

**2016 American Nurses
Association Annual Conference**

Connecting **Quality, Safety**
and **Staffing** to Improve Outcomes



RN Anticoagulation Therapy Management Model:
Improving Patient Care and Safety in the Ambulatory Care Setting

Mary M. Morin, RN, NEA-BC

Vice President and Nurse Executive, Sentara Medical Group

Friday, March 11, 2016, Session C203

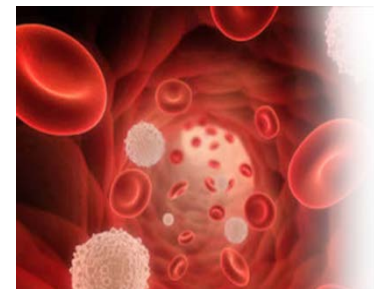
MARCH 9-11, 2016 LAKE BUENA VISTA, FL www.nursingworld.org/ANAcconference





Background

- Warfarin is one of the most common drugs associated with adverse drug events nation-wide
- July 2012 Serious safety events:
 - 2 deaths related to sub-therapeutic INR
 - Other adverse events and near misses associated with anticoagulation therapy
- Processes not standardized





Performance Improvement

- October 2012 SMG assigned to standardize anticoagulation therapy management
- Non-acute care settings
- Conducted current state analysis:
 - extreme variances in practices
 - lack of discreet data
- Goal: design an innovative, centralized, and standardized RN/PharmD model



Guiding Principles

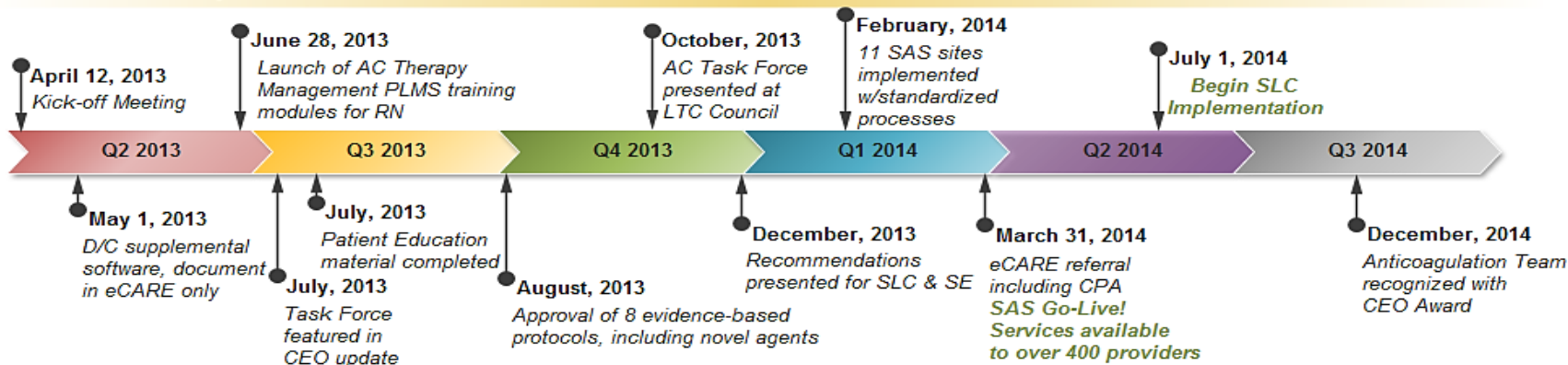
- Safe
- Patient-Centered/Access
- Integrated, Standardized Processes
- Evidence-Based, Data-Driven Decision-Making
- RNs and PharmDs Practice within Scope of Licensure
- Cost Avoidance/Risk Mitigation





Anticoagulation Task Force

Safety Focused, Patient-Centered, Evidence-Based Best Practices, Collaborative



Reduction in variance & increased consistency

Reduces the risk of error and ultimately potential for adverse event

Engage patient & family

Comprehensive patient/caregiver education material and consistent interaction with a registered nurse

Evidence-based Best Practice

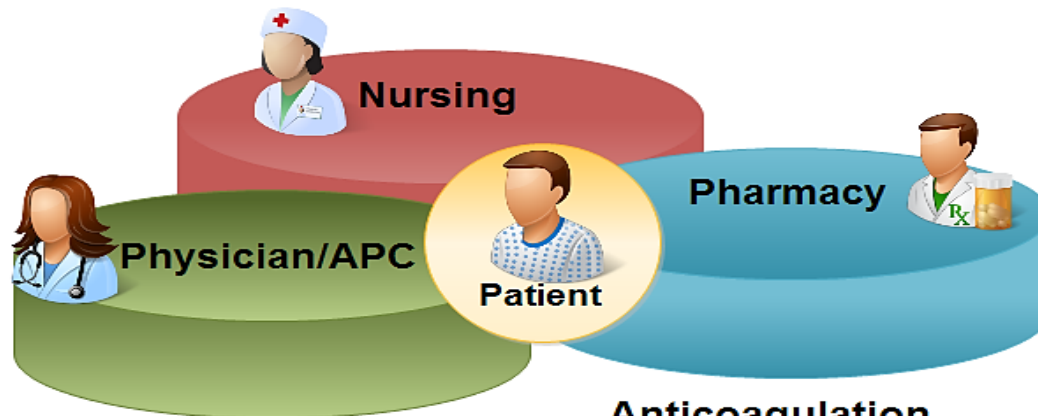
Well aligned with Sentara's strategic goals; caring for defined populations & improving health & safety

Optimization of Clinical Resources

RN/PharmD model provides the opportunity to reduce workload for the provider so they can focus on other important aspects of patient care

Reduction of Waste

Evidence-based protocols require less frequent INR testing



Anticoagulation Therapy Management Model



Highlights

- RN-Driven Anticoagulation Clinics (SASC)
- Evidenced-based protocols (warfarin dosing, INR testing)
- PharmD virtual support
- PharmD-driven bridging and dosing protocols for directed oral anticoagulants (DOACs) through collaborative practice agreement
- Highly standardized visit processes and documentation



Highlights

- Provider “in-basket” messaging by RN and PharmD
- PharmD virtual consultation and tracking of interventions
- Standardized, ongoing patient/caregiver education
- RN/PharmD model implementation in Life Care and Home Health (future)
- 2014 Sentara CEO Award
- Improved reporting of ADEs
- 100% SMG provider referral



Referral Documentation Process

Place orders (Enc Date: 12/2/2015) - Wt: (Not entered for this visit) Ht: 5' 8" (1.727 m) ? Resize

Pref List
 Interactions
 Pharmacy
 Providers
 CC Results
 References
 Open Orders
 Pending Orders
 Sign Orders
 Financial

New order: Search Both Medication Procedure

New order defaults Not using defaults

REFERRAL TO ANTICOAGULATION SERVICES (SMG ECARE NETWORK)

Priority:

Class:

Referral: Location/POS: From: ASITIE, NANCY [71004] To:

of Visits: Expiration Date:

Provider Specialty:

Department:

RefType:

Referral Reason:

Reference Links:

1. Collaborative Agreement
2. Supratherapeutic INRs
3. Warfarin in Ortho Patients
4. Perioperative/Bridge Tx
5. Apixaban Therapy
6. Dabigatran Therapy
7. Rivaroxaban Therapy
8. Warfarin Initiation
9. Chronic Warfarin Therapy

Questions:

Prompt	Answer	Comments
1. By signing this referral, I, the ordering provider, agree to enter a collaborative relationship with the Clinical Pharmacy Specialist in the management of anticoagulation of the aforementioned patient.	<input checked="" type="button" value="AGREE"/>	
2. Anticoagulant	<input type="button" value="Apixaban"/> <input type="button" value="Dabigatran"/> <input type="button" value="Rivaroxaban"/> <input type="button" value="Warfarin"/>	
3. Current Dose (in mg)	<input type="text"/>	
4. Dosing Instructions	<input type="button" value="Once a day"/> <input type="button" value="Twice a day"/> <input type="button" value="Total Weekly Dose"/>	
5. Indication for treatment	<input type="text"/>	
6. Follow Dosing Protocol	<input type="text"/>	
7. INR Goal	<input type="text"/> <input type="button" value="2.0-2.5"/> <input type="button" value="2.0-3.0"/> <input type="button" value="2.5-3.5"/>	
8. Duration	<input type="button" value="12 days (for a knee replacement)"/> <input type="button" value="35 days (for a hip replacement)"/> <input type="button" value="45 days (for a superficial DVT)"/> <input type="button" value="3 months (for a provoked DVT)"/> <input type="button" value="6 months (some extended use for cardiac stents, DVTs, etc.)"/> <input type="button" value="Indefinite (for AFIB, h/o multiple VTE, etc.)"/> <input type="button" value="Other, please specify"/>	
9. Date anticoagulant was started	<input type="text"/>	
10. Stop date for anticoagulation?	<input type="text"/>	

Comments (F6):

Follow anticoagulation protocol and dosing guidelines for selected medication.



RN Anticoagulation Visit Documentation

Asitie, Nancy, RN		Registered Nurse	Sign at close encounter	Service date: 12/02/2015 1112																
<a>Edit in NoteWriter <a>Edit <a>Delete				<a>Bookmark <a>Copy																
<p>Theodore Battleship 12/2/2015</p> <p>PLAN:</p> <p>Patient reports that he {SI/S NOT EC:18600} taking his {Anticoag Med List:28074} *** mg/ {Anticoag Med Frequency:28075} as prescribed. Patient was advised to {AMB Anticoag Continue Med:28926} and repeat INR in {NUMBERS 1-12:19633} {days weeks:21915} {ANTICOAGPROTOCOL:28992}.</p> <p>FINDINGS AT TODAY'S ANTICOAGULATION VISIT:</p> <table border="1"> <tr> <td>MEDICATION CHANGES: • To include new medication, changes in dose or discontinued medications.</td> <td>{Anticoag Med Changes :28895}</td> </tr> <tr> <td>DIET CHANGES: • To include any FAD or special diets.</td> <td>{Anticoag Diet Changes:27983}</td> </tr> <tr> <td>ALCOHOL OR TOBACCO USE: • Use since patient's last visit.</td> <td>{Anticoag Alcohol Consumption:28020}</td> </tr> <tr> <td>HEALTH CHANGES: • To include any acute illnesses, diarrhea, vomiting etc.</td> <td>{Anticoag Health Status Changes:27986}</td> </tr> <tr> <td>RECENT HOSPITALIZATIONS: • To include any admission since patient's last visit.</td> <td>{Anticoag Recent Hospitalization:28497}</td> </tr> <tr> <td>PROCEDURES/SURGERIES: • To include steroid injections, tooth extractions, colonoscopy, surgeries, etc.</td> <td>{Anticoag denies reports procedure:28897}</td> </tr> </table> <table border="1"> <tr> <td>BLEEDING ISSUES:</td> <td>{Anticoag s/s bleeding:28901}</td> </tr> <tr> <td>CLOTTING ISSUES:</td> <td>{Anticoag s/s clotting:28903}</td> </tr> </table> <p>This information was reported by {Anticoag data collected by:28984}</p> <p>{AMB ANTICOAG LAST 7 DOSE:28668} {AMB LAST INR RESULTS:28669} Patient education reinforced: {Anticoag education topics:28631}. Patient verbalized understanding.</p> <p>Nancy Asitie, RN</p> <p>SOUTH HAMPTON ROADS FAMILY PRACTICE 120 Corporate Blvd Norfolk, VA 23502</p>					MEDICATION CHANGES: • To include new medication, changes in dose or discontinued medications.	{Anticoag Med Changes :28895}	DIET CHANGES: • To include any FAD or special diets.	{Anticoag Diet Changes:27983}	ALCOHOL OR TOBACCO USE: • Use since patient's last visit.	{Anticoag Alcohol Consumption:28020}	HEALTH CHANGES: • To include any acute illnesses, diarrhea, vomiting etc.	{Anticoag Health Status Changes:27986}	RECENT HOSPITALIZATIONS: • To include any admission since patient's last visit.	{Anticoag Recent Hospitalization:28497}	PROCEDURES/SURGERIES: • To include steroid injections, tooth extractions, colonoscopy, surgeries, etc.	{Anticoag denies reports procedure:28897}	BLEEDING ISSUES:	{Anticoag s/s bleeding:28901}	CLOTTING ISSUES:	{Anticoag s/s clotting:28903}
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RN Anticoagulation Visit Documentation

ing Notes (F3 to enlarge) Bookmark

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NGS AT TODAY'S ANTICOAGULATION VISIT:

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CHANGES: <i>include any FAD or special diets.</i>	{Anticoag Diet Changes:27983}	
PHOL OR TOBACCO USE: <i>se since patient's last visit.</i>	{Anticoag Alcohol Consumption:28020}	
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close encounter

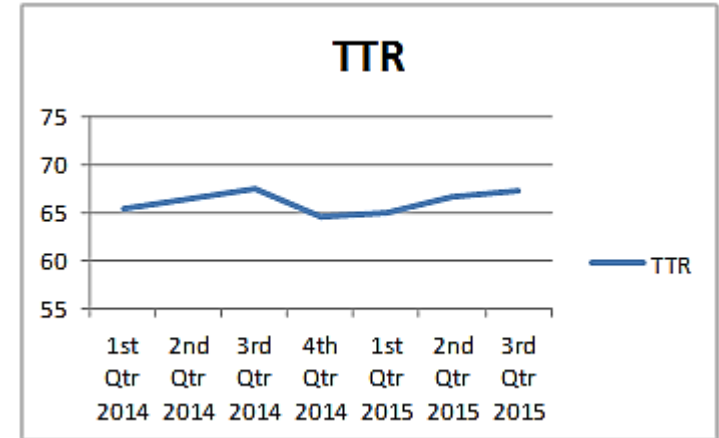
store Close F9 Cancel Previous F7 N



Sharing Success: SMG Nursing

2014-2015 SMG SASC data:

- 31 RNs across 17 sites
- ~9,000 patients
- 117,044 clinic visits; 28,416 virtual visits
- TTR 66% (benchmark 55%-65%)
- 100% RN education/training (initial and annually)
- 8 SASC RNs Ambulatory Nursing Board Certified in 2015
- Nursing IRB approved research study on protocol vs. non-protocol TTR
- No Serious Safety Events





Sharing Success: SMG Nursing

State and National Presentations:

- HPI Annual Safety Summit, podium presentation, October 2013
- Virginia Patient Safety Summit, poster presentation, January 2014, 2015, 2016 (JAN - Podium)
- American Academy of Ambulatory Care Nurses poster presentation, April 2014 and 2015
- Virginia Nurses Association Education Day, poster presentation, September 2014, 2015 (NOV)
- National Conference of the Anticoagulation Forum, poster presentation, April 2015
- American Nurse Association, Podium Presentation, 2016 (MAR)

Anticoagulation Documentation:

- Time in Therapeutic Range (TTR) by site/SMG - “TTR on the Fly”
- Robust SASC referral (SMG and non-SMG providers)



**To err is human,
to cover up is unforgivable and
to fail to learn is inexcusable.**

Sir Liam Donaldson

