

VENOUS THROMBOEMBOLISM (VTE) PREVENTION

at Hamad Medical Corporation’s (HMC) Hospital Facilities

PROBLEM:

VTE is a disease that includes both deep vein thrombosis (DVT) and pulmonary embolism (PE). It is a common disorder that occurs frequently, is often overlooked, results in long-term complications and even death. In the United States, estimates of >100,000 deaths each year are attributable to VTE and it’s the third leading cause of cardiovascular deaths killing more people each year than breast cancer and traffic accidents . It is estimated that 60% of all VTE are hospital-acquired or associated with a recent hospitalization within the previous 3–6 months.

AIM:

To get 100 percent of all patients admitted to HMC hospital facilities risk assessed and receive prophylaxis for VTE by December 2014.

INTERVENTION:

HMC-CHI engaged United States’ experts to support clinical guidelines development and implementation. An HMC subcommittee and cross-hospital multidisciplinary team structure was established for VTE prevention planning, and subsequently:

- * Reviewed international best practices/ guidelines against methodologies applied within HMC sites (i.e. NCCCR VTE guidelines, HGH VTE guidelines, TCH risk assessment)
- * Agreed on a combined VTE risk assessment and order set integrated into the workflow and an HMC guideline
- * Conducted education sessions, developed education materials and data collection process using a centralized integrated data tool
- * Process-mapped and launched pilots in all hospitals in preparation for full implementation

TEAM:

- * Mr. Alan William Lawler – Center for Healthcare Improvement (CHI)
- * Dr. Madonna Andrada Andaya – Center for Healthcare Improvement (CHI)
- * Dr. Alejandro Kohn Tuli – Heart Hospital (HH)
- * Ahmed Souby Mahfouz – Heart Hospital (HH)
- * Dr. Hassan Osman Abdelgalil Abuzaid – Al Khor Hospital (AKH)
- * Emad Naji Ahmad Isaid – Al Khor Hospital (AKH)
- * Dr. Jose Luis Dominguez Caballero – The Cuban Hospital (TCH)
- * Akram Subhi Assaf– Hamad General Hospital (HGH)
- * Amal Kamel Ali Mohammed – Hamad General Hospital (HGH)
- * Dr. Sabah Adnan Alkadhi – Hamad General Hospital (HGH)
- * Imran Khudair – Hamad General Hospital (CHGH)
- * Dr. Mariam Kunjachen Maducolil – Women’s Hospital (WH)
- * Dr. Faten El Taher – Women’s Hospital (WH)
- * Dr. Arabo Ibayo – Women’s Hospital (WH)
- * Dr. Hesham Abd Alla Mohamed – Rumailah Hospital (RH)
- * Dr. Amal Shaaban Abousaad – Rumailah Hospital (RH)
- * Mohamed Tagelsir Osman Obiedalla – Al Wakrah Hospital (AWH)
- * Dr. Shereen Amin Mahmoud El Azzazy – National Center of Cancer Care and Research (NCCCR)
- * Rehab Abd El Khalek Elwahab – National Center of Cancer Care and Research (NCCCR)

PROJECT SPONSOR:

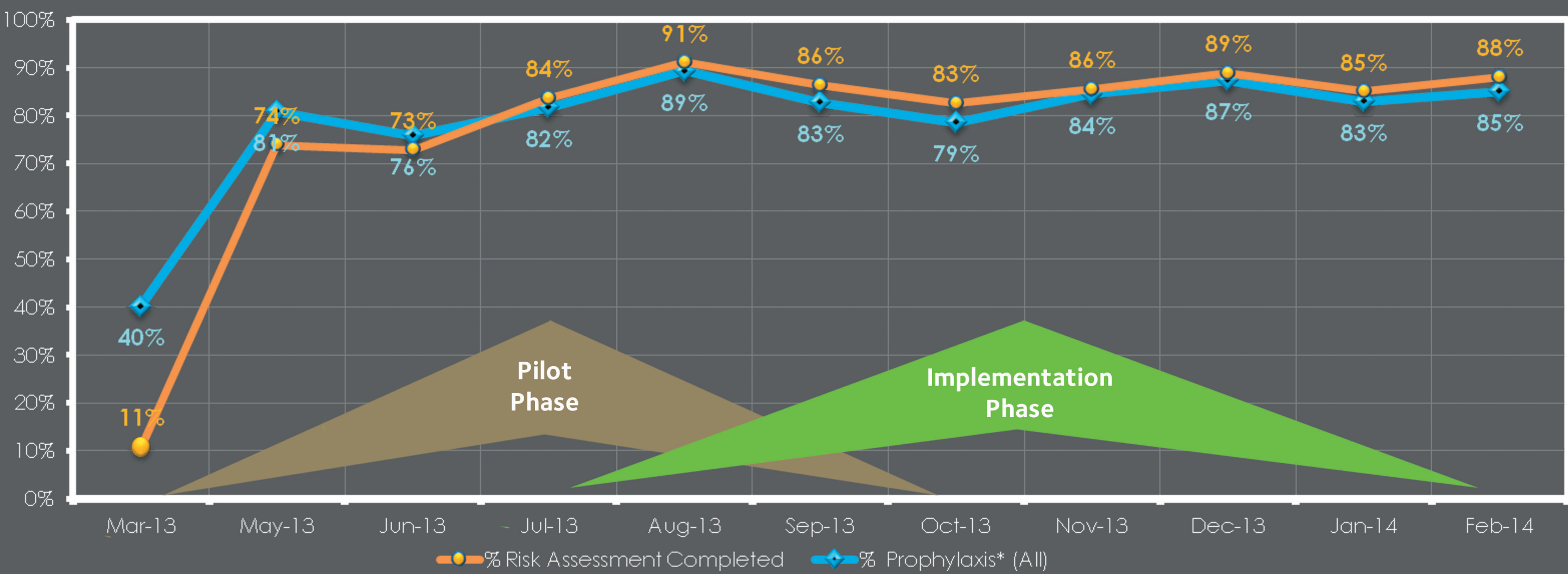
- * Mr. Mike Richmond – Chief of Medical, Academic, and Research Affairs
- * Dr. Moza Al-Hail – Executive Director of Pharmacy

COACH:

- * Dr. John Fanikos – Brigham and Women’s Hospital
- * Dr. Alpesh Amin – University of California Irvine
- * Dr. Rick Van Pelt – Partners Healthcare International

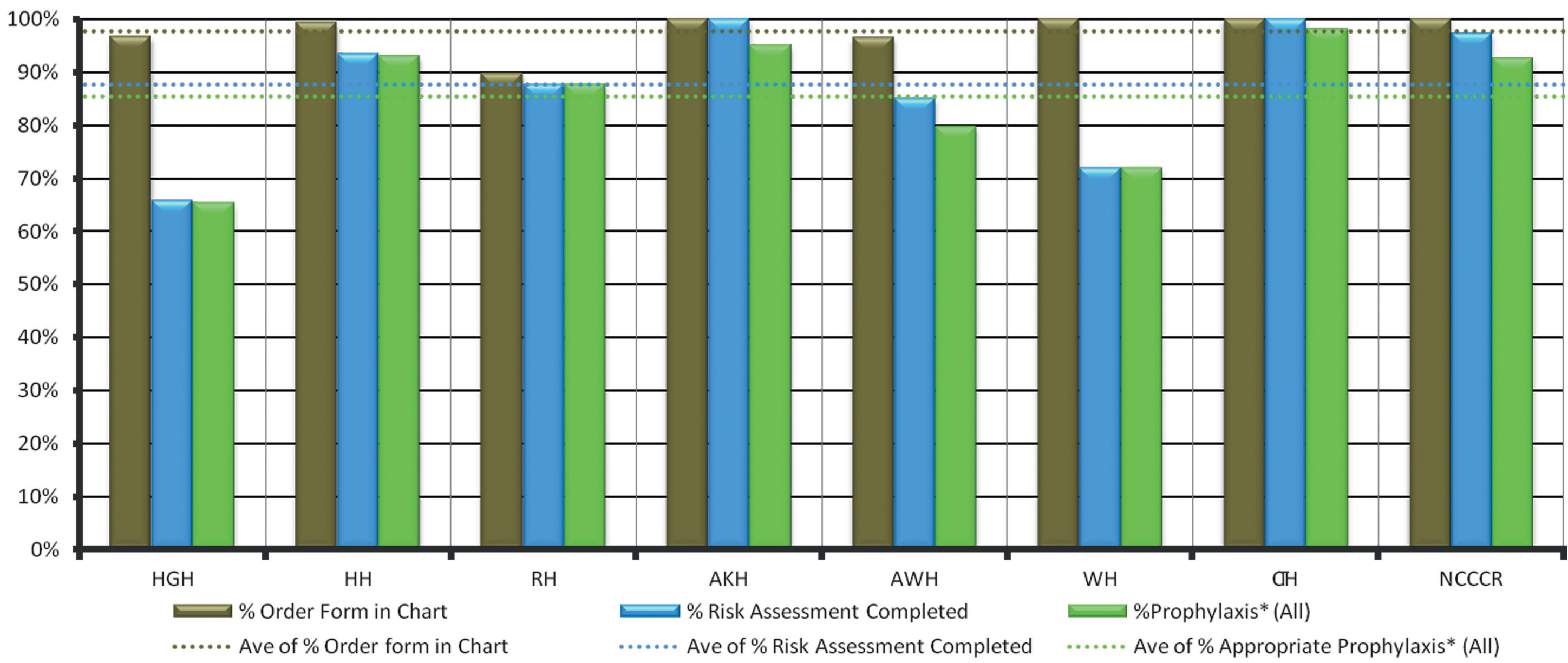
RESULT:

Percentage of VTE Patients Who Were Risk-Assessed and Given Prophylaxis Across HMC Hospitals from March 2013 to February 2014



Note:
- Formal VTE Risk Assessments were not compulsory prior to the pilot.
- Baseline assessment undertaken in March 2013 in 6 hospitals (Al Khor, Al Wakra, The Cuban, Hamad General, National Center for Cancer Care, and Rumailah Hospitals) in closed file review format using the protocol or local data collected as appropriate.
-Data is based on over a sample of 14,000 admissions from project sites of all HMC hospitals since May 2013.
- VTE Performance is based on the average derived from representative sampling from all hospital sites.

MONTHLY VTE DASHBOARD February 2014



Hospital	Total Number of Sampled Admissions	Variance from previous month	% Order Form in Chart	Variance from previous month	% Risk Assessment Completed	Variance from previous month	% Prophylaxis* (All)	Variance from previous month	% Risk Assessed Patients with Moderate-High Risk**	Variance from previous month	% Prophylaxis* (Mod/High - Yes)	Variance from previous month
HGH	1032	[-32]	97%	[+6%]	66%	[+0%]	65%	[+1%]	25%	[+0%]	95%	[+2%]
HH	288	[+39]	99%	[+0%]	93%	[+1%]	93%	[+6%]	72%	[+14%]	95%	[+6%]
RH	128	[-91]	90%	[-1%]	88%	[-0%]	88%	[-1%]	46%	[+6%]	88%	[-9%]
AKH	20	[0]	100%	[0%]	100%	[+10%]	95%	[+5%]	50%	[+25%]	90%	[-10%]
AWH	735	[+79]	97%	[+1%]	85%	[+10%]	80%	[+10%]	31%	[-3%]	80%	[+80%]
WH	211	[-48]	100%	[0%]	72%	[+0%]	72%	[+0%]	1%	[-7%]	100%	[0%]
CH	56	[-30]	100%	[0%]	100%	[0%]	98%	[-1%]	34%	[-15%]	95%	[-3%]
NCCCR	109	[-21]	100%	[+4%]	97%	[+3%]	93%	[+3%]	87%	[+22%]	96%	[+1%]
HMC	2579		98%		88%		85%		43%		92%	

CONCLUSION:

- * An HMC-wide combined VTE Risk Assessment and Order set enables a standard approach to VTE prevention
- * Series of VTE modular education sessions from February – March 2014 for resident physicians, nurses, clinical pharmacists and documentation specialists increased the efficiency and performance of the VTE project implementation across HMC
- * The percentage of documented VTE Risk Assessment increased from 11% to 88% with the VTE project implementation from the period of March 2013 to February 2014
- * The percentage of VTE prophylaxis increased from a baseline average of 40% in March 2013 to an 85% average by February 2014

NEXT STEPS:

- * Hospital teams will continue to monitor and improve performance to achieve December 2014 targets
- * To sustain a successful hospital-wide implementation of the VTE Project in all hospitals