DMC
Huron Valley-Sinai Hospital

Venous Thromboembolism (VTE) Prevention: It's easy as 1-2-3!

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GOAL: To disseminate best practices in evidence-based, interprofessional, and patient-centered care. The objective for this project was to decrease VTE occurrences at Detroit Medical Center's Huron Valley-Sinai Hospital.

Relevance/Significance

Adverse events related to VTEs are common and problematic, leading to poor clinical outcomes and prolonged hospital stays. In late 2012, the presenters then Clinical Improvement Specialists noted a higher than average rate of VTE occurrences amongst their patient populations in comparison to other MI hospitals in their respective consortiums .

Strategy and Implementation

The presenters analyzed the data and collaborated to co-lead the VTE Process Improvement which rolled out in January 2013. Primary initiatives included:

1. Education and increasing awareness of VTE
2. Multidisciplinary involvement
3. Ongoing monitoring

The education and promotion was presented to all HVSH staff members in 2013 including, but not limited to: all medical staff, residents, midlevel providers, pharmacy staff, nursing staff, quality department, clinical transformation, physical and occupational therapy staff, hospital administration, and select board members. The education included a PowerPoint presentation and the auditory 'sing along' "VTE, It's Easy and 1,2,3." The catchy VTE jingle reinforced prevention and prophylactic interventions.

Clinical process improvements included: better utilization of the electronic medical record (EMR) to facilitate ordering prophylaxis or documenting contraindications and communication amongst healthcare workers.

Metrics – PDCA (Plan-Do-Check-Act)

HVSH VTE PI 2013

	Indicator/Metric	Plan: Baseline Data Date	Plan: Baseline Data Num	Plan: Baseline Data Den	Plan: Baseline Data Per	Plan: Target	Do: Action Plan	Do: Standard HV/HR/PP S/Q/F/G/P/C	Do: Responsible Person / Committee	Check: Reassess Date	Check: PI Data Date	Check: PI Data Num	Check: PI Data Den	Check: PI Data Per	Check: Target	Act: Barriers Identified	Act: Action Plan/ Follow up	Act: Responsible Person / Committee	Act: Complete Date
Core Measure VTE	VTE-2 ICU VTE Pharmacological prophylaxis	Jan-13	4	4	100.00%	>80%	Awareness of intiatives/education to committees and nursing/pca mandatories:	S Q F R C	Core Measure Committee	Oct-13	Q2 2013	11	11	100.00%	>80%			Core Measure Committee	
	VTE- 3 DX of VTE: overlap of appropriate anticoagulation for 5 days w/ documentation of bridge at D/C	Jan-13	8	8	100.00%	>80%				Oct-13	Q2 2013	23	23	100.00%	>80%				
	VTE-4 IV Heparin monitoring by protocol	Jan-13	9	9	100.00%	>80%				Oct-13	Q2 2013	24	24	100.00%	>80%				
	VTE-5 Dischage Expectations: Written anticoagulation instructions	Jan-13	5	7	71.43%	>80%				Oct-13	Q2 2013	21	21	100.00%	>80%				
SCIP	VTE-2 Received anticoagulation 24 hrs after anesthesia end time	Jan-13	51	51	100.00%	> 96%				Oct-13	Q2 2013	119	121	98.30%	> 96%	EMR Changes	Ongoing monitoring via the responsible committees		
Stroke	STK-1 VTE Prophylaxis	Jan-13	13	14	92.86%	100%	Ongoing monitoring via the responsible committees			Oct-13	Q2 2013	18	18	100.00%	100%	Culture change			
HMS- VTE	VTE Risk Assement on Admission	Q2 2012	161	179	89.94%	100%			HVSH VTE Committee	Oct-13	Q2 2013	178	198	89.90%	100%	Disproving Myths regarding VTE prophylaxis (i.e. ambulating in halls and/or Out of Bed is sufficient; holding Heparin SQ prior to surgery; SCDs: adequate application needed to provide prevention for VTE, not needed when pharm. prophy ordered, etc)	VTE Report to Daily Huddle	HVSH VTE Committee	
	Pts without contraindications who received acceptable pharmacologic prophylaxis	Q2 2013	101	117	86.32%	> 90%	EMR VTE Alert Changes Suggested			Oct-13	Q2 2013	17	22	77.27%	> 90%		EMR VTE Alert changes implemented 09/17/2013		
	Pts with contraindications who received acceptable mechanical prophylaxis	Q2 2014	6	11	54.55%	> 90%	VTE Education Awareness:			Oct-13	Q2 2013	1	2	50.00%	> 90%				
	High-risk Patients without contraindications who did not receive any prophylaxis	Q2 2015	10	117	8.55%	0%				Oct-13	Q2 2013	2	22	9.09%	0%				
	VTE during 90 day follow-up	Q2 2016	5	179	2.78%	< 0.8%				Oct-13	Q2 2013	1	198	0.51%	< 0.8%				
MSQC	Post-op PE or DVT requiring therapy (within 30 days of DOS)	Q3 2012	1	28	adj:1.2% unadj:3.57%	0.80%			Surgical Quality Committee	Oct-13	Q2 2013	1	199	adj:0.86% unadj:0.5%	0.80%			Surgical Quality Committee	
MBSC Bariatric	Adherance to VTE Guidelines	Q3 2012		15	adj:90.3% unadj:95.5%	100%				Oct-13	Q2 2013		22	adj:96.12% unadj:98.5%	100%				
	Complications-VTE	Q3 2012	0	15	0.00%	0%			Bariatric Committee	Oct-13	Q2 2013	0	22	0.00%	0%			Bariatric Committee	

Legend

HVSH Gears

S- Safety- Consistently delivering exceptional service to our patients, physicians, employees, volunteers and guests.
Q-Quality - Consistently delivering exceptional clinical quality to our patients.
F- Financial - Maintaining a healthy financial profile in a competitive environment.
G- Growth - Expanding HVSH market share and clinical services in a competitive environment.
P- People - Enhancing the engagement and satisfaction of our employees, volunteers and physicians.

HV- High Volume
HR- High Risk
PP- Problem Prone

V-T-E … (*prohylaxis!*)

It's easy as 1-2-3! … (*prevention!*)

It's up to you and me,

VTE! 1-2-3!

Patient, you and me! Yeah!

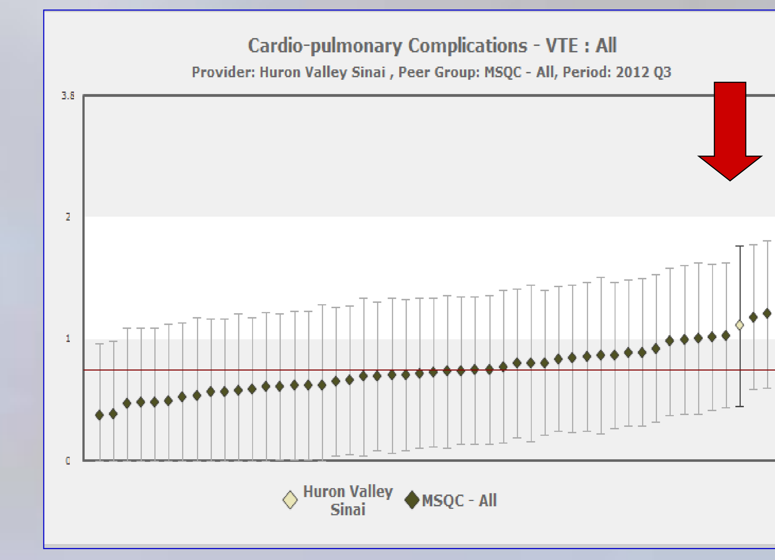
(Sung to the tune of "ABC" by the Jackson Five)

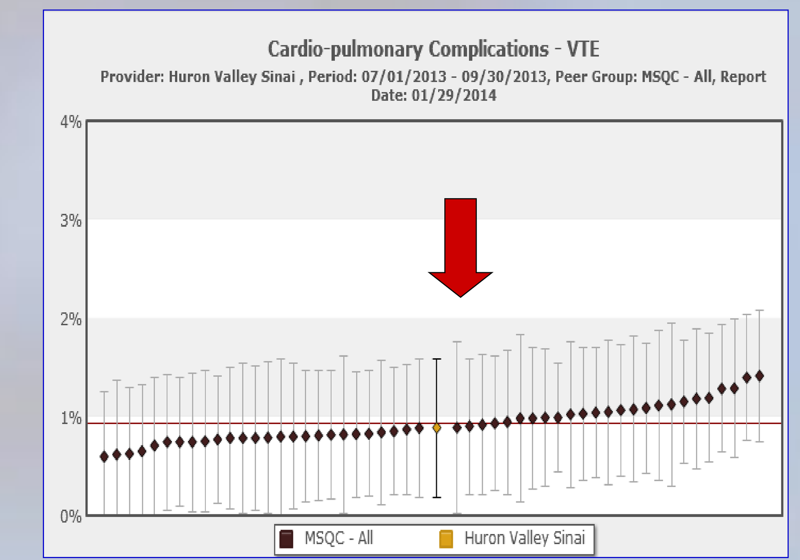
Disclosure

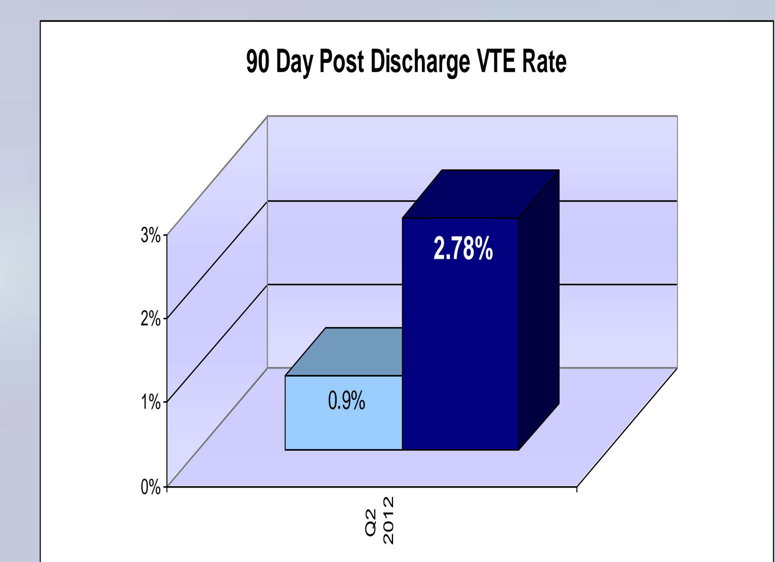
The authors of this poster presentation, Laura Kern and Karen Adams, have NO relevant personal financial relation-ship with a commercial interest producing health care goods/service in the past 12 months. They are employees of the Detroit Medical Center owned by the Tenet Corporation, a for profit health care organization.

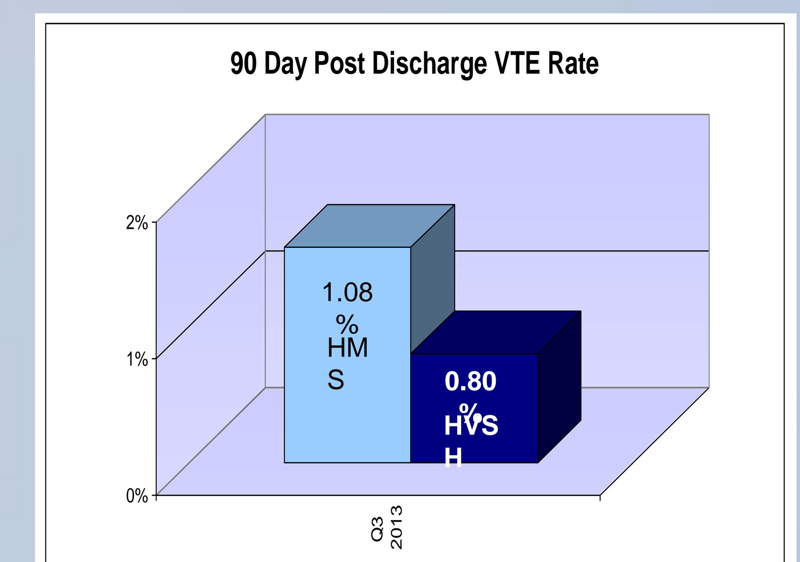
Note: Data shared is strictly confidential and for sharing purposes only amongst collaborative members. Permission to share obtained from Dr. Mark Montoney, Tenet, on March 31, 2014.

Evaluation









Significant improvements were realized. The cumulative rate for surgical patients went from 2.4% to 0.6% and for medical patients from 2.78% to 0.84%. Both populations were at three times the state mean and were reduced to at or below the state average in one year's time.

Implications for Practice

Clinical practice changes resulted. *By collaborating with others and working together we were able to transform the culture at DMC's HVSH! Our rigorous effort to supply data served a practical purpose - we identified changes in process to improve quality of care and reduce costs.*

Knowledge and understanding related to the prevalence of VTE and importance of prophylactic measures, as well as contraindications, improved nursing care. RNs provide patient education related to VTE prevention resulting in improved compliance.

"VTE Prevention: It's easy as 1-2-3!" ANA Poster presentation. March 2016.