GEORGIA QUALITY IMPROVEMENT PROGRAM

Comprehensive Initiative to Decrease Trauma VTE

GQIP Day of Trauma
St. Simmons, GA
August 12, 2022

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Disclosures

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I have no financial or other conflict to disclose of myself or an immediate family member, including spouse or partner.

I have NO financial or conflicts relevant to the conference CE content.

Venous thromboembolism (VTE)

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1994 Geerts, NEJM → **trauma best practice for VTE prophylaxis**
30mg LMWH BID daily
start early (within 36h of arrival)
give without interruption

2014 VTE → **LEADING CAUSE OF PREVENTABLE HOSPITAL DEATH**

"70% of health care-acquired VTE events were potentially Preventable if evidence-based practice was provided." *Lau & Haut*

2014 Lassiter, American Surgeon → 49.6% GA pts chemoprophylaxis
LMWH most common med used
3.2% (3.1%) GA pts developed VTE
mortality rate of GA VTE pts higher

Fall 2017 TQIP Report

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2016 - Q1 2017 admits

	NAV	TMD	ALL OTHERS
Pulmonary Embolus	1.73	BAD	1.0
Deep Vein Thrombosis	0.2%	GOOD	1.3%
Heparin Use	30%	BAD	24%
No Prophylaxis Given	34%	HARD STOP	36%
sTBI: No Prophylaxis Given	56%		44%

I don't believe the data. *When reviewing care w/ residents, I always ask – "What is being given for VTE prophylaxis?"*

Did we have a data problem?

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1. Validate registry
2. Registry report = NO VTE prophylaxis given
3. Random selection: 50 records & compared with EMR
4. **40% ERROR RATE**

Data Validation

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FINDINGS

- EMR change: brand → generic names on Med Admin Record (MAR) summary
- TQIP use of med type/category
- Only few days of admit reviewed

ACTIONS

- Reference created
- Ongoing education
- Review entire admit for VTE med
- Monthly validation with results split out by registrar

Data Validation

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When does data validation end?

"…til forever ends."

Peter Pan

VTE Treatment Changes

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2016

LMWH 30mg q 12h or

Heparin TID *(if ↓ kidney function)*

VTE prophylaxis status reviewed daily

2017

Guideline for TBI patients approved by Neurosurgery

VTE prophylaxis started per guideline

2018

Weight-based dosing if > 90kg (0.5mg/kg LMWH q 12h or 7,500 hep TID)

Anti Xa lab test after 3rd dose give; med dose adjusted prn

2020

VTE prophylaxis only stopped for brain/spine surgery

Spine: Restarted 25hr after surgery

Brain: Restarted per Neurosurgery rec's

LMWH: low molecular weight heparin (enoxaparin)

Venous thromboembolism (VTE)

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May & June 2022

All VTE prophylaxis guidelines updated per AAST-ACS 2022 rec's

Addresses: pregnant, SCI, TBI, solid organ, weight based

If pt has multiple inj / risk factors for bleeding, most restrictive dosing applied.

Fully ambulatory patients with *expected LOS < 24 hrs*. do not require chemoprophylaxis.

Med / Dose	Group
Enoxaparin 30mg BID	Geriatric (> 65yo), GFR 30-59mL/min, Weight <50kg, Pregnant
Enoxaparin 0.5 mg/kg BID	BMI > 30
Enoxaparin 40mg BID	GFR > 60mL/min, Weight > 50kg BMI < 30

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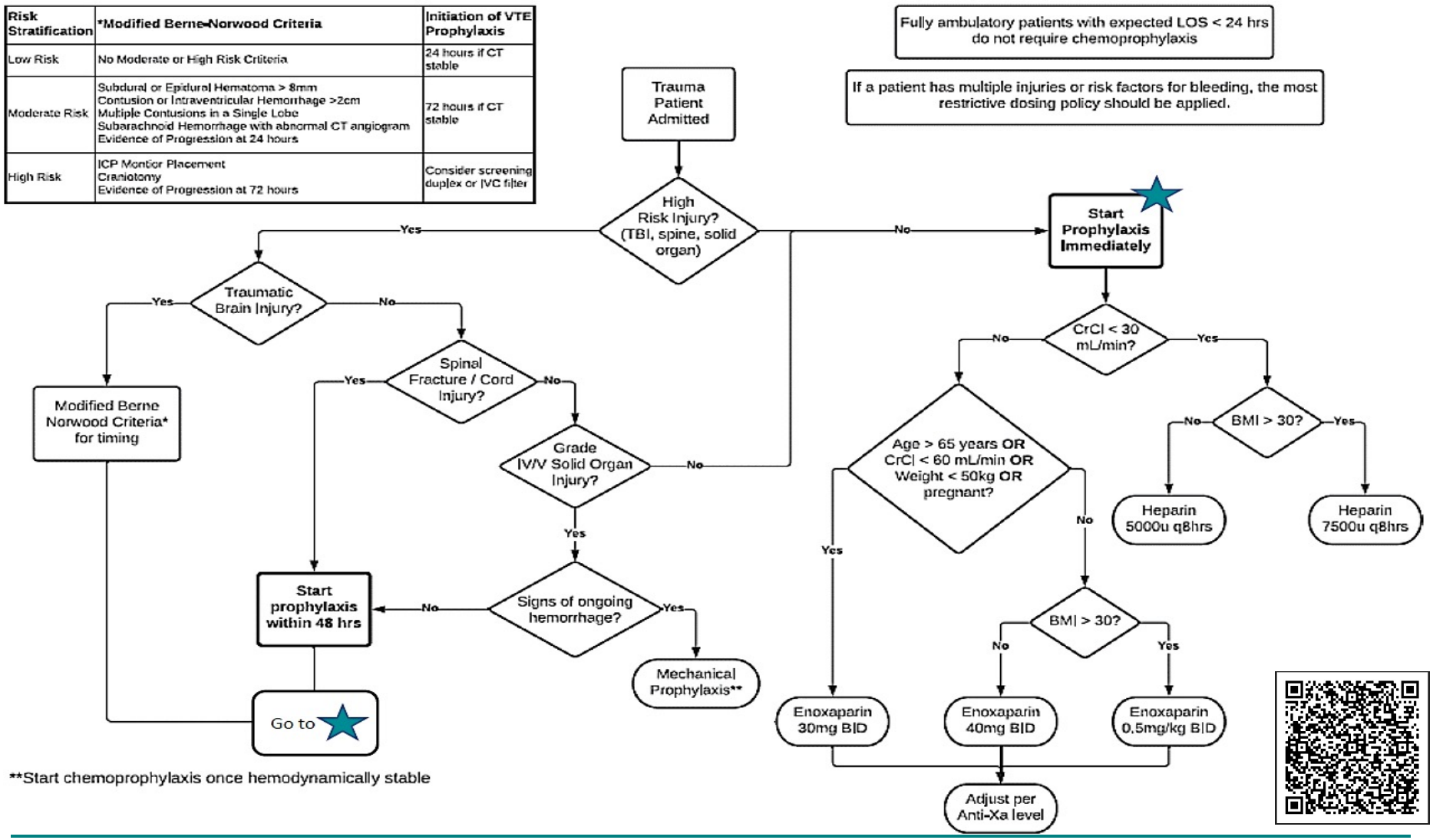
2022 Navicent VTE Prophylaxis Guideline

Risk Stratification	*Modified Berne-Norwood Criteria	Initiation of VTE Prophylaxis
Low Risk	No Moderate or High Risk Criteria	24 hours if CT stable
Moderate Risk	Subdural or Epidural Hematoma > 8mm Contusion or Intraventricular Hemorrhage >2cm Multiple Contusions in a Single Lobe Subarachnoid Hemorrhage with abnormal CT angiogram Evidence of Progression at 24 hours	72 hours if CT stable
High Risk	ICP Monitor Placement Craniotomy Evidence of Progression at 72 hours	Consider screening duplex or IVC filter

Fully ambulatory patients with expected LOS < 24 hrs do not require chemoprophylaxis

If a patient has multiple injuries or risk factors for bleeding, the most restrictive dosing policy should be applied.



**Start chemoprophylaxis once hemodynamically stable

HARDWIRE – VTE Best Practice

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Create situational awareness →
VTE prophylaxis ↔ VTE PREVENTION

Online access to trauma care guidelines with mobile & department intranet site

Concurrent monitoring:
- VTE pro use
- VTE id
- Bleeding events
- PI Coor attends AM team mtgs

Communicate, ed & buy in from:
- Nursing Practice Council
- Nursing Educators
- Groups: Radiology(IR), Orthopedics, Pharmacy, Vascular, Hospitalists, Cardiovascular, Neurosurgery

Trauma team reporting:
- Review all trauma inpts for VTE pro
- DVT & PE incidence
- Frequent Peer &/or System mtg reports
- TQIP benchmark results

TQIP: Incidence of PE

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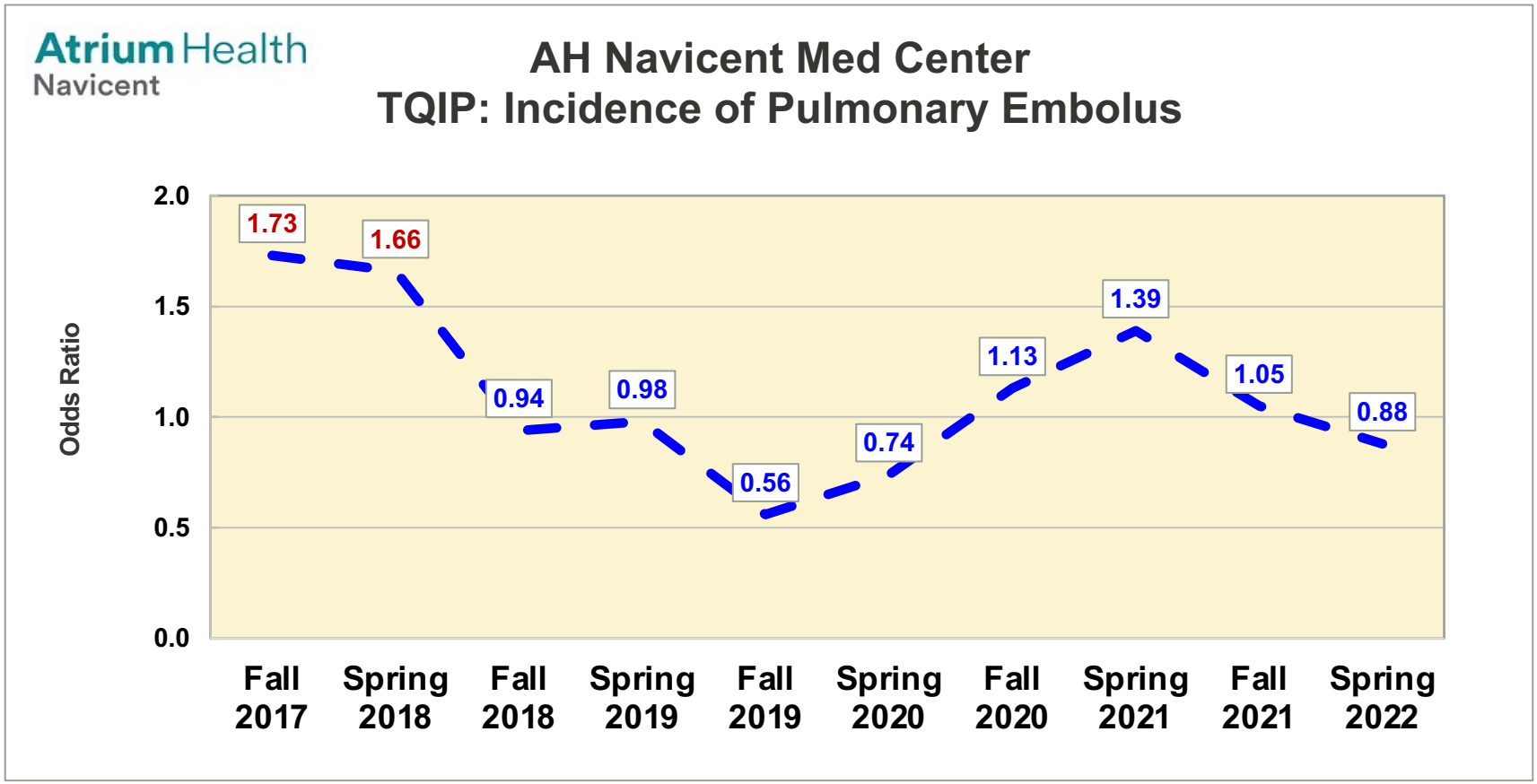

Spring 2022 TQIP

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Confirmed COVID-19

	AH Navicent	All Hospitals
Spring 2022: *n*	**1,284**	**364,540**
% COVID +	**4.52%**	**2.11%**
Fall 2021: *n*	**1,265**	**349,080**
% COVID +	**4.03%**	**2.03%**

Venous thromboembolism (VTE)

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VTE prophylaxis is part of our trauma culture of care.

This project encouraged our change to a concurrent, prevention focus process for trauma performance improvement.

Johns & Fabico-Dulin, 2021

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