OPERATIONAL DEFINITION
MEASUREMENT: Standardized PICU Mortality Ratio

I. Description and Rationale

This measure answers the question:
How does our mortality rate in the PICU compare to national averages?

Standardized PICU Mortality Ratio is measured as the ratio of actual deaths over predicted deaths for PICU patients. The number of predicted deaths is calculated using the Pediatric Risk of Mortality (PRISM II) score, which takes into account patient severity.

II. Population Definition (Inclusions/Exclusions)

- All PICU patients

III. Data Source(s)

Pediatric Risk of Mortality (PRISM) database
Dr. Derek Wheeler, CCHMC Division of Critical Care Medicine

IV. Sampling and Data Collection Plan

All PICU admissions per quarter

V. Calculation

of actual patient deaths in the PICU (excluding the CICU) / # of Predicted Deaths in the PICU per quarter.

Predicted deaths is a function of the physiological characteristics of the set of patients admitted during the quarter and is determined using the PRISM scoring system. The PRISM score is determined by entering the worst value, during the first 24 hours of PICU stay, for 14 physiologic variables, into a validated algebraic formula. A raw PRISM score is then determined which can then be used to determine a severity adjusted risk of mortality (predicted deaths).

VI. Analysis Plan and Frequency of Reporting

Data is collected and reported quarterly. A control chart is posted to Centerlink.

VII. Reporting Venues

- Results are reported on the CCHMC Hospital Scorecard under “Health Care Delivery”
- Data to be reported to the State of Ohio

VIII. Limitations

- A quarterly measure may not capture overlaps (a patient who is admitted in the quarter but dies in the next quarter).

X. Experts/Resources

Murray, C J, "The infant mortality rate, life expectancy at birth, and a linear index of mortality as measures of general health status", International journal of epidemiology, vol. 17, no. 1 (1988 Mar): 122-8.

XI. Revision History

Version	Primary Author(s)	Description of Version	Date Completed
Draft	AMA		06/02/2004
Revision 1	Dr. Rich Brilli		6/23/2004
Revision 2	AMA	Reformatted	02/08/2005
Revision 3	TAW	Corrected Description & Rationale	06/23/2006
Revision 4	JFB	References to HPCE changed to Anderson Center. Dr. Wheeler listed under Data Source(s). Contact changed to John Barth	11/23/2011