Supplementary Online Content


eMethods 1. Preimplementation Phase

eMethods 2. Periprocedural Anticoagulant and Antiplatelet Protocol

eAppendix 1. Patient Satisfaction and Knowledge Survey

eAppendix 2. Provider Survey

eFigure 1. Root Cause Analysis Fishbone Diagram

eFigure 2. Future State Process Map

eFigure 3. Best Practice Alert for Patients on Antithrombotic Medications at the Time an Elective Gastrointestinal Endoscopy Procedure Is Ordered

eFigure 4. Study Flow Chart for Best Practice Advisory Analysis

eFigure 5. Provider Satisfaction With BPA and Anticoagulation Clinic Referral Process

eFigure 6. Monthly Cancelation Rate Within 24 Hours of Scheduled Endoscopy Procedure

eTable. Characteristics and Outcomes of Endoscopy Unit Sample for Same-Day Cancelations

eReferences.

This supplementary material has been provided by the authors to give readers additional information about their work.
eMethods 1. Preimplementation Phase

Quality Improvement Intervention development and characteristics

In April 2017, a multi-disciplinary team formed to describe in detail the current process for managing pre-endoscopy antithrombotic medications and to then re-design the process at our tertiary academic medical center. The team included physician representatives from cardiovascular medicine, gastroenterology, gynecology, and primary care. The team also included nursing representatives from the gastroenterology clinic and endoscopy unit, a manager from the endoscopy scheduling unit, a pharmacist from the anticoagulation clinic, two electronic medical record programmers, a quality improvement specialist, a research assistant, and two patient representatives. The University of Michigan Medical School IRB approved all phases of this project.

Baseline antithrombotic management process

The team spent approximately three months meeting every other week to describe the current work flow using group discussion, direct observation, and review of informative cases.(1-3) The team engaged in a root cause analysis (developing an Ishikawa “fishbone” diagram shown in the online appendix) to explore why the current state was not optimal, identified potential work flow re-design options, and selected the re-design approach that offered the best opportunity to improve care delivery with minimal staffing resource changes (online appendix).

Redesigned antithrombotic management process and implementation

To promote improved coordination of care and standardize the process, the team decided that a single clinical unit should have responsibility for determining the appropriate time to stop an antithrombotic drug, whether to prescribe bridging (in the case of anticoagulants), and to communicate plans to the patient. The anticoagulation clinic, under the guidance of a cardiologist, was chosen as the operational unit given their expertise in anticoagulant medications, available pharmacist time, fewer staff to train in order to achieve a standard process, and ability to expand this process to other types of procedures in the future. Asking primary care clinicians and gastroenterology clinicians to do this work was considered but believed to be less optimal than the anticoagulation clinic.

The team also updated institutional guidelines for pre-procedure management of anticoagulant medications (including warfarin and the direct oral anticoagulants) while developing new guidelines for pre-procedure management of P2Y12 inhibitor antiplatelet medications before non-cardiac surgery. These institutional guidelines were updated/developed in conjunction with local experts (including anticoagulation pharmacy, gastroenterology, interventional cardiology, stroke neurology, vascular medicine, and vascular surgery) and approved by the

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institution’s antithrombotic pharmacy and therapeutic subcommittee (online appendix). The gastroenterology service also developed clinical practice policy that anti-thrombotic drugs should be withheld prior to colonoscopies given the potential need for polypectomy but could be continued prior to upper endoscopies unless esophageal dilation or thermal treatments were planned, which confer a higher risk of bleeding.

In order to implement the BPA and referral process, the anticoagulation clinic expanded their services to include pre-procedure P2Y12 inhibitor management in addition to their existing pre-procedure anticoagulant management, based on feedback from many gastroenterology and primary care clinicians that they often did not distinguish between the two types of drugs and wanted a common system for managing all antithrombotic drugs.
eMethods 2. Periprocedural Anticoagulant and Antiplatelet Protocol

Warfarin

Patients at low risk of pre-procedural thrombosis:

1) Pre-operative/Pre-procedural management:
   a) Stop warfarin 5 days prior to the operation/procedure.
   b) In some pediatric populations, stopping warfarin 3 – 5 days before the operation/procedure may be appropriate.

2) Day of surgery/procedure:
   a) Check INR STAT on the morning of surgery.
   b) If INR is greater than 1.5 consider giving vitamin K 1.25mg orally

3) Post-operative/Post-procedural management:
   a) Resuming warfarin post-procedure: Subject to surgeon approval. Generally resume warfarin within 12 to 24 hours after procedure. Patients having bariatric surgery require special post-operative management due to unpredictable absorption of vitamin K post-operatively. Low molecular weight heparin (LMWH) therapy may be appropriate.
   b) Patients should receive venous thromboembolism (VTE) prophylaxis postoperatively until warfarin is therapeutic; dosing based on UM Care-Link VTE risk assessment.
   c) Refer to the Antithrombotic/Antiplatelet Agents & Central Neuraxial Blockade Guidelines for Patients 18 years and older before restarting anticoagulation in patients with neuraxial blockade.

Patients at an intermediate risk of pre-procedural thrombosis:

1) Consideration of appropriate pre-operative/pre-procedural management for patients in the intermediate risk group should include patient-specific thrombosis risk factors and surgery-related criteria. If periprocedural bridging is required, follow the instructions within the high-risk category.

Patients at high risk of pre-procedural thrombosis:

1) Pre-operative/Pre-procedural management:
   a) Stop warfarin 5 days prior to the operation/procedure
   b) In some pediatric populations, stopping warfarin 3 – 5 days before the operation/procedure may be appropriate.
   c) Bridge with LMWH or unfractionated (UFH) infusion. LMWH is preferred for most patients unless patient has end-stage renal disease (ESRD), then UFH is preferred.
   d) If using LMWH, start LMWH within 36 hours after the first held dose of warfarin.
   e) Discontinue enoxaparin 12 hours prior to the operation/procedure for patients receiving twice-daily dosing
      i) Discontinue enoxaparin 24 hours prior to the operation/procedure for patients receiving once-daily dosing
      ii) Discontinue UFH infusion at least 4 hours before the operation/procedure.
   f) If using UFH for bridging, admit to hospital on day 2 after the first held warfarin dose. After baseline labs, begin UFH infusion based on UMHS Heparin nomogram.
      i) Stop the heparin infusion at least 4 hours prior to the surgery/procedure.

2) Day of surgery/procedure:
   a) Check INR STAT on the morning of surgery
   b) If INR is greater than 1.5 consider giving vitamin K 1.25 mg orally

3) Post-operative/Post-procedural management:
   a) Resuming warfarin: Subject to surgeon approval. Generally, resume warfarin within 12 to 24 hours after procedure.
   b) Patients having bariatric surgery require special post-operative management due to unpredictable absorption of vitamin K post-operatively. LMWH therapy may be appropriate.
   c) Restart LMWH or UFH infusion as soon as possible postoperatively when safe from standpoint of surgery/procedure.
   d) Refer to the Antithrombotic/Antiplatelet Agents & Central Neuraxial Blockade Guidelines for Patients 18 years and older before restarting anticoagulation in patients with neuraxial blockade.
   e) Discontinue LMWH/UFH infusion one day after INR enters therapeutic range.
P2Y12 Receptor Inhibitor Antiplatelets (Clopidogrel, Prasugrel, Ticagrelor) – ADULTS ONLY

1) For elective procedures, the following situations should be considered before stopping antiplatelet therapy:
   a) Given the need for uninterrupted P2Y12 receptor inhibitor drug use, procedure should be delayed and the proceduralist should be consulted if:
      i) PAD revascularization within prior 3 months
      ii) Acute coronary syndrome (ACS) within prior 6 months
      iii) Non-ACS coronary stent placement within prior 3 months
      iv) Stroke/TIA within 6 months
   b) A conversation should occur between the proceduralist and the managing clinician (e.g. cardiologist) to determine the appropriate timing and periprocedural P2Y12 receptor inhibitor medication management if:
      i) ACS within prior 6-12 months
      ii) Non-ACS coronary stent placed within prior 3-6 months
   c) If none of the above criteria are met, the P2Y12 receptor inhibitor medication may be held without delaying the procedure

2) Pre-operative/pre-procedural management of P2Y12 receptor inhibitor drugs:
   a) Clopidogrel and ticagrelor should be stopped 5 days prior to procedure
   b) Prasugrel should be stopped 7 days prior to procedure
   c) Start aspirin 81 mg daily (if not already taking) while the P2Y12 receptor inhibitor is being held for the following indications:
      i) PAD revascularization
      ii) Stroke/TIA (optional)
      iii) Recent ACS/coronary stent (within 12 months)

3) Post-operative/post-procedural management of P2Y12 receptor inhibitor drugs:
   a) Subject to surgeon/proceduralist discretion based on post-procedure bleeding risk. In general resume within 24-48 hours of procedure/surgery:
      i) Clopidogrel 300 mg loading dose followed by 75 mg daily
      ii) Prasugrel 60 mg loading dose followed by 10 mg daily (or prior daily dose)
      iii) Ticagrelor 180 mg loading dose followed by prior daily dosing (60 mg or 90 mg twice daily)
   b) If aspirin was initiated temporarily as outlined above, it can be stopped once P2Y12 inhibitor is restarted
Q1 Thank you for taking the time to fill out this brief survey. We are interested in learning more about how we can improve the experience of patients who are taking a blood thinner and preparing to undergo an endoscopic procedure. Our goal is to make this procedure as safe as possible and ensure the experience is as patient-centered as it can possibly be. Common blood thinners that you might have been taking before this procedure include: warfarin (Coumadin) apixaban (Eliquis) dabigatran (Pradaxa) edoxaban (Savaysa) rivaroxaban (Xarelto) clopidogrel (Plavix) prasugrel (Effient) ticagrelor (Brilinta). Common endoscopic procedures include colonoscopy and upper endoscopy (also known as EGD). Often times, patients are told by their doctors to hold their blood thinners for a few days before a procedure.

Q2 We would like to ask you a few questions about taking a blood thinner and preparing to undergo an endoscopic procedure.

Q38 Who is answering survey?

- Patient  - Family member  - Caregiver  - Other

Q39 Did you receive verbal consent to complete the survey?

- Yes
Q3 In the past month, have you taken a blood thinner most days of the week? (most = 4+ days per week)

- Yes
- No
- Unsure

Q4 If yes, which of these blood thinners do you take on a regular basis?

- warfarin (Coumadin)
- dabigatran (Pradaxa)
- rivaroxaban (Xarelto)
- apixaban (Eliquis)
- edoxaban (Savaysa)
- clopidogrel (Plavix)
- prasugrel (Effient)
- ticagrelor (Brilinta)
- I'm not sure of the name

Q26 Why do you take your blood thinner?

- Irregular Heart Beat (aka Atrial Fibrillation)
- Blood clot in the leg or lung (aka Venous Thromboembolism, including deep vein thrombosis and/or pulmonary embolism)
- Mechanical Heart Valve
- Heart stents (coronary artery)
- Non-heart stents (e.g. stent in legs or neck arteries)
- Heart attack/Heart disease (without a recent stent)
- Other
Q32 Did you have to stop your ${Q4/ChoiceGroup/SelectedChoices} before your procedure?

- Yes
- No
- Unsure

Q7 Did your health care provider (e.g. nurse, pharmacist, or doctor) give you instructions about how to take your ${Q4/ChoiceGroup/SelectedChoices} before your procedure?

- Yes
- No
- Unsure

Q8 Which provider’s office gave you instructions on how to take your ${Q4/ChoiceGroup/SelectedChoices} before this procedure? (select all that apply)

- Primary care provider
- Gastroenterologist

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☐ Cardiologist
☐ Anticoagulation clinic nurse or pharmacist
☐ Other

Display This Question:
If Which provider’s office gave you instructions on how to take your ... = Other

Q34 Which provider’s office gave you instructions on how to take your $\{(Q4/ChoiceGroup/SelectedChoices)\} before this procedure?

__________

Display This Question:
If Did you have to stop your $\{(Q://QID4/ChoiceGroup/SelectedChoices)\} before your procedure? = Yes

Q5 During your most recent visit, did that provider explain how to manage your $\{(Q4/ChoiceGroup/SelectedChoices)\} in a way that was easy to understand?

☐ Yes, definitely ☐ Yes, somewhat ☐ No

Q35 Optional text entry: Clarify how easy provider's instructions were

__________
Q44 Did you work directly with the anticoagulation clinic to manage your blood thinner? If so, how was your experience?

[Response]

Display This Question:

If Did your health care provider (e.g. nurse, pharmacist, or doctor) give you instructions about how...

= Yes

Q9 How did you receive instructions on managing your $\{Q4/ChoiceGroup/SelectedChoices\}$ for this procedure? (select all that apply)

- In person during my clinic visit
- On a print out from my visit (such as the After Visit Summary)
- From a phone call after my clinic visit
- In a mailed letter or Patient Portal message after my clinic visit
- Other

Display This Question:

If How did you receive instructions on managing your $\{q://QID4/ChoiceGroup/SelectedChoices\} for this... = Other

Q36 Further describe how you received instructions

[Response]

Display This Question:

If How did you receive instructions on managing your $\{q://QID4/ChoiceGroup/SelectedChoices\} for this... = From a phone call after my clinic visit
Q10 Did you receive instructions on how to manage $(Q4/ChoiceGroup/SelectedChoices)$ in time for this procedure?

○ Yes, I received instructions in plenty of time for the procedure  ○ No, I received instructions too late for the procedure

Q37 What the information that you received useful?

○ Yes

○ No

Q6 Briefly tell us what your doctor or doctor's office did that made it easy to understand the instructions for managing your $(Q4/ChoiceGroup/SelectedChoices)$ for this procedure today. (optional to answer)

________________________________________________________________
________________________________________________________________
________________________________________________________________
Q11 Did you have to stop your \${Q4/ChoiceGroup/SelectedChoices} before your procedure?

- Yes
- No

Q12 Which of these locations did you try to get information about managing your \${Q4/ChoiceGroup/SelectedChoices} for this procedure?

- Hand out from my recent clinic visit
- On the patient portal
- Searching the internet/google
- Calling my doctor's office
- Calling the endoscopy office
- Other

Q13 Can you describe where you tried to get information about managing your \${Q4/ChoiceGroup/SelectedChoices} for this procedure? (optional to answer)
Q14 How satisfied were you in regards to finding information about managing your $\{(Q4/ChoiceGroup/SelectedChoices)\} for this procedure?  

- Completely unsatisfied  
- Somewhat unsatisfied  
- Somewhat satisfied  
- Completely satisfied

Q15 How satisfied were you with the communication and coordination of your $\{(Q4/ChoiceGroup/SelectedChoices)\} management plan before this procedure?  

- Completely unsatisfied  
- Somewhat unsatisfied  
- Somewhat satisfied  
- Completely satisfied

Q16 How well did you understand the plan to manage your $\{(Q4/ChoiceGroup/SelectedChoices)\} for this procedure?  

- Did not understand at all  
- Somewhat understood  
- Mostly understood  
- Completely understood

**Display This Question:**  
If How satisfied were you with the communication and coordination of your ... = Completely unsatisfied  
Or How satisfied were you with the communication and coordination of your ... = Somewhat unsatisfied

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Q17 How could we have improved the communication and coordination of your ${Q4/ChoiceGroup/SelectedChoices} management plan before this procedure? (optional to answer)

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Display This Question:
If How satisfied were you with the communication and coordination of your ... = Somewhat satisfied
Or How satisfied were you with the communication and coordination of your ... = Completely satisfied

Q18 What specifically was done well in communicating and coordinating your ${Q4/ChoiceGroup/SelectedChoices} management plan before this procedure? (optional to answer)

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Page Break

Q19 Overall, did the medical team achieve your expectations for communication and coordination of your ${Q4/ChoiceGroup/SelectedChoices} management for this procedure?

☐ Yes

☐ No

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Q20 Before today, have you ever had to undergo a surgery or procedure where you had to temporarily stop your \${Q4/ChoiceGroup/SelectedChoices}?  ○ Yes  ○ No  ○ Unsure

Q21 In the past, have you ever had to cancel a procedure or surgery because of problems with your \${Q4/ChoiceGroup/SelectedChoices}?  ○ Yes  ○ No  ○ Unsure

Q22 Do you have any other comments to share? (optional to answer)

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
Q31 Thank you very much for answering these important questions. We greatly value your input and sharing your experience as we try to improve care for patients undergoing endoscopic procedures.

**Information below was manually abstracted from the medical chart by the research team:**

Q27 From the chart: What is the patient's age?

________________________________________________________________

Q28 From the chart: What is the patient's gender?

- [ ] Male
- [ ] Female

Q29 From the chart: What procedure was the patient undergoing?

- [ ] Esophagogastroduodenoscopy (EGD)
- [ ] Colonoscopy
- [ ] Flexible Sigmoidoscopy
- [ ] Other upper endoscopy
- [ ] Other lower endoscopy

Q33 From the medical chart, which provider documented a pre-procedure anticoagulation/antiplatelet plan
Primary care provider's office

Gastroenterology office

Cardiology office

Anticoagulation clinic

Other

Can't tell

Q40 From the medical chart: What is the date of the procedure?

________________________________________________________________

Q42 From the medical chart: What is today's date?

________________________________________________________________

Q43 Was this person a good candidate for further follow up questions?

☐ Yes  ☐ Maybe

☐ No
Q44 If yes, what is their Name and MRN?

________________________________________________________________

End of Block: Endoscopy Preparation
eAppendix 2.
Provider Survey

Start of Block: Introduction

Q1.1 Thank you for taking this survey. We are interested in understanding how providers make decisions about anticoagulation around the time of medical procedures. The best way to manage peri-procedural anticoagulation is a topic of debate, so many of these questions do not have a "right" answer.

This survey should take 5-10 minutes to complete. Toward the end of the survey, you will be redirected to a separate survey page, where we ask additional questions about your demographics. This will prevent us from linking any of your answers about clinical practice to personal details about you.

If you choose to provide your email address at the end of the survey, you will be entered into a raffle to win one of three visa gift cards worth $50 as a token of our appreciation.

Thanks again!

End of Block: Introduction

Start of Block: Profession

Q2.1 What is your medical specialty? ☐ Gastroenterologist ☐ Primary care-Internal Medicine ☐ Primary care-Family Medicine ☐

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Q5.1 For these next few questions, please consider the following scenario.

You have a 60 year old patient with atrial fibrillation who is currently anticoagulated with warfarin. She will need to hold warfarin for her first screening colonoscopy since starting anticoagulation therapy. Her physicians will have to decide whether to prescribe her “bridging” anticoagulation before her procedure.

Bridging is when a short-acting anticoagulant, such as heparin or low molecular weight heparin (LMWH), is used during a period of warfarin interruption. For a patient who receives no bridging, the INR is allowed to drift down to near normal without substitution of any other anticoagulant agent before the colonoscopy.

Q5.2 Considering the last three months of your clinical practice, which provider most often makes the decision whether bridging anticoagulation is necessary in cases like the scenario above?

- Anticoagulation clinic
- PCP
- Cardiologist
- Gastroenterologist
Q5.3 \textit{In your opinion}, which provider should be \textit{primarily responsible} for deciding if bridging anticoagulation is necessary in cases like the scenario above?

- Anticoagulation clinic
- PCP
- Cardiologist
- Gastroenterologist
Q5.4 In the past three months, how many times per month did you independently make the decision about whether a patient should be bridged before colonoscopy?

- Never
- Less than once a month
- 1-5 times per month
- 6-10 times per month
- 6-10 times per month
- 11-15 times per month
- 16-20 times per month
- More than 20 times per month

Q5.5 To what extent do you agree or disagree with the following statements?

<table>
<thead>
<tr>
<th>Michigan Medicine has structures in place to help me manage peri-procedural</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

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When I have questions about how to manage periprocedural anticoagulation for a patient, I know who to contact.

Michigan Medicine could do more to help me manage my patients' periprocedural anticoagulation.
Q5.7 How supportive or opposed do you feel about having the anticoagulation clinic manage all aspects of periprocedural anticoagulation using institutional guidelines?  

- [ ] Very opposed
- [ ] [ ] [ ] [ ] Very supportive
Q5.10 Earlier this year, MiChart implemented a Best Practice Advisory that appears when providers order endoscopic procedures for patients using antithrombotic therapy, including antiocoagulation. Do you recall seeing this BPA?

- Yes
- No
- Not sure
Q5.11a Please share your thoughts and feelings about this BPA.

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Q5.11b What has been the impact of this BPA? Please consider the impact on your workflow, the impact on patient care, and your feelings about its merit.

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Page Break
Q5.11c What, if anything, have you heard from your colleagues about the impact of this BPA?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

Page Break
Q5.12 To what extent do you agree or disagree with the following statements regarding the BPA for peri-endoscopy anticoagulation procedures?

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Somewhat Disagree</th>
<th>Somewhat Agree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The BPA is useful to me in treating my patients.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The BPA is easy for me to use.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am satisfied with my experience using the BPA.</td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

Earlier this year, MiChart implemented a Best Practice Advisory that appears when providers order... = No

Or Earlier this year, MiChart implemented a Best Practice Advisory that appears when providers order... = Not sure

No opinion

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The BPA is a helpful tool in treating my patients.
Q5.13 What are the best aspects about the BPA for peri-endoscopy anticoagulation management?

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Q5.14 What do you wish were different about the BPA for peri-endoscopy anticoagulation management?

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

End of Block: Opinion Questions

Start of Block: Non-identifiable demographics

Q6.1 Practice characteristics and training

Q6.2 What year did you graduate from your professional degree granting program?

▼ 2015-2018 ... 1930-1934
Q6.3 What professional degree do you have?

- [ ] MD or DO
- [ ] NP/PA
- [ ] Other
Q6.4 How many patients do you see in clinic and/or consultation in an average week? Please type the number below.

________________________________________________________________

Display This Question:
If What is your medical specialty? = Gastroenterologist

Q6.5 How many colonoscopies do you perform in an average month? Please enter the number below.

________________________________________________________________
Q6.7 At Michigan Medicine, which services does the anticoagulation clinic offer for patients in the periprocedural setting?

<table>
<thead>
<tr>
<th>Service</th>
<th>Yes</th>
<th>No</th>
<th>I'm not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determining need for periprocedural bridging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommending an agent for periprocedural bridging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prescribing the bridging medication</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Q6.8 You will now be redirected to the final part of the survey so we can ask a few more questions about your demographics. This will prevent us from linking your responses to identifying information about you.

End of Block: Non-identifiable demographics
eFigure 1. Root Cause Analysis Fishbone Diagram

- **Process**
  - Responsibility on patient, not health system
  - No double check before procedure date
  - No easy way to identify patients on antithrombotic meds
  - External referrals without medical information

- **People**
  - MD uncomfortable with decision-making
  - Patient unsure of instructions
  - Schedulers not medically trained
  - Patient doesn’t know meds
  - Not clear who “owns” peri-procedural med management
  - No systematic documentation pre-procedure

- **Equipment/Supplies**
- **Culture/Environment**

- **Poor Med Management**
eFigure 2. Future State Process Map

MD – medical doctor (physician), EMR – electronic medical record, GI – gastrointestinal/gastroenterology, RN – registered nurse
eFigure 3. Best Practice Alert for Patients on Antithrombotic Medications at the Time an Elective Gastrointestinal Endoscopy Procedure is Ordered
eFigure 4. Study Flow Chart for Best Practice Advisory Analysis

Study flow chart for November 2017 – December 2018, including the pilot period (Nov 2017-Mar 2018). Among 2082 patients taking antithrombotic medications in clinics with active BPA process, 1389 had BPA accepted by their clinician while 693 had BPA declined by their clinician. BPA – best practice advisory.
Among the 48 provider survey respondents who were exposed to the BPA, the vast majority agreed or strongly agreed that the BPA was helpful, easy to use, useful, and overall were satisfied with their experience. BPA – best practice alert.
eFigure 6. Monthly Cancelation Rate Within 24 Hours of Scheduled Endoscopy Procedure
### eTable. Characteristics and Outcomes of Endoscopy Unit Sample for Same-Day Cancelations

<table>
<thead>
<tr>
<th></th>
<th>Pre-implementation</th>
<th>Post-implementation</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drug Class</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Anticoagulant</td>
<td>26/43 (60.5%)</td>
<td>45/52 (86.5%)</td>
<td></td>
</tr>
<tr>
<td>-Antiplatelet</td>
<td>17/43 (39.5%)</td>
<td>7/52 (13.5%)</td>
<td></td>
</tr>
<tr>
<td><strong>Endoscopy Procedure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Upper Endoscopy</td>
<td>13/47 (27.7%)</td>
<td>25/52 (48.1%)</td>
<td></td>
</tr>
<tr>
<td>-Lower Endoscopy</td>
<td>30/47 (63.8%)</td>
<td>25/52 (48.1%)</td>
<td></td>
</tr>
<tr>
<td>-Both Upper and Lower Endoscopy</td>
<td>4/47 (8.5%)</td>
<td>2/52 (3.9%)</td>
<td></td>
</tr>
</tbody>
</table>

Data collected by endoscopy unit nursing staff prior to and following implementation of a Best Practice Alert and referral process to the anticoagulation clinic. Pre-implementation data collected between June 1 and August 17, 2017. Post-implementation data collected June 18-July 2, 2018 and November 5-16, 2018. Only patients arriving for elective endoscopy who were noted to be taking antithrombotic medications were included in this data collection and analysis.
eReferences.