Gaps in Hospital VTE Prophylaxis Demonstrate Need for Technology to Promote Patient Safety in Hospital

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Presenter Disclosures
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The National Blood Clot Awareness Survey was made possible by a grant from Janssen Pharmaceuticals, Inc.
Advancing prevention, early diagnosis and successful treatment of blood clots, clotting disorders (thrombosis and thrombophilia)...through public awareness, advocacy and patient and professional education.
National Blood Clot Alliance

Volunteer based, patient led

Science driven

Dedicated to the prevention & quality treatment of blood clots and clotting disorders

Patient Governing Board

Medical & Scientific Advisory Board

www.stoptheclot.org
A Call To Action

- Spotlights public health urgency of DVT/PE
- Sets forth recommendations for diagnosis, prevention, treatment
- Suggests criteria for research, education, policy
A Call To Action: Strategic Imperative

Close the “gaps in application and awareness of evidence-based interventions”
Public Health Perspectives: Morbidity, Mortality

Surgeon General’s Call to Action

- 600,000 Americans have blood clots every year
- 100,000 deaths
At this point I want to share a story I learned about a short while ago. Sharon a young women from Northern VA who went to a hospital for major abdominal surgery. After discharge, she was progressing as expected, and then suddenly, two weeks later, she woke up in severe pain, feeling like she had shards of glass in her lungs. Her husband took her to the ER where she was treated for indigestion for what was later learned to be a pulmonary embolism. Sharon’s whole life has changed – living with medication and pain. But she considers herself one of the lucky ones because she is alive. The bad news is that Sharon’s story is repeated in hospitals across America. The good news is that we have the medical capability to manage anticoagulation effectively and the potential of using technologies to make this a winnable public health battle. The challenge is to “connect the dots” ensuring that healthcare professionals in hospitals and patients understand that the use blood thinners needs to be an integral part of most hospital stays and discharge planning. This challenge and this paper are dedicated to Sharon and the thousands of other hospital patients who have preventable blood clots every month.
Perspectives on DVT/PE Public Health Risk

10-fold increased risk among acutely ill hospitalized patients

At least one risk factor present: immobility, cancer, infection, and/or surgery

Absent prophylaxis
DVT occurs
10% - 40%
Surgical, medical
40% - 60%
Orthopedic

1 in 10 hospital deaths are related to PE

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Overview: The NBCA DVT/PE Awareness Survey

- Responds to Surgeon General’s Call to Action
- Benchmarks awareness, prophylaxis experiences
- Comprehensive, one of the largest of its kind
Methodology

Information

Prophylaxis

Adherence

Awareness

General Public 500

Orthopedists 200

Comparative

Mean age 52.5 (20 - 80+)
64% female

THA/TKA 250

Oncology 500

Hospitalized 500

AFIB 500

AFIB 500
Survey Participants: Hospitalized Patients

Admissions
- Other: 21%
- Childbirth: 6%
- Accident/trauma: 11%
- Major illness: 32%
- Surgery: 43%

Length of Hospital Stay
- >10 days: 12%
- 5-10 days: 37%
- 3-4 days: 51%

Multiple responses allowed

Net hospital days reported

n=500 patients hospitalized ≥3 days
Findings: DVT/PE Awareness Versus DVT/PE Risk

- Awareness of DVT: 28%
- Awareness of PE: 15%
- Family Hx blood clots: 43%
- Personal Hx blood clots: 15%
- Neither MD nor other HCP discussed risk: 46%

n=500 patients hospitalized ≥3 days
Patient Reported Experiences With Prophylaxis

- Anticoagulant pill: 28%
- Anticoagulant injection: 29%
- Aspirin: 37%
- Compression stockings: 37%
- Mechanical compression: 39%
- Ambulation: 63%

n=500 patients hospitalized ≥3 days
Comparative Findings: Signs and Symptoms Awareness

- Hospitalized patients (n=172 can name DVT risk factors)
- Cancer Patients (n=155 can name DVT risk factors)
- General Public (n=109 can name DVT risk factors)

- Hospitalized patients (n=282 know what “PE” is or stands for)
- Cancer Patients (n=290 know what “PE” is or stands for)
- General Public (n=268 know what “PE” is or stands for)

<table>
<thead>
<tr>
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<th>Claim knowledge of DVT Signs/Symptoms</th>
<th>Claim knowledge of PE Signs/Symptoms</th>
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<tbody>
<tr>
<td>Hospitalized patients</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>Cancer Patients</td>
<td>63%</td>
<td>30%</td>
</tr>
<tr>
<td>General Public</td>
<td>79%</td>
<td>34%</td>
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</table>
Additional Findings: Information and Education

46% said they were not informed or educated by MD or other HCP about potential DVT due to hospitalization

57% said neither physician nor other HCP discussed what can happen if a blood clot forms

50% said neither doctor nor HCP discussed ways that blood clots can be prevented
Obstacles to DVT/PE Prevention in Hospitals

- DVT/PE is not a primary admission diagnosis
- DVT is unrelated to specialty of admitting physician
- DVT often occurs after discharge
Computerized reminders or alerts improve adherence by MDs to prevent potential DVT due to hospitalization

“Opting out” of DVT/PE prophylaxis should be considered instead of “opting in”

Use of interactive technology for patient learning optimizes patient adherence and self-advocacy
Future Directions for Patient Safety in Hospitals

**Awareness**
- Risk ≠ awareness
- "Blood clot" resonates

**Information**
- Significant gaps exist
- HCPs/Patients are not fully informed

**Prophylaxis**
- Prophylaxis guidelines exist
- Prophylaxis remains suboptimal

**Adherence**
- Numerous treatment barriers exist
- 1 in 3 treated patients affected

**Actions**
- Improve patient awareness of DVT/PE, simplify terms
- Fill gaps to ensure HCP/patient knowledge of risks, Tx options
- Optimize evidence-based prophylaxis
- Expand use of EMRs, electronic order-sets, computerized reminders and dose or lab value alerts

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Imperatives for Patient Safety in Hospitals

- Improved DVT/PE awareness and prophylaxis
- Reduced risks and reduced complications
- Decreased morbidity, mortality, costs
Imperatives for Patient Safety in Hospitals

1. Expanded implementation of electronic medical records and communications
2. Standardized use of order sets (by computer or smart phones) for prophylaxis based on risk assessment
3. Increased adherence to optimal blood clot prophylaxis
   - Maximized patient safety

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Leadership Efforts in DVT/PE Prevention for Patient Safety in Hospitals

### Awareness
- CMS/HHS prioritized DVT/PE risk awareness and intervention

### Information
- Significant gaps exist
- Patient/HCP knowledge limited

### Prophylaxis
- Prophylaxis remains suboptimal

### Adherence
- Encourage patient involvement
- 1 in 3 treated patients affected

CDC Division of Blood Disorders developing surveillance and awareness programs

National Blood Clot Alliance formulated Hospital Quality Improvement Resolution

Hospitals that provide multidisciplinary institutional support for prophylaxis

Patients learn to ask “Do I need a blood thinner?” when they are hospitalized

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Summary – Simply put… (Geerts/Shojania)

- ~70% of DVT/PE is hospital-acquired
- DVT/PE is the most common preventable cause of hospital death
- DVT/PE is #1 ranked patient safety strategy for hospitalized patients
Summary –
The Weight of Evidence...

Points to DVT/PE clinically important – morbidity; mortality; costs.

Supports prophylaxis to reduce DVT/PE risk – morbidity; mortality; costs

Demonstrates that correct prophylaxis rarely leads to important complications (including bleeding)
Summary – Really simply put...

DVT/PE prevention in 6 words

Give prophylaxis

Mostly Anti coagulant

Long enough

(Geerts)
But hospitals ain’t simple –

**NBCA Hospital Quality Improvement Resolution (9/22/11)**

1. Patients, general public, HCPs & policymakers be informed of preventable hospital DVT/PE risk
2. Patients entering hospitals should be given DVT/PE risk info
3. Hospital institutional policy support of DVT/PE prophylaxis essential and **technology is central** (e.g. electronic reminders, order sets, monitoring, measurement) - (Maynard)
NBCA Hospital Quality Improvement Resolution (9/22/11)

- DVT/PE Management in Hospitals should be interdisciplinary (Maynard)
- CMS, VA, Private 3rd Party Payers reward optimal & penalize substandard DVT/PE prophylaxis
- DVT/PE benchmarking & surveillance mechanisms needed so hospitals can compare their performance (Maynard)
Recent Developments

• CDC Division of Blood Disorders Leadership: Meeting on Hospital Acquired VTE (2011)

• Confusing Messages Regarding Safety and Efficiency of Anticoagulants:
  ACP (2011)
  ACCP (2012)
The National Blood Clot Alliance extends its appreciation to members of the NBCA DVT/PE Awareness Survey Steering Committee

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Remember…
March is Blood Clot Awareness Month!

Help Stop The Clot®!

By the end of March please let 5 people you know about blood clot:

- Risk Factors
- Signs and Symptoms
For More Information, Contact the National Blood Clot Alliance

On the Web:  www.stoptheclot.org

On Facebook:  www.facebook.com/stoptheclot

By phone:  877.4.NO.CLOT   877.466.2568

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