### Patient emergency department total length of stay (LOS)

<table>
<thead>
<tr>
<th><strong>Calculation</strong></th>
<th>Patients’ total length of emergency department stay = (Emergency department last contact time) - (Triage time)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metric</strong></td>
<td>Median and 90th percentile time in hours</td>
</tr>
</tbody>
</table>

**Description**

<table>
<thead>
<tr>
<th><strong>Triage time:</strong></th>
<th>The patient’s first contact with a healthcare provider (triage nurse), regardless of whether or not the registration time is recorded prior to triage.³</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emergency department last contact time:</strong></td>
<td>The last time there is a recorded emergency department entry in a patient’s chart.</td>
</tr>
</tbody>
</table>

**Data source(s)**

National Ambulatory Care Reporting System (NACRS)

**Assumptions**

The emergency department last contact time is when the patient no longer requires emergency department care.

**Exclusions**

1. Patients are excluded if either time stamp in the calculation is missing.
2. Patients are excluded if their total length of emergency department stay is greater than 168 hours (7 days) or a recognized data entry error occurred.⁴
3. Results from May and June 2016 are not reported for the Northern Lights Regional Health Centre due to the forest fire that affected Fort McMurray and forced the closure of the Northern Lights Regional Health Centre.

**Limitations**

1. There is a minimal amount of missing data for the emergency department last contact time. Overall, this amounts to less than 1% of the data at all of the emergency departments, except for the Northern Lights Regional Health Centre,⁵ during the 2016/17 fiscal year. This small amount of missing data is stable historically.
2. Some patients might leave the emergency department before assessment or treatment by a physician occurs, without notifying staff they are leaving. The last contact time for these patients is recorded when staff notice they have left or at the end of the staff’s shift, and therefore might not accurately reflect the duration of patients’ emergency department stay.

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¹ Documentation and sourcing for the reported emergency department measures is the result of collaborative work between members of the HQCA’s Health System Analytics team and members of AHS’ Analytics team. Credit regarding determining the appropriate data definitions should be attributed to the AHS Analytics team for most of the measures below.

² While the HQCA used all reasonable efforts to ensure the accuracy, completeness, and reliability of the data used in this website, data continues to expand in scope and completeness. As such, the values reported may change over time.

³ This is the standard for both Alberta and CIHI.

⁴ E.g., if the patient’s total emergency department length of stay is less than 0 hours.

⁵ The Northern Lights Regional Health Centre is missing 10% of its data on the emergency department last contact time during the 2016/17 fiscal year. Caution is urged when interpreting results for the Northern Lights Regional Health Centre, as the amount of missing data may make comparisons with this facility unreliable.
3. Patients might leave before the last contact time is recorded or stay in the emergency department for a variable amount of time after the emergency department last contact time. These times would not be captured.


*For more information regarding definitions, exclusions, etc., please visit the NACRS Abstracting Manual, 2014-2015 Edition.6

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