Θρομβοεμβολικός VS αιμορραγικός κίνδυνος στην κολπική μαμαρυγή

"17ο Πανελλήνιο Καρδιολογικό Συνέδριο ΚΕΒΕ"
Afib prevalence

Anticoagulation

Thromboembolic risk

Bleeding risk assessment

Use of antiplatelets in Afib
Atrial fibrillation (AF) is the commonest cardiac arrhythmia, with an increasing prevalence with age and common cardiovascular disorders. It is an important healthcare issue because early detection provides an opportunity to prevent fatal and disabling strokes.
Stepwise Screening of Atrial Fibrillation in a 75-Year-Old Population
Implications for Stroke Prevention

Johan Engdahl, MD, PhD; Lisbeth Andersson, RN; Maria Mirskaya, RN;
Mårten Rosenqvist, MD, PhD

**Background**—Atrial fibrillation (AF) is a frequent source of cardiac emboli in patients with ischemic stroke. AF may be asymptomatic and therefore undiagnosed. Screening for silent AF seems suitable in risk populations, however little is known on the yield and cost-effectiveness of such screening.

**Methods and Results**—All inhabitants in the municipality of Halmstad, Sweden aged 75 to 76 years were invited to a stepwise screening program for AF. As a first step, participants recorded a 12-lead ECG and reported their relevant medical history. Those with sinus rhythm on 12-lead ECG, no history of AF, and ≥2 risk factors according to CHADS$_2$ were invited to a 2-week recording period using a hand-held ECG and asked to record 20 or 30 seconds twice daily and if palpitations occurred. One thousand, three hundred thirty inhabitants were invited, of whom 848 (64%) participated. Previously undiagnosed silent AF was found in 10 (1%) among 848 individuals who recorded 12-lead ECG. Among 81 patients with known AF, 35 (43%) were not on oral anticoagulation treatment. Among 403 persons with ≥2 risk factors for stroke, who completed the hand-held ECG event recording, 30 (7.4%) were diagnosed with paroxysmal AF. Thus 75/848 (9%) of the screened population were candidates for new oral anticoagulation treatment, of those 57 actually started oral anticoagulation treatment.

**Conclusions**—Stepwise risk factor–stratified AF screening in a 75-year-old population yields a large share of candidates for oral anticoagulation treatment on AF indication. (*Circulation. 2013;127:930-937.*)

**Key Words:** atrial fibrillation ■ diagnosis ■ prevention and control ■ stroke
Mass Screening for Untreated Atrial Fibrillation
The STROKESTOP Study

Emma Svennberg, MD; Johan Engdahl, MD, PhD; Faris Al-Khalili, MD, PhD; Leif Friberg, MD, PhD; Viveka Frykman, MD, PhD; Mårten Rosenqvist, MD, PhD

Background—The aims of the present study were to define the prevalence of untreated atrial fibrillation (AF) in a systematic screening program using intermittent ECG recordings among 75- to 76-year-old individuals and to study the feasibility of initiating protective oral anticoagulant (OAC) treatment.

Methods and Results—Half of the 75- to 76-year-old population in 2 Swedish regions were invited to a screening program for AF. Participants without a previous diagnosis of AF underwent intermittent ECG recordings over 2 weeks. If AF was detected, participants were offered OAC. During the 28-month inclusion period, 13,331 inhabitants were invited. Of these, 7173 (53.8%) participated. Of the participants, 218 (3.0%; 95% confidence interval [CI], 2.7–3.5) were found to have previously unknown AF, and of these, AF was found in 37 (0.5% of the screened population) on their first ECG. The use of intermittent ECGs increased new AF detection 4-fold. A previous diagnosis of AF was known in 9.3% (n=666; 95% CI, 8.6–10.0). Total AF prevalence in the screened population was 12.3%. Of participants with known AF, 149 (2.1%; 95% CI, 1.8–2.4) had no OAC treatment. In total, 5.1% (95% CI, 4.6–5.7) of the screened population had untreated AF; screening resulted in initiation of OAC treatment in 3.7% (95% CI, 3.3–4.2) of the screened population. More than 90% of the participants with previously undiagnosed AF accepted initiation of OAC treatment.

Conclusions—Mass screening for AF in a 75- to 76-year-old population identifies a significant proportion of participants with untreated AF. Initiation of stroke prophylactic treatment was highly successful in individuals with newly diagnosed AF.

Clinical Trial Registration—URL: http://www.clinicaltrials.gov. Unique identifier: NCT01593553.
(Circulation. 2015;131:2176-2184. DOI: 10.1161/CIRCULATIONAHA.114.014343.)
The proportion of patients diagnosed with post-stroke AF in four different phases:

(i) phase 1 (emergency department) consisted of admission ECG;
(ii) phase 2 (in hospital) comprised serial ECG, continuous inpatient ECG monitoring, continuous inpatient cardiac telemetry and in-hospital Holter monitoring;
(iii) phase 3 (first ambulatory period) consisted of ambulatory Holter;
(iv) phase 4 (second ambulatory period) consisted of mobile cardiac outpatient telemetry, external loop recording and implantable loop recording.

The authors concluded that post-stroke AF occurred in 7.7% of patients (95% CI 5.0–10.8) in phase 1, 5.1% (3.8–6.5) in phase 2, 10.7% (5.6–17.2) in phase 3, 16.9% (13.0–21.2) in phase 4.

The overall AF detection yield after all phases of sequential cardiac monitoring was 23.7% (95% CI 17.2–31.0) [10]. Thus, by sequentially combining cardiac monitoring methods, AF might be newly detected in nearly a quarter of patients presenting with stroke or transient ischemic attack. Accordingly, more stroke recurrences could be prevented in this high-risk population.
The main priority in atrial fibrillation (AF) management

- is stroke prevention,

- following decisions about rate or rhythm control

- focused on the patient, being primarily for management of symptoms.

Initial identification of ‘truly low-risk’ patients with AF,

- CHA2DS2VASc 0 (male) or 1 (female), who do not need any antithrombotic therapy
With the use of antithrombotic therapy, bleeding risks as part of tailored therapy and decision-making also have to be considered.

Current anticoagulation therapy manly consists of vitamin K antagonists (VKAs), often warfarin or acenocoumarol or phenprocoumon, which are dose adjusted to achieve an international normalized ratio (INR) of 2.0 – 3.0.

**VKAs**
- have many limitations,
- including a significant inter- and intra-patient variability of effective dose,
- various food and drug interactions.
- regular anticoagulation monitoring is required in all patients to keep the INR within the narrow therapeutic range of 2.0 – 3.0.
- Variability causes many patients to spend significant amounts of time outside the therapeutic INR window,
- an important proportion of patients discontinue OAC therapy.
New OACs

- the oral direct thrombin inhibitors

- the oral direct factor Xa inhibitors, are in advanced clinical development, and may offer alternative therapies to patients who suffer from the limitations and disutility associated with VKAs.

- Indeed, indirect comparisons show how well these new OACs may perform relative to VKA, aspirin–clopidogrel combination therapy, aspirin monotherapy or placebo.

- bleeding events are five to eight times less likely than ischaemic strokes reported among AF patients from trials and registry data.
Bleeding risk assessment and management in atrial fibrillation patients: a position document from the European Heart Rhythm Association, endorsed by the European Society of Cardiology Working Group on Thrombosis

Gregory Y. H. Lip (Chair)†, Felicita Andreotti†‡, Laurent Fauchier†, Kurt Huber§†, Elaine Hylek§, Eve Knight, Deirdre A. Lane†, Marcel Levi†, Francisco Marin†, Gualtiero Palareti†, and Paulus Kirchhof (Co-chair)10†

Document reviewers: Jean-Philippe Collet††, Andrea Rubboli††, Daniela Poli††, and John Camm††
• Despite the clear net clinical benefit of OAC to AF patients at risk for stroke, major bleeding events, especially intra-cranial bleeds, may be devastating.

• The decision for OAC should therefore be based on a careful assessment of both stroke risk and bleeding risk.

• Unfortunately, clinical scores for bleeding risk estimation are much less well validated than stroke risk scales.

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Initiator of anticoagulant treatment:

- Establishes indication for anticoagulation
- Checks baseline blood works, incl. hemoglobin, renal and liver function, full coagulation panel
- Chooses anticoagulant and correct dose
- Decides on need for proton pump inhibitor
- Provides education and hands out anticoagulation card
- Organises follow-up (when, by whom, what?)
- Remains responsible coordinator for follow-up

Follow-up: GP; anticoagulant or AF clinic; initiator of therapy; ...

first FU: 1 month

- Checks for thromboembolic- and bleeding events
- Assesses adherence (remaining pills, NOAC card, ...), re-enforces education
- Checks for side effects
- Assesses co-medications and over-the-counter drugs
- Assesses modifiable risk factors and takes every effort to minimize them
- Determines the need for blood sampling
- Assesses optimal NOAC and correct dosing

In case of problems: contacts initiator of treatment. Difficult decisions on anticoagulation should be taken by a multidisciplinary team.

Otherwise:

- Fills out anticoagulation card
- Reinforces key educational aspects
- Sets date/place for next follow-up

+/- 3 months
(1-6 months, interval depending on patient factors incl. renal function, age, co-morbidities etc)
ΚΙΝΔΥΝΕΥΩΝ ΤΟ ΙΔΙΟ;
• The >75-year-old patient
  • Older people with AF do better on OAC than not and on NOACs rather than VKA

• Older patients had more bleeding but the overall pattern of bleeding observed (reduced intracranial and increased GI bleeding) showed no difference between NOACs and VKA

• Chronic kidney disease

• Frailty and falls 1-2%/Y
  • considerations with regard to the risk-benefit ratio of OAC
  • Markov decision analytic model has demonstrated that with VKA a patient would have to fall 295 times in order for the risk of a subdural haematoma to outweigh the benefit of anticoagulation.
  • frailty per se should not be an exclusion criterion to anticoagulate since frail and older patients are at an increased risk of stroke and have been shown to benefit from OAC
### Table 6  Absorption and metabolism of the different NOACs

<table>
<thead>
<tr>
<th></th>
<th>Dabigatran&lt;sup&gt;15,182&lt;/sup&gt;</th>
<th>Apixaban&lt;sup&gt;183&lt;/sup&gt;</th>
<th>Edoxaban&lt;sup&gt;184&lt;/sup&gt;</th>
<th>Rivaroxaban&lt;sup&gt;185,186&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioavailability</strong></td>
<td>3–7%</td>
<td>50%</td>
<td>62%</td>
<td>15 mg/20 mg: 66% without food, 80–100% with food</td>
</tr>
<tr>
<td><strong>Prodrug</strong></td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Clearance non-renal/renal of absorbed dose</strong></td>
<td>20%/80%</td>
<td>73%/27%</td>
<td>50%/50%</td>
<td>65%/35%</td>
</tr>
<tr>
<td><strong>Plasma protein binding</strong></td>
<td>35%</td>
<td>87%</td>
<td>55%</td>
<td>95%</td>
</tr>
<tr>
<td><strong>Dialysability</strong></td>
<td>50–60% (in part dialysable)</td>
<td>14% (in part dialysable)</td>
<td>n.a. (in part dialysable)</td>
<td>n.a. (in part dialysable)</td>
</tr>
<tr>
<td><strong>Liver metabolism: CYP3A4 involved</strong></td>
<td>No</td>
<td>Yes [elimination, moderate contribution (=25%)]</td>
<td>Minimal (&lt;4% of elimination)</td>
<td>Yes (hepatic elimination =18%)&lt;sup&gt;131&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Absorption with food</strong></td>
<td>No effect</td>
<td>No effect</td>
<td>6-22% more; minimal effect on exposure</td>
<td>+39% more (see above)</td>
</tr>
<tr>
<td><strong>Absorption with H2B/PPI</strong></td>
<td>-12% to 30% (not clinically relevant)</td>
<td>No effect</td>
<td>No effect</td>
<td>No effect</td>
</tr>
<tr>
<td><strong>Asian ethnicity</strong></td>
<td>75%&lt;sup&gt;166&lt;/sup&gt;</td>
<td>No effect</td>
<td>No effect</td>
<td>No effect</td>
</tr>
<tr>
<td><strong>Elimination half-life</strong></td>
<td>12–17 h</td>
<td>12 h</td>
<td>10–14 h</td>
<td>5–9 h (young) 11–13 h (elderly)</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>Dyspepsia (5–10%)</td>
<td>Intake of 15 mg/20 mg with food mandatory</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 7  Criteria for diagnosing chronic kidney disease; estimation of renal function and categories of renal dysfunction

<table>
<thead>
<tr>
<th>Decreased GFR&lt;sup&gt;a&lt;/sup&gt;</th>
<th>GFR &lt;60 mL/min/1.73 m&lt;sup&gt;2&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Markers of kidney damage (≥1)</td>
<td><img src="#" alt="List of markers" /></td>
</tr>
<tr>
<td>● Excessive albuminuria (AER ≥30 mg/24 h; ACR ≥30 mg/g or ≥3 mg/mmol)</td>
<td></td>
</tr>
<tr>
<td>● Urine sediment abnormalities</td>
<td></td>
</tr>
<tr>
<td>● Electrolyte or other abnormality caused by tubular disorders</td>
<td></td>
</tr>
<tr>
<td>● Abnormal histology</td>
<td></td>
</tr>
<tr>
<td>● Structural abnormalities detected by kidney imaging</td>
<td></td>
</tr>
<tr>
<td>● History of kidney transplantation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GFR category</th>
<th>CKD stage</th>
<th>GFR&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>1</td>
<td>≥90</td>
<td>Normal or high</td>
</tr>
<tr>
<td>G2</td>
<td>2</td>
<td>60–89</td>
<td>Mildly decreased</td>
</tr>
<tr>
<td>G3a</td>
<td>3</td>
<td>45–59</td>
<td>Mildly to moderately decreased</td>
</tr>
<tr>
<td>G3b</td>
<td>3</td>
<td>30–44</td>
<td>Moderately to severely decreased</td>
</tr>
<tr>
<td>G4</td>
<td>4</td>
<td>15–29</td>
<td>Severely decreased</td>
</tr>
<tr>
<td>G5</td>
<td>5</td>
<td>&lt;15</td>
<td>Kidney failure (requires renal replacement therapy – dialysis or kidney transplantation)</td>
</tr>
</tbody>
</table>

Estimation of renal function in NOAC patients best by Creatinine Clearance (Cockcroft-Gault):

\[
CrCl \text{ [mg/dl]} = \frac{(140 – \text{age} \times \text{weight (in kg)} \times 0.85 \text{ if female})}{72 \times \text{serum creatinine (in mg/dL)}}
\]
Patient post intracranial haemorrhage

Consider factors favoring withholding (✓) vs. (re-) starting oral anticoagulation

✓ Severe intracranial bleed
✓ Multiple cerebral microbleeds (e.g. >10)
✓ No reversible/treatable cause of bleeding
✓ Older age
✓ Bleeding during interruption of anticoagulation
✓ Bleed on adequately or underdosed NOAC
✓ Uncontrolled hypertension
✓ Chronic alcohol abuse
✓ Need for dual antiplatelet therapy after PCI

Net assessment in favour of withholding anticoagulation according to a multidisciplinary decision

Yes

Consider no anticoagulation vs. LAA occlusion*

No

(Re-) initiate (N)OAC after 4-8 weeks*
• Obesity and low body weight
  • Obesity affects the pharmacokinetics of drugs, including the volume of distribution (of lipophilic drugs in particular) as well as drug clearance.
  • Renal blood flow and CrCl have been shown to be increased in obesity and could increase elimination of OACs.
  • Pharmacokinetic data on both rivaroxaban and apixaban initially reported weight-dependent.
  • Limited data in extreme obesity, the use of VKA in patients with a BMI > 40 kg/m² or weight > 120 kg should be considered.

• Women of reproductive age
  • Abnormal uterine bleeding (AUB; formerly called menorrhagia), occurs in 9–14% of the general female population of reproductive age.

• Epilepsy

• Athletes
  • Traditional advice to athletes on OAC for VTE has been to avoid contact sports while on treatment and there is little published evidence on the use of NOACs in AF in such populations.
### Table 15  Examples of falls risk tools

(A) High risk of falls (from ENGAGE-AF TIMI 48)\(^{52}\)

<table>
<thead>
<tr>
<th>Presence of one or more of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior history of falls</td>
</tr>
<tr>
<td>Lower extremity weakness</td>
</tr>
<tr>
<td>Poor balance</td>
</tr>
<tr>
<td>Cognitive impairment</td>
</tr>
<tr>
<td>Orthostatic hypotension</td>
</tr>
<tr>
<td>Use of psychotropic drugs</td>
</tr>
<tr>
<td>Severe arthritis</td>
</tr>
<tr>
<td>Dizziness</td>
</tr>
</tbody>
</table>

(B) Probability falls assessment\(^{410}\)

<table>
<thead>
<tr>
<th>1 point for each 'Yes'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous falls</td>
</tr>
<tr>
<td>Mediations</td>
</tr>
<tr>
<td>&gt;4</td>
</tr>
<tr>
<td>Psychotropics</td>
</tr>
<tr>
<td>Low visual acuity</td>
</tr>
<tr>
<td>Diminished sensation</td>
</tr>
<tr>
<td>Near tandem stand 10 s</td>
</tr>
<tr>
<td>Alternate step test 10 s</td>
</tr>
<tr>
<td>Sit to stand 12 s</td>
</tr>
</tbody>
</table>

#### Score

<table>
<thead>
<tr>
<th></th>
<th>0–1</th>
<th>2–3</th>
<th>4–5</th>
<th>6+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probability of fall per year</td>
<td>7%</td>
<td>13%</td>
<td>27%</td>
<td>49%</td>
</tr>
</tbody>
</table>
One study found a prevalence of 2.4% of pre-existing AF and 1.8% new AF among cancer patients.

The risk of VTE is increased in the presence of cancer through a host of possible mechanisms.

Conversely, cancers may cause infiltrative liver failure resulting in thrombocytopenia or coagulopathy and increased risk of bleeding.

HOKUSAI-VTE Cancer trial comparing edoxaban with LMWH in patients with VTE.
## Table 16  Atrial fibrillation and malignancy

### Interdisciplinary teamwork

1. **Estimate individual patient risk profile**
   - AF-related risk factors (CHA₂DS₂-VASc, bleeding risk)
   - Cancer-related risk factors (type, liver metastases, coagulopathy, renal/hepatic function etc.)
   - Treatment-related risk factors (thrombocytopenia, surgery, radiation, central lines etc.)

2. **Choose anticoagulant**
   - Current standard of care: VKA/(LMWH)\(^a\)
   - NOACs: Available data scarce, but encouraging
   - Consider patient preference (VKA vs. NOAC)

3. **Protect the patient**
   - Gastric protection (PPI/H₂ blockers)
   - Beware of drug–drug interactions (*Table 4*)
   - Dose reduction/treatment interruption (if platelets <50k, renal dysfunction, bleeding, . . .)

### Beware
- Risk of thromboembolism ↑
- Risk of bleeding ↑
Acute ischaemic stroke

TIA
- No clinical worsening or clinical improvement
  - Consider (re-)starting a NOAC ≥ 1 day after stroke onset #

Persisting mild neurological deficit
- Exclude haemorrhagic transformation by brain CT or MRI within 24 hours before (re-)starting a NOAC
  - Consider (re-)starting a NOAC ≥ 3 days* after stroke onset #

Persisting moderate neurological deficit
- Consider (re-)starting a NOAC ≥ 6-8 days* after stroke onset #

Persisting severe neurological deficit
- Consider (re-)starting a NOAC ≥ 12-14 days* after stroke onset #
MAY BE CONSIDERED FOR STROKE PREVENTION IN PATIENTS WITH AF WHO REFUSE ORAL ANTICOAGULANT THERAPY BUT CANNOT TOLERATE ASA PLUS CLOPIDOGREL; MAY BE CONSIDERED IN PATIENTS WHO REFUSE ORAL ANTICOAGULANT THERAPY.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Target</th>
<th>Dose/regimen</th>
<th>Supporting study/substudies</th>
</tr>
</thead>
</table>
| ASA     | Irreversibly inhibits the COX-1 enzyme                                  | 75–325 mg once daily\(^{a,b}\)                     | ACTIVE-W\(^1\) \(
|         |                                                                        |                                                   | ACTIVE-A\(^2\) \(\)                                  |
|         |                                                                        |                                                   | Meta-analysis\(^3\)                                  |
| Clopidogrel | Thienopyridine – irreversibly binds to the adenosine diphosphate receptor P2Y\(^8\) | 75 mg once daily, administered in combination with ASA 75–100 mg daily\(^b\) |                                                     |
AF patient on NOAC

Elective PCI

Stop NOAC: last dose ≥24h before intervention

Consider alternatives (as in all with need for chronic OAC):
- Bypass surgery
- Sole balloon angioplasty

Periprocedural anticoagulation per local practice:
- UFH (per ACT/aPTT)
- Bivalirudin
- Avoid Gp IIb/IIIa inhibitors

Stent type:
Prefer contemporary DES
(BMS and 1st gen DES to be avoided)

Acute Coronary Syndrome

On admission:
- Stop NOAC
- Load with ASA (150-300 mg) +/- P2Y12 inhibitor as per standard protocol

STEMI

Fibrinolysis
- Only if below reference range (Tab. 9)
- No UFH or enoxaparin until NOAC levels below reference range (Tab. 9)

Primary PCI (preferred)
- Radial access
- Prefer new-generation DES
- Additional UFH, LMWH, bivalirudin (regardless of last NOAC)
- Avoid Iib/IIIa inhibitors unless bail-out
- Avoid fondaparinux

Non-STEMI

Urgent
Approach as per primary PCI

Non-urgent
- Delay PCI
- Start fondaparinux (preferred) or LMWH ≥12h after last NOAC
- Avoid upstream bivalirudin, UFH, or Iib/IIIa inhibitors

After discontinuation of parenteral anticoagulation: restart (same) NOAC according to SmPC, in combination with single or dual antiplatelets (see Figure 11)
Factors to shorten combination therapy
- (Uncorrectable) high bleeding risk
- Low atherothrombotic risk (by REACH or SYNTAX score; elective; GRACE ≥140 if ACS)

Factors to lengthen combination therapy
- First-generation DES
- High atherothrombotic risk (scores as above; stenting of the left main, proximal LAD, proximal bifurcation; recurrent MIs; stent thrombosis etc.) and low bleeding risk
## Benefit outcomes

<table>
<thead>
<tr>
<th></th>
<th>Aspirin + clopidogrel</th>
<th>OAC + aspirin</th>
<th>OAC + clopidogrel</th>
<th>OAC + aspirin + clopidogrel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coronary death/MI</strong></td>
<td>Numbers (incidence rates)</td>
<td>HR [95 % CI]</td>
<td>Numbers (incidence rates)</td>
<td>HR [95 % CI]</td>
</tr>
<tr>
<td>(n=854)</td>
<td>149 (18.4)</td>
<td>reference</td>
<td>101 (17.1)</td>
<td>0.91 [0.71-1.18]</td>
</tr>
<tr>
<td><strong>Ischemic stroke</strong></td>
<td>Numbers (incidence rates)</td>
<td>HR [95 % CI]</td>
<td>Numbers (incidence rates)</td>
<td>HR [95 % CI]</td>
</tr>
<tr>
<td>(n=310)</td>
<td>49 (5.7)</td>
<td>reference</td>
<td>41 (6.7)</td>
<td>1.01 [0.66-1.55]</td>
</tr>
<tr>
<td><strong>All-cause mortality</strong></td>
<td>Numbers (incidence rates)</td>
<td>HR [95 % CI]</td>
<td>Numbers (incidence rates)</td>
<td>HR [95 % CI]</td>
</tr>
<tr>
<td>(n=896)</td>
<td>142 (16.2)</td>
<td>reference</td>
<td>99 (15.7)</td>
<td>1.00 [0.77-1.39]</td>
</tr>
</tbody>
</table>

## Safety outcomes

<table>
<thead>
<tr>
<th></th>
<th>Aspirin + clopidogrel</th>
<th>OAC + aspirin</th>
<th>OAC + clopidogrel</th>
<th>OAC + aspirin + clopidogrel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bleeding</strong></td>
<td>Numbers (incidence rates)</td>
<td>HR [95 % CI]</td>
<td>Numbers (incidence rates)</td>
<td>HR [95 % CI]</td>
</tr>
<tr>
<td>(n=314)</td>
<td>49 (5.7)</td>
<td>reference</td>
<td>63 (10.4)</td>
<td>1.78 [1.21-2.62]</td>
</tr>
</tbody>
</table>

n denotes number of events, and rates are events per 100 person years

Abbreviations: HR, Hazard ratio; CI, confidence interval; OAC, oral anticoagulant; MI, myocardial infarction; PCI, percutaneous coronary intervention.
A graph showing hazard ratios for MI/coronary death, ischemic stroke, bleeding, and all-cause mortality for different treatment groups: OAC + clopidogrel, OAC + aspirin, and aspirin + clopidogrel. The graph includes 95% CI and reference to triple therapy.
ΣΥΜΠΕΡΑΣΜΑΤΑ

- Θα πρέπει να διαβαθμίζεται η αντιπηκτική αγωγή ανάλογα με τον θρομβοεμβολικό κίνδυνο;
- ο εν υπάρχων αιμορραγικός κίνδυνος του αρρώστου επηρεάζει την απόφαση για χορήγηση
- αντιπηκτικής αγωγής και τη δοσολογία της,
- Η χρήση αντιαιμοπεταλιακών στην Κολπική Μαρμαρυγή απαντάται μετά από ACS/PCI.
THANK YOU