

How Thromboembolic “Never Events” Significantly Impact the Bottom Line

Centers for Medicare and Medicaid Services instituted a sweeping change to its reimbursement policies in 2008. It was the addition of “Never Events;” reasonably preventable medical errors for which they will **never** reimburse for readmission within 30 days of discharge. This change is significant not only in its immediate direct impact on health care providers’ revenue but also as a symbolic move towards linking pay to performance. While “Never Events” comprise a wide range of payment categories, this paper will focus on those related to anticoagulation management.

Thromboembolic “Never Events”

There are two thromboembolic events which CMS has included in its group of Never Events:

- DVT or PE following total hip replacement
- DVT or PE following total knee replacement

The Healthcare BlueBook reports that the hospital portion of a total hip or knee replacement with a three-day inpatient stay is \$14,705. That is gross revenue to the hospital, not profit. Evaluating data from 2006, the Thomson Reuters Top 100 Hospitals initiative found that the national benchmark for operating profit margin was 10.13%. On a per case basis then, the benchmark for profit from a total hip or knee replacement is approximately \$1,500. A retrospective analysis of the Integrated Health Care Information Services (IHCIS) National Managed Care Database published in the Journal of Managed Care Pharmacy in 2007 found that the average provider payments made by a health plan were \$7,594 for DVT and \$16,644 for PE. Therefore, in a typical hospital a single DVT Never Event will eradicate the profit realized on five total hip or knee replacements. A single PE Never Event eliminates the profit from 11 of these same procedures.

Type of Never Event	Cost of Never Event	Profit from a Total Hip or Knee Replacement	Number of Procedures required to recover loss due to one Never Event
Deep Vein Thrombosis	\$7,594	\$1,500	5
Pulmonary Embolism	\$16,644	\$1,500	11

Unfortunately, according to a study published in the Journal of Bone and Joint Surgery approximately 43% of patients who undergo total knee replacement develop deep vein thrombosis. That does not necessarily mean that a readmission has occurred, but the potential looms.

The systematic managed care provided by an organized anticoagulation service is your institution's best defense against the tremendous potential for loss due to a thromboembolic Never Event. The same Journal of Bone and Joint Therapy found a significant difference in the incidence of DVT among patients who were prophylactically anticoagulated using Low Molecular Weight Heparin (LMWH) versus mechanical prophylaxis via intermittent pneumatic compression. Out of the group of patients developing a DVT, 66% had received mechanical prophylaxis while only 34% had been treated with LMWH. If the entire test group had received LMWH rather than mechanical compression, the incidence of DVT would have decreased by 38% from 43% to 27%.

The potential direct impact on the bottom line is clear, but there exists an additional potential detriment to revenue that is more difficult to quantify. The Department of Health and Human Services (HHS) has developed a consumer-oriented website for the comparison and evaluation of hospitals based on a set of standards developed by the National Quality Forum (<http://www.hospitalcompare.hhs.gov>).

The National Quality Forum, under the leadership of the Joint Commission, has developed a set of 20 policy standards around the prevention and care of thromboembolism. Two of the standards are used for public reporting and tracked in the Health and Human Services website.

- Surgery patients who have had recommended prophylaxis ordered
- Surgery patients who receive appropriate prophylaxis 24 hours prior to or following their surgical procedure.

Any potential candidate for total hip or knee replacement can browse through the HHS site and compare and contrast local hospitals based on these criteria. Hospitals whose surgeons are not ordering prophylaxis or whose staff is not effectively administering prophylaxis will rank lower in the comparisons.

Once again, a systematic anticoagulation protocol and program is your institution's best defense. Patients undergoing total hip or knee replacement often have a choice of where the procedure will be performed. Ensure that they choose your hospital over others in your community or a neighboring community by making sure that you rank at the top of the list when it comes to prophylactic anticoagulation.

The Surgeon General's Call to Action

The scope of the Surgeon General's Call to Action to Prevent Deep Vein Thrombosis and Pulmonary Embolism is not limited to surgical patients; however, its findings and recommendations apply to this critical subset as well as the population as a whole. The Surgeon General's Call to Action concludes that while there is a body of evidence to support anticoagulation interventions in the prevention and treatment of venous thromboembolism there are large gaps in awareness and application. Performance of a meta-analysis of 30 U.S. and international studies evaluating strategies for increasing the use of prophylaxis the Surgeon General's report concluded the following:

- Passive strategies are ineffective. Techniques such as distribution of guidelines for prophylactic anticoagulation in journals or professional publications do not result in improved care.
- Proactive strategies result in significantly higher adherence rates. Proactive strategies include active monitoring of DVT/PE prophylaxis policies, feedback loops, documentation aids, and most significantly, the use of computer-based clinical decision support tools.

Computer-based decision support resulted in nearly 100 percent compliance with guidelines, while other strategies resulted in roughly 80 percent compliance.⁵ (author's emphasis)

- Combining the multiple strategies of computer-based clinical decision support, continuing education and continuous assessment of the effectiveness of existing policies results in improved adherence to guidelines.

References:

¹ Health Care Blue Book; www.healthcarebluebook.com.

² Wasek, S., The Hospital Review, December 2008, *National and Regional Benchmarks for Hospital Profit Margin and Cash-to-Debt Ratio*.

³ Spyropoulos, A, et al; **Journal of Managed Care Pharmacy** 2007 vol. 13 (no. 6), *Direct medical costs of venous thromboembolism and subsequent hospital readmission rates: an administrative claims analysis from 30 managed care organizations*.

⁴ Blanchard, J., et al, The Journal of Bone and Joint Surgery [Br], 1999 vol. 81-B (no. 4), *Prevention of deep-vein thrombosis after total knee replacement*.

⁵ U.S. Department of Health and Human Services, The Surgeon General's Call to Action to Prevent Deep Vein Thrombosis and Pulmonary Embolism, p. 23.