

Nova Scotia Emergency Care Standards



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Nova Scotia
Emergency Care Standards

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Executive Summary

In September 2009, the Nova Scotia government appointed Dr. John Ross as its provincial advisor on emergency care. Dr. Ross was tasked with developing recommendations that would improve emergency care in the province. He met with district health authorities, hospital staff, paramedics, civic leaders, citizen groups, and patients to inform his report, which was released in October 2010.

The Patient Journey through Emergency Care in Nova Scotia: A Prescription for New Medicine identifies 26 recommendations to improve emergency care in the province. Specifically, his recommendations focused on

- large and small hospitals
- paramedics and Emergency Health Services
- seniors care
- mental health emergencies
- funding and standards

The *Nova Scotia Emergency Care Standards* document follows Dr. Ross's emergency care report. The standards are intended for staff that work in the emergency care system and those who manage them. When implemented, these standards will provide consistency and better quality patient care in all regions of the province.

The standards in this document focus on

- **Access**—Access standards will help ensure that people can get emergency care regardless of what community they call home in Nova Scotia.
- **Triage**—Triage standards will ensure that all patients will be assessed using the same criteria. These standards apply to all health-care workers who are responsible for triage in provincial, regional, and community emergency departments as well as Emergency Health Services (EHS).
- **Transfer**—Transfer standards will provide an appropriate protocol for transferring a patient to another facility when the type of emergency care is more complex than the type of care normally provided at that facility.
- **Staffing Qualifications**—Standards for staff qualifications will ensure quality care delivery by all health-care professionals who work in emergency care. Standard qualifications are dependent on where the health-care professional works. In hospitals that are set up to deal with more complex emergency cases, standards will reflect that level of care. The standards require doctors, nurses, and paramedics to have accreditations, continuing education requirements set out by their professional

Colleges, and up-to-date adult and pediatric emergency procedures. These standards will mean better-quality patient care in all regions.

- **Site Performance**—Site performance standards will ensure that district health authorities provide unrestricted access to emergency care by providing timely assessment, reassessment if necessary, and management of emergency medical and surgical conditions to promote efficient patient flow through the emergency department.
- **District Health Authority Performance**—Each of the nine district health authorities and the IWK must meet requirements for surge capacity, disaster or mass casualty events, quality and safety, information technology performance monitoring, and patient safety protocols such as end-of-shift care responsibilities and medication storage.
- **Clinical Personnel Practice Quality Review**—Performance reviews will help ensure consistency of care and ensure that emergency health-care professionals are practising the latest in emergency care. Standards include requirements for a performance review every two years for physicians and all other staff treating patients in emergency departments.
- **Patient Satisfaction**—Standards for patient satisfaction will provide guidance for continuous improvement in emergency care. Measures of satisfaction include communications skills of emergency department staff, information and explanation of waiting times, and reduction in waiting times.
- **Equipment**—Standards for emergency department equipment will ensure that each facility will be able to respond appropriately to emergencies that come through its doors.

Nova Scotia is the first province in Canada to develop comprehensive minimum emergency care standards.

Introduction

While developing the report on emergency care, it was critically important to establish standards to provide a high-quality baseline for the delivery of emergency care in Nova Scotia. The report *The Patient Journey through Emergency Care in Nova Scotia* identifies a number of recommendations aimed at improving emergency care. But those changes need to align with standards of care so a patient in Yarmouth is getting the same access to care that they would in Shelburne or Arichat or Sydney.

Every day, physicians, nurses, paramedics, and other health-care workers make a tremendous difference in the care of Nova Scotians who find themselves in need of emergency care. Standards for emergency care should be viewed as part of a number of initiatives all working together to improve the system. In fact, these standards will require that innovative solutions come to the forefront to reduce overcrowding, cut wait times, and get people the care they need, when they need it. When we can consistently meet standards in our health care facilities throughout the province we will be well on our way to having a well functioning, integrated system.

Many Nova Scotians may be surprised to learn there are no standards for emergency care anywhere in Canada. Nova Scotia will be the first province to adopt and implement such standards, and we have the right people and access to emergency care to make this happen by 2014. That's because Nova Scotia already has a sophisticated emergency care network.

The Nova Scotia Emergency Care Standards were developed with broad input from district health authority board members, executives, physicians, nurses, paramedics, and community health board members. These standards are intended to complement the Accreditation Canada standards on Emergency Department Services and Trauma Association of Canada standards.

With these standards, Nova Scotians in all regions will receive quality patient care.

Emergency Care in Nova Scotia—Patient Access Points

Nova Scotians can access emergency care in a number of ways:

Provincial Emergency Department: *IWK and QEII in Halifax are the provincial trauma and specialist referral centres. They service a population of approximately 940,400 people (IWK provides subspecialty service for the three Maritime provinces.) They receive ambulance patients from the local community, from hospitals in Nova Scotia, and often from Prince Edward Island and New Brunswick.*

The Provincial Emergency Departments provide a full spectrum of emergency care. They also have a default Primary Care role for limited, select populations, and quaternary care in support of subspecialties.

Regional Emergency Department: *District and cross-district referral centres are open 24/7. The Emergency Department (ED) is open to all patients from the local catchment area as well as patients brought by ambulance or referred from other sites within the district or adjacent districts. The catchment population varies from 20,000 to 100,000 people, depending on the site. Current Regional EDs are located in Yarmouth, Kentville, Bridgewater, Dartmouth, Truro, Amherst, New Glasgow, Antigonish, and Sydney. Regional EDs treat both adult and pediatric patients.*

Community Emergency Department: *In most cases Community EDs are open 24/7, although there may be exceptions where DHAs strategically operate facilities with shorter hours while safely serving their communities. The ED receives ambulatory patients and ambulances when appropriate, although in certain circumstances (e.g., major trauma, stroke) this level of ED would be bypassed by the paramedics in favour of a Regional Centre, consistent with current practice. Community EDs treat adult and pediatric patients.*

Collaborative Assessment Room for Emergencies (CARE): *The CARE may function well in a space adjoining a Primary Care Collaborative practice where the most appropriate clinician (MD, NP, RN, PT, paramedic, other) can use the equipment in the designated area to manage urgent illness and injury*

Ambulatory care should be provided without an appointment to adult and pediatric patients who perceive they have an urgent medical problem. Ambulances carrying CTAS 1–2 level patients (emergent and urgent—see “triage” section) should go to a Regional Hospital directly when possible. Selected CTAS 3–5 level patients may be transported by EHS in consultation with a CARE team member. EHS can be used to transport patients to another facility as needed. Services are provided during the day to meet local demand and in consultation with the community. Typical hours of operation may be 0800–2000, but could start earlier or end later. Hours of operation may vary between communities, but once established they should be consistent and predictable to avoid confusion.

A CARE need is one that is not life or limb threatening but requires prompt medical attention. Some example situations include minor injuries, uncomplicated fractures, uncomplicated lacerations, lower respiratory infections, abdominal pain that requires X-ray or laboratory testing.

Other access points to the emergency care system include:

Emergency Ambulance: *Emergency Health Services (EHS) is a division of the Nova Scotia Department of Health. Ground ambulance and emergency response vehicles are staffed by certified paramedics who are governed by specific policies all under the EHS Act proclaimed in 2005 and amended in 2008.*

EHS professionals include

- **Communications Centre:** *emergency medical dispatcher*
- **Ground Ambulance:** *Primary Care paramedic, intermediate care paramedic, advanced care paramedic (note: assistance provided by medical first responders as needed)*
- **LifeFlight:** *critical care paramedic, critical care RN, registered respiratory therapist*
- **Ground and LifeFlight:** *medical oversight physician*

EHS paramedics operate under one central system, using evidence-based protocols, and one central communications centre. They provide a focused assessment and stabilization of illness and injury including but not limited to airway management, medication administration, fluid resuscitation, wound management, splinting, and pain relief for infants, children, and adults. Paramedics have 24/7 access to an online medical control physician from anywhere in Nova Scotia. Evolving hospital destination policies ensure that patients get to the most appropriate centre as quickly as possible (examples: trauma, stroke, myocardial infarction). Paramedic knowledge and skills are reviewed annually under the auspices of the provincial medical director.

Stand-by of the air ambulance (LifeFlight) can be requested by all emergency responders (EMS, police, fire department), but flight can only be authorized by the medical control physician. LifeFlight is staffed by critical-care personnel supported by online medical experts in Emergency Medicine, Critical Care, and Obstetrics.

Health Link 811: *Usually non-emergency online advice provided by a registered nurse. If patients are unsure whether their condition should be assessed urgently, this can be a valuable resource.*

Minimum Standards for Emergency Departments

The following minimum standards are established by the Department of Health, and each District Health Authority is responsible for ensuring that these standards are achieved and maintained.

Learning and Health-Care Innovation (Research)

The QEII and IWK, in association with Dalhousie University, coordinate and provide undergraduate and postgraduate education in Medicine, Nursing, and allied health professions. Paramedics collaborate with the QEII and IWK. Preceptors at sites outside Halifax also provide a wide range of clinical teaching for medical students, residents, nursing students, paramedics, and others. In addition, innovation through emergency medical, nursing, and paramedic research is recognized internationally.

A robust interdisciplinary emergency care clinical training program should be a standard for this region. Collaboration with Dalhousie University and training colleges could produce distributed learning models with co-operation from other Maritime provinces.

Access

Emergency Ambulance Care is available 24/7 by dialing 911. Emergency response time varies depending on call classification, type of community, and environmental factors such as geography and weather but is regulated by a detailed performance-based contract that is closely monitored by EHS.

1. *A 24/7 Emergency Department should be accessible within approximately one-hour's drive under average driving conditions for 95 per cent of the residents of Nova Scotia. Residents outside that range can call 811 for advice or access the network of Medical First Responders and EHS as necessary. Due to variable geography, weather, and people's choices regarding residence or rural travel, it is not possible to provide 100 per cent coverage for medical emergencies to a 24/7 Emergency Department.*
2. *District Health Authorities should strive to provide CARE or services similar to a CARE through a multi-disciplinary or collaborative practice for communities with populations of more than 5,000 people. Where there is a greater influx of seasonal*

residents or visitors, community-specific variations must be arranged and clearly communicated. This permits a sustainable staffing arrangement for core minor emergency services provided by physicians, nurses, and other qualified emergency care professionals.

Triage

Patient arrivals at Emergency Departments can be unpredictable. Depending on the number of new arrivals and staff availability, some patients may need to wait to be seen. The five-level Canadian Triage Acuity Score (CTAS) was implemented in Canadian Emergency Departments in 1999. It was revised in 2004 and 2008. Up-to-date versions of CTAS for adult and pediatric patients in urban areas and special modifications for rural settings can be found at www.caep.ca under Position Statements and Guidelines.

1. *All Provincial, Regional, and Community Emergency Departments (including EHS) should use the CTAS system when first assessing patients.* A trained health-care provider (e.g., RN, paramedic, physician) should initially assess patients with a perceived medical, surgical, or mental health emergency as soon as possible. At a minimum, vital signs including heart rate, blood pressure, respiratory rate, temperature, oxygen saturation, blood glucose when indicated, and pain scale when indicated should be obtained and recorded as soon after arrival as possible. Abnormal vital signs must be identified early, investigated, and managed. In addition, agitation, self-harm risk, threatening behaviour, and cognitive impairment should be considered. Regular reassessment should occur based on the initial assessment. Registration and other administrative processes should occur AFTER the initial assessment and triage.

CTAS I (resuscitation)—immediate assessment and ongoing reassessment.

CTAS II (emergent)—should be assessed by the most responsible clinician in 15 minutes. If waiting, should be reassessed every 15 minutes.

CTAS III (urgent)—should be assessed by the most responsible clinician in 30 minutes. If waiting, should be reassessed in 30 minutes.

CTAS IV (less urgent)—should be assessed by the most responsible clinician in 60 minutes. If waiting, should be reassessed in 60 minutes.

CTAS V (non urgent)—should be assessed by the most responsible clinician in 120 minutes. If waiting, should be reassessed in 120 minutes. The rural CTAS V has a provision for deferring qualified patients to a later assessment or another location when a physician is not on site and all safety conditions are met.

Transfer

1. *All Emergency Care sites (including EHS) agree to provide care on site or find the most appropriate level of care for their patients in accordance with triage principles and hospital destination policies. If a patient requires a level of care that exceeds the capabilities of the site, the following algorithm should be followed:*
 - a. The closest, most appropriate facility will accept the patient in transfer as soon as possible if there is capacity to safely do so.
 - b. If the closest, most appropriate facility is overcapacity, that receiving site will
 - i. EITHER discuss with the sending facility physician or team leader a safe time for transfer that meets the needs of the patient and both sites
 - ii. OR assist the sending facility physician or team leader in finding an alternate appropriate receiving site
 - iii. in the case of life- or limb-threatening illness or injury, accept any patient without delay while simultaneously activating overcapacity protocol as needed

Patient safety and comfort, expedience, responsible resource use, and mutual respect must be considered during all such transfer discussions. The attending physician at the sending site is responsible for patient care and safety during ground ambulance transport until the patient is transferred to the care of the receiving-site care team. During LifeFlight transport (helicopter or fixed wing), the on-call Air Medical Transport physician shares responsibility for patient safety and care, in consultation with the sending and receiving physicians.

Emergency Department Role

Emergency Departments in Nova Scotia are intended for the rapid assessment and management of patients with unknown problems as well as those with deteriorating pre-existing illness or injury requiring emergency care.

1. *The Emergency Department CANNOT be used for routine hospital admissions for stable patients or pre-operative preparation for elective surgery, holding areas for in-patients transferred from other hospitals, or scheduled "outpatient" procedures or appointments.*

The limited ED space and staffing must be dedicated to dealing with the full spectrum of unexpected illness and injury to ensure timely access for high quality, safe emergency patient care. Smaller Emergency Departments may make arrangements with consultants to share the space, but this should not occur if it compromises the emergency care function.

Staffing Qualifications

1. *All staff performing triage for patients in Provincial, Regional, and Community EDs will be proficient in use of the most current CTAS system.*
2. *All staff in Provincial, Regional, Community, and CARE sites must be familiar with the varied presentation of mental health disorders, rapid risk assessment, the interplay of medical problems, and substance abuse. Standards for Mental Health Services in Nova Scotia (2009)¹ states, “Nova Scotians have access to 24-hour crisis and emergency response services.” Crisis may be psychosocial to psychiatric emergency. Provincial and Regional Emergency Departments should have designated expertise (physician, nurse, or social worker) available on site, on call, or scheduled during the day to provide timely and expert care that meets the needs of the community.*

Provincial—QEII/IWK

1. *Physicians must be certified by the Royal College of Physicians and Surgeons of Canada in Emergency Medicine or Pediatrics (FRCPC) or the College of Family Physicians of Canada with Special Competence in Emergency Medicine (CFCP-EM) or the American Board of Emergency Medicine (ABEM).*
2. *All physicians must meet annual requirements of their respective specialty Colleges, including continuing education. In addition they must maintain hospital and university credentialing requirements.*
3. *Physicians at the QEII ED must maintain up-to-date knowledge and skills based on ACLS, ATLS, and advanced airway guidelines. Physicians at the IWK ED must maintain up-to-date knowledge and skills based on APLS and advanced airway guidelines.*
4. *All RNs must meet requirements of the College of Nurses of Nova Scotia, including continuing education with a focus on emergency care.*
5. *Nurses must have current ACLS (QEII) or PALS (IWK) and the Trauma Nursing Core Course (TNCC). They are recommended to have the Emergency Nursing Program (ENP)—especially new graduate nurses. The ENP includes ACLS and CTAS training. Licensed Practical Nurses should attend the above courses at the discretion of the unit manager.*
6. *Paramedics working in the ED and other direct patient care disciplines must meet the requirements of the Department of Health. ED paramedics must also maintain their certification with EHS.*

¹ http://gov.ns.ca/health/mhs/pubs/Standards_Mental_Health_Services_2009.pdf

Regional Emergency Department

Emergency Departments will usually have a mixture of full-time emergency physicians with certification in Emergency Medicine and family physicians who have expertise in Emergency Medicine.

1. *Certified Emergency Physicians (RCPSC, CFPC-EM, ABEM) must meet the requirements of their respective specialty colleges, including continuing education.*
2. *Family Physicians (CFPC) and General Practitioners must practise within their scope of knowledge and skill and demonstrate to the Department Chief satisfactory evidence of continuing education specific to Emergency Medicine as established by the Section of Emergency Medicine, Doctors Nova Scotia.*
3. *Certified Emergency Physicians (RCPSC, CFPC-EM, ABEM) must maintain up-to-date knowledge and skills based on ACLS, ATLS, and advanced airway guidelines.*
4. *Physicians who are not certified by the RCPSC, CFPC-EM, or ABEM must have up-to-date ACLS, ATLS, APLS and advanced airway management training.*
5. *All RNs must meet requirements of the College of Nurses of Nova Scotia, including continuing education with a focus on emergency care. They must have current ACLS, PALS (or equivalent), and the Trauma Nursing Core Course (TNCC) and are recommended to have the Emergency Nursing Program (ENP)—especially new graduate nurses. The ENP includes ACLS and CTAS training. Licensed practical nurses should attend the above courses at the discretion of the unit manager.*
6. *Paramedics working in the ED and other direct patient care disciplines must meet the requirements of the Department of Health. ED paramedics must also maintain their certification with EHS.*

Community Emergency Department

1. *All staff (RN, MD, other disciplines with patient care decision-making responsibility) treating patients must have current BLS, Advanced Cardiac Life Support (ACLS), and Pediatric Advanced Life Support (PALS).*
2. *All RNs must have the Trauma Nursing Core Course (TNCC) and are recommended to have the Emergency Nursing Program (ENP)—especially new graduate nurses. The ENP includes ACLS and CTAS training. Licensed practical nurses should attend the above courses at the discretion of the unit manager.*
3. *All physicians must have up-to-date Advanced Trauma Life Support (ATLS) and advanced airway management training.*

4. *The District Chief of Emergency Medicine and VP Medicine / Chief of Staff must ensure that all physicians practising in a Community ED have demonstrable knowledge and proficiency in the following:*

- Airway Management
 - One- and two-person bag mask ventilation
 - Use of airway adjuncts, including OPA and NPA
 - Use of rescue airways (e.g., LMA, King LT)
 - Laryngoscopy and endotracheal intubation with in-line c-spine stabilization
 - Use of the bougie
 - Surgical airway technique(s)
- Breathing
 - Needle decompression of pneumothorax
 - Tube thoracostomy and management
- Circulation
 - IV fluid resuscitation
 - Placement and management of intraosseous infusion
 - Stabilization of life- or limb-threatening injuries
 - Splinting of long-bone fractures

In addition to the above clinical skills, the Community Emergency Department chief and VP medicine / chief of staff for the DHA must ensure safe and competent clinical practice and confirm annually that all physicians participate in continuing education specific to core Emergency Medicine knowledge and skills.

Collaborative Assessment Room for Emergencies

1. *Physicians and Nurse Practitioners who treat patients in the CARE must have up-to-date ACLS and PALS training and be certified in the use of an automated external defibrillator (AED). They must also maintain professional development according to their College requirements.*
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A provincial strategy is necessary for ensuring that training is kept up to date and standardized courses are delivered in multiple sites around the province. This should be transparent and accountable to the public. For smaller sites, combined or “essentials” courses should be considered, following a model similar to the Emergency Medicine Primer for Family Physicians in Ontario.

International Medical Graduates and new Family Medicine Residency Graduates

1. *International Medical Graduates (IMGs) must fulfill the current requirements of the College of Physicians and Surgeons of Nova Scotia prior to being permitted to work in an emergency care setting.*
2. *New Family Medicine (CFPC) graduates who plan to work in a Regional or Community ED must fulfill the following requirements:*
 - a. *Successfully complete the mandatory rotation in Emergency Medicine during the first-year residency program and two months elective in Emergency Medicine or one month of Emergency Medicine and at least one month of Anesthesia or Critical Care during the second year. Following successful completion of Certification in Family Medicine, the new graduate must meet the expectations of the site chief and DHA executive.*

OR

- b. *Successfully complete the Certification in Family Medicine by the CFPC, including the mandatory rotation in first-year residency in Emergency Medicine (unless practice eligible), and demonstrate evidence of up-to-date ACLS, ATLS, and APLS. Before working independently in any ED, the physician shall work in the closest Regional ED for a minimum of twenty 8–14-hour shifts on probation, as a supernumerary physician (SP); i.e., as an addition to the regular schedule. In addition, the SP will spend two days in the operating room with an anesthesiologist performing and discussing advanced airway techniques.*

It is recommended that the SP be paid at a reduced regional emergency physician rate. The ED site chief or delegate will act as mentor. The DHA or Department of Health will fund this probationary period, including cost of living if more than 80 km away from home. The SP must work as a supernumerary on all types of shifts as an addition to the regular shift pattern, essentially independently but with the regularly scheduled emergency physician as a shift mentor/supervisor. The mentor, site chief, and DHA executive (including input from allied health personnel) will approve transition from the probationary SP to independent ED practice. The site chief and DHA executive are responsible for ensuring patient safety and may, at the end of the minimum probationary time, recommend a longer probation or decide that the physician will not acquire the requisite knowledge and skill set to work in the ED and not provide privileges for ED work.

It is important that medical staff bylaws are congruent with this transition process.

All new CFPC graduates must have current ACLS, ATLS, APLS, and advanced airway management training prior to working independently.

Physicians should have specific site privileges, reviewed by the DHA, for each emergency care site in which they work.

Site Performance Standards

It is important that all District Health Authorities ensure unrestricted public access to emergency care. Policies and protocols must be in place that provide timely assessment, reassessment, and management of emergency medical and surgical conditions to promote patient flow through the Emergency Department. Specific recommendations to help achieve these performance standards are included in the report *The Patient Journey through Emergency Care in Nova Scotia* (October 2010).² In select cases, emergency care providers may decide to treat a condition over several hours, anticipating that a patient can be safely discharged following the treatment. In such cases, patients should be formally registered in a virtual Clinical Decision Unit (CDU) with anticipated length of stay less than 24 hours. Criteria for the CDU are currently in development by a provincial working group.

1. *Hospital processes and policies must be in place to ensure that ambulance paramedics who are providing patient care can pass responsibility for patient care to hospital staff within 20 minutes of arrival in the destination Emergency Department 90 per cent of the time.*
2. *Total length of stay in the Emergency Department from triage to ED departure (admission or discharge) for CTAS 1–3 patients should be eight hours or less 90 per cent of the time. Patients who are being observed or receiving active treatment with the goal of discharge in less than 24 hours are exempt (e.g., Clinical Decision Unit).*
3. *Total length of stay in the Emergency Department from triage to ED departure (admission or discharge) for CTAS 4 and 5 patients should be four hours or less 90 per cent of the time. Patients who are being observed or receiving active treatment with the goal of discharge in less than 24 hours are exempt (e.g., Clinical Decision Unit).*
4. *Notwithstanding the preceding time guidelines, NO patient admitted to an inpatient unit should remain in the Emergency Department for longer than 24 hours from triage to ED departure.*
5. *As soon as hospital admission is requested, all in-patient services should be available, including consultations and therapies to reduce time to definitive treatment.*

² <http://gov.ns.ca/health/emergencycarereport/>

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6. *Total time from Emergency Physician consult request to the decision to admit or discharge the patient must be two hours or less 90 per cent of the time between 0800 and 2300. In consideration of staffing and practice difference, Site Chiefs and VP Medicine / Chief of Staff must determine an acceptable response time between 2301 and 0759.*

District Health Authority Performance Standards

1. **Surge Capacity:** In situations when normal variations result in demand for emergency care that is greater than the normal capacity to deliver that care in a safe and prudent manner, every Provincial, Regional, and Community ED should have in place staff call-back policies, criteria-based ambulance bypass protocols, and effective in-patient over-census policies to meet this predictable variation. Site chiefs at all Provincial, Regional, and Community EDs, in collaboration with the most responsible DHA executive members, will develop clear policies as to what conditions constitute “overcapacity” (e.g., percentage of total stretcher capacity occupied by consulted and admitted patients + acuity score + waiting or anticipated ambulances) and the whole hospital response to an overcapacity procedure. This should be reviewed at least annually to ensure effectiveness.
2. **Disaster or Mass Casualty Events:** All DHAs must have up-to-date mass casualty plans in place that clearly delineate the roles of site staff, DHA leadership, intra-DHA site coordination, and cross-DHA collaboration. All DHA plans should be coordinated with the well-established Emergency Management Act, 1990 amended 2009. Mass Casualty plans should be reviewed and updated every two years.
3. **Quality and Safety:** All sites shall have active Q&S committees that regularly report to DHA executives and DHA boards and develop policies in concert with the Department of Health Healthcare Safety Advisory Committee (HSAC). Adverse events and “close calls” should be reported to support non-punitive ongoing quality improvement that is patient centred. Ideally, quality improvement initiatives should be shared within and between DHAs.
4. **Medication Errors Reduction.** Medication errors compromise patient safety. All sites should have tightly controlled medication storage, dispensing, and reconciliation systems in place that minimize human error. All sites must have processes in place to support the reporting of medication-related events and to support organizational learning and prevention of future events.
5. **Hand-over Guidelines:** Staff shift changes and breaks are a potential time of risk for patient safety. Care responsibilities must be clearly verbally communicated between the most responsible staff before and after breaks. End-of-shift care

responsibilities must be communicated with brief case summaries between out-going and on-coming staff. Summaries should highlight care plans and any patient-specific outstanding issues. Staff scheduling must be designed to account for the time it takes to do this safely.

6. **Information Technology Performance Monitoring:** Performance monitoring is necessary for all Provincial, Regional, and Community Emergency Departments. National Ambulatory Care Reporting System (NACRS) data should be a minimum standard. The recently published (March 2010) Institute of Clinical Evaluative Sciences list of evidence-based ED quality of care indicators should also be used. Provincial and Regional sites require robust ED Information Systems (EDIS) for patient tracking and performance analysis. DHAs should review this data for on-going performance, share it with Primary Care providers, and provide it to the Department of Health annually. Performance profile summaries should be available to the public. A provincial Emergency Department Performance Oversight Committee should be strongly considered to monitor performance and identify opportunities for quality improvement.
7. **Access to Diagnostic Imaging:** Provincial and Regional EDs must have 24/7 timely access to diagnostic imaging, including plain radiography, CT, and ultrasound (may be CEUS-certified emergency physician-performed in certain defined indications agreed to at sites.) This includes timely access to radiologist consultation and image interpretation. It is not possible to assign a precise definition to “timely.” However, each community must decide on whether the emergency diagnostic imaging service meets a minimum expectation, considering the multiple variables of staffing and service.

Clinical Personnel Practice Quality Review

The following section describes activities that are basic expectations of all clinical staff who work in provincial Emergency Departments and CARE. Participation and attendance is mandatory and does not require additional funding.

1. *All full-time and part-time physicians working in Provincial, Regional, and Community EDs must have a performance review of their ED work no less than every two years completed by the Site Chief.* Professional qualities that should be considered are Clinical, Teaching/Research, Administrative, Quality Improvement, Communication and Team Work, and Community Involvement. Site chiefs should have a performance review no less than every two years with the district chief of emergency medicine.

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2. *All other staff treating patients in an ED shall have a performance review no less than every two years that, at least in part, specifically evaluates their ED work and also verifies that they meet staffing qualifications to work in the ED.*

The following qualities should be considered: Continuing Education specific to the disciplines of Emergency Medicine, Nursing, or Paramedicine; 360 feedback from colleagues (peers, other ED disciplines, consultants, learners); patient-generated positive and negative feedback; participation in teaching and/or research; work/life balance.

QEII/IWK and Regional Sites

1. *Morbidity and Mortality (M&M) reviews and similar quality reviews should be completed regularly (monthly at Provincial sites and quarterly at Regional sites) with non-patient-specific action items, remediation plans identified, and implementation and evaluation of action items follow-up documented. The M&M reviews will include participation of clinicians (physicians, nurses, other disciplines). To meet College continuing-education guidelines, all sessions must be advertised and attendance noted. Physicians are expected to attend a minimum of 60 per cent of M&M reviews. A Quality and Safety Committee should disseminate notable decisions and changes in practice to all members of the group.*

Community ED and CARE

1. *Quality Review Committees should be established within each DHA. Quarterly reviews should be completed with non-patient-specific action items, remediation plans identified, and implementation and evaluation of action items follow-up documented. A communication system should be in place to ensure that results from the Quality Review are shared with all clinicians. In many cases this should be a collaborative process with Primary Care clinicians and can be conducted under the Primary Care jurisdiction. Physicians who have a greater than 50 per cent clinical commitment to a Community ED must attend the DHA Regional ED M&M reviews.*

Patient Satisfaction

1. *Each site should determine patient satisfaction through validated continuous random sampling or formal patient satisfaction surveys. This is a vital component of continuous quality improvement. A review article determined that attention to three interventions is most effective: 1) Improving interpersonal, attitudinal, and communication skills of ED staff. Consideration should be given to short*

training courses similar to other public service industries. 2) Provision of more information and explanation while waiting and during the care phase, including clear identification of the care providers by name. 3) Reduction of perceived waiting time.³

Equipment

	CARE	Community	Regional
Safe & secure area for mental health assessment and treatment	X	X	X
Spinal immobilization	X	X	X
Injured limb splints, casting	X	X	X
Wound management—suturing, dressings	X	X	X
Procedural sedation	+/-	X	X
Airway			
Oral and nasal airways	X	X	X
Bag-mask-ventilator	X	X	X
Oxygen	X	X	X
Oxygen masks and nasal cannulae	X	X	X
Portable CPAP		X	X
Supraglottic airway device(s)	X	X	X
Endotracheal airway devices		X	X
Surgical airway device(s)		X	X
Chest tube tray	X	X	X
Intravenous lines, peripheral	X	X	X
Intraosseous needles	X	X	X
Blood pressure measuring devices	X	X	X
Inflatable intravenous pressure bags		X	X
IV pumps, warmers, pressure infusor		X	X
Refrigerated type O blood		+/-	X
Arterial line system		X	X
Central line tray (RN familiar with set-up)		X	X
Poisoning antidote kit		X	X
Orogastric lavage tray		X	X
Foley catheter tray	X	X	X
Pulse oximeter	X	X	X
AED	X		

³Taylor C., and J. Benger. Patient Satisfaction in Emergency Medicine. *Emerg Med J* 2004;21:528–32

Continued...	CARE	Community	Regional
Cardiac monitor/defibrillator/pacer		X	X
12-lead ECG	X	X	X
Broselow tape for pediatrics	X	X	X
Broselow-coloured bags of equipment		X	X
Foreign body in the eye removal equipment	X	X	X
Ophthalmoscope, ENT exam tools	X	X	X
Slit lamp for ophthalmic exam	X	X	X
Intraocular pressure measuring device	X	X	X
X-ray machine available for plain films	X*	X**	X
Ultrasound–Radiology Dept		X+/-	X**
Ultrasound–bedside		X+/-	X***
CT scan			X
Point of care tests	X	X	X
Laboratory	X+/-	X**	X

* **during day hours**

** **during day hours and call back at night**

*** **requires special certification +/- optional**

Information Technology and Evidence-based Decisions

All Emergency Centres should have access to current on-line and on-site ED references as recommended by a provincial committee (terms of reference to be determined) established by the Department of Health.

The National Ambulatory Care Reporting System (NACRS) levels 1–3 should be used at all emergency care sites to help inform performance and quality of care. This will also allow comparison with other sites in Canada that currently use NACRS.

Emergency Department Information Systems, ideally consistent across the province and interconnected, should be used at all Regional and Provincial EDs. Performance data should be available to the public and regular feedback provided to care providers for continuous quality improvement.