



# ADMINISTRATIVE Policy & Procedure

Title:	Overcrowding and Site Overcapacity	Number:	AD-AO-020
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## PREAMBLE

This policy provides direction in the management of Overcrowding and Overcapacity.

## GUIDING PRINCIPLES

1. NSHA takes a proactive, interdepartmental, organizational, and province-wide approach to predicting, communicating and managing site Overcapacity and the boarding of admitted patients in the Emergency department (ED). Timely and seamless transition for the patient to the most appropriate setting to meet their care needs is dependent on the following principles:
  - 1.1. NSHA strives to ensure admitted patients do not remain in the ED.
  - 1.2. Facilities should strive for a consistent 1100 hrs discharge time to facilitate patient flow.
2. Timely and seamless transition requires strong networks and cooperation with the following external partners (but not limited to):
  - Nursing Homes
  - Residential Care Facilities
  - Adult Residential Centres
  - Regional Residential Centres
  - Department of Community Services
  - Department of Health and Wellness
  - Veterans Affairs Canada
  - Group Homes, and
  - Home Care Agencies
3. Responses to Overcrowding may be site specific and dependent on size, resources and volume. However, no site works in isolation. All sites continue to work in collaboration with others, as part of NSHA.
4. Operational Access and Flow decisions are fluid and are made based on using the best information available at the time.

## POLICY STATEMENTS

1. ED Team Members must Offload ambulance patients within 30 minutes of the patient's arrival to the ED.
2. Patients must not be kept in the ED longer than 12 hours following registration in the ED.
3. Repatriation of patients is a system priority. Each site must prioritize:
  - 3.1. Repatriation of the patient back to the referring site or the site that is most appropriate for the patient's required level of care.
  - 3.2. Transferring the patient Closest to Home, within 48 hours, once the patient is medically deemed to be suitable for transfer. (Refer to [NSHA AD-AO-050 Repatriation.](#))

4. Response to escalating Overcapacity situations must be aligned with the NSHA Incident Management System (IMS). (Refer to [NSHA Emergency Preparedness intranet site](#))
5. Patient centred care planning, including plans for discharge will begin at the time of admission. The interdisciplinary care team is responsible to:
  - 5.1. Identify patient needs
  - 5.2. Identify potential barriers to discharge throughout the hospital stay
  - 5.3. Develop care plans to address these needs
    - Actions to address these needs is an ongoing process, requiring continuous monitoring.
6. The Utilization Management System (UMS) must be used at all system levels to:
  - Ensure optimal care/discharge planning
  - Monitor flow trends, and
  - Inform strategies to address barriers to Access and Flow.
7. Responsibilities of each site include:
  - Identify appropriate patient spaces in the event of Overcrowding.
  - Accept and transfer patients to assigned locations/units within 30 minutes of Bed Ready
    - Delay will not occur because of breaks, shift change and/or other regular activity
  - Develop and implement processes to promote efficient turnover time for Bed Ready including timely communication of Bed Ready between Team Members.
8. The use of Alternate Care Locations will be considered to expedite patient flow, when patient safety and the ability for the patient to receive the required ongoing care can be assured.
9. NSHA monitors Access and Flow using key performance indicators. These are obtained through reviews performed of the Overcapacity data and action plans, and using the following structure:
  - Site review at least monthly by Site Leadership and/or at Site Access and Flow Committee.
  - Zone review at least quarterly by the zone Access and Flow Committee.
  - NSHA-wide review at least monthly by the NSHA Access and Flow Committee.
  - Semi-annual review by the Provincial Emergency Program of Care and Provincial Access and Flow Committee.

## PROCEDURE

1. Site Leadership determines appropriate responses including Surge Capacity Plans. Responses are based on a number of factors which include:

- National Emergency Department Overcrowding Scale (NEDOCS) levels listed below (Table 1., 2., and 3.)
- Site Capacity, and
- Available resources.

**Table 1.**

<p><b>Level 1: Not Busy</b> (<math>0 \leq \text{NEDOCS} &lt; 20</math>)</p>
<p><b>Level 2: Busy</b> (<math>20 \leq \text{NEDOCS} &lt; 60</math>)</p>
<p><b>Level 3: Extremely Busy but Not Overcrowded</b> Criteria: 1. (<math>60 \leq \text{NEDOCS} &lt; 100</math>) and/or</p> <ul style="list-style-type: none"> <li>• Site at or below capacity.</li> </ul>

2. During Levels 1, 2 and 3 outlined above, the following strategies are implemented on a **daily basis** to ensure timely and seamless transitions for patients and prevent Overcrowding.

**2.1. ED Strategies (responsibility of ED):**

- 2.1.1. Measure NEDOCS
- 2.1.2. Work with appropriate program areas to develop alternatives to admission such as home care and/or outpatient consultations, diagnostic testing, and treatment (e.g. ambulatory care).
- 2.1.3. Review all admissions in the ED for appropriateness and expedite discharge of patients from the ED.
- 2.1.4. Ensure 30 minute disposition of patients to an inpatient bed once a room has been assigned.

**2.2. Inpatient Unit Strategies (responsibility of the inpatient units):**

- 2.2.1. Perform daily review of UMS data:
  - Occupancy/Census
  - Predicative discharges – estimated day of discharge (EDD) for next 24 hours

- Review/update EDD daily.
  - Assess ‘Ready for Discharge (RFD)’ patients for focused discharge planning
  - Each area will participate in unit-specific bullet rounds and/or site bed rounds daily to assess expected demand
  - Initiate discharge planning on admission, including EDD in UMS.
- 2.2.2. Target discharge time by 1100 hrs, when possible.
- 2.2.3. Restrict Bed Ready times to one hour (i.e. Flow, Housekeeping and Inpatient Units).

**EXCEPTION:** Terminal cleaning (e.g. clostridium difficile)

- 2.2.4. Ensure Repatriation of patients within 48 hours to and from other facilities

3. At level 4, **Site Leadership is responsible to initiate escalation of response level. All sites and Team Members (as required) are responsible to collaborate in this response to prevent escalation of Overcapacity.**

**Table 2.**

**Level 4: Overcrowded**

Criteria:

1.  $(100 \leq \text{NEDOCS} < 140)$

and/or

- Site at Overcapacity with ability to access additional resources to support patient care needs

and/or

- Site at Overcapacity with reduced ability to maintain normal operations due to insufficient resources (e.g. outbreaks, weather)

3.1. **Ensure all previous level strategies are implemented.**

3.2. The ED manager/delegate and Emergency Physician confirm NEDOCS measurement.

3.3. Communicate “Level 4 Overcrowded” throughout the site.

3.4. Departments (i.e. Diagnostic Imaging, Lab, Porters, and Housekeeping) give priority to the ED and patients pending discharge until the situation is resolved.

3.5. All Health Services Managers proceed to units to review patient flow data and assist with discharge expedition.

3.6. Notify Hospitalists, General Practitioners, Specialists, On-Call physicians and other members of the Interdisciplinary team to expedite discharges.

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- 3.7. Health Services Managers communicate the reviewed plan with Access and Flow Team Members. Expected day of discharge (EDD) is updated at the unit level.
- 3.8. Health Services Managers, are responsible to assess and identify available, appropriately staffed inpatient beds for suitability as Alternate Care Locations:
  - Under Capacity inpatient units
  - Program area (e.g. Day Surgery)
  - Intensive Care Unit (ICU), Alternate Level of Care (ALC), Transitional Care Unit (TCU), etc.
  - Overcapacity beds
- 3.9. Teams should consider plans for continued escalation which may include the activation of the IMS and the establishment of an incident management team and/or command post(s).
- 4. At level 5, a **zone response by zone Executive Director, zone Director of Access and Flow and zone Access and Flow Committee** is required to prevent escalation of Overcapacity.

**Table 3.**

<p><b>Level 5: Severely Overcrowded</b></p> <p>Criteria:</p> <ul style="list-style-type: none"> <li>1. <math>(140 \leq \text{NEDOCS} &lt; 180)</math> and/or                             <ul style="list-style-type: none"> <li>• Site in Overcapacity and no further internal ability to access additional resources to support patient care needs</li> </ul> </li> <li>and/or</li> <li>• Site in Overcapacity with limited ability to maintain normal operations due to insufficient resources (i.e. outbreaks, weather).</li> </ul>
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- 4.1. Activate the IMS, and establish an incident management team and/or command posts (required at this level).
- 4.2. **Ensure all previous level strategies are implemented.**
- 4.3. Site Leadership is responsible to confirm NEDOCS measurement with ED manager/delegate and Emergency Physician.
- 4.4. Communicate “Level 5: Severely Overcrowded” throughout the zone.
- 4.5 Executive Medical Director is responsible to send communication to all physicians to review and expedite discharges.
- 4.6 Review appropriate inpatients for transfer to another site in the zone.
- 4.7 Reduce services as per Surge Capacity Plan.

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4.8 Site/zone leadership is responsible to liaise with:

- External community resources E.g. Department of Community Services, Veterans Affairs Canada
- Individual long term care facilities and/or private assisted living facilities to reprioritize Repatriation/transfers of existing residents residing in hospital.

4.9. The above strategies are to be aligned with the function of the established Incident Management Team.

5. At level 6, a **provincial response by Provincial Leadership** is required to prevent ongoing Overcapacity.

5.1. Consideration must be given to the escalation of the IMS up to and including the activation of emergency operations centres (EOCs) if applicable.

**Table 4.**

<p><b>Level 6: Dangerously Overcrowded</b></p> <p>Criteria:</p> <p>1. <math>(180 \leq \text{NEDOCS})</math></p> <p>and</p> <ul style="list-style-type: none"> <li>• Site Overcapacity and inability to access additional resources to respond to operational demand.</li> </ul>
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5.2. **Provincial Leadership is responsible to ensure:**

- **All previous level strategies are implemented.**
- Notification to EHS of “Level 6: Dangerously Overcrowded” status, and that Offload times may be impacted.

5.3. Collaborate with EHS to determine steps to create capacity within the system (e.g. Repatriation, patient transfers)

5.4. Communicate “Level 6: Dangerously Overcrowded” throughout all sites.

5.5. ED Team Members are responsible to perform NEDOCS re-assessment every two hours.

5.6. Once NEDOCS returns to below 180:

- 5.6.1. Provincial Leadership/delegate is responsible to communicate “Level 6: Dangerously Overcrowded All Clear”.
- 5.6.2. Communication must include external partners. E.g. EHS, DHW.
- 5.6.3. NSHA Access and Flow Committee is responsible to conduct review/evaluation of all Level 6 Dangerously Overcrowded situations.

## REFERENCES

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## RELATED DOCUMENTS

### Policies

[NSHA AD-AO-050 Repatriation](#)

### Appendices

[Appendix A - Definitions](#)

[Appendix B - The National Emergency Department Overcrowding Score \(NEDOCS\)](#)

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## Appendix A: Definitions

<b>Access and Flow</b>	Access to acute care involves multiple entry points including the Emergency Department. Flow is a coordinated, collaborative, and patient-centered approach to improve transitions at all points of care, reduce backlogs at system entry points including the ED, and to smooth flow of patients throughout the continuum of care.
<b>Alternate Care Locations</b>	These are areas within a site that do not normally accommodate admissions. (E.g. ambulatory care areas, day surgery units, lounge, etc.).
<b>Bed Ready</b>	A bed/space is prepared and available for service. Bed Ready implies a traditional or nontraditional space has been vacated, has been appropriately housecleaned and is ready for patient occupancy.
<b>Capacity/Overcapacity</b>	Capacity is the ability of the system to manage patients. There are five levels: (three that relate to the patient to bed ratio, and two that relate to resources)
	<p><b>People to Bed Ratio</b></p> <ol style="list-style-type: none"> <li>1. Below capacity: More Beds are available than patients requiring beds;</li> <li>2. At capacity: The number of beds equals the number of patients requiring them;</li> <li>3. Over Capacity: The number of patients exceeds the number of available beds; and</li> </ol> <p><b>Resources</b></p> <ol style="list-style-type: none"> <li>4. Surge Capacity: Additional resources (people/equipment/money) are available to create more beds. Examples: Addition of resources to deal with increased flow; opening of overcapacity beds, increased number of Team Members.</li> <li>5. Reduced Capacity: Resources (people/equipment/money) are not sufficient to maintain the "normal/funded" beds. Examples: Breakdown of ventilators reduce ICU capacity, unable to maintain safe patient/Team Member levels on the unit closes beds.</li> </ol> <p>Within the Site there is demand for services which exceeds current capacity.</p>

<b>Closest to Home</b>	The receiving site is determined with a consideration for geography and/or patient support systems, with the primary consideration being the ability for the patient to receive the required ongoing care.
<b>Incident Management System (IMS)</b>	<p>The Incident Management System (IMS) is a method of command and control used to coordinate parts of one organization, an entire organization or multiple organizations, towards the goal of responding to an incident and protecting life, property, and the environment. IMS allows for rapid decision making, while using available resources in the most effective and efficient manner when responding to emergencies. IMS is largely based on the interagency Incident Management System known as the Incident Command System (ICS). Some of the modifications include changes in language (eg. Incident “manager” vs incident “commander”) and to the consideration of multi-agency responses. Levels of escalation within the IMS include:</p> <p><b>Type 1:</b> Requires activating multiple Zone EOCs and the NSHA Corporate EOC;</p> <p><b>Type 2:</b> Requires partial or full activation of the Zone EOC;</p> <p><b>Type 3:</b> Requires the activation of a site Command Post and is managed at the site;</p> <p><b>Type 4:</b> The situation requires an Incident Management Team (IMT) and can be managed locally. An IMT can also be service specific and cross Zones (i.e. Public Health); and</p> <p><b>Type 5:</b> Site responders are able to manage the incident without further assistance or support. (i.e. Code Blue or Code White responses at a hospital);</p>
<b>National Emergency Department Overcrowding Score (NEDOCS)</b>	A linear regression model that associates five operational variables and two fixed variables (number of ED beds and number of in-patient beds) with the degree of crowding. NEDOCS is a statistically derived calculation with construct validity and discrimination for predicting ED overcrowding. See <a href="#">Appendix B</a> .
<b>Offload</b>	The transfer of patient care from Emergency Medical Services to ED Clinical Personnel.
<b>Overcrowding</b>	Within the ED there is demand for services which exceeds capacity to provide quality care within acceptable time frames. The intensity of ED overcrowding is reflected in the NEDOCS.

<b>Provincial Leadership</b>	Level 6 Response: Provincial Leadership includes VP and Provincial Access and Flow Incident Command at level 6.
<b>Repatriation</b>	The process of transferring the patient to his or her referring site or to the site that is the ‘closest to home’ once the patient is deemed suitable for transfer. Those involved in utilization also consider the transfer of a single patient impacts flow of all patients across NSHA.
<b>Site Leadership</b>	<ul style="list-style-type: none"> <li>• Level 3 Response: Site Leadership includes ED Manager/Patient Flow Manager/Inpatient Managers</li> <li>• Level 4 Response: Site Leadership includes Site Director/ED Director/Patient Flow Director</li> <li>• Level 5 Response: Site Leadership includes Zone Executive Director and Zone Access and Flow Incident Command</li> </ul>
<b>Surge Capacity Plan</b>	The ability of the health care system to convert quickly from their normal operation of services to a significantly increased capacity in order to serve an influx of patients during an emergency. An effective surge capacity plan involves all the health care resources available within the system
<b>Team Members</b>	Unless specifically limited by a certain policy, refers to all Employees, physicians, learners, volunteers, board members, contractors, contract workers, franchise employees, and those with affiliated appointments and other individuals performing activities within NSHA.
<b>Time to In-patient Bed (Boarded Patients)</b>	This is the interval from admission decision until the patient departs to the unit. It is a key interval and reflects bed availability at the time of admission, as well as hospital administrative efficiencies in assigning beds and arranging transfer of care and transportation. NSHA strives to meet a target of total length of stay (LOS) of an average of 8 hours as per the Canadian Association of Emergency Physicians (CAEP).
<b>Utilization Management System (UMS)</b>	An electronic assessment tool that measures the patient’s readiness for discharge. It is completed on a daily basis.

## Appendix B: The National Emergency Department Overcrowding Score (NEDOCS):

$$\text{NEDOCS} = -20 + 85.8(\text{LED}/\text{bED}) + 600(\text{Ladmit}/\text{bh}) + 5.64\text{WED} + 0.93\text{Wadmit} + 13.4\text{Lrp}$$

**LED:** Total number of patients in the emergency (ED), which is the number of patients in the ED occupying beds, including hallway beds (includes waiting room)

**bED:** Number of ED beds, which is the total number of available ED beds (includes resuscitation beds)

**Ladmit:** Total number of admitted patients in the ED, which is the number of ED patients waiting to be moved from the ED to the hospital (patients that are ready to be sent to floor; do not include patients who have do not have orders, etc.) **bh:** Number of hospital beds, which is the total number of occupied and vacant inpatient beds (Usable beds; not closed)

**WED:** The waiting time from triage to ED bed placement for patients placed in ED beds

**Wadmit:** The longest boarding time of patients waiting for admission (in hours, can use decimals); measured total LOS from time of registration (not from decision to admit)

**Lrp:** The number patients receiving 1:1 care.

### Operational Variables:

#### ED Patients

The total number of patients in the ED. Includes all patients who have walked in the door, but have not been discharged. Includes patients in the waiting rooms, and waiting admits in the ED.

#### ED Admits

Count all admits waiting for a bed in the ED. Patients moved away from ED to inpatient holding areas should not be counted. Count all ED admits/rollovers/holdovers waiting in ED care for an inpatient bed.

#### Last Door to Bed Time

Door to bed time for the last patient to receive a bed. For example: if you're measuring at 1300 hrs, and the last patient to be placed in a bed was at 1255 hrs, count that patient's door - bed time. When measuring NEDOCS at 1400 hrs, count the person who received the bed last, between 1300-1400 hrs. If no one was placed in a bed during 1300 and 1400 hrs, count the patient who received bed at 1255 hrs. Always count the most recent patient's door-bed time.

#### Longest Admit

Count the longest holdover, admit waiting for an inpatient bed in the ED. If four patients are waiting for an inpatient bed, count the patient waiting longest.

#### 1:1 Patients

Count the number of patients in 1:1 care. Includes ventilators, ICU admits, critical care patients, trauma patients, and sometimes includes mental health clients. Typically a site specific variable, which should include all patients who require a one-to-one nurse care.

**Fixed Variables:****IP Beds**

Count all inpatient beds regularly staffed. Can differ from licensed IP beds, if some licensed beds virtually not staffed, or staffed in disaster. Count holding beds, including observation beds.

**ED Beds**

Total number of gurneys, chairs, and other treatment benches in use, or staffed. Includes hallways and chairs that are opened up. Do not include unstaffed beds, such as beds in closed areas at night, or un-staffed beds at slow times.

## District Health Authority Policies Being Replaced

CDHA CH 01-065 QEII Code Census

CDHA CH 01-065 B DGH Code Census

SWNDHA 900.49 IX-49 Emergency Department Surge Protocol

SWNDHA 900.47.1 IX-47 Ambulance Patient Transfers

CEHHA 101-008 Overcrowding Management

PCHA 1-s-10 Emergency Department Overcapacity Protocol “Share the Care”

CBDHA NA-1-40 Scheduled Admission Beds

CBDHA A-4-005 Ambulance Diversion

## Version History

Major Revisions (e.g. Standard 4 year review)	Minor Revisions (e.g. spelling correction, wording changes, etc.)
New 2019-06-03	2019-05-17 Removed Procedure #2.1.3