2020 LEAPFROG TOP HOSPITALS

TOP CHILDREN'S HOSPITALS

METHODOLOGY AND DESCRIPTION

In order to compare hospitals to their peers, Leapfrog first placed each reporting hospital in one of the following categories: Children's, Rural, General, Teaching (500 or More Staffed Beds), or Teaching (Below 500 Staffed Beds). Though the criteria for Top Hospital status is customized to each category of hospitals, across the board the criteria are substantially similar.

Within the Children's hospital category, the following criteria were applied:

I. A hospital must achieve Leapfrog's standard for Computerized Physician Order Entry (CPOE).

Leapfrog's standard for Computerized Physician Order Entry (CPOE) for Children's hospitals measures the extent to which a hospital has adopted CPOE. To achieve this standard, physicians must enter at least 85% of medication orders through a CPOE system.

CPOE systems can reduce the number of Adverse Drug Events (ADEs) by up to 88%[1], preventing three million serious medication errors in the U.S. each year[2].

II. A hospital must achieve Leapfrog's standard for ICU Physician Staffing (IPS).

Children's hospitals achieving Leapfrog's standard for ICU Physician Staffing must operate pediatric ICUs that are managed or co-managed by intensivists who: a) Are present during daytime hours and provide clinical care exclusively in the ICU OR are present via telemedicine 24/7, with some on-site intensivist presence, and, b) When not present on site or via telemedicine, return pages at least 95% of the time (i) within five minutes and (ii) arrange for a certified physician or physician extender to reach ICU patients within five minutes. Hospitals that do not have an ICU are not assessed on this standard in the evaluation of Top Hospitals.

Mortality rates are significantly lower in hospitals with ICUs managed exclusively by board-certified intensivists (physicians trained in critical care medicine). Research has shown that there is a 30% reduction in overall hospital mortality and a 40% reduction in ICU mortality in ICUs where intensivists manage or co-manage all patients[3].

III. A hospital must fully comply with Leapfrog's Never Events Policy.

Leapfrog utilizes the National Quality Forum's list of serious reportable events in asking hospitals to adopt a Never Events policy. Leapfrog's Never Events policy asks hospitals to commit to nine basic acts if a Never Event does occur: apologize to the patient and family, waive all costs related to the event and follow-up care, report the event to an external agency, conduct a root-cause analysis of how and why the event occurred, make a copy of this policy available to patients, interview patients/families to inform root cause analysis, inform patient/families of actions taken by hospital to prevent similar Never Events in the future, have a protocol to provide support for caregivers involved in Never Events, and perform an annual review to ensure compliance with Leapfrog's Never Events Policy for each Never Event that occurred. Hospitals that achieve Leapfrog's standard have all nine elements of the policy in place and are demonstrating their commitment to treating patients, purchasers, and payers with respect when a Never Event occurs.

IV. A hospital must achieve, or make considerable progress towards achieving, Leapfrog's standard for Bar Code Medication Administration (BCMA).

To reduce medication errors at the point of administration, hospitals can implement a bar code medication administration (BCMA) system using basic scanning technology.

Leapfrog assesses hospitals based on four components of BCMA use: implementation of BCMA throughout the hospital, compliance with scanning the patient and medication in applicable units where BCMA is implemented, types of decision support that the hospital's BCMA system offers, and the hospital's structures to monitor and reduce workarounds. Hospitals that achieve Leapfrog's standard have: 1) 100% implementation of BCMA in adult and pediatric medical and/or surgical units, intensive care units (adult, pediatric, and neonatal), and labor and delivery units, 2) a 95% compliance rate with scanning the patient and medication in applicable units where BCMA is implemented, 3) a BCMA system that includes 5 out of 5 types of decision support, and 4) hospital structures to monitor and reduce at least 6 out of 8 workarounds included on the 2020 Leapfrog Hospital Survey. Hospitals that do not operate an ICU, medical/surgical unit, or labor and delivery unit are not assessed on this standard in the evaluation of Top Hospitals.

V. A hospital must achieve, make considerable progress towards achieving, or make some progress towards achieving Leapfrog's standard for Patient Experience, based on responses to the CAHPS Child Hospital Survey.

Leapfrog assesses children's hospitals based on a subset of the domains included on the CAHPS Child Hospital Survey: 1) Communication with Parent – Communication about your child's medicines, 2) Communication with Parent – Keeping you informed about your child's care, 3) Communication with Child – How well nurses communicate with your child, 4) Communication with Child – How well doctors communicate with your child, and 5) Attention to Safety and Comfort – Preventing mistakes and helping you report concerns. Hospitals that achieve Leapfrog's standard are in the top percentile of hospitals, based on points achieved through aggregate scoring of individual domains' Top Box Scores. Quartiles were determined using hospital performance reported in 2020 Leapfrog Hospital Surveys submitted by August 31, 2020. Hospitals that had fewer than 100 returned CAHPS Child Hospital Surveys, had too few pediatric inpatient admissions (n <500) to administer the CAHPS Child Hospital Survey, or had fewer than 100 non-NICU pediatric inpatient admissions during the reporting period are not assessed on this standard in the evaluation of Top Hospitals.

VI. A hospital must achieve, or make considerable progress towards achieving, Leapfrog's standards for Head and Abdomen/Pelvis Pediatric Computed Tomography (CT) Radiation Doses.

Leapfrog assesses hospitals on their performance for head scans and abdomen/pelvis scans separately by comparing the median radiation dose length product (DLP) for each anatomic region and age stratum to two benchmarks. The first benchmark is the Median Benchmark, which is the median of the median doses reported across all Leapfrog-reporting hospitals from 2020 Leapfrog Hospital Surveys submitted by August 31, 2020. The second benchmark is the 75th Percentile Benchmark, which is the median of the 75th percentile doses reported across all Leapfrog-reporting hospitals from 2020 Leapfrog Hospital Surveys submitted by August 31, 2020.

Hospitals that achieve Leapfrog's standard on each type of body scan are in the top percentile of hospitals, based on points achieved through aggregate scoring of individual age range strata. Hospitals that do not perform CT scans on pediatric patients or have fewer than 10 CT scans for all age ranges for a type of body scan are not assessed on one or both standards in the evaluation of Top Hospitals.

Given that doses of radiation used for Computed Tomography (CT) are far higher than conventional radiographs (x-rays), it is important for hospitals to review the dosage exposure for their patients, especially pediatric patients given their smaller size and lower body weights. The goal of the measure is to provide a framework where facilities can easily assess their doses, compare them to benchmarks, and take corrective action to lower their doses if they exceed threshold values.

VII. A hospital must report on all applicable measures and achieve Leapfrog's standards on at least 50% of those measures.

The Leapfrog Hospital Survey uses 26 national performance measures to evaluate individual children's facilities in five domains: inpatient care management, medication safety, pediatric care, infections, and outpatient procedures. The measures included on the Survey are predicated on the latest science and are selected with guidance from scientific advisors at the Armstrong Institute for Patient Safety as well as Leapfrog's volunteer Expert Panels. Hospitals are evaluated only on the services or procedures performed in their facility. Achieving Leapfrog's standard on at least half of measures demonstrates a strong commitment to safety and quality. Pediatric hospitals that did not report on outpatient procedures were eligible to be selected as a Top Hospital in 2020.

[1] Bates D, Teich J, Lee J, et al. The impact of computerized physician order entry on medication error prevention. JAMIA. 1999;6:313-321.
[2] Classen D, Pestotnik S, Evans R, Lloyd J, Burke J. Adverse drug events in hospitalized patients: excess length of stay, extra costs, and attributable mortality. JAMA. 1997;277:301-306.
[3] Pronovost PJ, Young T, Dorman T, Robinson K, Angus DC. Association between ICU physician staffing and outcomes: a systematic review. Crit Care Med. 1999; 27:A43.