Clearing up the confusion with VTE and/or PE prophylaxis guidelines

By Robert H. Haralson III, MD, MBA

Both AAOS and ACCP guidelines meet CMS requirements

In 2007, AAOS published clinical guidelines on the prevention of symptomatic pulmonary embolism (PE) in patients undergoing total joint arthroplasty. These evidence-based guidelines differed from previously published guidelines on the prevention of venous thromboembolism (VTE) developed by the American College of Chest Physicians (ACCP).

More than a year later, significant confusion still surrounds the use of guidelines to prevent pulmonary emboli and/or thrombophlebitis in patients undergoing total joint arthroplasty or who have a hip fracture. Many hospital safety committees apparently believe that, for the hospital to qualify under the Centers for Medicare and Medicaid Services (CMS) pay-for-performance (P4P) program, the ACCP guidelines must be followed. This is a misunderstanding of the CMS requirements, which this article is designed to clarify.

SCIP guidelines

The hospital P4P program developed by CMS actually requires hospitals to follow the guidelines developed by the Surgical Care Improvement Project (SCIP) (see “What is SCIP?” below). Of the four SCIP guidelines that apply to VTE, two are outcome and two are process measures. SCIP-VTE-1 is a process measure on the number of patients who have VTE prophylaxis ordered. SCIP-VTE-2 is a process guideline on the number of patients who actually receive the VTE prophylaxis. Both guidelines have the same requirements regarding the use of medications and/or mechanical prophylaxis.

For VTE prophylaxis in total joint surgery, the SCIP guidelines allow the use of any of the following drugs:

- Low molecular weight heparin (LMWH)
- Factor Xa inhibitor (Fondaparinux)
- Warfarin
- Low dose unfractionated heparin (LDUH)

If a patient undergoing hip fracture surgery or elective total hip arthroplasty is at high risk for bleeding, the SCIP guidelines allow the use of mechanical prophylaxis (graduated compression stockings or intermittent pneumatic compression) only. If the patient’s high risk for bleeding must be documented in the chart. Both The Joint Commission and CMS have recognized the SCIP guidelines.

Assessing risk

The AAOS guidelines require an INR of between 2.0 and 3.0 in patients treated with warfarin. Many joint surgeons feel that INR levels this high all too frequently lead to hematoma, wound dehiscence, infection, and other complications, including death. For this reason, the AAOS developed its guidelines, which allow the physician to make a risk assessment that balances the risk of PE with the risk of major bleeding.

The AAOS clinical guidelines on the prevention of symptomatic PE in patients undergoing total joint arthroplasty allow the physician to assign a patient to one of four risk categories, based on the risk of PE and major bleeding (Table 1).

The suggestions for prophylaxis differ in each of the four categories but are all in concert with the SCIP guidelines. The AAOS guidelines suggest that mechanical prophylaxis should be used in all patients. In addition, warfarin is an alternative in all four categories.

The physician documents that the patient is above standard risk for major bleeding, regardless of the patient’s risk for PE, prophylactic options include warfarin, aspirin, or nothing except mechanical prophylaxis. This is compatible with the SCIP guidelines, which state that if the patient is at high risk for bleeding, the use of mechanical prophylaxis only is acceptable.

Talking to hospital committees

Orthopaedic surgeons who are having trouble convincing hospital safety committees that the ACCP guidelines are not required by either The Joint Commission or CMS may use this information to help make their case.

Direct the committee members to The Joint Commission Guidelines at www.jointcommission.org/PatientSafety/NationalPatientSafetyGoals/08_hap_npsgs.htm You may wish to draw their attention to requirement 3E, which states simply, “Reduce the likelihood of patient harm associated with the use of anticoagulation therapy.” Note that the requirement does not specify that any particular guideline be used.

Then, point out that both CMS and The Joint Commission—as well as many hospitals—accept the guidelines developed by SCIP. The SCIP guidelines are not required by either The Joint Commission or CMS. You may wish to draw their attention to requirement 3E, which states simply, “Reduce the likelihood of patient harm associated with the use of anticoagulation therapy.” Note that the requirement does not specify that any particular guideline be used.

If you need additional assistance in making your case, feel free to contact the AAOS office of medical affairs.

Links to the AAOS clinical guidelines on the prevention of symptomatic pulmonary embolism in patients undergoing total joint arthroplasty can be found on the AAOS Now Web site at www.aaos.org/now.

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