HRET HIIN VTE Sprint

April 29, 2019
11:00 a.m. – 12:00 p.m. CT
Welcome and Introductions
Kavita Bhat, MD, MPH
Performance Improvement Coach, AHA
Hello, My Name is…

- Name
- Hospital/State Hospital Association
- City, State
AGENDA

- Welcome and Introductions
- Sprint Overview
- VTE Sprint Tools
- Expectations
- Questions and Answers
- Bring it Home
Sprint Overview
Kavita Bhat, MD, MPH
Performance Improvement Coach, AHA
Kim Werkmeister, RN, BA, CPHQ, CPPS
Improvement Advisor, Cynosure
Why Are We Here?

23 States

63 Hospitals
Why Are We Here?

- Increase the awareness of the importance of identifying and reporting all VTEs
- Utilize simple discovery tools to assess VTE practices and identify focus areas for improvement
- Define and utilize best practices for process improvements
- Maintain and Accelerate reduction in VTE harms
- Create peer to peer collaboration among states and hospitals
What is Standard Work for VTE Prevention?

- Risk assessment for every patient
- Preventative treatments ordered according to risk
- Reliable implementation of processes
Risk Assessment for every patient

- **More reliable**: use a simplified assessment tool like the Three Bucket Model
Standard Work

Order preventative treatments based on patient’s risk

- **More reliable**: combine risk assessment with standardized order set
- **Even more reliable**: have physician complete the risk assessment and assign orders at the same time
Standard Work

Test process reliability with use of audits

- **More reliable**: do audits in real time while patient is admitted
  - **Even more reliable**: go beyond the chart audit by visiting patient rooms, and develop a response plan for patient refusals of treatment
Building the Will for Improvement

Build the will for improvement by sharing data and information

- **More reliable**: move beyond data and share a patient story
- **Even more reliable**: involve patients and families in the improvement process – successful VTE prevention is particularly amenable to engagement of patients and families in the work.
Orlando Health’s VTE Journey
Julie Rayburn, BSN
Clinical Quality Specialist
Corporate Quality & Safety
VTE Safety

Julie Rayburn, BSN, Clinical Quality Specialist
Corporate Quality & Safety

April 29, 2019
ORLANDO HEALTH (OH)

7 Hospital System

• **Orlando Regional Medical Center**, 808 bed hospital in downtown Orlando specialize in emergency care, trauma-level I, critical care, cardiology, orthopedics, and neurosciences. A teaching hospital offering graduate medical education in seven specialties.

• **Arnold Palmer Hospital** for Children-158 beds

• **Winnie Palmer Hospital** for Women & Babies – 285 bed, 11 stories offers complete women’s care from obstetrics, including high risk births to gynecology services and one of the largest birthing centers in the US. Deliver > 14,500 babies annually.

• **Dr. Phillips Hospital** – 237 bed, medical/surgical care facility

• **Health Central** – 211 bed full service medical/surgical facility, 288 bed LTC

• **South Lake** – 140 bed acute care

• **South Seminole** – 206 bed full service medical/surgical facility with BH

• Orlando Health UF Health **Cancer Center**
YELLOW BOX TOOL /THREE BUCKET MODEL

- Built for Measure-vention
- Promotes daily communication and accountability
- Implemented throughout system except APH, WPH, HC
- Collaborative approach to ensuring patient is screened and receiving individualized anticoagulant coverage during hospital stay
VTE Risk Assessment, Prophylaxis & Implementation Process

1. Physician completes VTE risk assessment on:
   • Admission
   • Return from Surgery
   • Transfer/Change in condition
   • Every 3 days for a patient previously assessed as “low risk”

2. Physician enters VTE prophylaxis orders based on risk assessment

3. Nursing uses the Yellow Box Tool to help ensure VTE prophylaxis is ordered and implemented for all patients, every day
## VTE THREE BUCKET MODEL

<table>
<thead>
<tr>
<th>Risk Factor for VTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age &gt; 40 years</td>
</tr>
<tr>
<td>Hospitalization for Surgery or Acute Illness</td>
</tr>
<tr>
<td>Myocardial Infarction (2 Months)</td>
</tr>
<tr>
<td>Inflammatory Bowel Syndrome</td>
</tr>
<tr>
<td>Obesity (BMI &gt; 30)</td>
</tr>
<tr>
<td>Recent Major Surgery (3 Months)</td>
</tr>
<tr>
<td>Lower Limb Dysfunction (Acute or Chronic)</td>
</tr>
<tr>
<td>Neoplastic Syncope</td>
</tr>
<tr>
<td>Pregnancy or &lt; 1 Month Post Partum</td>
</tr>
<tr>
<td>Multiple Major Trauma</td>
</tr>
<tr>
<td>CHF NYHA Class II or III</td>
</tr>
<tr>
<td>Effective Hip or Knee Arthroplasty</td>
</tr>
<tr>
<td>Previous Ischemic Stroke w/Paraplegia</td>
</tr>
<tr>
<td>Asymptomatic State</td>
</tr>
<tr>
<td>Sickle Cell Disease</td>
</tr>
<tr>
<td>Gastroinestinal Bleeding Severe (&gt; 75% Body Weight)</td>
</tr>
<tr>
<td>Aneurysm Saccular Lesions</td>
</tr>
<tr>
<td>Family History of DVT/PE (1st Degree Relative)</td>
</tr>
<tr>
<td>Central Venous Catheter</td>
</tr>
<tr>
<td>Malnutrition</td>
</tr>
<tr>
<td>Sarcoid Connective</td>
</tr>
<tr>
<td>History of DVT/PE</td>
</tr>
<tr>
<td>Neoplastic Prevalentian Lesions</td>
</tr>
<tr>
<td>Rheumatoid Disease</td>
</tr>
</tbody>
</table>

### VTE Risk Assessment - Choose One:

- Low Risk: < 40 years old, no risk factors from above, Mobility - walks outside room at least twice daily
- Moderate Risk: Any one or more risk factors from list above. Mobility - walk outside room at least twice daily
- High Risk: Any one or more risk factors from list above. Mobility - does not walk outside room at least twice daily

### VTE Pre-Op Score - Order Sets

<table>
<thead>
<tr>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
</tr>
<tr>
<td>3-5</td>
</tr>
</tbody>
</table>

- Low Risk for VTE
- Moderate Risk for VTE
- High Risk for VTE
Yellow Box Tool

Enables Real-Time Intervention for All Patients

Three columns have the potential to turn yellow:

- **MD Risk Assessment**
- **Current Prophylaxis**
- **Order Performed Date/Time**

<table>
<thead>
<tr>
<th>Attending Doc</th>
<th>Patient Name</th>
<th>Location</th>
<th>Admit Date/Time</th>
<th>MD Risk Assmt</th>
<th>Current VTE Assmt Date/Time</th>
<th>Current Prophylaxis</th>
<th>No Prophy</th>
<th>Order Performed Date/Time</th>
<th>No Prophy Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>INFORMATICS, TEST MD</td>
<td>ZTEST, SCM Cindy</td>
<td>IS-INFO</td>
<td>07/19/2013 10:07</td>
<td>HIGH</td>
<td>10/2/2013 10:00</td>
<td>No Mechanical VTE prophylaxis - status post cath</td>
<td>✓</td>
<td>10/4/2013</td>
<td></td>
</tr>
<tr>
<td>ZTEST, SCM Anne</td>
<td>IS-INFO</td>
<td>07/19/2013 10:19</td>
<td>MOD</td>
<td>10/2/2013 10:49</td>
<td>Sequential Compression Device AV Foot Pump(Nursing)</td>
<td>✓</td>
<td></td>
<td>10/2/2013 11:00</td>
<td></td>
</tr>
<tr>
<td>ZTEST, SCM Daniel</td>
<td>IS-INFO</td>
<td>07/19/2013 10:10</td>
<td>LOW</td>
<td>10/2/2013 9:00</td>
<td>Low Risk VTE - Prophylaxis Not Indicated</td>
<td>✓</td>
<td></td>
<td>10/5/2013</td>
<td></td>
</tr>
<tr>
<td>ZTEST, SCM Angela</td>
<td>IS-INFO</td>
<td>07/19/2013 10:12</td>
<td>EXP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZTEST, SCM Suzanne</td>
<td>IS-INFO</td>
<td>07/19/2013 10:15</td>
<td>MOD</td>
<td>9/5/2013 17:33</td>
<td>warfarin</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZTEST, SCM Antonios</td>
<td>IS-INFO</td>
<td>07/19/2013 10:04</td>
<td>HIGH</td>
<td>10/2/2013 10:00</td>
<td>No Mechanical VTE prophylaxis - Bilateral incision</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Yellow Box Tool

Barriers/Challenges of use
• Out of sight, out of mind
• Does not link to Nursing task
• Staff turnover
• So many competing priorities
• Perception of physician responsibility

Next Steps
• Discuss with Nursing leadership
• Re-evaluation of the tool (test on one unit)
• Continue to support those currently using the YBT
DATA MANAGEMENT/CHART REVIEW

Numerator 1:
# of Inpatient discharges within a month with Dx of DVT or PE that was NOT present on admission

Numerator 2:
# of Inpatient discharges within a month with DX of DVT or PE present on admission, AND having a recent inpatient admission within 30 days AND with NO history of PE or DVT
BENEFITS OF CHART REVIEW

- Identification of opportunities and trends
- Non-preventable, Potentially preventable, Preventable?
- Findings shared with Quality Officers for determination of actions

Num-1
- Risk screened appropriate (Low, Mod, High)?
- Treatment ordered and started within 24 hours of admission?
- Documentation of contraindications if no treatment ordered
- Anticoagulants given and SCDs on daily
- Coverage ordered at discharge for patients at risk

Num-2
- Same as for Num-1
- Patient disposition at DC
- Orders for continued anticoagulant tx at discharge
Chart findings that have affected change

- Anticoagulants held for surgery/procedure
- Patients with high BMI receiving sub therapeutic dosing of anticoagulants
- Cancer population
- Incidental findings: No evidence of hospital acquired DVT or PE (Coding issue)
## Preferred Agents

<table>
<thead>
<tr>
<th>Order</th>
<th>Trade Name</th>
<th>Dose</th>
<th>UOM</th>
<th>Start Time</th>
<th>Schedule</th>
<th>Route</th>
<th>Instructions</th>
<th>Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>enoxaparin injection (-)</td>
<td>40 mg</td>
<td></td>
<td>Every 24 hours</td>
<td>SQ (subcutaneous)</td>
<td>PREVENT DVT/PE (deep vein thrombosis)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>enoxaparin injection (-)</td>
<td>40 mg</td>
<td></td>
<td>Every 12 hours</td>
<td>SQ (subcutaneous)</td>
<td>for BMI greater than 35</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>fondaparinux injection (-)</td>
<td>2.5 mg</td>
<td></td>
<td>Every 24 hours</td>
<td>SQ (subcutaneous)</td>
<td>PREVENT DVT/PE (deep vein thrombosis)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Alternate Agents

<table>
<thead>
<tr>
<th>Order</th>
<th>Trade Name</th>
<th>Dose</th>
<th>UOM</th>
<th>Start Time</th>
<th>Schedule</th>
<th>Route</th>
<th>Instructions</th>
<th>Warfarin Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>warfarin (-)</td>
<td>5 mg</td>
<td></td>
<td>Daily (1700)</td>
<td>PO (by mouth)</td>
<td>HAZARDOUS...</td>
<td>PREVENT DVT/PE (deep vein thrombosis)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>warfarin(-)</td>
<td>5 mg</td>
<td></td>
<td>Daily (1700)</td>
<td>PO (by mouth)</td>
<td>HAZARDOUS...</td>
<td>PREVENT DVT/PE (deep vein thrombosis)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prothrombin Time &amp; INR</td>
<td>Routine</td>
<td></td>
<td>Daily</td>
<td>Baseline</td>
<td>Daily x 5 days</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Warfarin Food Drug...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Warfarin Patient...</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Heparin

<table>
<thead>
<tr>
<th>Order</th>
<th>Dose</th>
<th>UOM</th>
<th>Start Date</th>
<th>Start Time</th>
<th>Schedule</th>
<th>Route</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5000</td>
<td>unit(s)</td>
<td>T</td>
<td>Every 8 hours</td>
<td>SQ (subcutaneous)</td>
<td></td>
<td>(for patients &gt; 100 kg AND BMI &gt; 40 OR trauma patients with BMI &gt; 35)</td>
</tr>
<tr>
<td></td>
<td>7500</td>
<td>unit(s)</td>
<td>T</td>
<td>Every 8 hours</td>
<td>SQ (subcutaneous)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Next Steps:

1. Develop nursing, patient and family education on importance of consistent Mechanical and Chemo prophylaxis and ambulation
2. Investigate the incidence of patient refusal of treatment
3. Soft stop alert: IMG request for pop up on physician progress note when anticoagulants have been suspended or placed on hold.
Thank you 😊
VTE and PFE
Tara Bristol-Rouse
PFE Advisor, AHA
The most underutilized resource in all of health care is the patient.

Dave deBronkart
Vision for PFE

Hospitals and other health care providers **achieving quality and safety goals** by fully engaging patients and their families, determining what matters most to them in every situation, and **partnering with them** to make improvements to all aspects of care.
PFE Metrics

**Point of Care**
- Planning checklist for scheduled admissions (Metric 1)
- Shift change huddles / bedside reporting with patients and families (Metric 2)

**Policy & Protocol**
- PFE leader or function area exists in the hospital (Metric 3)
- PFEC or Representative on hospital committee (Metric 4)

**Governance**
- Patient and family on hospital governing and/or leadership board (Metric 5)
Percent of Hospitals by Metric:

The figure below shows the percent of hospitals meeting, not meeting or not reporting each PFE metric.

Percent of Hospitals Meeting, Not Meeting, or Not Reporting PFE Metrics, by Metric (n=1,594)

PFE Metric 1: Preadmission Planning Checklist*  
PFE Metric 2: Shift Change Huddles or Bedside Reporting  
PFE Metric 3: Designated PFE Leader  
PFE Metric 4: PFAC or Representatives on Hospital Committee  
PFE Metric 5: Patient Representative(s) on Board of Directors

* 229 Hospitals have no scheduled admissions (exempt) and are thus excluded from the PFE1 denominator
PFE and Readmissions

• N = mean of 98 hospitals

• High PFE performers meet 4 or 5 of the PFE metrics

• Low PFE performers met 3 or less of the PFE metrics
## Ensuring Multi Level Patient and Family Engagement (PFE)

<table>
<thead>
<tr>
<th>Point of Care</th>
<th>Change Ideas</th>
<th>Governance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Implementation Partners:</strong></td>
<td><strong>Policy &amp; Protocol:</strong></td>
<td><strong>Implementation Partners:</strong></td>
</tr>
<tr>
<td>Point of Care Providers:</td>
<td>Quality and Safety Leaders, Medical Directors, Nurse Managers, Patient Experience Leaders</td>
<td>Board of Directors, C-Suite</td>
</tr>
<tr>
<td>Medical Directors, Nurse Managers</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Change Ideas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Metric 1</strong></td>
<td><strong>Metric 2</strong></td>
<td><strong>Metric 3</strong></td>
</tr>
<tr>
<td>During the perioperative appointment, discuss risks and preventive practices related to VTE; share the resource Preventing Venous Thromboembolism After Surgery with the patient and family.</td>
<td>Discuss the important role mobility and the use of Sequential Compression Devices (SCDs) play in VTE prevention. Create a place on the patient whiteboard for the patient/family to track walking and SCD use, refer to the board during morning rounds and ask the patient/family to describe successes and challenges related to mobility and SCD use.</td>
<td>Select a nurse member of your VTE improvement team to spearhead an internal education campaign regarding the importance of SCD use and the role of nursing. Ask this nurse to share local patient stories or those from Stop the Clot to underscore the potential impact of blood clots on patient lives; measure the success of the campaign by conducting regular audits on SCD use in the targeted care unit.</td>
</tr>
</tbody>
</table>

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**AHA CENTER FOR HEALTH INNOVATION**

American Hospital Association™
Advancing Health in America
Who collects the PFE data for your hospital?
PFE IN VTE PREVENTION?
YES WE CAN!
VTE Sprint Tools

Kavita Bhat, MD, MPH
Program Manager, HRET

Kim Werkmeister, RN, BA, CPHQ, CPPS
Improvement Advisor, Cynosure
VTE PROCESS IMPROVEMENT DISCOVERY TOOL

- Review 5 Charts (Maximum 10 charts)
- If the answer to the question is 'YES', mark an X in the box.
- The processes with the most blank boxes could be a priority focus.
- Spend no more than 20-30 minutes per chart
Let’s take a closer look at the tool

<table>
<thead>
<tr>
<th>PROCESS</th>
<th>Chart #</th>
<th>Chart #</th>
<th>Chart #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Screening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A standard VTE risk screening tool was used to assess this patient’s risk.</td>
<td>✔️</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>The risk screen was performed by the physician.</td>
<td></td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>The nurse performed the risk screen using the tool during changes in patient status or upon transfer to another unit.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Orders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The physician-ordered interventions are appropriate for the determined level of patient risk for VTE and bleeding.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Prophylaxis Administration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unless ambulation was contraindicated, this patient was placed on an ambulation protocol that maximized his/her ambulation, and the amount/distance of ambulation was regularly documented.</td>
<td></td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>If sequential compression devices were ordered, there is evidence that the patient wore them at all times except when walking.</td>
<td></td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>If anticoagulants were ordered, there is evidence that the patient received every dose in a timely manner.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Blank Boxes = Areas of Focus!
VTE Coaching Guide

State Partner & Hospital 1:1 Coaching using VTE coaching guide

✓ Barriers/Concerns
✓ Champions
✓ Resources
✓ Action Plan
  ✓ Aims
  ✓ Strategies/Tactics
  ✓ Deadlines
  ✓ Evaluation
Hospital Expectations

✓ Select 1 VTE lead for the sprint
✓ Accept invites and participate in the 3 HRET HIIN VTE Sprint virtual events
✓ Complete pre-assessment (link [here](#))
✓ Utilize the VTE Process Discovery Tool and submit it to your state partner
✓ Participate in 1 coaching session with their State Partner
✓ Complete post-sprint assessment

6 Easy Steps!
State Partner Expectations

✓ Accept invites and participate in the 3 HRET HIIN VTE Sprint virtual events

✓ Follow-up with hospitals to identify a lead for the sprint and remind them of hospital expectations throughout the sprint. Track your registered hospitals using the collaborative tracking tool.

✓ Schedule 1 coaching session with hospitals session of one-on-one coaching with hospitals utilizing the VTE Sprint Coaching Guide. Submit completed coaching guide to kbhat@aha.org
What should I complete before the next virtual event?

Hospitals
✓ Select 1 VTE lead for the sprint
✓ Complete pre-assessment (link here)
✓ Utilize the VTE Process Discovery Tool and submit it to your state partner

State Partners
✓ Follow-up with hospitals (track your registered hospitals using the collaborative tracking tool.)
✓ Schedule a coaching call with each hospital
HRET HIIN 2019 VTE Sprint Virtual Event Schedule

- VTE #1: Monday, April 29 (11-12 PM CT) - Register here.
- VTE #2: Friday, May 24 (11-12 PM CT) - Register here.
- VTE #3: Monday, June 17 (11-12 PM CT) - Register here.
- VTE Office Hours: Friday, June 21 (10-11:30 AM CT) – Link Forthcoming
Questions?
HRET Resources

HRET HIIN VTE Change Package

HRET HIIN VTE Checklist
thank you!