LEAPFROG HOSPITAL SURVEY

Factsheet: Evidence-Based Hospital Referral

Why Hospital Choice Matters

Every year, millions of Americans undergo elective surgery. For some high-risk procedures, the choice about where to have surgery can mean the difference between life and death. For certain types of surgery, studies have found more than three-fold differences in surgical mortality rates across hospitals.[1,2] Similar variation in quality has been described for non-surgical conditions, as well.[3]

Choosing the Right Hospital

Patients can expect the safest possible surgery at hospitals with low mortality rates or high rates of adherence to clinical practices (or processes) known to improve surgical outcomes. This information is becoming increasingly available to patients through public reporting mechanisms. For example, national registries hosted by medical specialty societies collect information on mortality for specific procedures such as aortic valve replacement. States also collect information and report on high risk surgical procedures. States with robust reporting include: California, Massachusetts, New Jersey, New York and Pennsylvania. Additional states are beginning to publish reports on surgical and other types of hospital related infections.

In addition to outcomes measurement systems, The Leapfrog Group recognizes the importance of adopting specific clinical processes for high-risk procedures such as high-risk newborn deliveries. The Leapfrog Group has revised its indicators for clinical processes to harmonize where possible with national performance measurement groups such as The Joint Commission. These process measures are associated with improved outcomes for high-risk newborn deliveries.

Another important factor related to better surgical outcomes is volume — how many procedures of a given type that a hospital performs each year.[4] More than 100 studies have demonstrated better results at high-volume hospitals with cardiovascular surgery, major cancer resections, and other high-risk procedures.[5-12] For example, compared to those at high-volume hospitals (50+ procedures per year), patients undergoing abdominal aneurysm repair at low-volume hospitals are more than 30% more likely to die following surgery.[13]

Lower surgical mortality at high-volume hospitals does not simply reflect more skillful surgeons and fewer technical errors with the procedure itself. More likely, it reflects higher proficiency in all aspects of surgical care, including patient selection, anesthesia and postoperative care.[14]

Choosing the right hospital is not only important in surgery. For example, babies with low birth weight or major congenital anomalies are more likely to survive if they are delivered and treated at high–volume, experienced neonatal intensive care units.[3,15]

Potential Benefits for Patients

Referring patients to hospitals with lower mortality and better processes of care requires sharing evidence on specific procedures. The Leapfrog Group includes evidence-based hospital referral (EBHR) in its survey as a means of ensuring that patients with high-risk conditions are treated at hospitals with characteristics shown to be associated with better outcomes. EBHR could help prevent unnecessary deaths.

The Leapfrog EBHR Safety Standard

Under the advisement of national experts in quality improvement, The Leapfrog Group adopted EBHR as one of its first three quality and safety standards. Procedures, conditions, and safety criteria were initially selected after review of published research in the field and consultation with leading experts in surgery and neonatal intensive care. These criteria have since been reviewed and revised, incorporating more current data and input from the hospital and physician communities.[16]

To fulfill the EBHR Standard, hospitals must meet the volume criteria shown in the table below. Hospitals that do not meet these criteria, but adhere to The Leapfrog Group's endorsed process measures for high-risk neonates will receive partial credit toward fulfilling the EBHR Standard.

Recommended Annual Hospital Volumes	
1. Aortic valve replacements	≥ 120 patients
2. High-risk delivery: ▪ Expected birth weight < 1500 grams, ▪ Gestational age < 32 weeks, or ▪ Pre-natal diagnosis of major congenital anomaly	Neonatal ICU with Annual Count of Very-Low Birthweight Babies ≥50

In the latest survey, The Leapfrog Group placed a large emphasis on direct outcome measures (i.e., risk-adjusted mortality). When risk-adjusted mortality is not available, The Leapfrog Group utilizes a survival predictor for aortic valve replacements (AVR), abdominal aortic aneurysm (AAA), esophagectomy, and pancreatectomy.

The standard for high-risk deliveries also includes a process measure that reflects an important aspect of care quality; although, the measure receives less weight than the volume component of the standard. The Leapfrog Group's website provides specific details about this performance measure and the scoring.

The Leapfrog Group invites hospitals to record their volume and process or performance measures for these procedures and conditions by submitting a Leapfrog Hospital Survey. The Leapfrog Group's purchaser members work to recognize the hospitals providing care for their enrollees that meet the EBHR standards. Hospitals achieving intermediate levels of risk reduction for certain EBHR standards will earn partial recognition. The EBHR standard does not apply to hospitals that do not perform the procedure electively or treat the condition. Patients under 18 are excluded, except in the NICU standards.

Challenges to EBHR Implementation

Efforts to promote EBHR could meet resistance on many fronts. In isolated rural areas, EBHR could create an unreasonable travel burden for patients and families. For this reason, The Leapfrog Group's EBHR standard *only applies to hospitals performing elective surgeries*.

Not only might some patients resist EBHR, but some healthcare providers could also resist. Many low-volume hospitals may oppose losing surgical revenue by referring patients elsewhere. Some physicians may view EBHR as an affront to their professional judgment and competence in conducting surgery or referring patients.

Why Purchasers Need to Get Involved

Given these obstacles, greater use of EBHR is unlikely to happen without the involvement of purchasers. Using their leverage, The Leapfrog Group's members can recognize and reward hospitals that meet EBHR standards for selected procedures and conditions. Purchasers, including health plans, also can promote EBHR by educating consumers and calling attention to the importance of choosing the right hospital.

Although it will not be easy to implement, referring patients for high-risk conditions and procedures to hospitals meeting The Leapfrog Group's EBHR standards could have substantial benefits. Research suggests that nearly 1,300 lives could be saved each year if EBHR were successfully implemented for the procedures and conditions selected by Leapfrog.[16]

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