Online Survey among Primary Care Physicians and Geriatricians on Their Attitudes and Practices Diagnosing and Treating Atrial Fibrillation

June 2012
Objectives and Methodology

Objectives

- Achieve better understanding among primary care physicians and geriatricians of:
  - Attitudes and behaviors in diagnosing AFib
  - Attitudes and behaviors in treating AFib
  - Awareness of various treatments, their benefits and risks
  - Use of risk assessment tools in decision-making
  - Patient compliance and perceived barriers
  - Interest in/potential usage of new guidelines and treatment tools
- Inform the creation of a patient survey on AFib treatments and risk factors

Methodology

- 405 PCPs: Family physicians/General Practitioners (249), Geriatricians (119), and Internists (37) from a nationwide online panel.
- Invites were sent to 2,110 physicians nationwide, specifically targeting PCPs and Geriatricians based on information the panel has on file. 633 respondents accessed the survey. Of those 633 who accessed the survey:
  - 116 were terminated based on screening criteria,
  - 90 started but did not complete the survey,
  - and 23 were disqualified for taking the survey too quickly (quality control measure).
- We also monitored open-ended responses to ensure respondents were actually reading and responding appropriately.
Summary of Key Findings

AFib DIAGNOSIS

- Most of these physicians report checking for AFib symptoms in older patients at all or most visits, and feel confident in their ability to diagnose.
- More than half say they refer AFib patients to cardiologists at least some of the time.

AFib TREATMENT

- Overwhelmingly, the tendency among physicians in this survey is to anticoagulate, and experience with patient outcomes generally supports this judgment.
- Yet the number of guidelines causes confusion, and less than half are familiar with any one of the guidelines tested.

MEDICATION OPTIONS

- Warfarin, though far from perfect, is the preferred anticoagulant.
- These doctors report cautious optimism about new medications, but say little is known and worry these have different downsides than Warfarin.

RISK ASSESSMENT TOOLS

- Half are using CHADS\textsubscript{2} at least some of the time, and majorities who are find it helpful. Other risk assessment tools for stroke and bleeding risk are not used as much.
- Majorities see these risk assessments as limited, and do not feel they apply to all risk factors/patients.
- Individual factors like fall risk, frailty, cognition, etc. are viewed as most important when determining treatment for AFib.
- Consensus, CME (particularly online resources), and building risk assessment tools into electronic medical records are potential ways to increase their use.
Diagnosing AFib
Diagnosis

- The vast majority of physicians check for AFib signs/symptoms in their older patients on a regular basis.
- Doctors with more confidence and experience are more likely to check often.

**Q05: How often do you check for signs and symptoms of atrial fibrillation in your patients who are 65 and older?**

**When Check for AFib Signs/Symptoms in Patients Over 65**

- Every patient visit, 53%
- Most of the time, 32%
- Some of the time, 6%
- Rarely, 0%
- Only if the patient raises a relevant issue, 4%
- Every new patient visit, 4%

**Most likely to check at every visit:**

- Doctors in practice for 20+ years (66%)
- Those who are extremely confident in treating AFib (67%)
- Doctors practicing in hospital settings (60%)

No one checks “only if patient is over a certain age.”
Diagnosis

- Most are confident in their ability to diagnose, but only a third are extremely confident.
- Those with more experience, more patients, or in private practice are more confident.

Confidence in Diagnosing AFib

- **86%** extremely confident
- **50%** very confident
- **14%** somewhat confident
- **0%** not confident

“Extremely confident”:
- Practicing 20+ years (46%)
- 301+ patients per month (43%)
- Those with 41-70% of their patients 65+ (42%)
- In private practice (42%)
- Male doctors (40%)

Q08: How confident are you in your ability to correctly diagnose atrial fibrillation?
Diagnosis

- More than half refer AFib patients to cardiologists at least some of the time.
- Age is a definite factor in referrals.

How Often Refer to Cardiologist for AFib Diagnosis?

- Every time: 14%
- Most of the time: 29%
- Some of the time: 37%
- Rarely: 16%
- Never: 4%

Physicians are more likely to refer under the following conditions:

- Patient is young (under 50) or over 75
- Complex medical history/other complications
- History of cardiovascular/valvular problems
- High/uncontrollable heart rate
- Possible candidate for cardioversion
- Don’t respond to therapy
Treating AFib
Confidence in Treatment

- Physicians are somewhat less confident in their ability to treat AFib than their ability to diagnose it.
- The number of guidelines tends to create some confusion about treatment; lack of specificity or ambiguity are less of a factor.

Confidence in Treating AFib

- Extremely confident: 22%
- Very confident: 56%
- Somewhat confident: 20%
- Not confident: 1%

Factors Affecting Ease of Treatment Decisions

- The number of guidelines and assessment tools create confusion when it comes to determining proper treatment for atrial fibrillation: 19% Strongly Agree, 66% Somewhat Agree
- There are too many ambiguities in current practice guidelines regarding atrial fibrillation: 8% Strongly Agree, 48% Somewhat Agree
- Lack of specificity and consensus as to contraindications for anticoagulation therapy make it difficult to know who should get it and who shouldn’t with any certainty: 4% Strongly Agree, 35% Somewhat Agree

Q11: How confident are you in your ability to adequately treat for stroke prevention in atrial fibrillation?
Q25/42: For each of the following, please indicate how much you agree or disagree with that statement.
General Treatment Philosophy

- Overwhelmingly, the tendency among these physicians is to anticoagulate.
- However, a quarter indicate concerns about anticoagulating because of the bleeding risk.

**General Tendency: Anticoagulate or Not?**

- **84%**: I tend to recommend anticoagulation, because I am most concerned about the risk of stroke.
- **6%**: I tend to recommend that the patient not use anticoagulants, because I am most concerned about the risk of a serious bleed.
- **10%**: Not sure

**Statements on General Tendency**

- **58%**: I tend to prescribe anticoagulation because it diminishes the risk of stroke.
- **92%**: I don’t like to prescribe anticoagulation medication because of the risk of bleeding.

Q25: For each of the following, please indicate how much you agree or disagree with that statement.

Q26: When you have an atrial fibrillation case and the best treatment option is not clear after looking at risk factors and/or existing guidelines, what do you tend to recommend?
Anticoagulant Medications

- Most of these physicians prescribe anticoagulants for at least 80% of their patients with AFib.
- Warfarin is by far the most chosen option. New drugs are used by doctors with more AFib patients and more confidence in their ability to treat.

**Use of Anticoagulants**

- 63% of patients on Warfarin
- 32% on Aspirin
- 5% on Combination therapy

**Use of Anticoagulant Options**

- Warfarin: 61%
- Aspirin: 18%
- Combination therapy: 10%
- Dabigatran: 7%
- Rivaroxaban: 3%

**Most Likely to Use New Drugs** (Dabigatran/Rivaroxaban)

- The more AFib patients you have in a year, the more likely you are to prescribe the newer drugs.
  - 301+ patients
  - In private practice
  - 41-70% patients over 65
  - Extremely confident in their ability to treat AFib
  - Male doctors

**However,** all mean rates of use still at or below 10%.

Q12: For what percentage of your patients with atrial fibrillation do you recommend anticoagulation treatment? Please enter a number between 0 and 100. If you are not sure, please give your best estimate.
Q13: Please estimate the percentage of those anticoagulation patients for whom you prescribe each of the following: Please enter a number between 0 and 100 for each.
Anticoagulant Medications

- These physicians are most comfortable prescribing Warfarin or Aspirin.
- Doctors in private practice or with fewer patients to manage are more comfortable prescribing anticoagulants.

**Views on Current Anticoagulant Options**

- Benefit greatly outweighs the risk and it should be administered
- Benefit outweighs risk for most patients, so it is reasonable to administer

<table>
<thead>
<tr>
<th>Anticoagulant</th>
<th>Benefit greatly outweighs the risk and it should be administered</th>
<th>Benefit outweighs risk for most patients, so it is reasonable to administer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspirin (18%)</td>
<td>24%</td>
<td>70%</td>
</tr>
<tr>
<td>Warfarin (61%)</td>
<td>21%</td>
<td>80%</td>
</tr>
<tr>
<td>Dabigatran (7%)</td>
<td>10%</td>
<td>54%</td>
</tr>
<tr>
<td>Rivaroxaban (3%)</td>
<td>8%</td>
<td>38%</td>
</tr>
<tr>
<td>Combination therapy (10%)</td>
<td>5%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Some physicians are more comfortable with Warfarin than others:

- 11-20 yrs practicing (27% top box)
- 20+ yrs practicing (23%)
- Private practice (24%)
- FEWER patients per month (200 or fewer: 24%; 201-300: 25%)
- 41-70% of patients are 65+ (27%)
- Male doctors (25%)

These patterns hold true for the other prescription options as well. Attitudes about aspirin are more flat across subgroups.
Anticoagulant Options: Old Standbys

- Physicians describe the pros and cons of different options in their own words.

<table>
<thead>
<tr>
<th>Medication</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warfarin</td>
<td>“It is a tablet, that both the PROVIDER and the PATIENT are familiar with. It has YEARS of accepted use, and is inexpensive for those who can easily have their Protimes kept controlled. I have faith in it.”</td>
<td>“Noncompliance with pills and/or diet, risk of falls in elderly, risk of GI bleed, annoying to monitor INR and adjust dosing regularly.”</td>
</tr>
<tr>
<td></td>
<td>- Low cost/cheap</td>
<td>- BLEEDING (bleeding from falls mentioned specifically)</td>
</tr>
<tr>
<td></td>
<td>- Effective at reducing stroke risk/incidence</td>
<td>- Compliance issues (both with dosage/diet issues and monitoring)</td>
</tr>
<tr>
<td></td>
<td>- Known/ well understood/ studied/ documented</td>
<td>- Extensive monitoring needed</td>
</tr>
<tr>
<td></td>
<td>- Convenient (available, easy to administer, no pre-authorization required)</td>
<td>- Drug/food interactions</td>
</tr>
<tr>
<td></td>
<td>- Involves monitoring/follow-up with patient</td>
<td>- Dosing concerns: hard to determine proper dosage, patients could over- or under-dose</td>
</tr>
<tr>
<td></td>
<td>- Some said no or little monitoring and saw that as a positive.</td>
<td>- Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Some just said “cost”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Cost to the institution</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Cost of blood tests/monitoring</td>
</tr>
<tr>
<td>Aspirin</td>
<td>“Easy to get, easy to understand (easy for doctors and patients to understand and understand how it works), inexpensive; can make minor adjustments to dose depending upon other diagnoses. OTC status. Track record is GOOD.”</td>
<td>“Doesn’t really offer much stroke prevention in AFib. I will usually only use this in very elderly patients who are not candidates for another medication.”</td>
</tr>
<tr>
<td></td>
<td>- SAFE</td>
<td>“Not as good as warfarin at stroke prevention. Still significant bleeding risks.”</td>
</tr>
<tr>
<td></td>
<td>- Cheap</td>
<td>- LESS EFFECTIVE</td>
</tr>
<tr>
<td></td>
<td>- Good for prevention</td>
<td>- Bleeding (especially GI bleeding)</td>
</tr>
<tr>
<td></td>
<td>- Easy dosage</td>
<td>- Effect on kidneys</td>
</tr>
<tr>
<td></td>
<td>- No/little monitoring</td>
<td></td>
</tr>
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<td></td>
<td>- Patients comfortable with</td>
<td></td>
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<tr>
<td></td>
<td>- Good alternative when Warfarin is not an option</td>
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</tbody>
</table>
## Anticoagulant Options: New Options

- Newer options are less well known/understood but many believe they are at least as good as Warfarin at preventing stroke.

<table>
<thead>
<tr>
<th>Medication</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
</table>
| Dabigatran | “Single dosing, no need to monitor with frequent INR checks, stroke prevention, can be used if allergic to Warfarin, and can be used in those who have difficulty sticking to dietary restrictions.”
- EASY, better compliance
- No monitoring
- As-good-as/better than Warfarin for preventing stroke
- Less bleeding risk | “I don’t really know enough about it.”
“Cannot reverse easily in patients with bleeding side effects, have now had patients with bleeds on this.”
- CAN’T REVERSE QUICKLY
- Bleeding risk
- Cost, not covered by insurance
- Too new, limited data, no long-term track record
- Unfamiliar with it, don’t know much about it
- GI issues/bleeds |
| Rivaroxaban | “Fewer strokes than Warfarin and less serious bleeds. Ease of administration and lack of frequent monitoring.”
- NEW DRUGS VIEWED VERY SIMILARLY AT THIS POINT
- EASY, better compliance
- No monitoring
- As-good-as/better than Warfarin for preventing stroke
- Less bleeding risk | “Same as Dabigatran”
“See answer to Dabigatran.”
- NEW DRUGS VIEWED VERY SIMILARLY AT THIS POINT
- CAN’T REVERSE QUICKLY
- Bleeding risk
- Cost, not covered by insurance
- Too new, limited data, no long-term track record
- Unfamiliar with it, don’t know much about it |

OPEN ENDS: What are the benefits of Dabigatran/Rivaroxaban for some atrial fibrillation patients? What concerns do you have about prescribing Dabigatran/Rivaroxaban?
Attitudes toward Medications

- Despite Warfarin’s popularity, a majority of doctors are somewhat likely to agree that it is complicated and there are compliance issues.

- Despite drawbacks, majorities are cautiously optimistic about new alternatives to Warfarin.

**Warfarin**

- Warfarin places too many restrictions on a patient’s diet and lifestyle due to frequent monitoring, making it hard for patients to comply with the treatment. 14% Strongly Agree, 60% Somewhat Agree
- Patients on Warfarin today can now self-monitor more easily and affordably, and that negates most of my concerns about patient compliance with Warfarin treatment. 5% Strongly Agree, 34% Somewhat Agree

**New Medications**

- New anticoagulation drugs offer much needed alternatives to Warfarin. 22% Strongly Agree, 77% Somewhat Agree
- New anticoagulants offer more personalized options for patients. 15% Strongly Agree, 63% Somewhat Agree
- New anticoagulation options are still “untested” -- we won’t know the real risks and benefits for at least a few more years. 14% Strongly Agree, 56% Somewhat Agree
- I feel comfortable prescribing new anticoagulation drugs. 10% Strongly Agree, 52% Somewhat Agree
- I don’t know enough about new anticoagulation drugs to feel comfortable prescribing them. 10% Strongly Agree, 42% Somewhat Agree

Q25: For each of the following, please indicate how much you agree or disagree with that statement.
Most physicians see good compliance rates among AFib patients on anticoagulants. Monitoring is the biggest barrier to compliance, but cognitive factors are also a concern.

### Barriers to Compliance (top 2 box)
- Treatment monitoring requirements: 75%
- Cognitive difficulty/decline: 69%
- Forgetting to take the medication: 68%

- Fear of bleeding: 59%
- Lack of understanding of benefits and risks: 52%
- Absence of a regular caregiver: 52%
- Lack of understanding of instructions: 51%
- Cost: 50%
- Pre-existing medical conditions: 47%
- Dietary restrictions required by treatment: 44%
- Lack of noticeable symptoms: 42%
- Negative reputation of treatment options: 41%
- Dyspepsia and other GI upsets: 36%
- Language barrier: 23%
- Gender: 6%

### Additional Barriers from open-ends:
- Only 3% mention age specifically
- Hassle/inconvenience
- Bruising
- Lack of transportation

Q27: In the last five year period, what percentage of your atrial fibrillation patients on anticoagulation treatment have successfully complied with their treatment? Please enter a number between 0 and 100. If you are not sure, please give your best estimate.

Q29: Here is a list of things physicians have said effect patient adherence with anticoagulation treatments. Thinking about your patients, please indicate how significant that barrier is. Use a scale from 1 to 5 where a 5 means “an extremely significant barrier” and a 1 means “not a barrier at all.”

Q28: What are the most common reasons why patients do not comply with their treatment?
Patient Outcomes

- Among potentially life-threatening problems, these doctors report stroke occurring among the untreated more often than major bleeds occur among those on anticoagulants.

Incidence of Bleeding and Stroke
(mean rate of occurrence)

- 19% for A minor bleed
- 13% for Stroke
- 11% for Non-major but clinically relevant bleed
- 6% for Some other type of major bleed
- 3% for An intracranial hemorrhage

Q36: In the last five-year period, what percentage of your atrial fibrillation patients who were not on anticoagulation treatment had a stroke? Please enter a number between 0 and 100.

Q41B: In the last five-year period, what percentage of your patients on anticoagulation treatment developed each of the following. Please enter a number between 0 and 100 for each. If you are not sure, please give your best estimate.
AFib Treatment Guidelines: Familiarity

- Few are very familiar with existing AFib treatment guidelines.

Q30: How familiar are you with each of the following current practice guidelines?

![AFib Treatment Guidelines diagram]

- 2010 Guidelines for the Primary Prevention of Stroke: A Guideline for Healthcare Professionals from AHA/ASA: 36%
- The 2011 ACC/AHA/HRS Focused Updates Incorporated into the ACCF/AHA/ESC 2006 Guidelines for the Management of Patients with Atrial Fibrillation: 25%
- 2012 Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: ACCP Evidence-Based Clinical Practice Guidelines: 22%
- 2010 Guidelines for the Management of Atrial Fibrillation of the ESC: 16%
- 2012 Focused Update of the CCS Atrial Fibrillation Guidelines: Recommendations for Stroke Prevention and Rate/Rhythm Control: 11%

“This is a lot to keep up on; I don't know much about these things.”
AFib Treatment Guidelines

- Of the guidelines tested, more are familiar with the 2010 AHA/ASA and find them helpful.
- Fewer than 2/3 of those who are at least somewhat familiar with the guidelines find them very helpful.
- Many are more likely to rely on their general training than any particular set of guidelines.

Q30: How familiar are you with each of the following current practice guidelines?
Q31: [AMONG THOSE FAMILIAR WITH EACH] How helpful is each set of these guidelines to you personally when it comes to assessing and treating patients with atrial fibrillation for stroke prevention?

Top testing:
- 36% extremely/very familiar
- 59% find extremely/very helpful

“Other” mentions:
- Residency training
- Dynamed
- USPSTF
- SAFETY
- ROCKET-AF
# How to Educate on Treatment Options

- Consensus is the best way to increase comfort with treatment options for AFib.
- CME is also popular, including online CME resources or apps.
- A tracking system and patient education materials are also popular.

<table>
<thead>
<tr>
<th><strong>Increasing Comfort with Treatment Options</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>One consensus recommendation from professional organizations and/or medical journals</td>
<td>75%</td>
</tr>
<tr>
<td>Targeted continuing medical education (CME) programs focused on educating providers on new research and information about…</td>
<td>68%</td>
</tr>
<tr>
<td>Systems for recording and tracking the use of anticoagulation treatments and health outcomes for atrial fibrillation patients</td>
<td>65%</td>
</tr>
<tr>
<td>Patient education materials to help improve compliance</td>
<td>64%</td>
</tr>
<tr>
<td>Education/information provided by CMS and private insurers</td>
<td>49%</td>
</tr>
<tr>
<td>A national system that allows physicians to compare their use of anticoagulation and its outcomes with that of their peers</td>
<td>48%</td>
</tr>
</tbody>
</table>

**In their own words:**
- Reiterate need for consensus and CME
- Also want online resources/apps/CME
- Also mention better cooperation from insurance co.
  - lower cost of meds
  - less pre-authorization
  - reimbursement for monitoring of patients, etc.

Q45: Here are some ideas about ways to better educate physicians about anticoagulation treatment options. For each, please indicate how much it would impact your comfort level in determining whether or not to recommend anticoagulation treatment for your patients. Use a scale from 1 to 5 where 5 means “a lot more comfortable” and 1 means “no impact at all on my comfort level.”

Q46: Please share any other ideas you have about ways to better educate physicians about anticoagulation treatment options.
Risk Assessment for AFib Patients
Individual Risk Factors

- Individual factors are used more than risk assessment tools; they offer a more individualized approach.
- Fall risk tops the list, but many other factors are important.

68% agree that “Risk assessment tools are useful, but they are only a small part of how I determine whether or not to recommend anticoagulation treatment for patients with atrial fibrillation.”

67% agree that “The risk assessment tools currently available only account for physiological factors and fail to recognize additional factors like dementia, presence of a caregiver, or patient reluctance to use medications that can affect compliance.”

**Factors to Consider when Treating AFib**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall risk</td>
<td>89%</td>
</tr>
<tr>
<td>Frailty</td>
<td>78%</td>
</tr>
<tr>
<td>Cost of treatment</td>
<td>76%</td>
</tr>
<tr>
<td>Other cardiovascular diseases</td>
<td>75%</td>
</tr>
<tr>
<td>Cognitive decline/dementia</td>
<td>73%</td>
</tr>
<tr>
<td>Alcohol or drug use</td>
<td>72%</td>
</tr>
<tr>
<td>Age</td>
<td>67%</td>
</tr>
<tr>
<td>Patient preferences</td>
<td>65%</td>
</tr>
<tr>
<td>Access to anticoagulation clinics</td>
<td>63%</td>
</tr>
<tr>
<td>Patient health insurance</td>
<td>53%</td>
</tr>
<tr>
<td>Caregiver preferences</td>
<td>47%</td>
</tr>
<tr>
<td>Gender</td>
<td>12%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>11%</td>
</tr>
</tbody>
</table>

Additional factors:

- Activity level/ bed-ridden/ lifestyle
- History of bleeding disorders
- History of stroke
- Likelihood/ history of compliance
- Cholesterol
- Hypertension
- Cancer
- Diabetes
- GI issues
- Diet
- Other medications
- Obesity
- Renal function
- Smoking

Q42: For each of the following, please indicate how much you agree or disagree with that statement. Use a scale from 1 to 5 where a 5 means “extremely important” and a 1 means “not important at all.”

Q23: Please indicate how important each of the following factors is when determining recommended treatment for atrial fibrillation.
Attitudes on Risk Assessment Tools

- About half believe (though not strongly) that risk assessment tools should be used with every patient.
- However, almost as many also feel that the time and cost involved is too high.

Use of Risk Assessment Tools

- Risk assessment tools for stroke risk and bleeding risk should be used for each and every patient with atrial fibrillation:
  - 15% Strongly agree
  - 52% Somewhat agree

- It is too time consuming to use risk assessment tools like CHADS 2 or HAS-BLED during a visit with a patient:
  - 16% Strongly agree
  - 46% Somewhat agree

- CMS and other payers do not currently reimburse for the use of risk assessment tools, so I can’t afford to take the time required to use the tools:
  - 14% Strongly agree
  - 41% Somewhat agree

Q42: For each of the following, please indicate how much you agree or disagree with that statement.

“Take up lots of time.”

“Time consuming, confusing.”

“Cumbersome, costly.”
Risk Assessment Tools - Stroke

- Fewer than half of these physicians use stroke risk assessment tools regularly.
- The simpler CHADS$_2$ tool is more popular than the more complex version.

Use of Stroke Risk Assessment Tools

<table>
<thead>
<tr>
<th>Tool</th>
<th>Every/Most Visits</th>
<th>Some Visits</th>
<th>Extremely/Very Helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHADS$_2$</td>
<td>26%</td>
<td>49%</td>
<td>63%</td>
</tr>
<tr>
<td>Framingham Stroke Risk Score</td>
<td>16%</td>
<td>44%</td>
<td>43%</td>
</tr>
<tr>
<td>CHA$_2$ DS 2 - VASc</td>
<td>9%</td>
<td>23%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Q32: How often do you use each of the following stroke risk assessment tools for patients with atrial fibrillation?
Q33: How helpful is each assessment tool to you personally when it comes to assessing patients with atrial fibrillation?
Q42: For each of the following, please indicate how much you agree or disagree with that statement.

66% agree that, “None of the available risk assessment tools can fully assess the stroke risk of any and all patients.”
Risk Assessment Tools - Bleeding

- Bleeding risk assessment tools are even less used/helpful.
- They don’t offer the individualization that physicians prefer.

### Use of Bleeding Risk Assessment Tools

<table>
<thead>
<tr>
<th>Tool</th>
<th>Every/Most Visits</th>
<th>Some Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAS-BLED</td>
<td>8%</td>
<td>19%</td>
</tr>
<tr>
<td>HEMORR 2 HAGES</td>
<td>8%</td>
<td>17%</td>
</tr>
<tr>
<td>ATRIA</td>
<td>6%</td>
<td>14%</td>
</tr>
<tr>
<td>ORBI</td>
<td>4%</td>
<td>11%</td>
</tr>
</tbody>
</table>

### Extremely/Very Helpful

- HAS-BLED: 36%
- HEMORR 2 HAGES: 37%
- ATRIA: 33%
- ORBI: 28%

Q37: How often do you use each of the following bleeding risk assessment tools for patients with atrial fibrillation?
Q38: Here is the same list again. How helpful is each assessment tool to you personally when it comes to assessing patients with atrial fibrillation?
Q42: For each of the following, please indicate how much you agree or disagree with that statement.

- “[They] objectify, quantify risks.”
- “Validation of a decision not to anticoagulate.”
- “Difficulty employing in clinical practice.”
- “I'd rather completely individualize it.”

67% agree that, “None of the available risk assessment tools can fully assess the bleeding risk of any and all patients.”
Increasing Risk Assessment for AFib Patients

- Ease of use is important, particularly through electronic systems/devices.
- Consensus is again a popular solution.

### Ideas to Improve Use of Risk Assessment Tools

(much/somewhat more likely to use)

<table>
<thead>
<tr>
<th>Idea</th>
<th>20%</th>
<th>58%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk assessment tools built into electronic medical record systems</td>
<td>42%</td>
<td>80%</td>
</tr>
<tr>
<td>One consensus recommendation from professional organizations and/or journals</td>
<td>35%</td>
<td>79%</td>
</tr>
<tr>
<td>Centers for Medicare and Medicated Services (CMS) reimbursement for risk assessment</td>
<td>33%</td>
<td>74%</td>
</tr>
<tr>
<td>Targeted continuing medical education (CME) programs focused on training physicians on the...</td>
<td>24%</td>
<td>76%</td>
</tr>
<tr>
<td>More information on risk assessment tools from trusted sources on atrial fibrillation</td>
<td>22%</td>
<td>76%</td>
</tr>
<tr>
<td>A risk assessment app for smartphones</td>
<td>20%</td>
<td>58%</td>
</tr>
<tr>
<td>A risk assessment app for tablet computers</td>
<td>19%</td>
<td>58%</td>
</tr>
</tbody>
</table>

**Q44:** Here are some ideas physicians have suggested to improve risk assessment tools and increase their use. For each, please indicate whether it would make you more or less likely to use stroke and bleeding risk assessment tools for patients with atrial fibrillation.

**Q43:** When you use risk assessment tools for stroke or bleeding risk, do you use them during the visit with the patient or after?

**Q56:** At which locations do you access patient-related information and/or guidelines on a computer/electronic device? Select all that apply.

- **81%** use tools during visit (when they use at all)
- **46%** access patient information on an electronic device at the bedside.
- **88%** from elsewhere in the medical office
Appendix: Sources of Information
Q47: Below are some types of people or organizations who might provide information on the treatment of atrial fibrillation. Please indicate how much you trust the information provided by each source.

Q48: Please share any other sources you trust for information on the treatment of atrial fibrillation.
Journals Read Regularly
(coded open-end)

Journal of the American Medical Association 21%
American Academy of Family Physicians / American Family Physician (their journal) 20%
New England Journal of Medicine 14%
Annals of Internal Medicine 5%
Journal of the American Geriatric Society 4%
Consultant 4%
Medical Economics 2%
Family Practice 2%
Journal of Family Practice 2%
Other (None more than 1% each) 24%
None 2%
Professional Organizations

Professional Association Memberships
(coded open-end)

- American Academy of Family Physicians: 23%
- American Medical Association: 15%
- State association/society/organization: 11%
- American College of Physicians: 8%
- American Geriatrics Society: 8%
- American Osteopathic Association: 6%
- City/County association/society/organization: 3%
- American Medical Directors Association: 3%
- American College of Osteopathic Family Physicians: 2%
- American Academy of Hospice and Palliative Medicine: 2%
- American Board of Family Medicine: 1%
- American College of Emergency Physicians: 1%
- Society of Teachers of Family Medicine: 1%
- American Academy of Family Practice: 1%
- Urgent Care Association of America: 1%
- Christian Medical and Dental Associations: 1%
- Other: 9%
- None: 5%
Appendix: Demographics
## Demographic Profile of Respondents

<table>
<thead>
<tr>
<th>GENDER</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male:</td>
<td>68%</td>
</tr>
<tr>
<td>Female:</td>
<td>32%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TYPE OF PHYSICIAN:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Family physician/GP:</td>
<td>61%</td>
</tr>
<tr>
<td>Internist:</td>
<td>9%</td>
</tr>
<tr>
<td>Geriatrician:</td>
<td>29%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>YEARS PRACTICING</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>15%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>19%</td>
</tr>
<tr>
<td>11-20 years</td>
<td>30%</td>
</tr>
<tr>
<td>20+ years</td>
<td>37%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRACTICE SETTING</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital:</td>
<td>28%</td>
</tr>
<tr>
<td>Health clinic:</td>
<td>20%</td>
</tr>
<tr>
<td>Private practice:</td>
<td>57%</td>
</tr>
<tr>
<td>Nursing home:</td>
<td>18%</td>
</tr>
<tr>
<td>Ambulatory:</td>
<td>15%</td>
</tr>
<tr>
<td>Other:</td>
<td>4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOCATION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban:</td>
<td>37%</td>
</tr>
<tr>
<td>Suburban:</td>
<td>43%</td>
</tr>
<tr>
<td>Small town:</td>
<td>9%</td>
</tr>
<tr>
<td>Rural:</td>
<td>12%</td>
</tr>
</tbody>
</table>

### NUMBER OF PATIENTS PER MONTH
- Fewer than 100: 9%
- 101-200: 15%
- 201-300: 20%
- 301-500: 42%
- 501+: 14%

### MEAN % OF PATIENTS USING PAYMENT TYPE
- Patient pay/full fee for service: 9%
- Private insurance: 30%
- Medicare: 36%
- Medicaid: 11%
- Other: 15%

### TECHNOLOGY USED IN PRACTICE
- Desktop computer: 78%
- Laptop: 52%
- Handheld wireless device: 43%
- Tablet: 20%
- None: 3%

### WHERE ACCESS INFO/TOOLS/GUIDELINES
- At bedside/operatory: 46%
- Elsewhere in office: 88%
- Home: 60%
- None: 2%