup>10-14</sup> In 1991, 6% of departments in England and Wales provided emergency NP services,<sup>10</sup> and by 1995, that number had increased to 63%.<sup>15</sup> However, of the 202 major accident and emergency departments surveyed, only 9 had "dedicated" emergency NPs.<sup>15</sup>

### **What are the educational requirements for ED service?**

There is currently no requirement for ED experience prior to obtaining NP registration; however, published consensus seems to be that a coherent educational strategy and a specialized curriculum are critical before NPs are approved for practice in EDs.<sup>6,12,16-18</sup>

### **What are the potential benefits and roles of nurse practitioners in the ED?**

Studies have demonstrated that, in primary care settings, NPs can provide high quality care for patients with minor illness and injury, and that this care is associated with high levels of patient satisfaction.<sup>19-28</sup> Given that between 40% and 55% of all ED visits involve non-urgent problems,<sup>29</sup> NPs have a potential role in the provision of primary care in the ED.

Beyond the provision of care to patients with minor illness and injury, the advanced assessment skills of NPs may help improve the comprehensiveness of ED care. To illustrate, they may be useful for initial triage and patient assessment, in evaluating geriatric patients, in performing sexual assault exams, in admission screening, and in the follow-up of investigations and treatment initiated by emergency physicians. Their skills in patient education, health promotion, injury prevention and patient advocacy may reduce recidivism and help EDs fulfill broader primary care, preventive and social obligations. Several authors suggest that NPs improve access to care, shorten waiting times, reduce the number of patients who leave without being seen, prevent unplanned return visits, increase patient satisfaction and reduce costs;<sup>30</sup> however, these conclusions are based on methodologically weak studies and upon experience in primary care settings rather than ED settings.

Currently, institution-specific needs will define the optimal role of the NP. In high-volume low-acuity departments, NPs may increase the efficiency of a fast-track system. In communities where there are large numbers of orphaned patients (e.g., the inner city), NPs could staff satellite primary care clinics. In an urban ED, they may be useful in ensuring comprehensiveness of care and in following-up ED investigations and treatments. Department-specific needs assessments will be fundamental to the successful incorporation of NPs into EDs.

### **What are the potential pitfalls of ED nurse practitioners?**

#### *Too much time spent with individual patients*

Emergency practitioners must be efficient, particularly with respect to time management and patient throughput. When dealing with low-acuity problems, emergency physicians typically treat many patients per hour; however, several studies have suggested that NPs can be expected to evaluate and treat only 1 or 2 patients per hour.<sup>11,31,32</sup> More studies are required to assess NP effectiveness in the ED but, certainly, in high volume departments, it is doubtful that a single NP will significantly improve patient flow.

#### *Increased nursing workload*

It is assumed that the introduction of an NP will, by increasing ED human resources, reduce workload. This may not be true. A 1994 study revealed that, while the introduction of NPs had a beneficial effect on the flow of patients with non-urgent conditions, it also had an adverse effect on

ED nurses (2 health care providers working simultaneously generated more work for ED nurses).<sup>33</sup>

### **Increased costs**

It has been repeatedly suggested that NPs may be a cost-effective alternative to primary care providers. This has not been studied in the ED, and a recent systematic review from the UK suggested that NP cost effectiveness may be less than expected, based on evidence that they perform longer consultations and order more investigations than primary care physicians.<sup>21</sup>

### **What is the real imperative for introducing nurse practitioners into the ED?**

NPs *could* play a role in ED primary health care delivery, but it may be more relevant to ask whether they *should*, and whether their incorporation would mitigate any of the important problems that currently threaten emergency care delivery in Canada.

### **ED overcrowding?**

The #1 problem in emergency care delivery is ED overcrowding.<sup>34,35</sup> Governments and health care “experts” continue to suggest that the principal cause of overcrowding is excessive ED utilization by patients with minor illnesses. If this were true, then logical solutions might include deflecting patients to alternative primary care settings or increasing ED efficiency through the use of programs such as “fast-track.”

There is evidence that NPs can provide quality care to patients with minor illness and injury, but would this service reduce ED overcrowding? The likely answer is No. The primary cause of ED overcrowding is not an excessive “influx” of patients with minor illness, but rather a delayed “efflux” of admitted patients who languish on ED stretchers waiting for an inpatient bed to become available.<sup>35</sup> This is the result of a shortage of acute care hospital beds or the inappropriate utilization of same. Furthermore, there is recent evidence to suggest that the over-utilization of the ED by the so-called “frequent flyer” is not due to inadequate primary care availability. In fact, many of these patients have adequate access to a family physician.<sup>36</sup> The introduction of ED NPs will not ameliorate this problem because it does not address the main causes.

### **Inadequate human resources?**

A major problem facing the ED is the lack of human resources.<sup>37</sup> Service delivery is adversely affected by the shortage of both emergency nurses and physicians willing to staff the ED. It may be appropriate to train more emer-

gency nurses and increase the number of full-time jobs to enhance retention, but it is hard to understand the logic of approaching the nursing problem by developing and introducing a higher cost alternative — the NP.

With respect to the shortage of trained emergency physicians, there is no confusion. The emergency NP cannot be considered an alternative to the emergency physician. Although some studies suggest that NPs may be equivalent to junior house staff in dealing with minor illness and injury,<sup>25</sup> there is no evidence to suggest they can replace emergency physicians in dealing with higher acuity problems. Further, we believe the “gold standard” is not the junior house officer or similarly inexperienced physician.

### **The nurse practitioner as a “value added” component to emergency service delivery**

Rather than solving existing ED problems, the introduction of the NP should be seen as adding value to the current level of practice. NPs can assist in the management of patients with minor conditions, but to limit them exclusively to low-acuity patients may be unnecessarily restrictive. In fact, their most appropriate role might well lie in the areas of patient education, health promotion, and injury and disease prevention.<sup>38-41</sup> The ED is an important component of any disease surveillance network and a major access point for society’s disenfranchised. There are large untapped opportunities with respect to injury prevention and behaviour modification. We recognize the argument that suggests that these may be addressed by non-NP emergency nurses, but the present reality dictates that only with new dedicated and funded positions will these existing gaps in the system be closed.

### **How should nurse practitioners be incorporated into EDs?**

The American College of Emergency Physicians has made recommendations guiding the incorporation of NPs into the ED.<sup>42</sup> These guidelines define training and orientation goals and recommend specific limitations on the scope of practice and responsibilities of the NP. They also specify that EDs must develop protocols for credentialing, supervision and quality management.

### **What are the barriers to implementation?**

#### **Funding**

There are a number of potential barriers to the introduction of NPs into the ED, but the most pressing and important is the issue of funding.<sup>43,44</sup> Payment models for NPs and physicians that will facilitate a harmonious work environ-

ment need to be developed in the near term. Neither fee-for-service nor sessional payment models support the use of NPs as independent practitioners. Before NPs can become a permanent component of the Canadian health care system, a sustainable funding model must both address the financial needs of the NP and minimize the potential financial impact on physician incomes.

### Malpractice insurance

The Canadian Medical Protective Association recently raised concerns with respect to the potential liability of physicians who work collaboratively with NPs.<sup>45</sup> The issue of the extent and type of malpractice insurance coverage available to NPs and the potential liability of emergency physicians who share care in a supervisory capacity must be clarified.<sup>43</sup>

### Conclusion

NPs can provide quality care for patients with minor conditions, and they have expertise in the areas of patient education, health promotion and disease prevention — skills that may enhance the comprehensiveness of ED care. Without evidence of effectiveness or cost-effectiveness in emergency settings, it is unclear whether this justifies their widespread incorporation into ED practice. Institution-specific needs will define the optimal role of NPs in different settings, and future methodologically sound prospective evaluations will define the most appropriate roles for NPs in EDs.

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