The Canadian Triage and Acuity Scale: Education Manual

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CTAS National Working Group
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Course Goals

1. Describe origins and role of triage
2. Review/enhance assessment skills
3. Apply standards of emergency nursing
4. Introduce CEDIS Presenting Complaint List
5. Prioritize patient care using CTAS
6. Demonstrate understanding of ED processes
The CTAS Levels and their fractile response times.
If the physician cannot meet these then a nursing reassessment is considered an acceptable replacement, with the expectation that a physician would be notified should the patient's acuity score worsen.
- Resuscitation – Time to nurse immed.; Time to physician immed.
- Emergent – Time to nurse immed.; Time to physician 15 min.
- Urgent – Time to nurse 30 min.; Time to physician 30 min.
- Less Urgent – Time to nurse 60 min.; Time to physician 60 min.
- Non-Urgent – Time to nurse 120 min.; Time to physician 120 min.
Module 1

Fundamentals of Triage
Module One Objectives

- Historical basis of triage
- Purpose and value of triage
- Unique nature of emergency patients
- Professional role and personal characteristics of the triage nurse
- Triage nursing skills
- Triage process
Evolution of Triage

- Military roots
- Introduced to hospitals in early 1960s
  - Number of cases increasing
  - People with non-urgent conditions come to EDs for treatment
- Initially, a 3-level triage (emergent, urgent, deferrable/non-urgent) was used
- In 1999, CTAS 5-level triage implementation guidelines published as recommended national guidelines

“Triage” is the French word for “sort”

- Triage is a process by which patients are sorted and classified according to the type and urgency of their conditions. Sorting of patients for the purpose of determining treatment priorities originated on WW1 battlefields and refined in subsequent wars.
- The military intent was to provide care to the casualties who could be salvaged for a rapid return to the war front. Combat triage was guided by the maxim: “the best for the most with the least by the fewest” (Simoneau, 1985). Critical patients requiring extensive resources received delayed medical care (ENA, 1998).
- In contrast, the medical intent of triage in hospitals is to assign resources as quickly as possible to those with the highest acuity.
Origins of CTAS

- National Triage Scale – Australia ACEM 1994
- CAEP Triage and Acuity Scale – Canada 1995
- CTAS – Canada (CAEP, NENA, AMUQ) 1999
- Paediatric CTAS (above + CPS, SRPC) 2001
- Adult CTAS revision 2004
- CEDIS Complaint list (+ revision) 2003 & 2008
- Adult CTAS revision 2008
- Paediatric CTAS revision 2008

National Triage Scale- Australia (Australian College Emergency Medicine) The National Triage Scale in Australia was developed from work by Jelinek and Fitzgerald in the 1980’s and early 1990’s. The 5 level scale was based on the optimal time to medical intervention for patients who present to Emergency Departments. The scale was modified from the Ipswich Triage Scale (United Kingdom), 1989. The Australian Scale was validated by Jelinek (Emergency Medicine 1996; 8:226-230), Hollis confirmed the reliability of the National Triage Scale (Emergency Medicine 1996; 8:231-234) as did Bond (1998; 10: 103-110)

Canadian Association of Emergency Physicians (CAEP) Beveridge 1995 initiated development of the Canadian Triage and Acuity Scale (CTAS), a 5 level scale based on the optimal time to medical intervention (CAEP Communiqué 1995). CTAS was based on the Australian National Triage Scale (NTS). The National Emergency Nurses Affiliation Inc. (NENA Inc.) 1997 initiated a review of their triage standards and agreed to collaborate with CAEP to establish a 5 level triage standard for Canada.

Canadian Triage and Acuity Scale (CTAS) The CAEP National Triage Working Group (NTWG) published definitive guidelines in 1999. There was representation from the Canadian Association of Emergency Physicians (CAEP), the National Emergency Nurses Affiliation (NENA Inc.), L’ Association des Medicine d’Urgence due Quebec (AMUQ), and the Canadian Pediatric Society (CPS). CTAS has been endorsed and supported for implementation in emergency departments across Canada.

Pediatric – Canadian Triage and Acuity Scale (P-CTAS) CAEP, NENA Inc., AMUQ, CPS 2001 The CTAS National Triage Working Group identified a need to enhance the guidelines to address pediatric issues. Jarvis, LeBlanc and Warren developed P-CTAS and published in 2001.

Canadian Emergency Department Information System (CEDIS) Complaint list. Published in 2003 with 18 groups of 161 ED presenting complaints.

CTAS Adult Guideline Revisions 2004. Published to incorporate the CEDIS complaint list and also incorporated 1st order and 2nd order modifiers to better refine the CTAS score for each complaint.
What is Triage?

The National Emergency Nurses’ Affiliation’s (2002) definition of triage is: ‘a sorting process utilizing critical thinking and a standardized set of guidelines in which an experienced RN assesses patients quickly upon their arrival in an ED to:

- Assess and determine severity of presenting problems
- Process patients into a triage category and streaming to an appropriate location
- Determine access to appropriate treatment
- Effectively and efficiently assign appropriate human health resources.’

A standardized set of guidelines is used to assess and prioritize the patients, and decide how long they can safely wait for treatment.

(Prioritization based on the patient’s presentation not on the reality of resource limitations)

AVOID TRIAGE DRIFT (the urge to triage patients based on their wait times; either up triaging a CTAS 5 to a 4 because a wait may be too long or down triaging a CTAS 2 to a 3 because the nurse knows the patient needs to be held in the waiting room)

Triage acuity can be determined quickly and should be a process of streaming the patient to the most appropriate place in the emergency department for their care based on the goals outlined below. Triage should not be ‘perceived as’ nor operate as an “access block”.

The goal is to get the

- right person
- to the right place
- in the right time
- for the right reason
- to the right care giver/provider
- within the context of access to resources
Rationale for the Development of CTAS

- A national standard for triage
- Improved patient care
- Increased triage reliability and validity
- Site & personal performance indicators
- National benchmarks

CAEP, NENA, AMUQ, CPS, and the SRPC all endorse a comprehensive triage process performed by a registered nurse who assesses patients, determines the priority of needs, initiates diagnostic procedures where appropriate, performs a limited physical examination and refers to relevant resources.

Each organization should develop an effective triage evaluation process. Strengths and weaknesses in specific triage systems may be identified through consistent monitoring of triage performance and outcomes.

Participation of all staff in a chart audit process should be established. Results can be used to improve the triage process. Continuing education activities based on local data will help ensure a consistent approach to triage within the realities of individual emergency departments.

Standardization of the triage process allows for improved and consistent patient care, resource management, and benchmarking at local, provincial, and national levels. This standardization more accurately define patients' needs for timely care. It also allows emergency departments to evaluate outcomes related to acuity level, resources, and performance against certain operating objectives.
The Benefits of Triage

- Ensures critically ill or injured receive priority attention
- Establishes acuity and anticipates resources needed
- Predicts how long the patient can safely wait
- Supports effective utilization of space and resources
- Supports surveillance
- Improves communication and public relations

The Canadian Triage and Acuity Scale (CTAS) attempts to more accurately define patients’ needs for timely care. CTAS also helps emergency departments to evaluate the patients’ acuity levels, resource needs and departments’ performance against certain operating objectives.

SURVEILLANCE: With increasing globalization, the risk of pandemic diseases is increasing making ILI/FRI screening more important as means of early identification of new disease outbreaks in the community, while at the same time trying to protect fellow patients and health care workers.

At the same time the collection of standardized patient complaints and modifiers allows for data collected by ED triage using CTAS to be used in real time for epidemic surveillance (such as tracking ED visits for ‘fever’ & ‘cough’ and by comparing year on year rates [tied to positive confirmation of influenza through virology testing], you are able to predict the arrival of influenza before culture +ve cases are identified). The same can be done for Norwalk virus tracking ‘diarrhea’ and ‘nausea & vomiting’ cases (sometimes it may not just be the number of patients, but an increase in higher acuity cases, that is the predictor). Surveillance may also also be used to track the prevalence of a number of conditions in the community to help with prevention and public health planning such as falls in the elderly, substance misuse, depression/suicide by time of year, chest pain visits following snow storms of during cold snaps, etc.
Avoiding Triage as ‘Access Block’

- Streaming
  - Lean processing (six sigma) to improve ED efficiencies is being broadly implemented
  - One goal is shortening the time from arrival to emergency physician
  - Streaming patients directly to the most appropriate place in the ED is key to success
    - This can be accomplished by rapid triage 1st or triaging the patient after directing them to an appropriate area
    - Typical ED design changes include internal waiting rooms, limiting stretcher time to patients who don’t need them, and rapid assessment zones

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Triaging with Overcrowding

- Triage Drift
  - Concept of ‘normalization toward the mean’
  - The knowledge that a patient will need to be assigned to the waiting room, may lead the triage nurse to ‘uptriage’ a CTAS 4 or 5 patient in the hopes of shortening their wait.
  - Similarly there may be subconscious pressure to ‘downtriage’ certain patients based on ED space limitations.
    - For example a patient may be assigned a CTAS 3 rather than CTAS 2 score feeling it unacceptable to assign level 2 patients in the waiting room.
    - A CTAS 3 patient may also be downtriaged to CTAS 4 to make them more appropriate for fast track.

AVOID TRIAGE DRIFT (the urge to triage patient’s based on their wait times; either uptriaging a CTAS 5 to a 4 because a wait may be too long or downtriaging a CTAS 2 to a 3 because the nurse knows the patient needs to be held in the waiting room)
Emergency Patients are Unique

- Unscheduled/episodic
- Anxious and distressed
- Patient and care providers are strangers
- Patients experience symptoms/not a diagnosis
- Span all ages and types of emergencies
- Often lack primary care

• Patients arrive when they are in need or when it is convenient for them to address a problem

• Patients and their caregivers will be distressed and faced with the strange processes of the ED, their distress may be heightened rather than alleviated—effective communication is critical.

• More than one patient may arrive at once and the triage nurse is challenged to decide who should be assessed first.

• The triage nurse has relative seconds to establish a trusting, caring relationship with the patient.

• The patient can be in any age group—not all children go to the children’s hospital—requiring the triage nurse to have knowledge of age related differences in health problems.
Emergency Patients are Unique

“Not all patients are as well as they appear and not all patients are as sick as they think.”

What are your thoughts on that statement?

What are some unique characteristics?

Probe participants to see if this is consistent with their experience, getting specific stories and examples, etc.

Unique characteristics might include: unscheduled, homelessness, lack of primary care physician, disenfranchised for some other reason (mental health, rejection by family, rejection by society [disfigured, disease {HIV, leprosy, etc.}]).
Role of Triage Nurse

1. Assessing patients and determining acuity
2. Communicating with health professionals
3. Determines treatment location
4. Initiating treatment protocols/first aid measures
5. Monitoring and reassessing
6. Participating in patient flow
7. Documenting

Triage is a process involving people and resources.

• The triage nurse establishes rapport with the patient and/or their companion and collects information necessary to make an informed decision about their condition.

• Critical to the triage nurse’s role is the ability to rapidly recognize who is “sick” and who is “less sick”. This ability is dependent on knowledge and experience, clinical judgment, and a thorough understanding of the triage function.

• The triage nurse must communicate with charge nurse or primary nurses, emergency physicians, paramedics, nurse practitioners, physician referral consultants, security to ensure that patients in need of immediate care are seen and to provide information on the status of waiting patients etc.

• Based on the patient’s condition, the triage nurse assigns them to a treatment area or to the waiting area and may initiate symptom relief or medical directives.

• It is the triage nurses’ responsibility to keep watch and reassess waiting patients to identify changing conditions.

**Documentation is an essential component of the triage process.**

Documentation should be relevant to the presenting complaint but not take priority when immediate care is needed.
What makes a good triage nurse?
- Personal traits
- Cognitive characteristics
- Behavioral characteristics

An increasing number of patients have to resort to emergency departments for health care due to lack of community health resources, particularly during non business hours. Triage staff must maintain an open mind to the possibility of serious illness in each case.

Exercise:
Collect participant ideas about what makes a good triage nurse. Then validate by presenting next slides.
Communication skills are crucial as the triage nurse must communicate with patients, families, police EMS personnel, visitors and other health care workers.

Important to maintain a pleasant demeanor and employ tact, patience, understanding and discretion. Remaining consistent and non-judgmental toward all patients is important. Patients may present displaying difficult behaviors requiring special care. Any element of prejudice, leading to a moral judgment of patients, can increase patient risk due to minimizing patient acuity and lead to incorrect assignment of triage categories.

Also review the location of triage and assess for any physical barriers to conducting an effective interview, and advocate to have these removed.

**IT IS NOT ACCEPTABLE TO PREJUDGE PATIENTS BASED ON APPEARANCE OR ATTITUDE.**
Cognitive Characteristics

- Diverse knowledge base
- Knows when not to act
- Uses critical thinking
- Able to make decisions quickly
- Able to prioritize

The triage nurse needs to have experience, he/she must be able to draw on that experience and knowledge when faced by the complex presentation of patients at triage. Effective triage requires the use of sight, hearing, smell and touch. There are many non-verbal clues: facial grimaces, cyanosis, fear...listen to what the patient is saying and pay attention to questions they are reluctant or unable to answer.

The triage nurse needs to know when the patient needs immediate care and which patients can wait with some interventions in the waiting room, they need to be able to recognize when the patients condition changes and be able to make decisions quickly.

When there are more than 3 patients in any category the triage nurse must prioritize patients within that category.
Behavioural Characteristics

- A patient advocate
- Works well under pressure
- Organized
- Able to improvise
- Applies intuition
- Confidence in judgment
- Trust in/reliance on peers

The triage nurse requires organizational skills in order to deal with patient line-ups, inquiries and unexpected problems.

The triage nurse must be able to perform constantly under patient scrutiny as well as under stressful conditions.

Triage nurses must have experience, skill, and expert clinical judgment to recognize patients who are sick. Attitude and empathy are very important aspects of the triage nurse's demeanor.
Communication skills are crucial as the triage nurse must communicate with patients, families, police EMS personnel, visitors and other health care workers.

The triage nurse must have tact, patience, understanding and discretion. Favourite Examples of Poor Communication:

• Nurse told all patients, “we will only deal with one complaint per visit, so what’s your biggest problem today?”

• “Tell me in three words or less”

• “No you are only allowed one problem today”

• “Could we have the readers digest version of why you are here”

• Many nurses walk away from patients as they are speaking in order to get another form or discharge instruction based on what the patient is saying thus far.

• The triage nurse is encased with protective glass and we have seen staff waving from inside the triage area to patients waiting for initial contact to take a seat in the “appropriate” chairs.
Ask participants to do this on their own as a self-reflection exercise. **Not** an in-class activity.

CONSIDER GIVING STUDENTS DIFFERENT PATIENT TYPES/SCENARIOS TO ROLE PLAY TO STIMULATE DIFFERENT FEEDBACK RESPONSES:

Pair off participants. Ask them to role play a patient/triage nurse conversation.

Debrief: How were the following demonstrated: self control, listening, reassurance, confidence, caring
The Process of Triage

- Patient arrives (‘critical look’)
- Screened for infectious disease
- Triage assessment conducted
- Presenting Complaint (CEDIS) documented
- Modifiers considered
- Triage Level assigned (CTAS)
- Assigned to waiting/treatment area
- Symptom relief provided or nursing protocols initiated
- Waiting patients reassessed

Throughout the triage process it is important to emphasize that triage is to remain patient focused. In order to remain patient focused the triage nurse’s duties need to be relatively free of distractions (visitor request, phone queries, patch phone, EMS interruptions, etc.)

Note that to do a formal triage within 10 minutes during peak periods at busy hospitals can be challenging. It is an important goal to achieve “pre-triage” within 10 minutes to ensure that “sick” patients are identified and triaged in an expedited fashion. This timeframe is difficult to measure, however it can be reviewed by random audit measurements.

It is acknowledged that some provinces might have a different time defined, you will have to work within your provincial recommendations.

A description of The Process of Triage can be found in - Appendix C – Triage Process
Patient Arrival

- A variable % of patients arrive by ambulance. Their acuity ranges across all triage levels
- More patients arrive by other means of transport (known as “walk-ins”). Their acuity also include all levels

While it is true that more severely ill or injured patients will arrive by ambulance, don't be misled into thinking that someone arriving by private vehicle or walking will not be seriously ill.

Monitor all patients as they arrive, whether by ambulance or walk-ins.
Critical Look

- ‘Critical first look’ across-the-room begins as soon as the patient arrives in the ED
- Perform a quick check of
  - A: Airway
  - B: Breathing
  - C: Circulation
  - D: Disability (neurological)
- Should take 3 to 5 seconds
- Take action as indicated

• FOR CRITICALLY ILL PATIENTS, the triage nurse documents the first look. Vital signs are assessed by the primary assessment nurse. TREATMENT MUST NOT BE DELAYED.

At any stage of triage if critical illness is suspected, the triage process must be aborted and the patient escorted to a resuscitation area for immediate care. The pre-hospital assessment may suggest critical illness and must elicit the same response.

Discuss what the ‘Critical first look’ means and ask the learners to provide examples. The educator should discuss the components of the First Look in detail. It is imperative that learners know and understand the subtle signs and symptoms of the critically ill.

The learner should relate the ‘first look’ to the initial scan assessment - to determine illness based on appearance, breathing and circulation.

The febrile pre-screen may be occurring simultaneous with the critical look and transfer to treatment.
Infection Control Screening

- Screening requirements vary by region
- If positive (e.g., ILI, FRI), appropriate protective measures (respiratory etiquette, hand washing, isolation) need to be taken
- Use latest information available (from provincial, state, or national guidelines)

• ILI – Influenza like illness; FRI—Febrile respiratory illness
• Infection control screening should occur prior to the patient arriving at triage, especially during times of local and/or international outbreaks.

If patients see self-screening as positive and if they put on masks as they are expedited through triage, then a separate waiting area may not be required.

• Information about infectious diseases, communicable risks, and prevention guidelines is available from a variety of sources – Public Health bulletins, MOH notices, Health Canada, CDC, WHO, and Provincial bodies.
Subjective Assessment

The “story” in the patient’s own words:
- Their account of why they came to the hospital
- The symptoms they are experiencing
- Pain severity
- The injury history (mechanism of injury)
- Their concerns

The triage nurse can elicit information by asking open ended questions such as, “What brought you to Emergency today?” The info received may be enough to assign a CTAS score (e.g. new onset, retrosternal chest pain x 20 minutes, radiating into the jaw = CTAS 2 Chest pain, Cardiac Features).

Other subjective information that should be considered are pain scores, mechanism of injury, their concerns etc.
Selecting Presenting Complaint (CEDIS)

- Patient driven
  - “What concern brought you to the ED today?”
    - Headache, Cough, SOB, etc.
  - “Which of the complaints bothers you most?”
    - “My fever and shaking chills!”

- Nurse driven
  - “Patient complains of leg swelling & moderate thigh pain, but nurse note moderate SOB.”
    - Could choose SOB or Lower extremity pain

The presenting complaint is ultimately nurse driven (although often matches the patient’s complaint). When there are multiple complaints, or conflicting complaints are noted, the complaint that will result in the highest appropriate CTAS score is the one to be used.

Discussion around CEDIS complaints will occur in Module 2.
Objective Assessment

Draws on observable indicators (signs):
- Wounds, rashes, bleeding, cough, etc.
- Vital signs
- Reaction to pain
- Other indicators

Note that Objective refers to signs of patient illness or suffering that can be ‘visualized’ and measured by the nurse such as vital signs or physiologic response to pain are examples of 1st order modifiers. The patient’s indication of pain severity is their “subjective” impression.

Objective signs of emotional distress and signs and complications of active labor are examples of 2nd order modifiers.

The head-to-toe assessment is done by the primary nurse.
Triage Decision

Based on the critical look, chief complaint, subjective and objective assessments, application of modifiers as required, then decide:

What is the patient’s priority?

How long can this patient safely wait – needs to be seen immediately, 15 minutes, 30 minutes, 1 hour, 2 hours?
• The left side list includes the relevant information that should be gathered by the nurse to determine and then assign an appropriate CTAS triage acuity score.

• The right side list may be required based on provincial or departmental policies, however, many could be deferred to the bedside.

• If throughput delays require interventions at triage or timely reassessments these do require documentation at triage.
When Line-ups Form

- Scan for critically ill patients and move them to the front of the line
- Anticipate re-prioritization
- Know the status of available treatment areas
- Stay calm, request help when required

The goal is to triage patients within 10 to 15 minutes of arrival

The triage nurse should be able to view the waiting patients and be able to move people forward in the line if they appear ill.

Our professional organizations have established that patients should be seen within 10 minutes. Triage staff must practice rapid visual surveillance of patients awaiting triage to spot potential critical illness or infectious/psychosocial/psychiatric crisis. Emphasize the fact that this timeframe refers to the arrival of the patient to the time it may take the patient to reach the triage nurse.
Patients in the Waiting Room

- The number of patients waiting and their wait times have been increasing.
- Advise patient to return to triage desk if condition changes
- Depending upon hospital/site policies and medical directives, triage nurse may need to:
  - Initiate diagnostics
  - Provide symptom relief
  - Dispense analgesics
- If numbers are overwhelming, call for assistance

Triage is not a static process and the triage nurse can expect patients to improve and get sicker while waiting for a bed in the department, that is why it is so important to keep reassessing patients in the waiting room and have them check back with you at specific times or if their condition worsens.

The triage nurse has a responsibility to all the patients directed to the waiting room. To ensure that patients status have is not deteriorating after initial triage it is recommended reassessments should occur at the time intervals recommended for medical care:

- Level III every 30 minutes
- Level IV every 60 minutes
- Level V every 120 minutes

When patients have received medical care the reassessment will then be dependent on existing protocols.

It is important to keep patients well informed as they wait in the waiting areas of the department.

Patients should be encouraged to remain if asking to leave without seeing a physician. The times and conversation re: same, should be documented.

For the child who’s caregiver wishes to leave before the child has been evaluated and treated, the triage nurse should encourage them to stay, provide symptom relief as per medical directives. If the triage nurse is concerned for the safety of the child it may be necessary to move the child to a treatment room within the department.

The waiting room should provide a segregated area for children to play in, that is visible to the caregivers. Age appropriate toys should be available.
Patients in the Waiting Room

- How do you set priorities for treatment bed/physician assessment when you have five CTAS Level 3 patients waiting?

  How long can this patient safely wait?

Waiting level 3s can have potential lethal risks, and have varying acuity levels within this level. The sickest should be seen first and priorities within this category may need to be made.

If ALL patients are equal, the one who has waited the longest should be seen next.

There is recognition that holding CTAS level 2 or 3 patients in the waiting room is unsafe and has been identified as an overcrowding trigger to accelerate the discharge or transfer of ED patients (to ‘overcapacity’ beds on the ward), to employ ‘overcapacity’ spaces in the ED to try to manage the patients, or to have them seen in the waiting room to initiate care or determine if they can be further delayed.
Patient Reassessment Guidelines

Level 1 – Continuous nursing care
Level 2 – Every 15 minutes
Level 3 – Every 30 minutes
Level 4 – Every 60 minutes
Level 5 – Every 120 minutes

Never change the initial triage level.
Always document acuity level changes & change priority accordingly
Always document reassessment findings.
Module One - Review

Questions?
References


