

## Measure Background

Three decades of research have consistently demonstrated that patients that have their surgery at a facility and by a surgeon that have more experience with the procedure have better outcomes, including lower mortality rates, lower complication rates, and a shorter length of stay than for patients who have their surgery done at a facility or by a surgeon with less experience.<sup>1-6</sup>

Better outcomes at high-volume facilities do not simply reflect more skillful surgeons and fewer technical errors with the procedure itself. More likely, it reflects more proficiency with all aspects of care underlying successful surgery, including patient selection, anesthesia, and postoperative care.<sup>7</sup>

## Why is Surgical Appropriateness Important?

Given that Leapfrog is using surgical volume as a proxy measure for quality, there could be concern about incentivizing facilities to perform unnecessary surgery. As a way to balance this concern, Leapfrog asks facilities to ensure that surgery is only being performed when it is needed. Particularly, where there is evidence of facilities overusing surgery as a treatment option.

## Surgical Volume and Appropriateness

Based on research done by Dartmouth-Hitchcock Medical Center, Michigan Medicine, and Johns Hopkins Medicine, as well as guidance from [Leapfrog's National Surgical Volume Expert Panel](#), Leapfrog has identified two procedures done at ambulatory surgery centers (ASCs) for which there is a strong volume-outcome relationship. The procedures are:

- Total knee replacement
- Total hip replacement

To achieve the standard for each applicable procedure, facilities must:

1. Meet the minimum volume standard for the procedure
2. Have a process for privileging surgeons that includes the surgeon meeting or exceeding the minimum surgeon volume standard for the procedure

The procedures and their corresponding minimum facility volumes and minimum surgeon volumes for credentialing are shown in the table below.

Procedure	Average Annual Facility Volume	Minimum Annual Surgeon Volume for Credentialing
Total knee replacement	50	25
Total hip replacement	50	25

While Leapfrog does not score facilities on their adoption of practices to reduce/prevent inappropriate surgeries, we do publicly report this information on our [website](#).

## Why Purchasers Need to Get Involved

Because lower volumes have been tied to poorer surgical outcomes, purchasers can help by guiding patients to facilities and surgeons that meet or exceed the outlined surgical volume standards. Furthermore, surgical complications are costly mistakes. Not only do surgical complications increase the cost of surgery they also increase the risk of costly readmissions. To avoid the risk of increased costs due to surgical complications and readmissions, purchasers should be encouraging patients to seek their surgeries at facilities and by surgeons that have met or exceeded minimum volume standards.

## References

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For a comprehensive list of references please review the Total Hip & Knee Replacement Surgeries

Bibliography, available here:

<https://ratings.leapfroggroup.org/measure/asc/whats-new-2022>