

BLOOD GLUCOSE TEST IN STROKE

Desired Outcome	All patients exhibiting signs of a Cerebrovascular Accident (Stroke) receive a blood glucose test before arrival at the hospital.
Standard	100% of patients with no contraindications
Acceptable Quality Level	Performance may not fall below 87% for more than two consecutive months or any three months in a year.
Monitoring Method	Run Chart updated by 10th business day at the beginning of each quarter.

MEASURE DESCRIPTION

Indicator Description	This is the percent of patients exhibiting signs and symptoms of a stroke who receive a blood glucose assessment (BGL) by EMS.
Question Indicator Answers	What percentage of patients who are having a Stroke event received a blood glucose assessment?
Patient / Customer Need	A blood glucose assessment is a quick and accurate test that can assist paramedics form an accurate impression and care plan for patients exhibiting signs and symptoms of a stroke.
Type of Measure	Process
Objective	All patients exhibiting signs of a Cerebrovascular Accident (Stroke) receive a blood glucose test before arrival at the hospital.
Data Provided By	Clinical Performance Management
Reporting Values	The percentage of stroke alert patients for whom a blood glucose assessment is documented, as a percentage of all stroke alert patients as defined in the applicable version of the <i>Austin-Travis County Emergency Medical System Clinical Operating Guidelines</i> .
Limitations	Patients for whom medics record findings in locations that are not amenable to standardized reporting tools (e.g. recording findings in narrative or comment fields instead of vital signs fields) will present as a false negative.
Notes	None

Measure Calculation

Formula Description	Count of stroke alert patients with blood glucose level recorded in the Vital Signs section of the ATCEMS ePCR system, divided by the count of all stroke alert patients [based on ATCEMSS criteria]. The resulting measure is expressed as a percentage.
Indicator Formula	$\text{Percentage} = \frac{\text{count}([\text{Stroke Alert patients with recorded BGL}])}{\text{count}([\text{Stroke Alert patients}])}$
Data Filters	Include only patients identified in ePCR data as meeting stroke alert criteria
Interval Calculation	Not applicable.
Numerator	<p><i>Population</i> All stroke alert patients who have at least one Blood Glucose Level (BGL) recorded in the "BGL" field of the Vital Signs screen of the Vital Signs section of RescueNet TabletPCR.</p> <p><i>Inclusion</i> All patients who are identified on patient care documentation as meeting stroke alert criteria. May include those patients whose BGL is assessed by first responders, if recorded in the correct location.</p> <p><i>Exclusion</i> Patients whose level is not recorded in this field.</p> <p><i>Data Source</i> Clinical Performance Management audit results.</p>
Denominator	<p><i>Population</i> All patients documented as meeting stroke alert criteria.</p> <p><i>Inclusion</i> See above</p> <p><i>Exclusion</i> Patients who refuse intervention or refuse transport.</p> <p><i>Data Source</i> Clinical Performance Management audit results.</p>
Aggregation	Aggregate patients based on date/time of phone pickup in Communications Center for incident.
Stratification	None
Minimum Sample Size	None

Data Lineage

Patients meeting Stroke Alert criteria are queried from ATCEMS ePCR data. Charts of patients who do not have a documented BGL value are retrieved and reviewed to identify those meeting exclusion criteria.

Reporting

Travis County ILA Reporting

Medium: Web site chart

Orientation: External

Format: Run chart containing quarterly data values for most recent nine quarter period.

Update Frequency: Quarterly

Data Source: Clinical Performance Management performance report

Metadata

Pillar / Strategic Objective Links

S1: To be an organization that strives to improve the lives of people in our community.

S2: To have a service delivery model that best serves the needs of our community.

S3: To be an organization that puts service before self.

F2: To be an organization that provides value to the community.

F3: To provide quality cost efficient service to the community.

Development Status

Actively reporting.

References

Interlocal Agreement Between the City of Austin and Travis County for Emergency Medical Services (Fiscal Year 2014)

Adams HP, et al, "Guidelines for the Early Management of Adults With Ischemic Stroke." *Circulation*, 2007; 115: e478-e534. Available at <http://circ.ahajournals.org/content/115/20/e478>

Best Practices

None referenced

Definition Version Info

Version C; 2014-03-06