Stable CAD, Elective Stenting and AFib

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Declaration of Interest

Lecturing & Consulting Activities:
AstraZeneca, Boehringer-Ingelheim, Bristol-Myers Squibb,
Daiichi Sankyo, Pfizer, Sanofi Aventis
The Bleeding Problem in Antithrombotic Combination Therapy
Which patients have an increased bleeding risk during and after PCI?

- Pts. on more effective P2Y12-inhibitors
- Pts. on prolonged dual antiplatelet therapy
- Pts. on antithrombotic combination therapy
- Pts. with history of bleeding, high age (>80), women, chronic kidney dysfunction

Huber et al. J Cardiol 2016, submitted
WOEST Trial:
Locations of TIMI bleeding: Worst bleeding per patient

Intra-Cranial
Access site
GI
Skin
Other

`p = NS
p < 0.001
p < 0.001
p < 0.001

Double therapy group
Triple therapy group

Lancet 2013: 381: 1107-1115
NOACS Are Safer than VKAs
### Comparative safety of NOACs and warfarin

#### Major Bleeding

<table>
<thead>
<tr>
<th>Study</th>
<th>Relative risk (95% CI)</th>
<th>NOAC events</th>
<th>Warfarin events</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE-LY*</td>
<td>0.94 (0.82-1.07)</td>
<td>375/6076</td>
<td>397/6022</td>
</tr>
<tr>
<td>ROCKET AF†</td>
<td>1.03 (0.90-1.18)</td>
<td>395/7111</td>
<td>386/7125</td>
</tr>
<tr>
<td>ARISTOTLE‡</td>
<td>0.71 (0.61-0.81)</td>
<td>327/9088</td>
<td>462/9052</td>
</tr>
<tr>
<td>ENGAGE AF-TIMI 48</td>
<td>0.80 (0.71-0.90)</td>
<td>444/7012</td>
<td>557/7012</td>
</tr>
<tr>
<td>Combined</td>
<td>0.86 (0.73-1.00)</td>
<td>1541/29,287</td>
<td>1802/29,211</td>
</tr>
</tbody>
</table>

*Favours NOAC*  

*Favours warfarin*

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*Dabigatran 150 mg BID; †rivaroxaban 20 mg QD; ‡apixaban 5 mg BID; §edoxaban 60 mg QD

Ruff CT et al. Lancet 2013; doi: 10.1016/S0140-6736(13)62343-0
Real-world Evidence – NOACs & Bleeding

No difference in rates of major bleeding and sub-components between dabigatran and apixaban

<table>
<thead>
<tr>
<th></th>
<th>Apixaban (n = 8785)</th>
<th>Dabigatran (n = 20,963)</th>
<th>Rivaroxaban (n = 30,529)</th>
<th>Adjusted HR (Dabigatran vs Apixaban)</th>
<th>Adjusted HR (Rivaroxaban vs Apixaban)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unadjusted incidence (%/year)</strong></td>
<td></td>
<td></td>
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<tr>
<td>Major bleeding</td>
<td>14.5</td>
<td>13.2</td>
<td>20.2</td>
<td>0.99 (0.86-1.12)</td>
<td>1.34 (1.20-1.51)</td>
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<tr>
<td>- Intracranial</td>
<td>1.7</td>
<td>1.6</td>
<td>2.4</td>
<td>1.08 (0.75-1.55)</td>
<td>1.41 (1.01-1.97)</td>
</tr>
<tr>
<td>- Gastrointestinal</td>
<td>4.0</td>
<td>3.9</td>
<td>6.2</td>
<td>1.04 (0.83-1.32)</td>
<td>1.54 (1.23-1.91)</td>
</tr>
<tr>
<td>- Other</td>
<td>9.7</td>
<td>8.5</td>
<td>13.7</td>
<td>0.96 (0.83-1.12)</td>
<td>1.33 (1.15-1.53)</td>
</tr>
</tbody>
</table>

Real-world Comparison of Bleeding Risks among NVAF Patients on Apixaban, Dabigatran, Rivaroxaban: Cohorts Comprising New Initiators and/or Switchers from Warfarin
Real-world Evidence – NOACs & Bleeding

Weighted event rate (1 year follow-up)*

Adjusted HR (95% CI) vs warfarin

HR 0.58 (0.47–0.71)
HR 0.61 (0.49–0.75)
HR 1.06 (0.91–1.23)

Dabigatran (n=12.701)
Apixaban (n=6.349)
Rivaroxaban (n=7.192)
Warfarin (n=35.436)

Larsen et al. BMJ 2016
Patients initiating treatment with dabigatran experienced a statistically significantly lower risk of major GI bleeding than those initiating treatment with rivaroxaban.

Note that the y-axis scales vary by outcome.
Average follow-up duration <4 months; Graham et al. JAMA Intern Med 2016
NOACs and Antiplatelet Therapy
Triple therapy is associated with the greatest increase in bleeding risk regardless of OAC used.

- **Major bleeding (%/year)**
  - **Warfarin**
    - None (n=3478): 2.8%
    - Single (n=2312): 4.6%
    - Dual (n=232): 6.3%
  - **Dabigatran 150 mg BID**
    - None (n=3613): 2.6%
    - Single (n=2251): 4.3%
    - Dual (n=212): 5.5%
  - **Dabigatran 110 mg BID**
    - None (n=3510): 2.2%
    - Single (n=2288): 3.8%
    - Dual (n=217): 5.4%

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**RE-LY®** was the only Phase III trial of a NOAC vs VKA to allow concomitant treatment with both ASA and clopidogrel.

*Dans et al. Circulation 2013*
### ARISTOTLE

Effects of apixaban vs. warfarin with and without aspirin

<table>
<thead>
<tr>
<th>Event</th>
<th>Apixaban (%/yr)</th>
<th>Warfarin (%/yr)</th>
<th>Adjusted HR* (95% CI)</th>
<th>Interaction* P-Value</th>
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</thead>
<tbody>
<tr>
<td>Stroke or Systemic Embolism</td>
<td></td>
<td></td>
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<tr>
<td>Aspirin</td>
<td>1.12</td>
<td>1.91</td>
<td></td>
<td>0.11</td>
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<tr>
<td>No Aspirin</td>
<td>1.11</td>
<td>1.32</td>
<td></td>
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<tr>
<td>Ischemic Stroke</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Aspirin</td>
<td>0.79</td>
<td>1.14</td>
<td></td>
<td>0.20</td>
</tr>
<tr>
<td>No Aspirin</td>
<td>0.83</td>
<td>0.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspirin</td>
<td>1.93</td>
<td>1.82</td>
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<td>0.29</td>
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<tr>
<td>No Aspirin</td>
<td>1.64</td>
<td>1.97</td>
<td></td>
<td></td>
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<tr>
<td>Myocardial Infarction</td>
<td></td>
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<tr>
<td>Aspirin</td>
<td>0.90</td>
<td>0.74</td>
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<td>0.17</td>
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<tr>
<td>No Aspirin</td>
<td>0.40</td>
<td>0.51</td>
<td></td>
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<tr>
<td>ISTH Major Bleeding</td>
<td></td>
<td></td>
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<tr>
<td>Aspirin</td>
<td>3.10</td>
<td>3.92</td>
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<td>0.26</td>
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<tr>
<td>No Aspirin</td>
<td>1.82</td>
<td>2.78</td>
<td></td>
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<tr>
<td>Hemorrhagic Stroke</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Aspirin</td>
<td>0.27</td>
<td>0.68</td>
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<td>0.59</td>
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<td>No Aspirin</td>
<td>0.22</td>
<td>0.42</td>
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<tr>
<td>Major or CRNM Bleeding</td>
<td></td>
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<td></td>
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<tr>
<td>Aspirin</td>
<td>5.54</td>
<td>7.18</td>
<td></td>
<td>0.12</td>
</tr>
<tr>
<td>No Aspirin</td>
<td>3.59</td>
<td>5.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any Bleeding</td>
<td></td>
<td></td>
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<tr>
<td>Aspirin</td>
<td>22.64</td>
<td>32.84</td>
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<td>0.82</td>
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<tr>
<td>No Aspirin</td>
<td>16.61</td>
<td>23.72</td>
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</table>

*Alexander JH. Eur Heart J 2014*
## ENGAGE AF Trial
### Safety Outcomes for Edoxaban by SAPT Use

<table>
<thead>
<tr>
<th></th>
<th>Warfarin (%)/y</th>
<th>Edoxaban 60/30 mg (%)/y</th>
<th>HR (95% CI)</th>
<th>$P_{\text{int}}$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Bleeding</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAPT</td>
<td>4.38</td>
<td>3.55</td>
<td>0.82 (0.65–1.04)</td>
<td>0.91</td>
</tr>
<tr>
<td>No SAPT</td>
<td>2.54</td>
<td>2.04</td>
<td>0.80 (0.68–0.95)</td>
<td></td>
</tr>
<tr>
<td><strong>ICH</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAPT</td>
<td>1.18</td>
<td>0.54</td>
<td>0.46 (0.27–0.79)</td>
<td>0.98</td>
</tr>
<tr>
<td>No SAPT</td>
<td>0.57</td>
<td>0.27</td>
<td>0.47 (0.31–0.71)</td>
<td></td>
</tr>
<tr>
<td><strong>Life-threatening Bleeding</strong></td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
<tr>
<td>SAPT</td>
<td>1.14</td>
<td>0.63</td>
<td>0.56 (0.35–0.88)</td>
<td></td>
</tr>
<tr>
<td>No SAPT</td>
<td>0.64</td>
<td>0.36</td>
<td>0.56 (0.39–0.79)</td>
<td></td>
</tr>
<tr>
<td><strong>Fatal Bleeding</strong></td>
<td></td>
<td></td>
<td></td>
<td>0.17</td>
</tr>
<tr>
<td>SAPT</td>
<td>0.56</td>
<td>0.19</td>
<td>0.34 (0.15–0.81)</td>
<td></td>
</tr>
<tr>
<td>No SAPT</td>
<td>0.24</td>
<td>0.17</td>
<td>0.70 (0.39–1.23)</td>
<td></td>
</tr>
</tbody>
</table>

CI = confidence interval; HR = hazard ratio; ICH = intracranial hemorrhage; SAPT = single antiplatelet therapy

Prevention of Bleeding in Patients with Atrial Fibrillation Undergoing PCI

C. Michael Gibson, M.D., Roxana Mehran, M.D., Christoph Bode, M.D., Jonathan Halperin, M.D., Freek W. Verheugt, M.D., Peter Wildgoose, Ph.D., Mary Birmingham, Pharm.D., Juliana Ianus, Ph.D., Paul Burton, M.D., Ph.D., Martin van Eickels, M.D., Serge Korjian, M.D., Yazen Daaboul, M.D., Gregory Y.H. Lip, M.D., Marc Cohen, M.D., Steen Husted, M.D., Eric D. Peterson, M.D., M.P.H., and Keith A. Fox, M.B., Ch.B.
Patients With Atrial Fibrillation Undergoing Coronary Stent Placement: PIONEER AF-PCI

- Primary endpoint: TIMI major + minor + bleeding requiring medical attention
- Secondary endpoint: CV death, MI, and stroke (Ischemic, Hemorrhagic, or Uncertain Origin)

- 2100 patients with NVAF
- Coronary stenting
- No prior stroke/TIA, GI bleeding, Hb<10, CrCl<30

- Rivaroxaban 15 mg qd*
- Clopidogrel 75 mg qd†

- Rivaroxaban 2.5 mg bid
- Clopidogrel 75 mg qd†
- Aspirin 75-100 mg qd‡

- VKA (target INR 2.0-3.0)
- Clopidogrel 75 mg qd†
- Aspirin 75-100 mg qd

- End of treatment 12 months
- WOEST Like
- ATLAS Like
- Triple Therapy

### Time to First CV Death, MI, Stroke, Stent Thrombosis or All Cause Recurrent Hospitalization

**Graph:**
- **Y-axis:** CV Death, MI, Stroke, Stent Thrombosis or All Cause Recurrent Hospitalization (%)
- **X-axis:** Days (0, 30, 60, 90, 120, 150, 180, 210, 240, 270, 300, 330, 360)
- **Lines:**
  - **VKA + DAPT**
  - **Riva + P2Y12**
  - **Riva + DAPT**

**Table:**
<table>
<thead>
<tr>
<th>No. at risk</th>
<th>Days</th>
<th>Days</th>
<th>Days</th>
<th>Days</th>
<th>Days</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Riva + P2Y12</strong></td>
<td>696</td>
<td>609</td>
<td>582</td>
<td>559</td>
<td>496</td>
<td>437</td>
</tr>
<tr>
<td><strong>Riva + DAPT</strong></td>
<td>706</td>
<td>607</td>
<td>570</td>
<td>548</td>
<td>493</td>
<td>454</td>
</tr>
<tr>
<td><strong>VKA + DAPT</strong></td>
<td>697</td>
<td>592</td>
<td>540</td>
<td>490</td>
<td>422</td>
<td>369</td>
</tr>
</tbody>
</table>

**Results:**
- **Riva + P2Y12 v. VKA + DAPT**
  - HR = 0.80 (95% CI: 0.67-0.95)
  - p = 0.010
  - ARR = 6.7
  - NNT = 15

- **Riva + DAPT v. VKA + DAPT**
  - HR = 0.74 (95% CI: 0.62-0.89)
  - p = 0.001
  - ARR = 10.3
  - NNT = 10

**Reference:**
Major Adverse Cardiac Events
All Strata

<table>
<thead>
<tr>
<th></th>
<th>Kaplan-Meier Estimates</th>
<th>Hazard Ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Riva + P2Y₁₂ (N=694)</td>
<td>Riva + DAPT (N=704)</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adverse CV Event</td>
<td>41 (6.5%)</td>
<td>36 (5.6%)</td>
</tr>
<tr>
<td>CV Death</td>
<td>15 (2.4%)</td>
<td>14 (2.2%)</td>
</tr>
<tr>
<td>MI</td>
<td>19 (3.0%)</td>
<td>17 (2.7%)</td>
</tr>
<tr>
<td>Stroke</td>
<td>8 (1.3%)</td>
<td>10 (1.5%)</td>
</tr>
<tr>
<td>Stent Thrombosis</td>
<td>5 (0.8%)</td>
<td>6 (0.9%)</td>
</tr>
<tr>
<td>Adverse CV Events + Stent Thrombosis</td>
<td>41 (6.5%)</td>
<td>36 (5.6%)</td>
</tr>
</tbody>
</table>
Antithrombotic Combination Therapy – New P2Y12-Inh., Skipping Aspirin
RE-DUAL PCI

All-comers
Randomized
Event driven

Dabigatran 110 bid + single APT

Dabigatran 150 bid + single APT

Warfarin + dual APT

Outcomes:
Bleeding, death, MI, and stroke

Single or dual APT (antiplatelet therapy) includes CLOPIDOGREL (stable patients) or TICAGRELOR (ACS patients)

Cannon et al. Clin Cardiol 2016 Epub ahead of print
Apixaban in AF/ACS
(AUGUSTUS Trial design)

Patients (n~4500) w/ AF (CHADS ≥1) + PCI or ACS
Planned P2Y12 x ≥6 months

Randomise

Apixaban 5.0 (2.5*) mg BD
+ P2Y12

2 x 2 Factorial

VKA (INR 2–3) + P2Y12

Randomise

Aspirin 81 mg OD

Aspirin Placebo

Primary: ISTH Major or CRNM Bleeding at 6 months
Secondary: Death, MI, stroke, stent thrombosis at 6 months

Cr, creatinine; CRNM, clinically relevant non-major.
*2.5 mg BD for patients with 2/3: age >80 years, weight <60 kg, Cr >1.5 mg/dL.
**ENTRUST-AF PCI Trial**

**EDOXABAN TREATMENT VERSUS VKA IN PATIENTS WITH AF UNDERGOING PCI – ENTRUST-AF PCI**

**Inclusion criteria:**
- OAC indication for AF for at least 12 months
- Successful PCI with stent placement

**Primary outcome:**
ISTH major & CRNM bleeding

- **Edoxaban 60 mg once-daily***
- **P2Y₁₂ antagonist†** (without ASA)
- **Vitamin K antagonist‡**
- **P2Y₁₂ antagonist†** (ASA 1–12 months)**

**End of treatment (EOT)**
Visit: 12 months

**Final follow-up**
Visit: 30 days post-EOT

**N=150**
## Ongoing Trials in PCI for AF Patients with or without Aspirin

<table>
<thead>
<tr>
<th>Trial</th>
<th>n</th>
<th>Experiment Arm</th>
<th>Control Arm</th>
<th>ClinicalTrials.gov</th>
<th>Primary Endpoint</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE-DUAL PCI</td>
<td>2,500</td>
<td>dabigatran* P2Y12</td>
<td>warfarin P2Y12 aspirin</td>
<td>02164864</td>
<td>bleeding</td>
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<tr>
<td>AUGUSTUS**</td>
<td>4,600</td>
<td>apixaban/warfarin P2Y12</td>
<td>warfarin P2Y12 aspirin</td>
<td>02415400</td>
<td>bleeding</td>
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<tr>
<td>ENTRUST AF-PCI</td>
<td>1,500</td>
<td>edoxaban P2Y12</td>
<td>warfarin P2Y12 aspirin</td>
<td>n.a.</td>
<td>bleeding</td>
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<tr>
<td>MANJUSRI²</td>
<td>296</td>
<td>warfarin ticagrelor</td>
<td>warfarin clopidogrel aspirin</td>
<td>02206815</td>
<td>bleeding</td>
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</tbody>
</table>

* 150mg bid vs 110 mg bid  
**ACS with or without PCI only

¹ Contemp Clin Trials 2015;40:166-171
All-Comers PCI Population
ACS and Elective/Stable patients
(n=16,000)

Biolimus-eluting stent (BES)
BioMatrix Flex™

1:1 Randomization, Open-Label Design

Study Treatment Strategy
- 1-month ASA + Ticagrelor
- 23-months monotherapy Ticagrelor

Reference Treatment Strategy
- 12-months DAPT
  - ACS pts (ASA + Ticagrelor)
  - Elective pts (ASA + Clopidogrel)
- 12-months monotherapy ASA

Primary Endpoint
Study treatment strategy superior to reference treatment strategy on cumulative 2 year composite of all cause mortality and new Q-wave MI
TWILIGHT Study Design
Multicenter, prospective, blinded dual-arm study

1. **RANDOMIZE**
   - **TICAGRELOR + ASA**
   - **TICAGRELOR + ASA**
   - **SOC THERAPY**
   - **N = 8200**

2. **RANDOMIZATION PERIOD ENDS**
   - **SOC THERAPY**
   - **N = 9000**

3. **OBSERVATION PERIOD STARTS**
   - **SOC THERAPY**
   - **3 MONTHS**

4. **SHORT COURSE DAPT TO MINIMIZE STENT-RELATED THROMBOTIC EVENTS**

5. **MONOTHERAPY WITH POTENT PLATELET INHIBITOR PROVIDES ISCHEMIC PROTECTION WHILE REDUCING ASA RELATED BLEEDING**

6. **OBSERVATIONAL PERIOD**

---

**HIGH RISK PCI PATIENTS,**

**Monotherapy with potent platelet inhibitor provides ischemic protection while reducing ASA related bleeding**

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**SOC THERAPY**

---

Short course DAPT to minimize stent-related thrombotic events
What the Guidelines Say
Recommends for antithrombotic treatment in SCAD patients undergoing PCI

<table>
<thead>
<tr>
<th>Antiplatelet therapy after stenting</th>
<th>Grade</th>
<th>Level</th>
<th>Evidence</th>
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<tbody>
<tr>
<td>DAPT is indicated for at least 1 month after BMS implantation.</td>
<td>I</td>
<td>A</td>
<td>791,799–801</td>
</tr>
<tr>
<td>DAPT is indicated for 6 months after DES implantation.</td>
<td>I</td>
<td>B</td>
<td>799,802,803</td>
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<tr>
<td>Shorter DAPT duration (&lt;6 months) may be considered after DES implantation in patients at high bleeding risk.</td>
<td>IIb</td>
<td>A</td>
<td>804,805</td>
</tr>
<tr>
<td>Life-long single antiplatelet therapy, usually ASA, is recommended.</td>
<td>I</td>
<td>A</td>
<td>776,794</td>
</tr>
<tr>
<td>Instruction of patients about the importance of complying with antiplatelet therapy is recommended.</td>
<td>I</td>
<td>C</td>
<td>-</td>
</tr>
<tr>
<td>DAPT may be used for more than 6 months in patients at high ischaemic risk and low bleeding risk.</td>
<td>IIb</td>
<td>C</td>
<td>-</td>
</tr>
</tbody>
</table>

Wijns et al. Eur Heart J 2014
### Recommendation

<table>
<thead>
<tr>
<th>Oral antiplatelet therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>After elective coronary stenting for stable coronary artery disease in AF patients at risk of stroke, combination triple therapy with aspirin, clopidogrel and an oral anticoagulant should be considered for 1 month to prevent recurrent coronary and cerebral ischaemic events.</td>
</tr>
<tr>
<td>After an ACS with stent implantation in AF patients at risk of stroke, combination triple therapy with aspirin, clopidogrel and an oral anticoagulant should be considered for 1–6 months to prevent recurrent coronary and cerebral ischaemic events.</td>
</tr>
<tr>
<td>After an ACS without stent implantation in AF patients at risk of stroke, dual treatment with an oral anticoagulant and aspirin or clopidogrel should be considered for up to 12 months to prevent recurrent coronary and cerebral ischaemic events.</td>
</tr>
<tr>
<td>The duration of combination antithrombotic therapy, especially triple therapy, should be kept to a limited period, balancing the estimated risk of recurrent coronary events and bleeding.</td>
</tr>
<tr>
<td>Dual therapy with any oral anticoagulant plus clopidogrel 75 mg/day may be considered as an alternative to initial triple therapy in selected patients.</td>
</tr>
</tbody>
</table>
Antithrombotic therapy after elective percutaneous intervention in atrial fibrillation patients requiring anticoagulation

AF Patient in need of OAC after elective PCI with stent

- Bleeding risk low compared to risk for ACS or stent thrombosis
- Bleeding risk high compared to risk for ACS or stent thrombosis

Time from PCI:
- 0
- 1 month
- 3 months
- 6 months
- 12 months
- Lifelong

- Triple therapy (IIaB)
- Dual therapy (IIaC)
- OAC monotherapy (IB)

OAC monotherapy (IB) as follows:
- OAC
- Aspirin 75–100 mg daily
- Clopidogrel 75 mg daily

Kirchoff et al. Eur Heart J 2016
Recommendations for Combination Antithrombotic Therapy

- The use of all oral anticoagulants is possible (VKA, NOACs)
  - If VKA: INR 2,0-2,5
  - If NOAC: lower dose (2x110 mg dabigatran, 1x15 mg rivaroxaban, 2x2,5 mg apixaban, 1x30 mg edoxaban)

- Do NOT USE second generation P2Y$_{12}$-inhibitors in combination with OAC
  - However, current trials will assess the safety and efficacy of NOACs in combination with stronger P2Y$_{12}$ inhibitors

- Newer generation DES should be preferred over BMS in patients with AF undergoing coronary stenting (LEADERS Free and ZEUS trials)
Further Thoughts & Take Home Message
NOACs and Antiplatelet Agents

CrCl >= 50 ml/min

No

Risk factors for bleeding?^b

Yes

No

either

- Adjusted-dose warfarin (target INR 2.0-2.5)^f
- Apixaban 2.5 mg BID^e
- Dabigatran 110 mg BID
- Edoxaban 30 mg OD

- Dabigatran 110 mg BID or
- Apixaban 2.5 mg BID^c
- Edoxaban 30 mg OD^d
- Rivaroxaban 15 mg OD^c

- Apixaban 5 mg BID
- Dabigatran 110 mg BID
- Edoxaban 60 mg OD or
- Rivaroxaban 15 mg OD^c

Rubboli, Agewall, Huber, Lip. submitted Int J Cardiol 2016
TRIPLE THERAPY IN PCI: FOR WHOM AND FOR HOW LONG?

Take Home Messages

Triple therapy (OAC, clopidogrel and aspirin) for PCI in AF leads to unacceptable bleeding. Possibly, aspirin may be skipped and a lower NOAC dose used (PIONEER).

The most recent guidelines recommend for most AF patients undergoing PCI triple therapy for the shortest period as clinically acceptable (1 mo). The balance bleeding/thrombotic risk must be taken into account. APT must be stopped at 12 mo.

For AF patients undergoing PCI the NOACs seem preferable because of their safety profile. The first randomized trial data do support this, but more data are needed.
THANK YOU
FOR YOUR INTEREST