

ED ADMINISTRATION

Introducing a nurse practitioner into an urban Canadian emergency department

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ABSTRACT

Objective: Our objective was to compare the emergency care provided by a nurse practitioner (NP) with that provided by emergency physicians (EPs), to identify emergency department (ED) patients appropriate for autonomous NP practice and to acquire data to facilitate the development of the clinical scope of practice recommendations for ED practice for NPs.

Methods: Using a comprehensive 3-part process, we selected and hired the best NP from 12 applicants. The NP was oriented to the operations of our free-standing community ED and incorporated in the care team, working in real time with EP preceptors during a 6-month, prospective clinical assessment comparing NP care with EP care. ED preceptors reviewed every case in real time with the NP and completed an explicit evaluation form to determine whether NP assessment, investigation, treatment and disposition were "all equivalent to emergency physician care" (AEEPC) or whether they differed. The proportion of AEEPC interactions was determined for 23 patient presentation categories. Our a priori assumption was that a patient presentation category might be suitable for autonomous NP practice if 50% of NP encounters in that category were rated as AEEPC. Descriptive data were presented for patient case mix, teaching domains and time criteria.

Results: Eighty-three NP shifts and 711 patient encounters were evaluated by 21 EP preceptors. The NP saw a median of 8 patients per shift. In 43% of encounters, NP care was AEEPC. Highest AEEPC rates were found in the patient follow-up categories general follow-up (55.4%), diagnostic imaging (91.7%) and microbiology laboratory results (87.6%). NP scores over 50% were also seen for lacerations (63.6%) and isolated sore throats (53%). With teaching, NP performance improved over time.

Conclusion: With the exception of follow up-related complaints, simple lacerations and isolated sore throats, NP care differed substantially from EP care. Although NPs with extensive emergency experience and training might ultimately be able to function as autonomous ED care providers, Canadian EDs currently developing job descriptions for emergency NPs should focus on a model of collaborative practice with EPs.

Keywords: nurse practitioner, emergency care, quality assurance, emergency department, emergency physician

RÉSUMÉ

Objectif : Cette étude visait à comparer les soins fournis par une infirmière praticienne (IP) à ceux

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donnés par des médecins d'urgence afin de déterminer quels patients se présentant à l'urgence pourraient être traités par une IP en pratique autonome et de recueillir des données pour faciliter le développement de recommandations concernant le champ d'exercice de la profession d'IP.

Méthodes : À l'aide d'un processus exhaustif en trois parties, nous avons sélectionné la meilleure IP parmi les 12 candidatures retenues et l'avons embauchée. Nous lui avons expliqué le fonctionnement de notre salle d'urgence communautaire indépendante et l'avons assignée à l'équipe de soins, travaillant en temps réel avec les médecins d'urgence-précepteurs (MUP). Il s'agissait d'une évaluation clinique prospective d'une durée de six mois où l'on comparait les soins donnés par les IP aux soins prodigués par les médecins d'urgence. Les MUP ont passé en revue chaque cas en temps réel avec l'IP et rempli le formulaire explicite d'évaluation afin de déterminer si l'évaluation et l'examen de l'IP ainsi que les mesures qu'elle prenait étaient « tous équivalents aux soins de médecins d'urgence » (TÉSMU) ou s'ils différaient de ceux d'un médecin d'urgence. Le pourcentage d'interactions TÉSMU était déterminé en fonction de 23 catégories de raisons de consultation des patients. A priori, nous supposons que les patients d'une catégorie de raisons de consultation pouvaient être traités par un IP en pratique autonome si 50 % des rencontres de l'IP dans cette catégorie étaient considérées comme étant TÉSMU. Des données descriptives ont été présentées pour les groupes de patients, les domaines d'enseignement et le critère temporel.

Résultats : Vingt et un MUP ont évalué 83 quarts de travail de l'IP et 711 rencontres avec des patients. En moyenne, l'IP a vu huit patients par période de travail. Pour 43 % des rencontres, les soins de l'IP étaient TÉSMU. Les taux les plus élevés de TÉSMU se trouvaient dans les catégories de suivi suivantes : suivi général (55,4 %), imagerie diagnostique (91,7 %) et résultats de laboratoires de microbiologie (87,6 %). L'IP a obtenu une note supérieure à 50 % dans les cas de lacérations (63,6 %) et de maux de gorge isolés (53 %). Le rendement des IP s'est amélioré avec le temps grâce à l'enseignement qu'elle a reçu.

Conclusion : À l'exception des raisons de consultation liées à un suivi, les soins prodigués par l'IP pour de simples lacérations et des maux de gorge isolés différaient considérablement des soins donnés par un médecin d'urgence. Bien que les IP ayant beaucoup d'expérience en salle d'urgence et une formation appropriée puissent un jour fournir des soins d'urgence en autonomie, les services d'urgence au Canada qui rédigent actuellement des descriptions de postes pour les IP œuvrant dans les salles d'urgence devraient concentrer leurs efforts sur un modèle de pratique en collaboration avec les médecins d'urgence.

Introduction

There is growing interest in the introduction of nurse practitioners (NPs) to emergency departments (EDs), and published research suggests that NPs can provide care that is comparable to resident physicians, who provide the bulk of emergency care in some systems.^{1,2} The current standard of care is different in urban Canadian EDs, where emergency physicians (EPs) provide 24 × 7 care and where resident-level physicians are not allowed to function on an unsupervised basis. When considering how NPs might be incorporated into multidisciplinary ED teams, it is important to determine whether they should have an autonomous scope of practice or whether they should work with EPs in a more collaborative model.

In some US, UK and Australian EDs, NPs with or without emergency care training function as an adjunct to or in lieu of EPs;¹⁻¹³ although NP education and scope of practice vary widely.¹⁴ In the United States, NP designation requires a 2-year master's level graduate degree in an area of specialization,¹⁵ while in the United Kingdom, national

guidelines for training and minimal education standards do not exist.^{8,10,16} UK NPs autonomously diagnose and treat low-acuity patients such as those with extremity bone and soft tissue injuries, simple burns, soft tissue infections, and eye, and ear, nose and throat complaints.¹⁷ In the United States, NP scope of practice may extend beyond the low-acuity patient population,¹⁵ but in Canada, nationally accredited NP training programs in emergency care, certifications and standardized scope of practice do not exist.^{18,19} There is no published literature comparing the care provided by NPs and EPs.^{14,20} The 2006 Canadian Nurse Practitioner Initiative (CNPI) released national educational, practice and legislative recommendations for the implementation of the primary care NP role but did not mention the area of emergency care.¹⁹ For all of these reasons, the potential ED role and scope of practice for Canadian NPs remains unclear.

In 2003, the Alberta Ministry of Health provided a grant for the introduction of an NP into our Edmonton ED. The objective of this report is to compare the quality of medical care provided by a carefully selected NP with that

provided by EPs, and to identify the types of patient presentations most appropriate for autonomous care by the NP.

Methods

Setting and patients

The Northeast Community Health Centre (NECHC) is a community primary health care centre attached to a 24-hour free-standing ED that provides emergency care to about 46 000 individuals each year (Table 1). Despite managing patients in all 5 Canadian Emergency Department Triage and Acuity Scale (CTAS) levels,²¹ the NECHC does not have inpatient beds, admitting physicians or onsite consultant support. Patients requiring hospitalization or diagnostic imaging beyond radiographs and basic ultrasound are referred to acute care hospitals. The ED does not routinely accept ambulance patients, and all EMS requests are screened by the EP and nurse in charge. EPs working at the NECHC also provide emergency care at a tertiary care teaching institution and trauma centre.

Project mandate and guiding principles in developing scope of practice

The NECHC EPs acquired a Medical Services Development and Innovation Fund (MSDIF) grant “to create an emergency service delivery model that optimizes the use of emergency physicians” by adding NP to the multidisciplinary ED team. The NP would help “identify, develop and utilize alternatives to emergency physician care for appropriate clinical presentations.” Our approach in developing the NP scope of practice differed from that taken in other countries where NPs in the ED are restricted to specific patients. Our hypothesis was that the NP had a role — either

completely autonomous, collaborative or both — in the provision of care to all types of ED patients. Our expectation was to broaden the scope of practice beyond the boundaries set elsewhere.

NP candidate selection

The Alberta Association of Registered Nurses (AARN) requires that NPs have a baccalaureate degree and complete a specified educational program approved by the AARN.^{22,23} The Capital Health Region requires a master’s degree in nursing.²⁴ In addition to these qualifications, we specified that NP applicants must have Advanced Life Support (ALS) certification, a minimum of 3 years ED nursing experience and a license to practise in Alberta. Certification in ED nursing, Trauma Nurse Core Course (TNCC), Emergency Nurse Pediatric Course (ENCP), Pediatric Advanced Life Support (PALS) and the Course in Advanced Trauma Nursing (CAATN) were preferred. The NP selection committee included 3 Capital Health administrators and 2 physician leaders who developed criteria for ranking applicants, assessed candidates’ clinical competencies and developed an entry level scope of practice for the NP in the ED.

Given the lack of published benchmarks for hiring NPs for ED practice, the physician leaders developed, by consensus, a standardized 3-part selection process and criteria to identify the applicant with the best training, a superior track record as a registered nurse in urban ED and the most suitable personal attributes for this pioneer role. The selection committee reviewed the process and tools and approved them unanimously. To be short listed, NP applicants had to attain a score of 75 on the part 1 selection criteria listed in Appendix 1. Short-listed candidates went through an interview (part 2) and a clinical review (part 3). The clinical

Table 1. Northeast Community Health Centre emergency department census for 2005

Characteristic	No. (and %) of ED patients*		No. (and %) of NP patients*	
	Adult	Pediatric†	Adult	Pediatric
Distinct patient encounters	36 267 (77.8)	10 335 (22.2)	557 (78.3)	154 (21.7)
Median age, yr	39	6	43	4
Male sex	17 340 (47.8)	5717 (55.3)	253 (45.4)	83 (53.9)
CTAS level				
I	15 (0.04)	5 (0.05)	1 (0.2)	1 (0.6)
II	1153 (3.2)	396 (3.8)	14 (2.5)	6 (3.9)
III	13 689 (37.7)	4498 (43.5)	203 (36.4)	72 (46.8)
IV	19 115 (52.7)	5004 (48.4)	229 (41.1)	54 (35.1)
V	2293 (6.3)	431 (4.2)	110 (19.7)	21 (13.6)
Not available	2 (0.01)	1 (0.01)	0 (0)	0 (0)
Transfer to acute hospital‡	2019 (5.6)	292 (2.8)	NR	NR

CTAS = Canadian Emergency Department Triage and Acuity Scale; ED = emergency department; NP = nurse practitioner; NR = not recorded.

*Unless otherwise indicated.

†Pediatric patients were those under the age of 16 years.

‡All transfers to acute care were initiated by the emergency physician.

review used standardized, common clinical scenarios to measure the depth of knowledge, level of decision-making and personal attributes. The final ranking was composed of (35%) part 1, (25%) part 2 and (40%) part 3. Final placement also required a minimum score of 75 on the interview and a clinical review free of actions that would put the patient at risk. Three out of 12 applicants were short listed, but 1 withdrew. Based on the unanimous recommendation of the selection committee, the highest ranked applicant was hired in October 2004. The content relevance of our selection process and tools to ED practice is good, and the volume and variety of information about applicants, collected through the use of multiple assessment methods, is significant. This, and the high concordance between measurements by different raters, gives us confidence that we have selected the best possible applicant. Subsequent interactions with the NP further confirm this conclusion.

Because the clinical review process suggested a likely disparity of practice (relative to EP care), we made the completion of a comprehensive proficiency assessment prerequisite to the development of any autonomous NP clinical practice. This prospective, performance-based assessment of NP and EP clinical skills was conducted between Nov. 1, 2004, and Apr. 30, 2005.

Shift procedures and NP assessment

Capital Health Region's 37.5 hour/week NP job description consists of 80% clinical work and 20% dedicated to teaching, leadership, personal professional development and research. For the NP, this represented 3 or 4 eight-hour clinical shifts per week — mostly the higher volume day and evening shifts starting at 7 am, 10 am, 3 pm or 6 pm. For each shift, the NP was paired with an experienced volunteer EP preceptor prospectively taught how to apply the standardized assessment process and measurement tool (Appendix 2).

To assure the inclusion of a wide variety of acuity and patient presentations, the NP saw patients in order of triage priority. All NP decisions needed sanctioning by the preceptor. For every patient encounter, the NP and preceptor prepared a blinded, individual diagnostic and management approach. Preceptors then reviewed the NP's plan. Standard of care was defined as EP practice. The NP's plan was followed if all the intermediary and final steps in patient care, such as assessment, investigation, treatment, disposition, were equivalent to the preceptor's plan (not leading to different patient outcomes). Preceptors also recorded total time spent on teaching and the specific learning domain: knowledge, skills, behaviours, patient assessment or patient management. For each shift, a data form was completed

(Appendix 2) and returned to a secure location. Physician leaders reviewed all data forms and provided global formative feedback to the NP on a weekly basis.

Data analysis

Emergency care is based on patient presentations and in order to develop a starting scope of practice for the NP, we aimed for relatively homogenous presentation categories. Patient presentations were stratified into 23 categories based on the individual's presenting complaint. When patients had multiple complaints, the first 2 were categorized. This was done to further differentiate heterogeneous patients presenting with identical first complaints. In each category, shift forms were reviewed to determine the proportion of encounters where steps in the NP care plan (patient assessment, investigation, treatment and disposition) were "all equivalent to EP care" (AEEPC). We assumed that in order to approve a patient presentation group (e.g., abdominal pain) for autonomous NP practice, at least 50% of NP patient encounters in that group should be AEEPC. In light of the fact that decision-making by residents, including those in emergency medicine, is not perfect,^{1,2,25} we postulated that a stringent definition of AEEPC blended with a reasonable minimum number of patient presentations (50%) would assure quality of patient care and allow for the development of a realistic scope of practice. Descriptive data, including patient counts, means, medians and proportions, were provided for NP case mix and AEEPC rates for each presentation category. Teaching domains and time were recoded and compared using 6 consecutive months. Primary care nursing skills were identified by the preceptors on the assessment sheets, but they were not tabulated as they were not the focus of this review.

Health review ethics board evaluation was requested and the need for review was waved by the panel.

Results

During the 6-month evaluation period, the NP worked 83 shifts comprising 47 day, 34 evening and 2 night shifts. Table 1 shows that there were a total of 711 NP-patient encounters (median 8 per shift) and that NP patients were similar to the overall ED patient profile. Twenty-one preceptors participated in the project; 4 of these supervised 50% of NP shifts, 8 supervised 70% and 15 supervised 90% of shifts. Table 2 summarizes the breakdown of NP cases by presenting complaint and shows the proportion of cases in each group for which NP assessment, investigation, management and disposition were deemed AEEPC.

These data show that 42.9% of all encounters and 33.4%

of new visits were considered AEEPC. There were no significant differences in AEEPC rates for pediatric versus adult encounters (37.7% v. 44.3%) or for male versus female encounters (42.6% v. 43.2%). Patient encounters with the highest AEEPC rates were those in the follow-up categories general follow-up (55.4%), diagnostic imaging (91.7%) and microbiology laboratory results (87.6%). Lacerations (63.6%) and isolated sore throats (53%) also met the 50% benchmark. Table 3 shows that the rate of AEEPC encounters increased from time period 1 to 6.

ED physician preceptors recorded 88.3 hours of NP teaching time during the evaluation period, a mean of 1 hour per shift. Recorded domains relate NP knowledge (41.9%), patient management (29.5%), patient assessment (23.4%), NP skills (10.0%) and NP behaviours (2.0%).

Daily entries in multiple teaching categories account for the 106.8% total.

Discussion

There is interest in introducing NPs into Canadian EDs. Our data shows that, in this free-standing ED with a high

proportion of less urgent (CTAS IV and V) patients, care provided by a carefully selected NP differs substantially from that provided by EPs, except in limited domains. Practice was most similar in the areas of patient follow-up visits and microbiology results or diagnostic imaging related follow-up phone calls, simple lacerations and isolated sore throats; hence, these areas were used as starting points for autonomous NP practice at the NECHC. (Appendix 3). The autonomous component of the job description incorporates practice limitations, including limitations on specialty consultations.

This comparative assessment is a first step in addressing the question of equivalence of EP and NP practice.^{12,18} Research from other jurisdictions suggests that NPs can provide a level of care similar to residents,^{1,2} but there are no data showing that NP care is equivalent to EP care, which is the current standard in Canada.

NP training and knowledge base

Despite the fact that in our free-standing ED we had a large “non urgent” patient population, transfer rate to acute care hospitals was nearly 5% (Table 1). This highlights the requirement for broad-based knowledge and skill sets for anyone considering practising autonomous emergency care in EDs. Patients with potential life, limb or function threatening entities need to be diagnosed and managed appropriately, even if they present with ubiquitous symptoms in fast track.

During our selection process, the short-listed applicants, both experienced ED nurses, were tested using standardized, common clinical scenarios to measure depth of knowledge and level of decision-making. These assessments, along with the relatively low AEEPC rates seen during real patient encounters, suggest there are significant differences between NP and EP decision processes and knowledge base. We believe these differences reflect systemic educational problems rather than individual shortcomings. This credence is further backed up by the fact that with teaching, the NP’s performance improved over the review period (Table 3).

Table 2. Complete patient encounters assessed as AEEPC

Category: visit type	<i>n</i>	No. (and %) AEEPC
Follow-up: microbiology and lab results	89	78 (87.6)
Trauma	76	27 (35.5)
Follow-up: return visits	56	31 (55.4)
Pain	48	14 (29.2)
Abdominal pain	47	12 (25.5)
Chest pain	44	17 (38.6)
Shortness of breath	39	8 (20.5)
Fever	36	10 (27.8)
Cough	29	7 (24.1)
Laceration	22	14 (63.6)
Eye complaint	19	6 (31.6)
Headache	17	5 (29.4)
Rash	15	5 (33.3)
Sore throat	15	8 (53.3)
Abdominal pain and vomiting	13	5 (38.5)
Follow-up: diagnostic imaging	12	11 (91.7)
Swelling: various anatomical areas	12	5 (41.7)
Palpitations	10	2 (20.0)
Diarrhea and vomiting	9	4 (44.4)
Diarrhea	7	2 (28.6)
Vomiting	6	1 (16.7)
Cough and sore throat	6	3 (50.0)
Other	84	30 (35.7)
All categories	711	305 (42.9)
New visits	554	185 (33.4)

AEEPC = all equivalent to emergency physician care.

Table 3. Temporal evolution of AEEPC encounters

Time period	NP patients, <i>n</i>	No. (and %) AEEPC
Month 1	92	23 (25)
Month 2	109	39 (35.8)
Month 3	105	36 (34.3)
Month 4	134	69 (51.5)
Month 5	150	80 (53.3)
Month 6	121	68 (56.2)

AEEPC = all equivalent to emergency physician care; NP = nurse practitioner.

A recent Canadian national review by the CNPI recommends at least 2 years nursing experience prior to entering primary care NP training programs, a master's degree in nursing and a 6-month "internship" period, as well as the adoption of national core competencies for NPs (by 2010).¹⁷ This would allow each province and regional health authority to tailor the NP role to local needs while maintaining national practice standards. While CNPI initiatives are very positive, focusing on educational improvement, core competencies and standardization of NPs in primary care, the CNPI neither commented on the role of NPs in emergency care nor addressed educational requirements in this domain. Consequently, variability in this area will likely persist for some time.

In Alberta, the Health Professions Act, revised in 2005, mandates the College and Association of Registered Nurses (CARNA) as the sole professional body responsible for evaluating NP competency, licensing and quality of practice.²⁶ The act provides legal title protection for the term "Nurse Practitioner" but does not mention educational requirements for emergency NP practice and it does not discuss autonomous ED practice.

Educational concerns are not exclusive to Canada. In the United States, only 15% of NPs have dedicated emergency education, while 70% have family practice NP training backgrounds.¹³ Studies from the United Kingdom indicate that over 10% of NPs have no emergency training at all and fewer than 10% possess master's level education in emergency nursing. Most have on-the-job training that is supplemented with local skill development courses.^{6,8,14}

Given the absence of standardized core training in emergency care, the absence of evidence that NP and EP care are equivalent, and a lack of clarity around the areas of emergency care in which NPs can practise safely, it is difficult to recommend a common, nationwide role for NPs in widely variable types of EDs, and it is equally difficult to endorse the use of NPs as alternative, autonomous ED staffing options. This does not preclude the use of NPs in a collaborative care role with EPs — a concept that is not contentious in our ED.

Drummond suggests that NPs be introduced to EDs on a value-added (to existing service) basis, rather than substituting for existing service providers.²⁷ We believe that NPs are a potentially valuable resource who can fulfill diverse roles depending on site-specific need. Our findings failed to support our a priori hypothesis in which we stipulated that the NP has a role in the provision of autonomous care to all types of ED patients; however, while areas for starting autonomous practice are limited, we anticipate that a collaborative NP model will help us address the needs of

patients that are more complex and time-consuming. We are currently evaluating the impact of the NP on patient care in the ED.

Hiring an NP

Validated tools and selection processes for hiring NPs for ED practice do not exist and consequently ED administrators can develop their own or adopt and customize the model described here. Significant experience in ED nursing is essential as it identifies individuals who "fit" the profile required for the job (Appendix 1). We believe that a formal assessment process (Appendix 1) and training period are important because the NP knowledge base and skill set will be variable until the recommended CNPI national reform has been implemented and validated.¹⁷ Potential employers should recognize that the resources required to select the right person and educate them to EP level of care will be significant. Lastly, those considering an autonomous part to the scope of practice will need to understand that the job description will be site- and individual-specific and likely not transferable.

Limitations

Several limitations need to be acknowledged. MSDIF funds were provided for program development and implementation and not for evaluation or research. Consequently, lack of resources precluded pilot testing of selection and assessment tools and limited our data collection capability. Although we hired an excellent NP candidate who fulfilled all of the desired requirements, our data reflects the practice of a single NP and this limits the generalizability of our conclusions. The relatively low AEEPC rates documented in this study suggest that there are substantial differences between EP and NP practice; however, different care is not necessarily unsafe care, and our review does not show that patient outcomes are at risk. Finally, we looked at NP management of a wide spectrum of ED patients; it did not address the potential utility of an NP in more circumscribed ED roles, including clinical decision unit management, pathway management, community linking, case management support and discharge planning. We invite others to further verify NP and EP equivalence in other jurisdictions.

Conclusion

With the exception of follow up-related complaints, simple lacerations and isolated sore throats, NP care differed substantially from EP care. Although NPs with extensive emergency experience or training might ultimately be able to function as autonomous ED care providers, Canadian

EDs currently developing job descriptions for NPs should focus on a model of collaborative practice with EPs.

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Appendix 1. Selection process for nurse practitioners at Northeast Community Health Centre

Part	Category	Criteria	Score
1	Background	Relevance of masters pro gram curriculum	5 points
		Academic standing of candidate	5 points
		Additional relevant formal training	5 points
		Previous ED practice	5 points
	References	Appropriate referees chosen	5 points
		Content	35 points
	"Fit" in mandate	Proven, patient interactions skills/behaviours	10 points
		Proven, ability to work with health team	10 points
		Flexibility/ability to adapt to new ideas/setting	10 points
		Positive adaptive behaviour to stress	10 points
Total possible score part 1			100 points
2	Interview	"Fit into our ED"	50 points
		Clear/demonstrated vision of role in mandate	50 points
		Impression of interviewer	50 points
		Total possible score part 2	100 points
3	Clinical review	3 × 1 hour each: standardized clinical cases	33 points
		Total possible score part 3	100 points

ED = emergency department.

Appendix 2. Daily review sheets and nurse practitioner assessment (explanatory notes for preceptors)

The purpose of Nurse Practitioner (NP) evaluation is to determine the safety of NP practices on undifferentiated patients in the Emergency Department. The gold standard of safety is strict — the experienced Emergency Physician (EP). This is not to say EPs are 100% safe, but that they represent the highest standard of patient care and safety available.

The NP and the EP will work in parallel on the same patient, each documenting independently their own assessment and desired investigations, treatment and disposition. The EP's management shall preside over the NP's where differences in patient care exist, much as it does when working with students and residents. The NP, however, can "manage" the patient so long as the steps in the patient encounter do not differ in a clinically important manner from the EPs management. A zero-tolerance policy for unsafe patient management is requested from supervising preceptors. The performance evaluation portion of the form is designed for use in reporting safety.

EPs will have to provide feedback of educational nature to the NP on a case-by-case basis. The "Feedback" portion of the "Daily Review" sheets must be completed and have both the NP's and EP's comments and signatures. The "Performance Evaluation" portion is different. The EPs may choose to give the NP feedback on the evaluation or submit this portion of the daily review sheet confidentially to the Physician Leaders.

The evaluation ranges are: SAFE (S), NEEDS REVIEW (NR), and UNSAFE (U).

- SAFE is defined as the *same clinical practice as the EP*. [Minor variations from EP's practice are allowed, as long as there are no direct consequences to the patient]
- NEEDS REVIEW is defined as *clinically unimportant differences from the EP*. [Patient's overall safety is not jeopardized, but practice differs from EP].
- UNSAFE is defined as *clinically important differences from the EP*. When in doubt, any failure to adhere to current Clinical Practice Guidelines, care maps, or current Emergency Medicine textbook management is considered Unsafe.

The NP will be reviewed in three spheres: knowledge, skills, behaviours/patient centeredness.

A. KNOWLEDGE ASSESSMENT is difficult and should take place in a stepwise manner during a patient encounter. The NP should be reviewed on:

- Patient assessment (Primary survey, history, physical exam, all reflected in accurate charting)
- Investigations (proper prioritization, comprehensive without the inclusion of any unnecessary potentially harmful tests)
- Treatment (Primary resuscitation, definitive and symptomatic treatments)
- Disposition (safe consultation and follow-up, appropriate transfer)

Should the NP receive a rating of Unsafe during any phase of the clinical encounter, the EP's care presides. The NP may continue to record parallel care decisions on the "ghost chart" for the remainder of the encounter, but the overall assessments will be deemed Unsafe.

Example: If an asthmatic is assessed as mild by the NP and as moderate by the EP there exists a clinically important difference in the assessment phase and the NP receives a rating of Unsafe. The NP may continue to follow the patient in parallel with the EP for learning purposes. If the NP and EP are in agreement regarding the moderate severity of distress by a patient presenting with SOB, institute the same therapies in the same timely fashion, agree on the same investigations and treatment based on the same diagnosis, then the EP can simply supervise the NP to guide patient care. If the NP were to fail to arrange proper follow up for the patient, however, the rating of Unsafe still applies.

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Appendix 2 continued

Comments regarding the sphere of knowledge (and its timing in the patient management) where a Needs Review or Unsafe ratings are earned must be documented on the evaluation form.

- B. **SKILLS ASSESSMENT** in psychomotor areas is simple as it is easily observed: if the NP performs local anesthetic blocks, suturing, etc., which will result in the same, or clinically unimportant difference from the EP they receive a rating of Safe or Needs Review.

Example: A successfully performed ring block to suture a proximal phalanx laceration would allow for a rating of Safe. A ring block requiring multiple attempts to achieve adequate analgesia would result in a rating of Needs Review, as this is not a clinically important difference from EP practice. Not performing a sensory exam of the finger prior to ring blocking or not achieving adequate block after the block would rate as Unsafe — this is a clinically important variation from standard EP practice

- C. **BEHAVIOUR ASSESSMENT** is the most difficult area to evaluate; however, this is also one of the most crucial.

Examples of Unsafe behaviours may be subtle. Checking past visit complaints is appropriate for seeking past medical history but it is unsafe if unwarranted assumptions are made regarding the current presentation. Other unsafe behaviours are more obvious — discouraging input from the patient's family, caring for too many patients at the same time, not reassessing a sick patient, not using the EP or other team resources appropriately. Any behaviour that may compromise patient care should receive a rating of Unsafe and comments need to be made on the form.

Some examples of Safe encounters where variances with EP practice may arise but are of no real consequence:

- The discharge instruction to a parent of a febrile child suggests the use of NSAIDS v. acetaminophen
- The choice of daily v. q2-3 day dressing changes for minor burns
- The use of varied (but appropriate) antibiotics in the eye of patients with conjunctivitis

Some examples of needs review encounters:

- Failure to record tetanus status in an immunized patient
- Ring block successful after multiple attempts
- Ordering pregnancy test, urinalysis, CBC, lytes, creatinine, KUB in a young female with dysuria.
- Ordering an ankle x-ray in an adult with inversion injury where the Ottawa ankle rule is negative
- AND subsequently putting the same patient into a below knee cast for 2 weeks, despite negative x-ray

Some examples of unsafe encounters:

- Failure to record status or provide immunization to a patient with tetanus prone wound
- Ring block attempted repeatedly and 10cc of local is instilled into finger
- Ordering a KUB in the above patient with dysuria
- Applying Ottawa ankle rules to children

Appendix 3. Nurse practitioner clinical scope of practice at the Northeast Community Health Centre

Introduction: Autonomous and collaborative scopes of practice for this NP(P) refer to activities in the practice of emergency medicine.

Autonomous scope of practice:

1. Follow-ups of microbiology lab results (excluding pregnant patients and children less than 1 year old), other lab and diagnostic imaging reports (excluding abdominal/pelvic ultrasound results for all patients in the ED).
2. Patient follow-up visits in the ED excluding extremity traumas, eye complaints, urogenital problems (male and female) and abdominal/pelvic ultrasound (male and female) results for all patients in the ED.
3. Simple, 1-layer lacerations (assessment and repair) in areas of the body other than head and genitalia in all age groups except children less than 1 year of age.
4. Isolated chief complaint of afebrile sore throat in adult patients (20–50 years of age).

In these areas, the NP(P) can assess and treat patients in an autonomous fashion and consultation with the EP on duty at the NECHC is discretionary. Notwithstanding this, consultations by the NP(P) with physicians outside of NECHC, other than the patient's own family physician for purposes of follow up, require EP approval.

Collaborative scope of practice: All other patient presentations. The types of patients seen by the NP(P) are allocated by the EP on duty. Additionally, at the discretion of the attending EP, he/she may delegate care of any patient to the NP(P) for ongoing evaluation while in the ED, management in the ED and or discharge planning and follow up. This way the use of the specific skills that were observed during the assessment period in various primary care and prevention domains may enhance comprehensiveness of patient care.

Other: The CH implemented recommendations also acknowledge that EPs have the ultimate authority in assigning priorities of management to all patients in the ED.

Also, the appropriate CH managers should perform periodic, semi annual or annual review and quality assurance in order to update the NP(P)'s job description.