FUNDAMENTALS OF ANTICOAGULANT THERAPY: TRANSITIONS OF CARE

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Disclosures

• Janssen Pharmaceuticals
Learning Objectives

- Describe the scope and magnitude of adverse events that occur during transitions of care (ToC)
- List key elements considered important for effective ToC
- Explain why anticoagulation patients are at particularly increased risk during ToC
- Discuss approaches that may promote better ToC for anticoagulation patients

What are Transitions of Care (ToC)?

<table>
<thead>
<tr>
<th>Movement of patients</th>
<th>Between or within care settings</th>
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<tbody>
<tr>
<td></td>
<td>Between providers</td>
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<td>Between clinical conditions</td>
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<td>Transfer of</td>
<td>Patient information</td>
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<td></td>
<td>Responsibility/accountability for the patient’s care</td>
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<tr>
<td>Change in therapy</td>
<td>Starting/stopping or transitioning between drugs</td>
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### ToC: High-Risk Junctures

| Potential preventable medication errors in hospitalized patients | 22% occur at admission |
| Discharged patients | 66% occurring during transfer to/from ICU |
| Discharged to nursing home or home healthcare | 12% occur at discharge |
| | Up to 50% experience a medical error within 4-6 weeks |
| | Most are medication-related and preventable |
| | Associated with high readmission rates |
| | 20% experience medication-related adverse event |
| | Likely underestimation due to lack of reporting requirements or processes |

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### ToC: High-risk Junctures

- Only 12-34% of patients had a discharge summary available at their first post-discharge appointment
- 30% of discharge summaries lack adequate basic information to care for patients transferred to rehabilitation facilities
- Among patients >65 years:
  - 40% unable to describe reason for hospitalization
  - 54% could not recall instructions for follow-up appointment
- >50% of Medicare patients re-admitted within 30 days had no evidence of a post-discharge ambulatory encounter

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Regulatory Action On Readmissions

**Penalties**
- Hospital Readmission Reduction Program (HRRP)
  - Up to 3% reduction in reimbursement for excessive 30-day readmissions

**Incentives**
- Value Based Purchasing (VBP) Programs
  - Redistribution of withheld 2% DRG payments to top performers (fewest 30-day readmissions)
  - Applies to hospitals
  - *As of FY ’19, also applies to SNFs*

There’s a lot of work to be done...

Where we are

Where we need to be
Increasing Complexity of ToC

- Patient census is increasing
- Sicker patients
- Shorter lengths of stay
- Technology & knowledge have advanced
- New models of care have emerged
- Cost of healthcare increasing

Add Covid to the Equation

- High Risk patients requiring close monitoring, especially warfarin patients
- Need for creative management strategies
- Wide spread use of telehealth management
- Transitioning of patients to DOAC's
- Shift of patients on warfarin to patient self-testing
Case Study 1

- Ms. Smith 75 year old female with hx of AF, Mitral valve replacement 10 years ago, DM and CHF admitted 5 days prior to your hospital with COVID 19
- Current meds: Warfarin, metformin, furosemide, lisinopril, carvedilol, asa
- Labs today: INR 3.9 (3.1 yesterday)
- Preparing for discharge today

Warm Handoff: Intervention

A warm handoff is a transfer of care between two members of the health care team, where the handoff occurs in front of the patient and family. This transparent handoff of care allows patients and families to hear what is said and engages patients and families in communication, giving them the opportunity to clarify or correct information or ask questions about their care.
How Can We Improve ToC?

No single intervention has been shown to sustainably reduce ToC-associated adverse events

Care transitions models that have shown success use:

- Multifaceted approach
- Bundled interventions

Bundled interventions are implemented:

- Before discharge
- At discharge
- After discharge

Wittkowsky, A. J Thromb Thrombolysis 2013; 35: 304-11

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<tr>
<th>Pre-discharge</th>
<th>At-discharge</th>
<th>Post-discharge/ bridging</th>
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<tr>
<td>Identify &amp; resolve barriers to care</td>
<td>Patient-centered discharge instructions</td>
<td>Timely communication of discharge summary to next provider(s) with confirmed receipt</td>
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<tr>
<td>• Transportation</td>
<td>• F/u for pending results</td>
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<tr>
<td>• Financial</td>
<td>• Safety-net phone numbers</td>
<td></td>
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<tr>
<td>• Social support</td>
<td>• Problem-solving strategies</td>
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<tr>
<td>• Emotional</td>
<td>• Written summary</td>
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<td>• Physical</td>
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<tr>
<td>Patient/care partner education</td>
<td>Ongoing education</td>
<td>Timely follow-up</td>
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<td>• Engagement in care</td>
<td>• Teachback/ comprehension</td>
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<tr>
<td>• Medications/conditions</td>
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<tr>
<td>Medication reconciliation</td>
<td>Medication reconciliation</td>
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<td>Appointment scheduling</td>
<td>Medications to bedside</td>
<td>Follow-up phone call</td>
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Transitional Care Models

- Project RED
- BOOST
- NTOCC
- Hospital to Home (H2H)

None specifically focused on anticoagulation patients or therapies

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Project Red

**Components**

1. Ascertain need for and obtain language assistance.
2. Make appointments for follow up medical appointments and post discharge tests/labs.
3. Plan for the follow up of results from lab tests or studies that are pending at discharge.
4. Organize post-discharge outpatient services and medical equipment.
5. Identify the correct medicines and a plan for the patient to obtain and take them.
6. Reconcile the discharge plan with national guidelines.
7. Teach a written discharge plan the patient can understand.
8. Educate the patient about his or her diagnosis.
9. Assess the degree of the patient’s understanding of the discharge plan.
10. Review with the patient what to do if a problem arises.
11. Expedite transmission of the discharge summary to clinicians accepting care of the patient.
12. Provide telephone reinforcement of the Discharge Plan.

[https://www.bu.edu/fammed/projectred/components.html](https://www.bu.edu/fammed/projectred/components.html)
Better Outcomes for Older Adults Through Safe Transitions (BOOST)

Program was launched by the Society of Hospital Medicine in December 2008, aims to reduce unnecessary readmissions and improve overall quality of care by better identifying patients who are the most at risk for returning to the hospital.

https://www.hospitalmedicine.org/BOOSTCA
National Transitions of Care Coalition (NTOCC)

- Seven core components
  - Medication Management.
  - Transition Planning.
  - Patient & Family Engagement.
  - Information Transfer.
  - Follow-up care.
  - Healthcare Provider Engagement.
  - Shared Accountability Across Providers & Organizations

https://www.ntocc.org/

Hospital to Home (H2H)

- The H2H national quality improvement initiative is an effort to reduce cardiovascular-related hospital readmissions and improve the transition from inpatient to patient status for individuals hospitalized with cardiovascular disease.

- Goal: To reduce 30 day, all-cause, risk standardized readmission rates for patients discharged with cardiac conditions

- Areas for Improvement: Rather than imposing and advocating specific strategies, the H2H project provides a central clearinghouse of information and tools, building on what others are doing and have done to improve care transitions and reduce readmissions. H2H focuses on 3 evidence-based areas for improvement.

https://cvquality.acc.org/initiatives/hospital-to-home/about-h2h
Hospital to Home (H2H)

H2H focuses on 3 evidence-based areas for improvement:

1. Early Follow-Up
   Does the patient have a follow-up visit scheduled or cardiac rehabilitation referral within 1 week of hospital discharge?

2. Post-discharge Medication Management
   Are the caregiver and patient teams working together to ensure optimal medication management?

3. Signs and Symptoms
   Is the patient self-activated to recognize and appropriately act on warnings signs and symptoms?

Key Care Transitions for AC Patients

- Transitioning between care settings
- Transitioning on to anticoagulant (initiation)
- Transitioning between anticoagulants
High-risk junctures and high-risk meds....

Anticoagulants: High-risk Medications

table 3. US Emergency Department (ED) Visits for Adverse Drug Events (ADEs) from Commonly Implicated Drug Classes by Year, 2005-2014

- Most commonly implicated drugs same as those identified a decade ago
- More anticoagulants available, prescribing increased 38% '09-'14
- '05-'14, ED visits involving anticoagulants increased 57%

In 2017 an estimated 235,651 patient visits to ER for anticoagulation related problems accounting for 15.5% of all ED visits for adverse drug events
Lack of Familiarity with DOACs

- Electronic questionnaire sent to 143 prescribers
- Familiarity of DOACs as anticoagulants: 50-80%
- Recognition fictitious patient was anticoagulated: <20%
- Recognition proceeding to surgery unsafe: <40%

Increasing Need for Anticoagulants

- Atrial Fibrillation
- VTE

Increasing Focus on Anticoagulants

• Integrate anticoagulation-specific targets into existing care transition models
• Leverage the EHR for better communication and surveillance
• Antithrombotic Stewardship Programs
• Expand number and scope of national quality reporting measures pertaining to anticoagulants


Case Study 2

• Patient J.S is a 64 year old uninsured male with history of HTN, DM, CHF, HIV and ETOH abuse.
• His was admitted two days prior with AF with RVR.
• He was started on anticoagulation day of admission with
• His rate is now controlled and planning for discharge in the next 24 hours. He is referred to your anticoagulation service for outpatient management of his anticoagulation.
### Barriers to Optimal ToC Among Anticoagulation Patients

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<tr>
<th>Level</th>
<th>Barriers</th>
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<tbody>
<tr>
<td><strong>System</strong></td>
<td>Lack of standardized processes</td>
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<td></td>
<td>Lack of communication of key information</td>
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<tr>
<td><strong>Clinician</strong></td>
<td>Inadequate knowledge of risk/benefit of AC therapy</td>
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<td></td>
<td>Lack of familiarity with practical management of AC therapies</td>
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<tr>
<td><strong>Patient</strong></td>
<td>Low health literacy</td>
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<tr>
<td></td>
<td>Socioeconomic status</td>
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<td></td>
<td>Lack of confidence or comprehension</td>
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### Core Tenets of Anticoagulation ToC

- Upstream identification and resolution of barriers to care
- Standardized, multidisciplinary processes that utilized evidence-based best practices
- Consistent, accurate medication reconciliation
- Patient empowerment/education and confirmation of comprehension
- Capture and consolidation of key anticoagulation information
- Timely handoff communication (bi-directional with confirmation of receipt)
- Access to care with timely follow up
Important Consideration for Case Study 2

- What anticoagulation was prescribed? If a DOAC, can patient afford DOAC without insurance? If warfarin, what doses received, what is INR?
- Does this patient have PCP/cardiologist to follow up with?
- Is the patient taking any medications that may interact with his DOAC?
- What education has patient received?
- Do you have accurate demographics to reach patient?
- Is cardioversion planned?
- Did the patient receive medications to take home with until first visit?

Key Points

- ToC are high-risk junctures, particularly for patients on anticoagulant therapy
- These transitions are increasing in number and complexity
- Needed focus pertaining to anticoagulation ToC may be achieved through increased regulatory reporting requirements
- Innovative approaches, such as antithrombotic stewardship programs and increased leveraging of the EHR, are also likely to be essential in optimizing anticoagulation ToC