



# Understanding Emergency Department (ED) Wait Times

There are many factors to consider when determining what are commonly referred to as ED “wait times.” The time spent by a patient in the ED is better understood as Length of Stay (LOS).

The ED LOS is made up of various stages, with each stage involving a different step in the care process. Each stage has its own wait time measurement.

## The Typical ED Timeline Works like This:



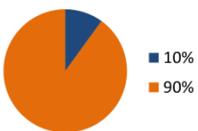
The LOS is determined by a number of factors. They include:

- The seriousness of the patient’s condition
- The extent of medical intervention needed
- Whether the patient needs to be admitted to hospital
- The availability of a hospital bed
- The level of activity in the ED

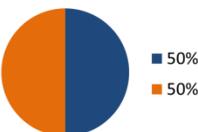
## Generally, the more serious a patient’s condition, the more time is spent in the ED

While patients may be treated promptly in the ED, their overall Length of Stay will be increased if they remain in the ED waiting for a hospital bed to become available. If there are many patients waiting for a hospital bed, this can affect the LOS of newly arriving patients to the ED because there are no examining rooms available.

## Methods of Calculating ED LOS (Wait Times)



**90<sup>th</sup> Percentile** - the maximum amount of time 9 out of 10 patients spend in an ED being diagnosed, receiving treatment or waiting for admission to a hospital bed. Most patients spend less time, while one out of ten patients will spend more time. ***This is the standard method of calculation used by hospitals and the provincial government.***



**Median** - the time at which 50 per cent of patients are diagnosed, treated and discharged from the ED.



**Average** - calculated by adding all wait time hours and divided by the number of patients.

**Definitions:** There are different methods of calculating a patient's LOS. Here are some common definitions and methods used in calculating ED wait times:



***Length of Stay (LOS)*** - the total time (in hours) a patient spends in the ED from the time of registration/triage to when the patient leaves the ED. **This is the indicator reported publicly by hospitals and the provincial government.**



***Time to Physician Initial Assessment (PIA)*** - the time (in hours) it takes from registration/triage to when a patient is first assessed by a physician



***Time to Disposition Decision (DISP)*** - the time (in hours) from registration/triage to when a physician determines if a patient is to be discharged home or admitted to a hospital bed. ***This is often referred to the ED Portion of the LOS, or the part of the process directly controlled by the ED.*** The DISP includes registration/triage, initial physician assessment, treatment, and disposition decision. This does not include time waiting for an inpatient bed or time spent waiting in the ED for any other reason after the disposition decision.



***Time to Inpatient Bed (ADM)*** - the time (in hours) from the disposition decision to a patient leaving the ED for a hospital bed.



***Ambulance Offload Time (AOT)*** - the time (in minutes) from when a patient arrives in the ED by ambulance to when the patient is transferred into the care of the ED.



***Low Acuity*** - referred to as minor/uncomplicated conditions. These are patients with minor conditions requiring less diagnosis, treatment, and monitoring.



***High Acuity*** - referred to as complex patients. These are patients with more complex and/or serious conditions requiring more time for diagnosis, treatment, observation and admittance to hospital.



***Admitted patient*** - a patient from the ED who needs to be admitted to a hospital bed. Most admitted patients are also high acuity patients.



***Non-admitted patient*** - a patient from the ED who is treated and released from ED and not admitted to a hospital bed. Non-admitted patients can be both low and high acuity.