Optimizing the Role of the Case Manager in Venous Thromboembolism (VTE) Prophylaxis for Orthopedic Surgery Patients
The Threat of VTE

It is estimated that there are 1 to 2 million Americans with VTE,\(^1,2\) which includes pulmonary embolism (PE) and deep vein thrombosis (DVT).\(^2\) Of those patients with VTE, 1 in 10 dies of PE, the most common preventable cause of hospital death. Patients who survive an initial diagnosis of PE still face a mortality rate of 17.5% at 90 days.\(^2\)

The risk of VTE after total hip replacement (THR) or total knee replacement (TKR) surgery extends beyond hospital discharge. Up to 75% of VTE events occur post discharge, as shown in the chart below.\(^3\)

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### Occurrence of Symptomatic VTE in THR/TKR Patients\(^*\)

<table>
<thead>
<tr>
<th></th>
<th>VTE in THR patients</th>
<th>VTE in TKR patients</th>
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</thead>
<tbody>
<tr>
<td>Before Discharge</td>
<td>Before Discharge</td>
<td></td>
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<tr>
<td>25%</td>
<td>75%</td>
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<tr>
<td>After Median Time to Discharge</td>
<td>43%</td>
<td>57%</td>
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Because most VTEs occur post discharge, case managers have a unique opportunity to follow at-risk patients from their surgery and beyond.

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\(*\) Median time to hospital discharge was 5 days for THR and 4 days for TKR patients.\(^1\) This study analyzed data from patients at 100 hospitals in 13 countries from 2001 to 2004 who had undergone elective primary THR (N=6639) or TKR (N=8236).\(^1\) The data were obtained from the Global Orthopaedic Registry, which recorded in-hospital treatment and clinical outcomes of consecutively enrolled patients who underwent elective THR and TKR.\(^1\) The study found 87 THR patients and 152 TKR patients who experienced symptomatic VTE after orthopedic surgery, which was later objectively confirmed. In these patients, the mean time of VTE occurrence after surgery was 21.5 days (THR) and 9.7 days (TKR).\(^1\)

The Role of the Case Manager in Continuity of Care

The Case Management Society of America defines case management as a collaborative process of assessment, planning, facilitation, and advocacy for options and services to meet an individual’s health needs. Through communication and available resources, case managers are patient advocates who work to promote quality health care and cost-effective outcomes.\(^4\)

While case managers are a critical link in healthcare systems, their role is often underutilized.\(^5\) In fact, case management varies among healthcare settings, but coordination and delivery of care are the central premise.\(^6\)

As patients move quickly across the healthcare continuum, collaboration and effective communication among case managers in all care channels (acute care, managed care, and others) become increasingly important. This interaction is crucial to ensure that the care provided is efficacious, efficient, and of high quality.\(^7\)

Complex treatment plans often require patients to interface with several different healthcare providers. While involvement of interdisciplinary teams brings great value, including increased communication, this model may result in confusion for the patient.\(^5\)

Important case management tasks include

- Working collaboratively with patients to\(^5\)
  - Improve self-care abilities
  - Provide important education about care of their condition
  - Coordinate necessary services
  - Integrate health promotion, wellness, and prevention
- Working collaboratively with interdisciplinary healthcare teams to coordinate care across the continuum\(^6\)
- Understanding and working within the prescribed parameters of the health plan/organization to design an appropriate, high-quality, and cost-effective plan of care\(^6\)
- Delivering timely and cost-efficient care to meet each patient’s specific needs\(^6\)
How Case Managers Can Make a Difference in VTE Prophylaxis in Orthopedic Surgery Patients

Your role as the case manager is critical to effective VTE prophylaxis and total patient care at time of discharge following THR or TKR surgery.

As the patient moves across the continuum, you are uniquely positioned to interact with the entire healthcare team, including the

- Orthopedic surgeon
- Primary care and attending physicians
- Hospital discharge planner
- Skilled nursing facility case manager
- Visiting nurse services
- Home healthcare services
- Pharmacist
- Occupational therapist/physical therapist
- Caregiver

Your involvement in educating patients about VTE and promoting compliance with the VTE prophylaxis program for each patient is crucial to successful patient outcomes.

References