CARDIAC ARREST ARRIVAL AT FACILITY WITH A PULSE

Desired Outcome	As many patients as possible who are treated for cardiac arrest by EMS arrive at the hospital with a pulse.
Standard	≥ 30% of patients with attempted resuscitation by ATCEMS.
Acceptable Quality Level	Performance may not fall more than 10% in a six month period.
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 who have a return of pulse (aka spontaneous circulation) while in EMS care before arrival at a facility.
Question Indicator Answers	How many patients have a return of spontaneous circulation (ROSC) while in the care of ATCEMS providers?
Patient / Customer Need	Patients who have a return of pulse prior to their arrival at a hospital have an increased chance of survival from their cardiac event.
Type of Measure	Process
Objective	As many patients as possible who are treated for cardiac arrest from cardiac etiology by EMS arrive at the hospital with a pulse.
Data Provided By	Office of the Medical Director (OMD), Austin-Travis County Emergency Medical Service System (ATCEMSS).
Reporting Values	Percentage of patients presenting in cardiac arrest from a presumed cardiac cause (etiology) who have ROSC upon their arrival at the receiving hospital.
Limitations	This data is based on system reporting to the national Cardiac Arrest Registry to Enhance Survival (CARES). It may not reflect all cardiac arrest resuscitations attempted by ATCEMS.
Notes	None

Measure Calculation

Formula Description		The count of patients meeting CARES inclusion criteria that arrive at the hospital with ROSC is divided by the count of all patients meeting CARES inclusion criteria. The resulting value is reported as a percentage.
Indicator Formula		$$Percentage = \frac{count([Patients\ with\ ROSC])}{count([All\ Patients])}$$
Data Filters		Patients in cardiac arrest, meeting inclusion criteria according to CARES.
Interval Calculation		Not applicable.
Numerator	*Population*	Patients in cardiac arrest with ROSC
	Inclusion	Presumed cardiac etiology Meet other CARES inclusion criteria
	Exclusion	Meet CARES exclusion criteria
	Data Source	ATCEMSS OMD CARES reporting data
Denominator	*Population*	All patients in cardiac arrest
	Inclusion	Presumed cardiac etiology Meet other CARES inclusion criteria
	Exclusion	Meet CARES exclusion criteria
	Data Source	ATCEMSS OMD CARES reporting data
Aggregation		Aggregate patients based on date/time of phone pickup in Communications Center for incident.
Stratification		None
Minimum Sample Size		None
Data Lineage		Cardiac arrest patients are identified from ATCEMS ePCR data. Records are retrieved and audited for inclusion in system CARES reporting by ATCEMSS OMD personnel.

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**: ATCEMSS OMD CARES reports.

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)* Perberdy MA, et al, "2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science; Part 9: Post–Cardiac Arrest Care." *Circulation*, 2010; 122: S768-S786. Available on-line at https://circ.ahajournals.org/content/122/18_suppl_3/S768.full Eftestøl T, et al, "Effects of Cardiopulmonary Resuscitation on Predictors of Ventricular Fibrillation Defibrillation Success During Out-of-Hospital Cardiac Arrest." *Circulation,* 2004; 110: 10-15. Available on-line at http://circ.ahajournals.org/content/110/1/10.long.
Best Practices	None referenced
Definition Version Info	Version C; 2014-03-08