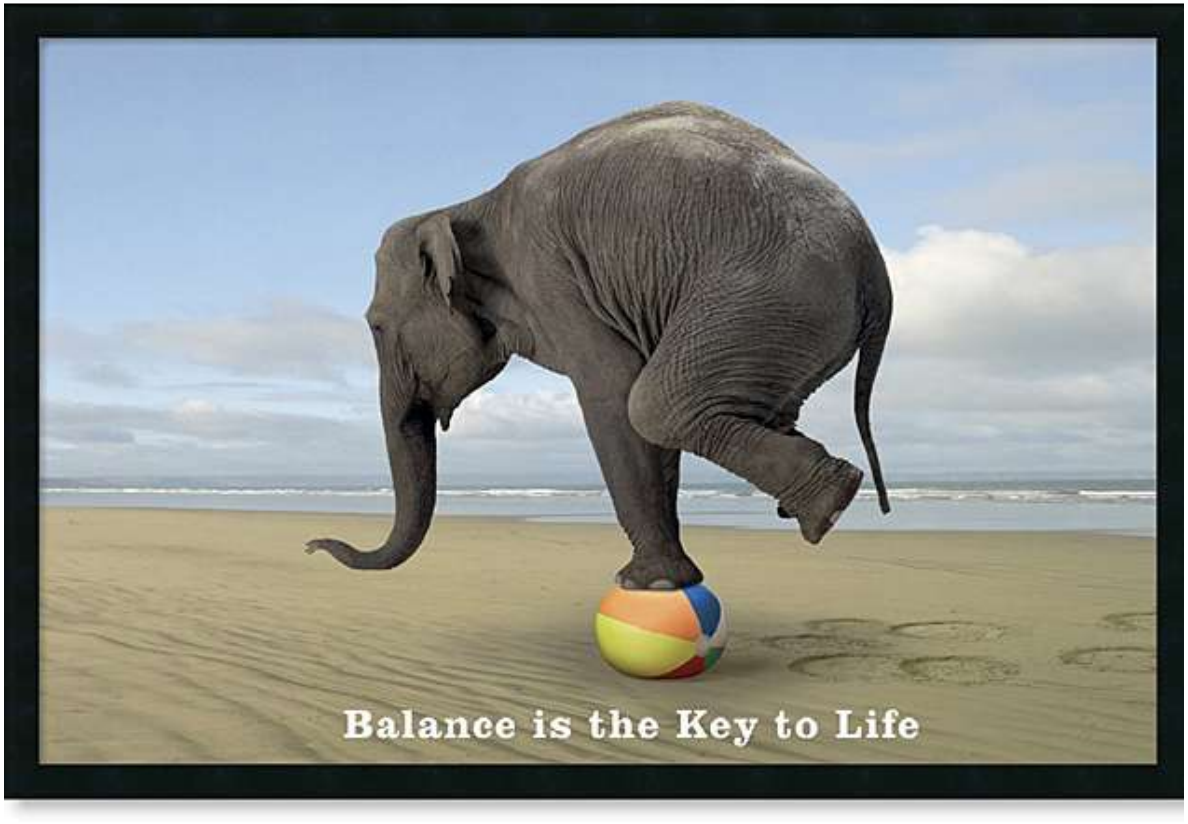
Atriumfibrilleren, je zou er hartkloppingen van krijgen!

Atriumfibrilleren en antistolling
Recente ontwikkelingen

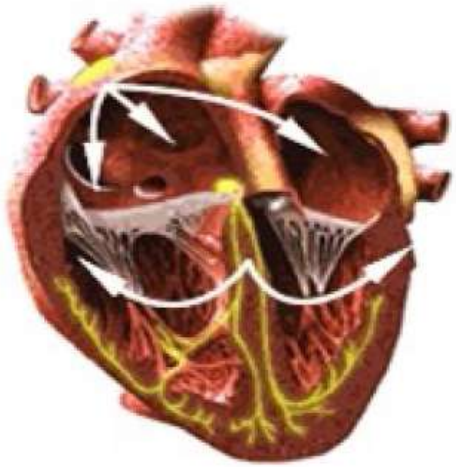
Wetenschappelijke bijeenkomst 2012

Drs. S Rutten- de Jong, cardioloog Elkerliek ziekenhuis

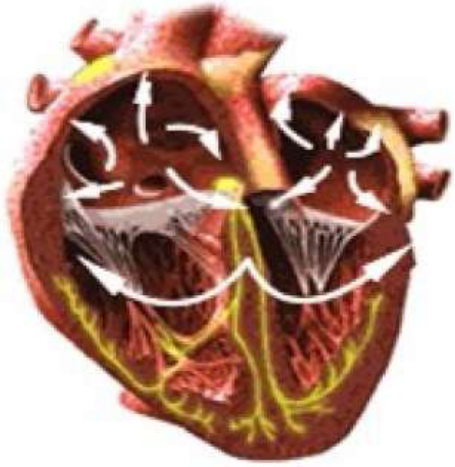
Samen proberen te balanceren tussen goed en kwaad



Sinusritme en boezemfibrilleren



Een normaal hartritme

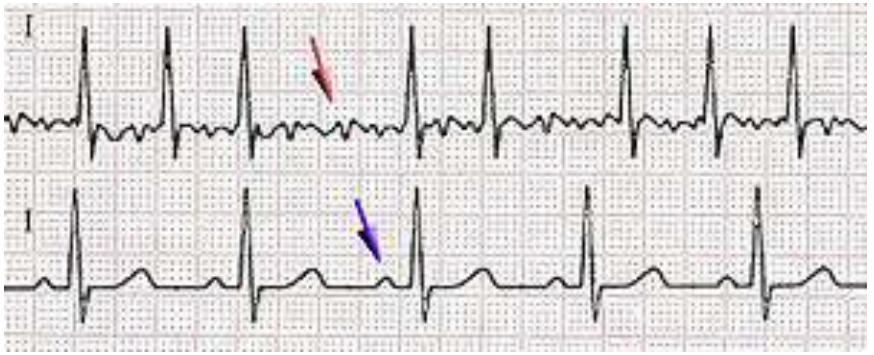


Boezemfibrilleren

Boezemfibrilleren

- Volstrekt onregelmatig ritme

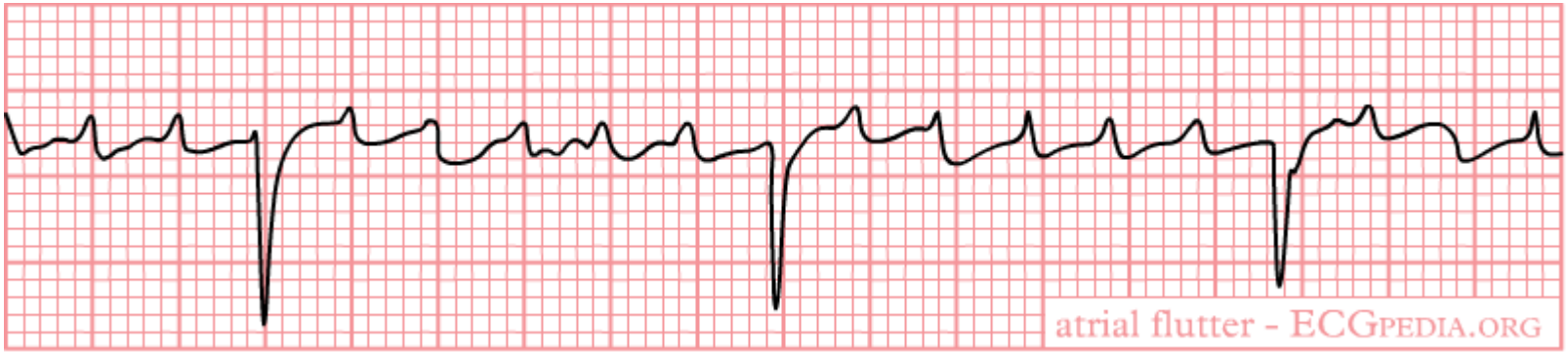
- Boezems 400-600/min
- Kamers 70-180/min



- Nadelen
  - Onregelmatig (snel)ritme
  - Geen optimaal bloedstroom
  - Geen optimale timing openen en sluiten hartkleppen
  - Verlies van boezemcontractie

Boezemflutter

- Atriale frequentie 250-350 /min
- Ventriculaire frequentie 75-150/min (3:1 of 2:1 blok)



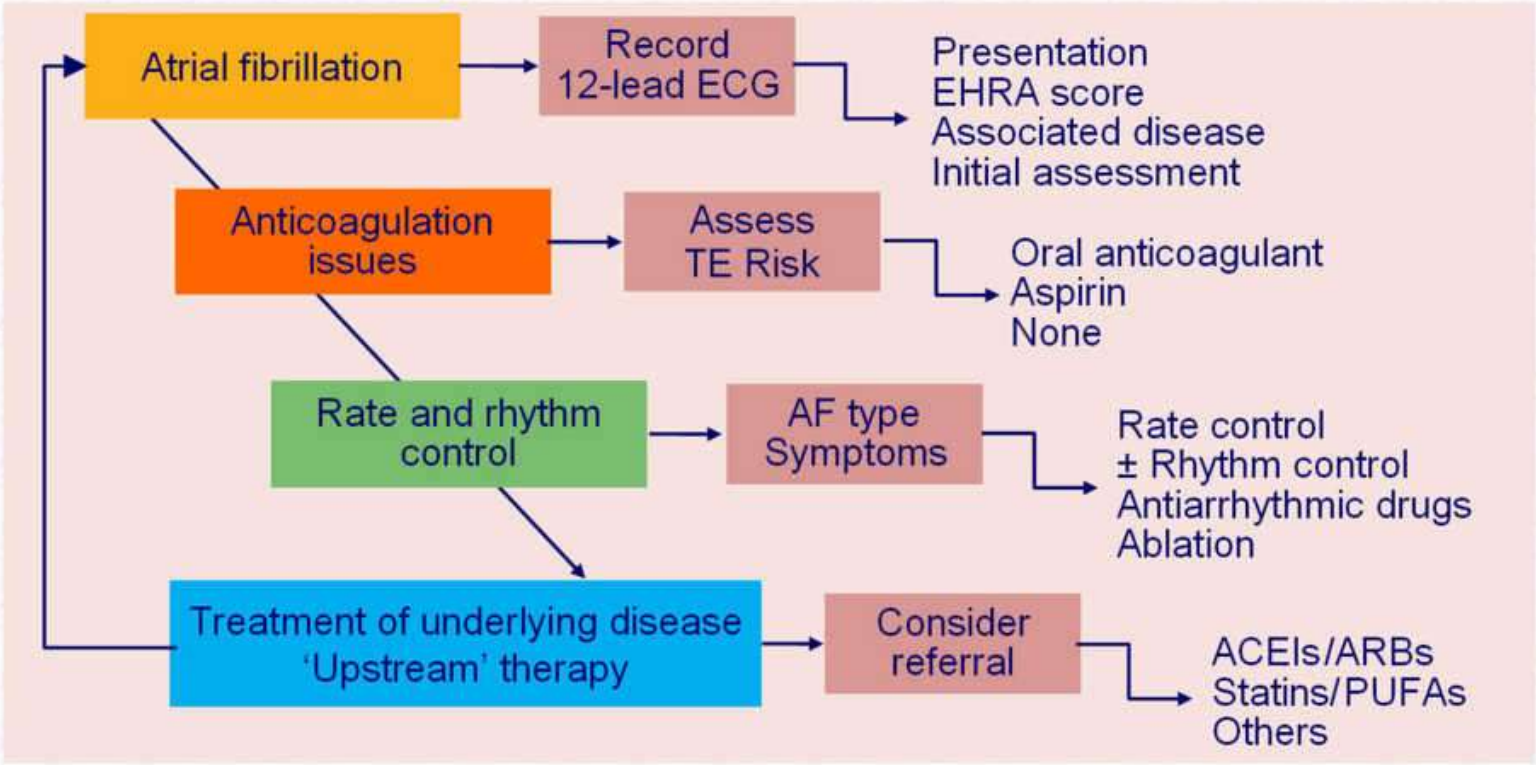
BOEZEMFIBRILLEREN GEVAARLIJK?

Table 3 Clinical events (outcomes) affected by AF

Outcome parameter	Relative change in AF patients
1. Death	Death rate doubled.
2. Stroke (includes haemorrhagic stroke and cerebral bleeds)	Stroke risk increased; AF is associated with more severe stroke.
3. Hospitalizations	Hospitalizations are frequent in AF patients and may contribute to reduced quality of life.
4. Quality of life and exercise capacity	Wide variation, from no effect to major reduction. AF can cause marked distress through palpitations and other AF-related symptoms.
5. Left ventricular function	Wide variation, from no change to tachycardiomyopathy with acute heart failure.

AF = atrial fibrillation.
Outcomes are listed in hierarchical order modified from a suggestion put forward in a recent consensus document.[3] The prevention of these outcomes is the main therapeutic goal in AF patients.

The management cascade for patients with AF



ACEI = angiotensin-converting enzyme inhibitor; AF = atrial fibrillation; ARB = angiotensin receptor blocker; PUFA = polyunsaturated fatty acid; TE = thrombo-embolism.

European Heart Journal (2010) 31, 2369-2429

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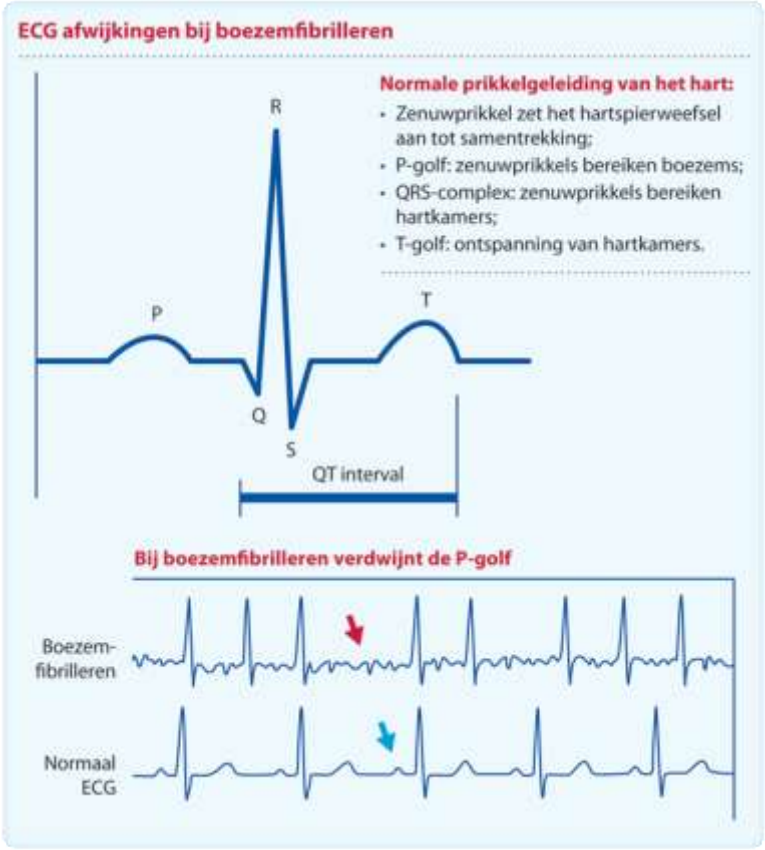
Hoe en hoe vaak stelt men de diagnose?

- ECG
- Holter
- Wisselende klachten

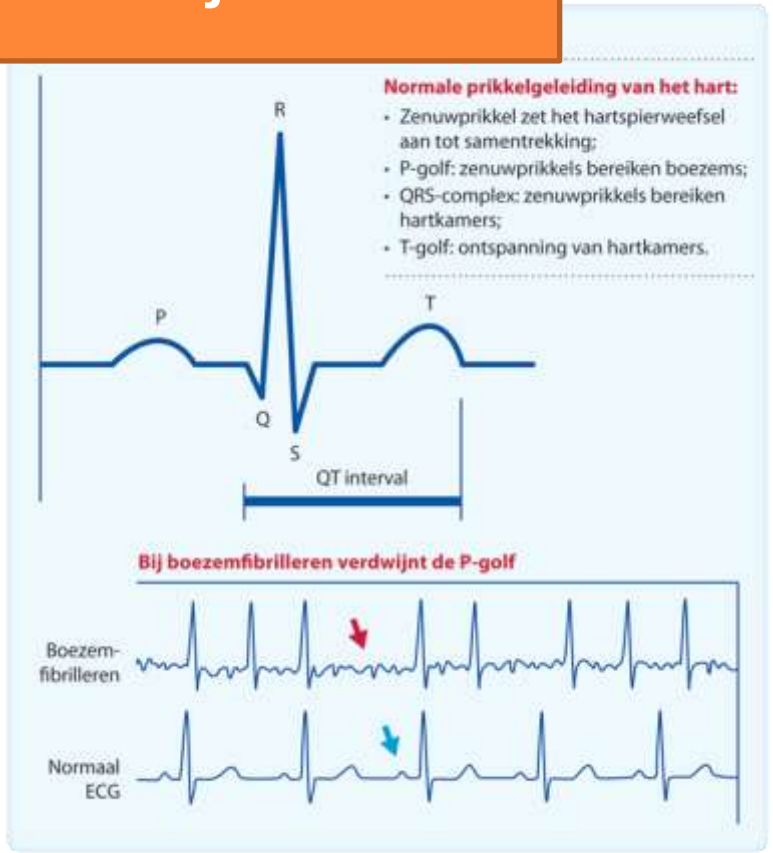
- Meest voorkomende hartritmestoornis
  - 1% < 60 jaar
  - 10% > 80 jaar



Hoe stelt men de diagnose?

- ECG
- Holter

Noodzakelijk!!!!



KLACHTEN BOEZEMFIBRILLEREN

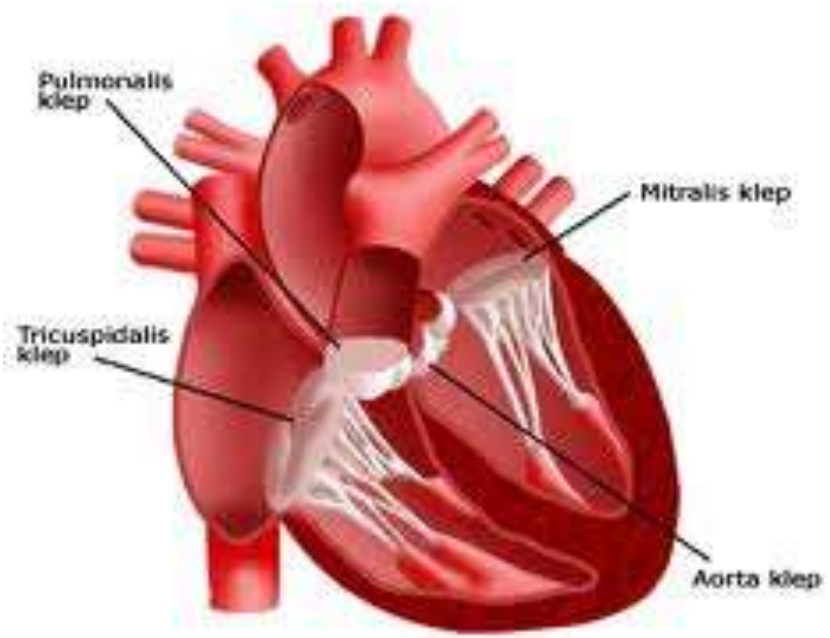
Table 6 EHRA score of AF-related symptoms

Classification of AF-related symptoms (EHRA score)	
EHRA class	**Explanation**
EHRA I	'No symptoms'
EHRA II	'Mild symptoms'; normal daily activity not affected
EHRA III	'Severe symptoms'; normal daily activity affected
EHRA IV	'Disabling symptoms'; normal daily activity discontinued

AF = atrial fibrillation; EHRA = European Heart Rhythm Association.

Cardiale oorzaken boezemfibrilleren

- Kleplijden
- Hartfalen
- Hartinfarct/ischemie
- Hypertensie!!!!!
- ‘Ondervulling
- Post open-hartoperatie

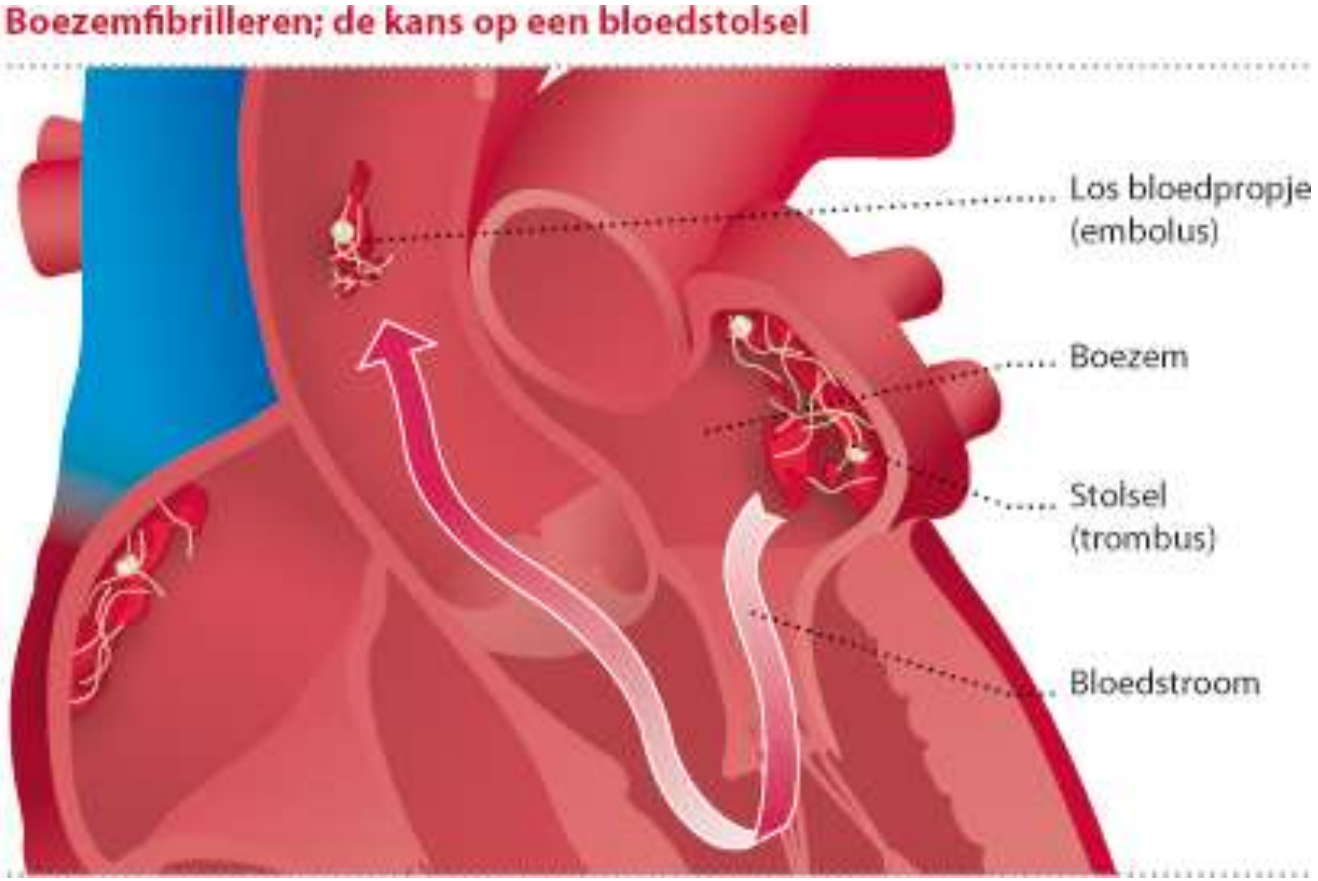


Niet-cardiale oorzaken boezemfibrilleren

- Schildklierlijden
- Alcohol
- Slaapapneu, COPD
- Inspanning
- Infecties
- Post-operatie
- Bloedarmoede
- Koorts
- Koffie
- Drugs/Medicatie

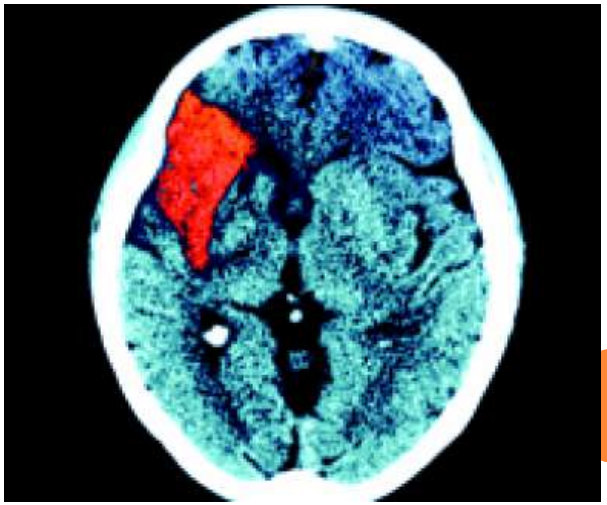
Behandeling boezemfibrilleren

Preventie (cardiale) thromboembolie



CVA EN AF

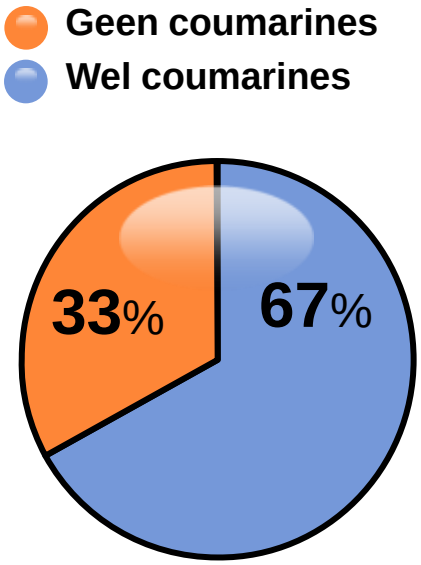
- 5 maal toename risico op CVA
- Incidentie groeit naarmate leeftijd toeneem
- 15% van alle CVA´s treedt op bij AF patienten
- Vaak ernstige CVA´s
- 45% van alle cardiale emboliebronnen zijn het gevolg van AF



Wie moet behandeld worden met antistolling?

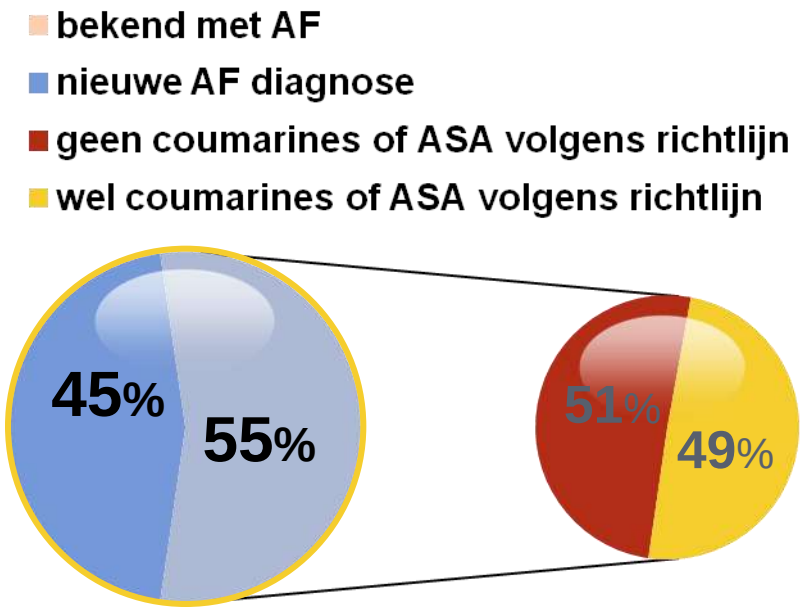
- Alle patiënten met AF> 48u gedurende 1 maand voor en 1 maand na cardioversie (chemisch of electrisch)
- Alle andere AF patiënten afhankelijk van risico op thromboembolische complicaties
- Geen verschil tussen rate of ritme controle
- Geen verschil tussen AF en AFlutter

ONDERBEHANDELING MET COUMARINES



N = 4.736 AF-patiënten
die in aanmerking komen voor coumarines

EuroHeart survey
Nieuwlaat R, et al.
Eur Heart J 2005;26:2422-2434

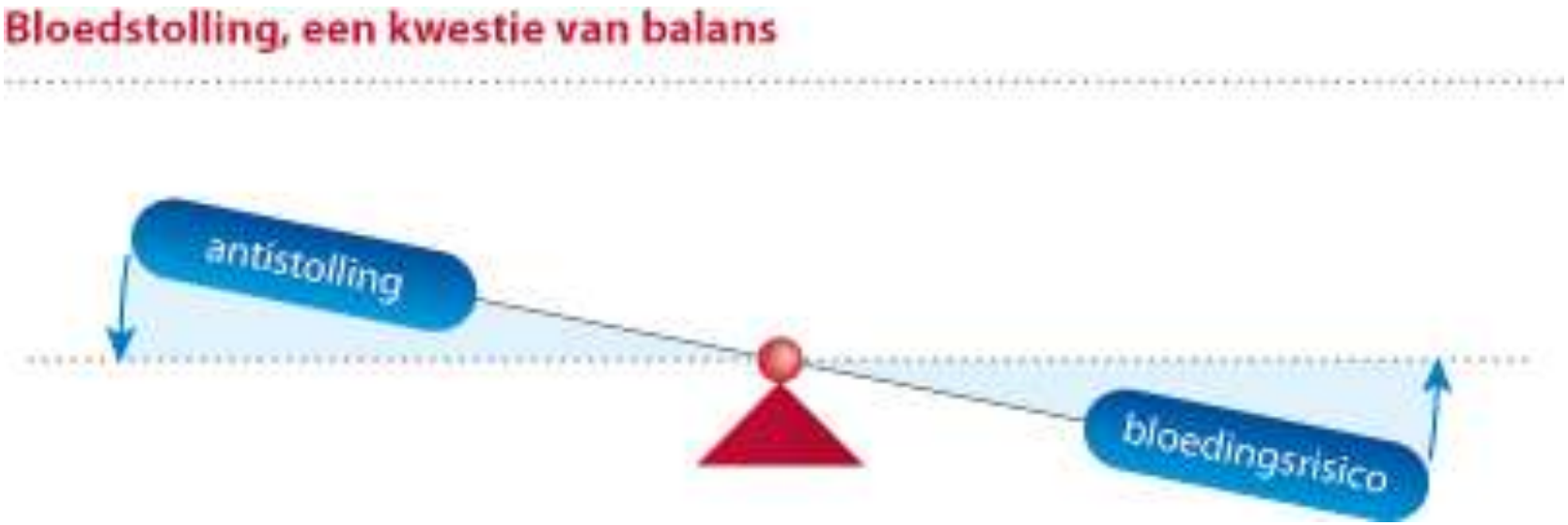


N = 163 AF-gerelateerde CVA-opnamen

Maastricht Stroke Registry
Pisters R, et al.
Europace. 2010 Jun;12(6):779-84

AF = atriumfibrilleren, OAC = orale anticoagulantia, ASA = acetylsalicylzuur, CVA = cerebrovasculair accident

DE BALANS OPMAKEN BIJ ATRIUMFIBRILLEREN



GUIDELINE 2010
NIEUWE RISICOSTRATIFICATIE

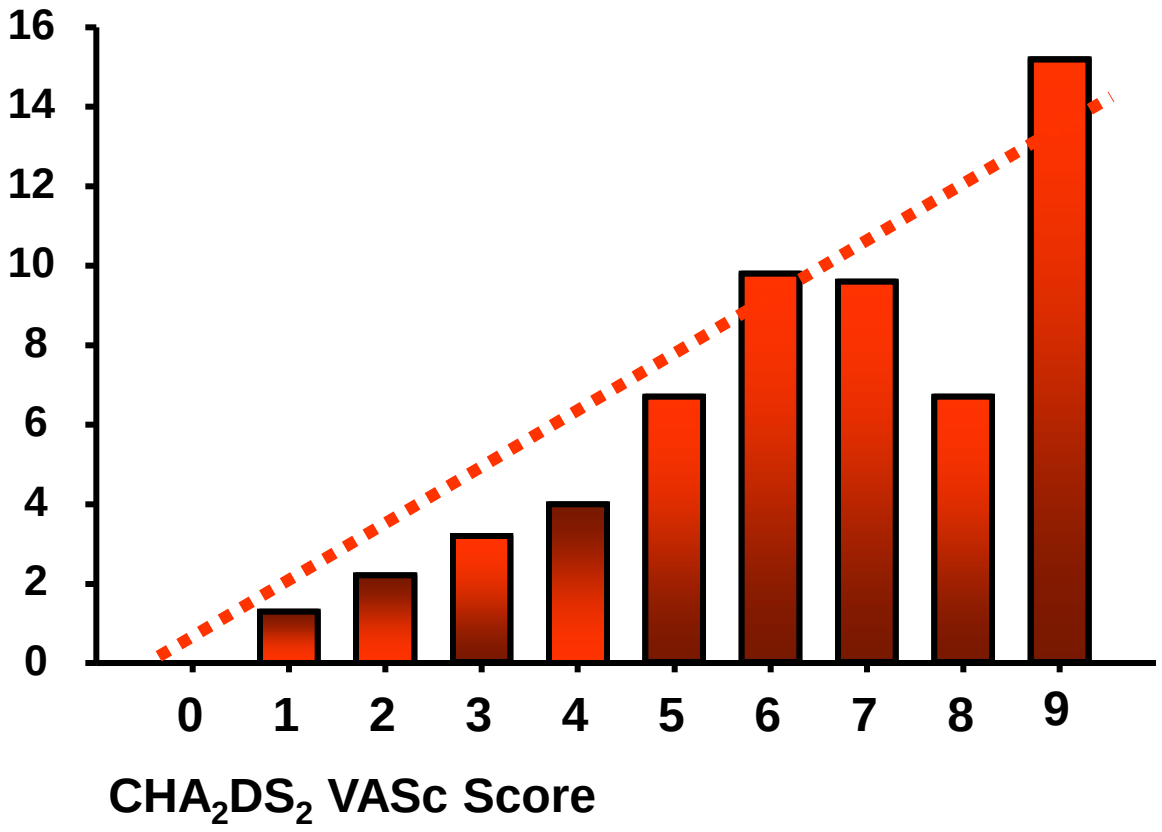
CHA_2DS_2-VASc

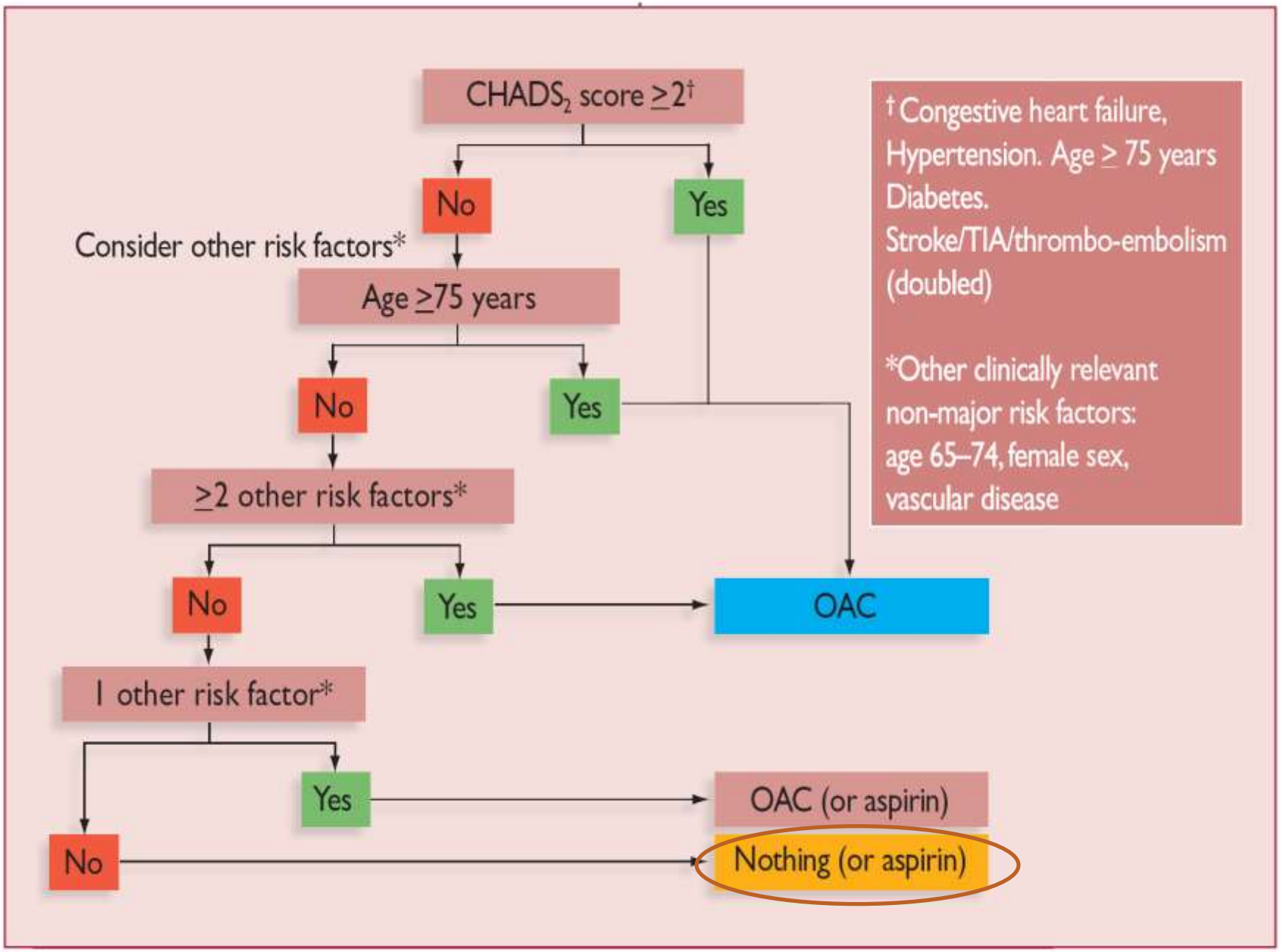
Risk Factor	Score
Congestive heart failure/LV dysfunction	1
Hypertension	1
Age ≥ 75	2
Diabetes mellitus	1
Stroke/TIA/thromboembolism	2
Vascular disease	1
Age 65-74	1
Sex category (ie, female sex)	1
Maximum Score	**9**

Arrhythmia & EP

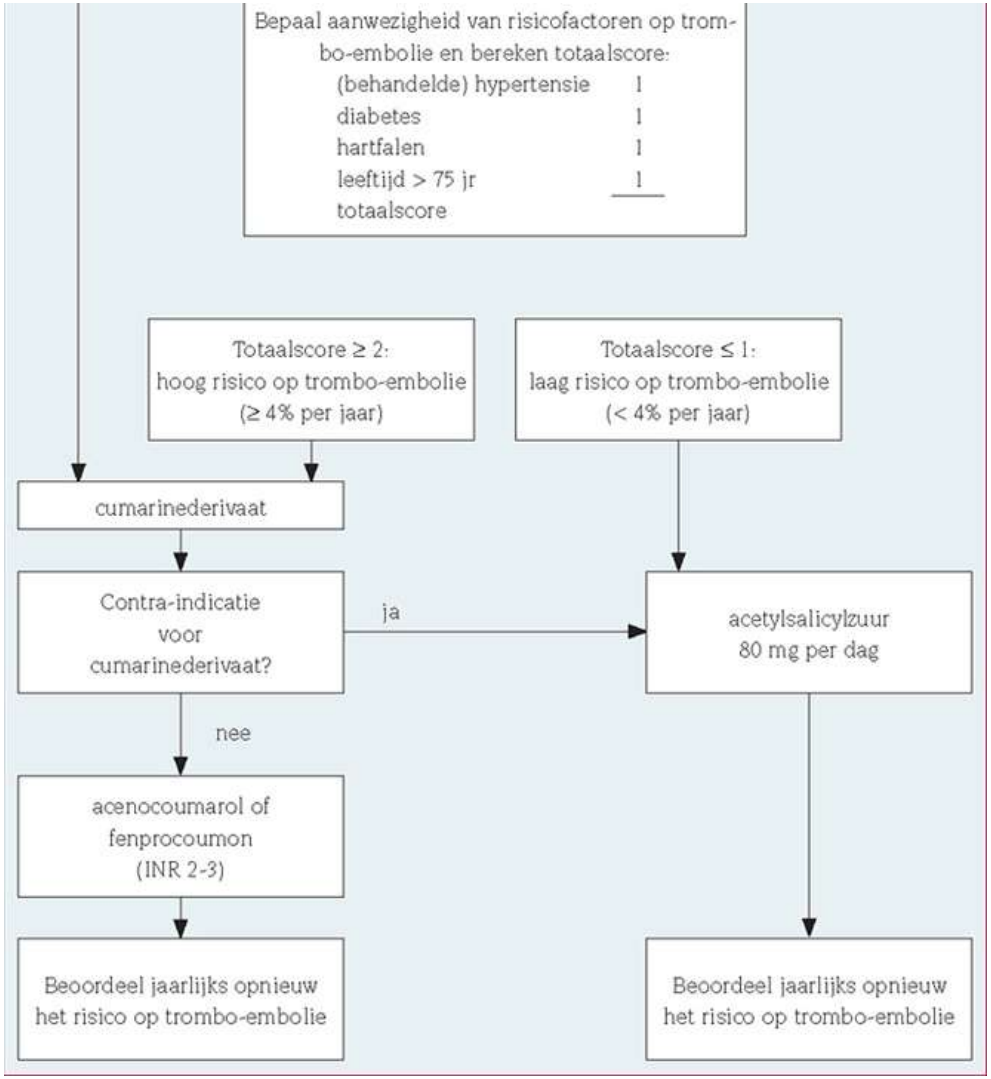
theheart.org MedscapeCME

Annual Stroke Rate

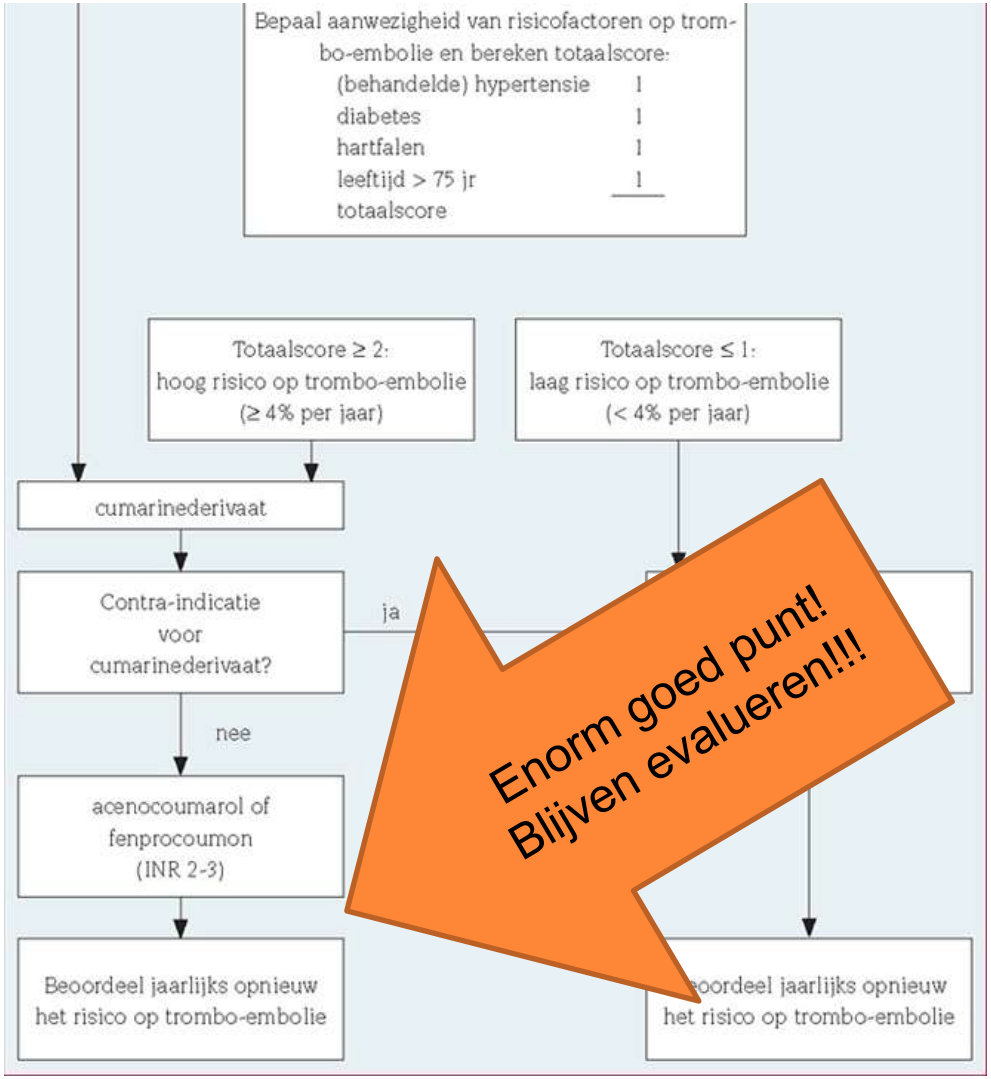



CHADS2 score ≥2†
No
Yes
Consider other risk factors*
Age ≥75 years
No
Yes
≥2 other risk factors*
No
Yes
OAC
1 other risk factor*
Yes
OAC (or aspirin)
No
Nothing (or aspirin)
† Congestive heart failure, Hypertension. Age ≥ 75 years Diabetes. Stroke/TIA/thrombo-embolism (doubled)
*Other clinically relevant non-major risk factors: age 65–74, female sex, vascular disease

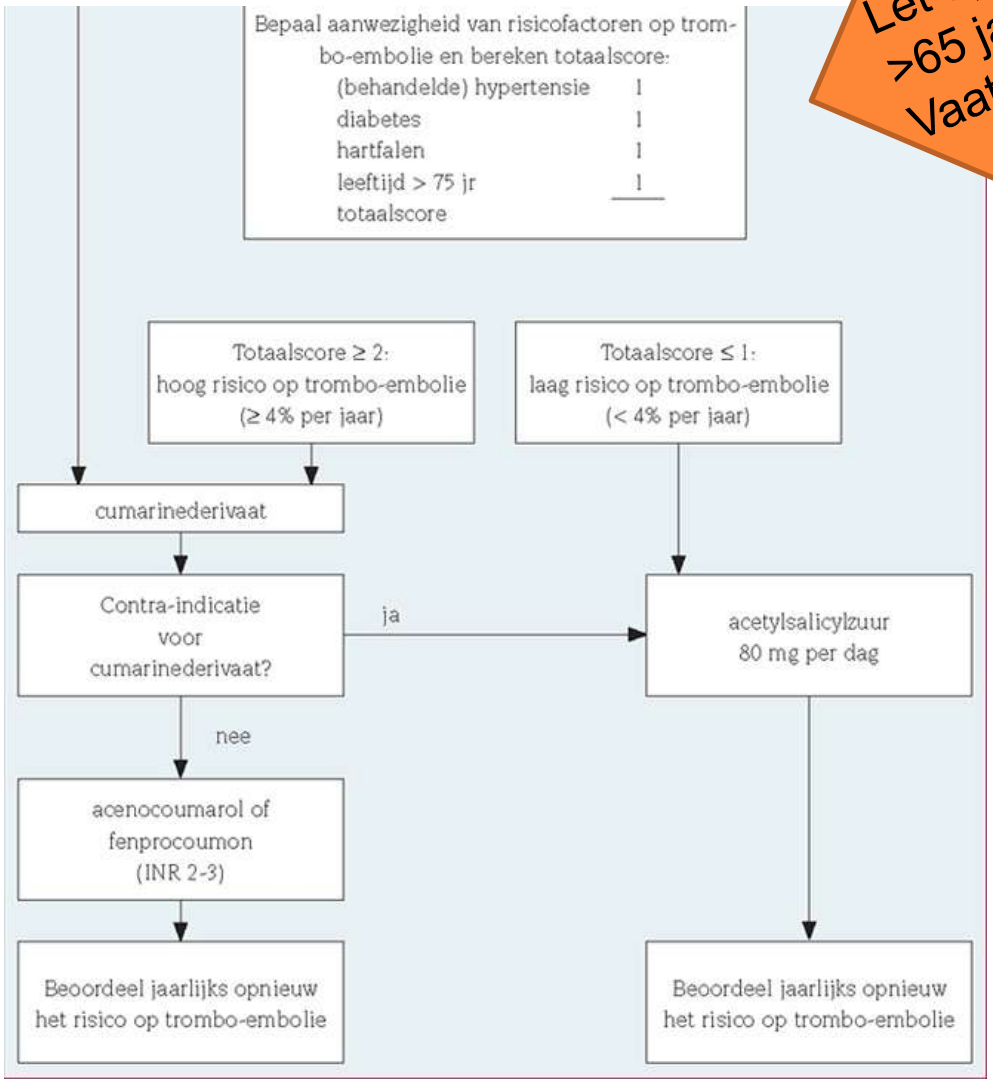
De NHG standaard



De NHG standaard



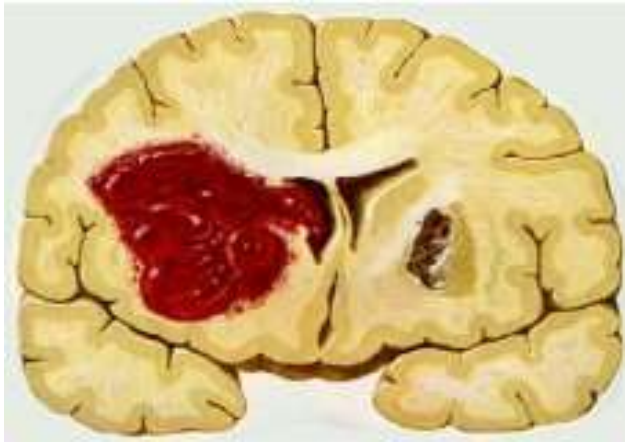
De NHG standaard



Let op; CVA
>65 jaar, Vrouw
Vaatlijden

Bloedingsrisico inventariseren

- Intracerebrale bloeding: 0.1 - 0.6%/jaar
- Guideline ESC 2006: geen aanbevelingen
- Guideline ESC 2010: **HAS-BLED score**

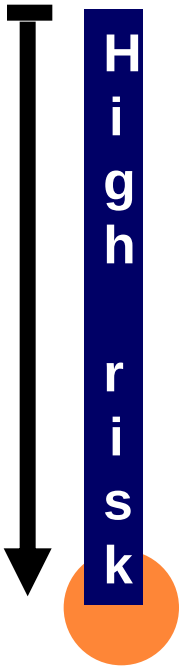


HAS-BLED

	*Clinical characteristic**	*Points awarded*
H	**H**ypertension	1
A	**A**bnormal liver/renal function	1-2
S	**S**troke	1
B	Prior major **b**leeding or predisposition	1
L	**L**abile INR	1
E	**E**lderly (>65)	1
D	**D**rugs/alcohol concomitantly	1-2

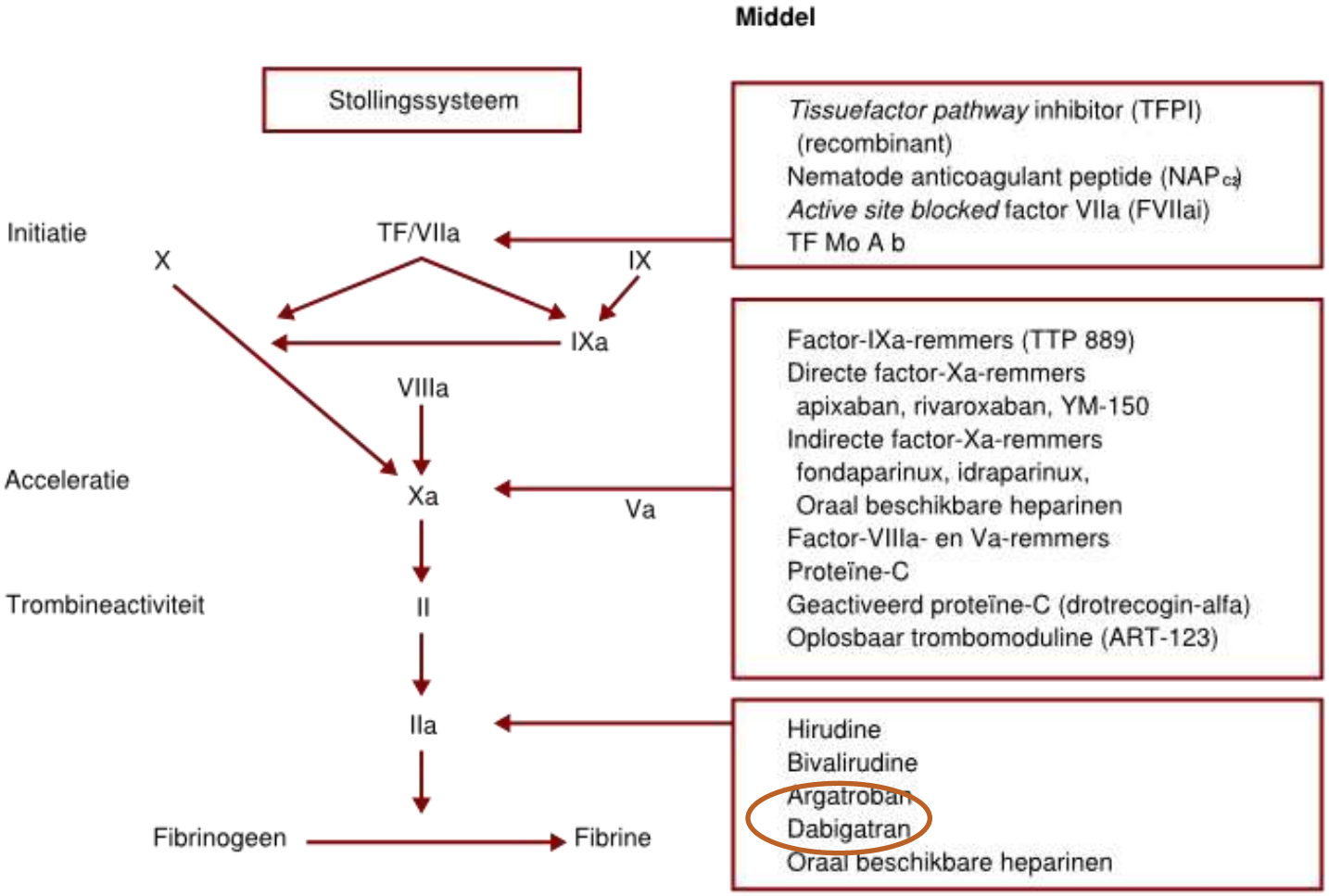
Chest. 2010 Nov;138(5):1093-100. pisters et al.

HAS-BLED* score	Number of patients	Number of bleedings	Bleeds per 100 patient years
0	798	9	1.13
1	1286	13	1.02
2	744	14	1.88
3	187	7	3.74
4	46	4	8.70
5	8	1	12.50
6	2	0	0.0
7	---	---	---
8	---	---	---
9	---	---	---
Total	3,071	48	*P value for trend .007*



Chest. 2010 Nov;138(5):1093-100. pisters et al.

Nieuwe anticoagulantia



Afkomstig van thrombopedia.org

NIEUWE ANTISTOLLINGSMIDDELEN IN FASE III STUDIES

Studie acronym	Middel	Dosering	Comparator	Geschatte einddatum
Directe trombineremmers				
SPORTIF III/V[1]	ximelagatran	36 mg bid	Warfarine (INR 2–3)	Ontwikkeling beëindigd
RE-LY®[2]	dabigatran etexilaat	150 mg bid 110 mg bid	Warfarine (INR 2–3)	Afgerond
Directe factor Xa remmers				
ARISTOTLE[3]	apixaban	5 mg bid	Warfarine (INR 2–3)	Afgerond
AVERROES[4]	apixaban	5 mg bid	Aspirine (81–324 mg od)	Afgerond
ROCKET-AF[5]	rivaroxaban	20 mg* od	Warfarine (INR 2–3)	Afgerond
ENGAGE-AF TIMI48[6]	edoxaban	30 mg od 60 mg od	Warfarine (INR 2–3)	Q4 2011
Indirecte factor Xa remmers				
AMADEUS[7]	idraparinux	2.5 mg once weekly	Warfarine (INR 2–3)	Studie voortijdig beëindigd
BOREALIS-AF[8]	idrabiotaparinux	2.5 mg once weekly	Warfarine (INR 2–3)	Ontwikkeling beëindigd

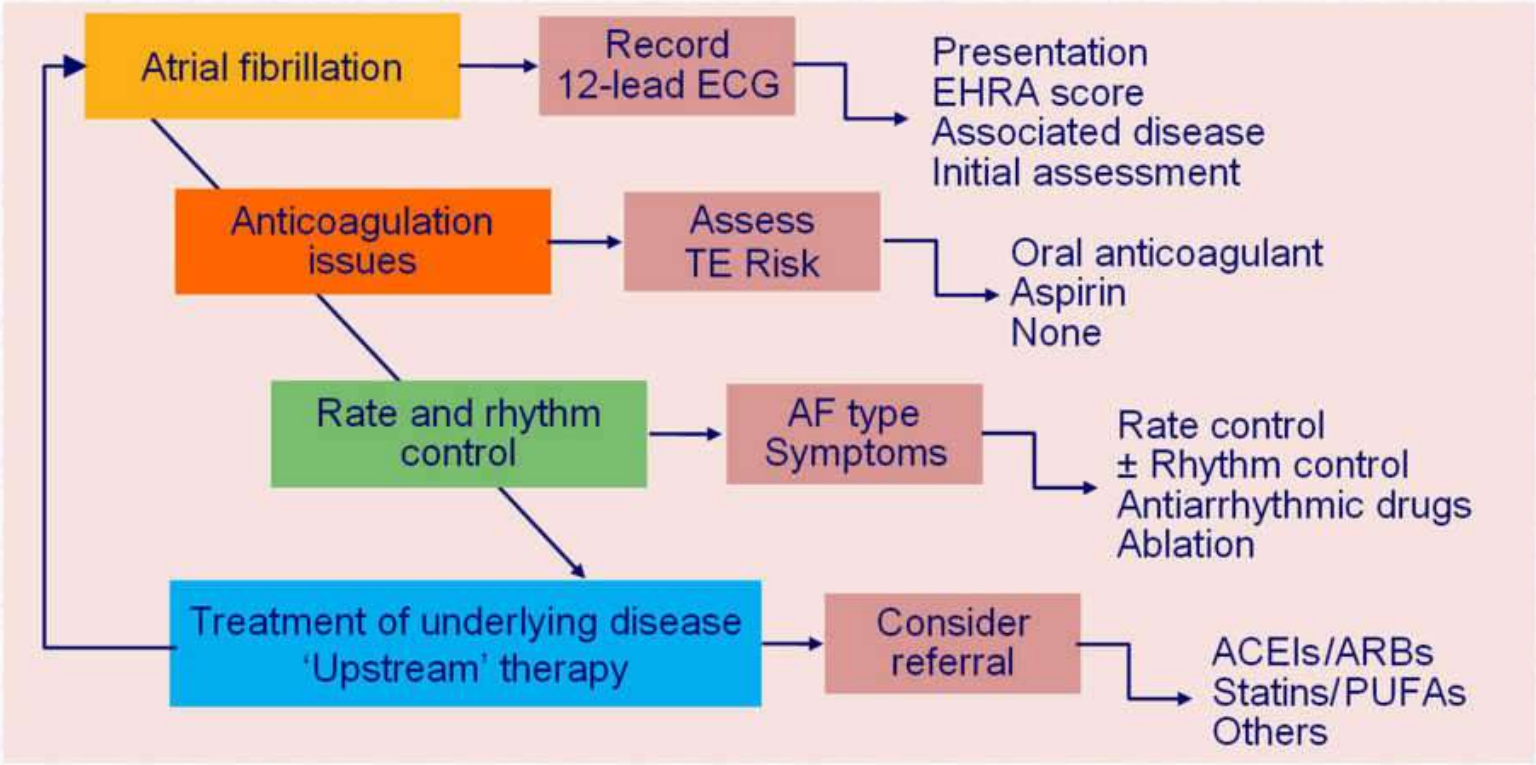
* Adjusted based on renal function

1. Albers GW, et al. Am J Manag Care. 2004 Dec;10(14 Suppl):S462-9. 2. Connolly SJ, et al. N Engl J Med 2009;361:1139-1151; 3. Lopes RD, et al. Am Heart J. 2010 Mar;159(3):331-9; 4. Eikelboom JW, et al. Am Heart J 2010;159:349-353; 5. ROCKET-AF Investigators. Am Heart J 2010;159:340-347; 6. Ruff CT, et al. Am Heart J. 2010 Oct;160(4):635-41; 7. AMADEUS Investigators et al. Lancet 2008;371:315-321; 8. Sanofi-aventis press release: http://en.sanofiaventis.com/binaries/20091221_idupdate_en_pcm28-26977.pdf Accessed March 2010.

Updated Jul 2011

Voor alle duidelijkheid: patiënten met kunstkleppen of een indicatie voor vitamine K-antagonisten ter preventie van systemische trombo-embolie anders dan atrium-fibrilleren vallen buiten deze beschouwing.

The management cascade for patients with AF



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European Heart Journal (2010) 31, 2369-2429

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CONTROLE HARTFREQUENTIE

- B-blokkers
- Ca-antagonisten
- Digoxine
- Cordarone

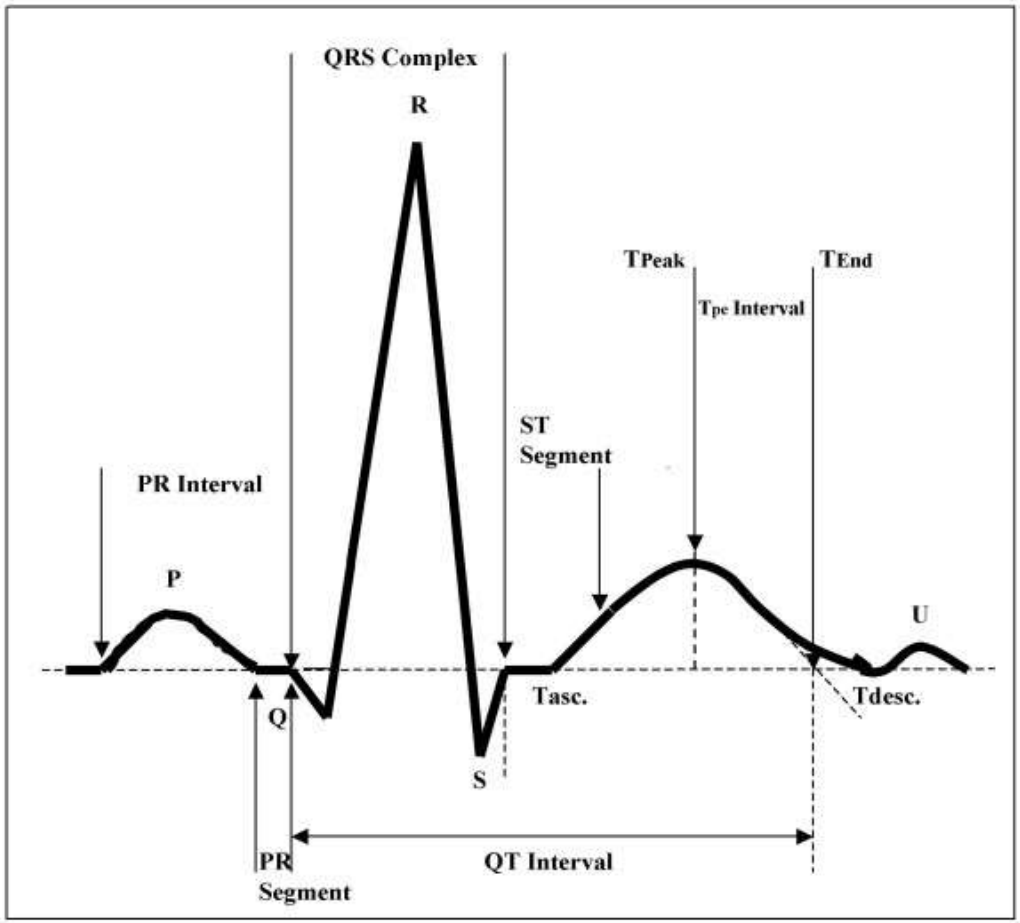
Table 15 Drugs for rate control

	Intravenous administration	Usual oral maintenance dose
β-Blockers		
Metoprolol CR/XL	2.5–5 mg	100–200 mg o.d. (ER)
Bisoprolol	N/A	2.5–10 mg o.d.
Atenolol	N/A	25–100 mg o.d.
Esmolol	10 mg	N/A
Propranolol	1 mg	10–40 mg t.i.d.
Carvedilol	N/A	3.125–25 mg b.i.d.
Non-dihydropyridine calcium channel antagonists		
Verapamil	5 mg	40 mg b.d. to 360 mg (ER) o.d.
Diltiazem	N/A	60 mg t.d.s. to 360 mg (ER) o.d.
Digitalis glycosides		
Digoxin	0.5–1 mg	0.125 mg–0.5 mg o.d.
Digitoxin	0.4–0.6 mg	0.05 mg–0.1 mg o.d.
Others		
Amiodarone	5 mg/kg in 1 h, and 50 mg/h maintenance	100 mg–200 mg o.d.
Dronedarone[a]	N/A	400 mg b.i.d.

ER = extended release formulations; N/A = not applicable.
[a]Only in patients with non-permanent atrial fibrillation.

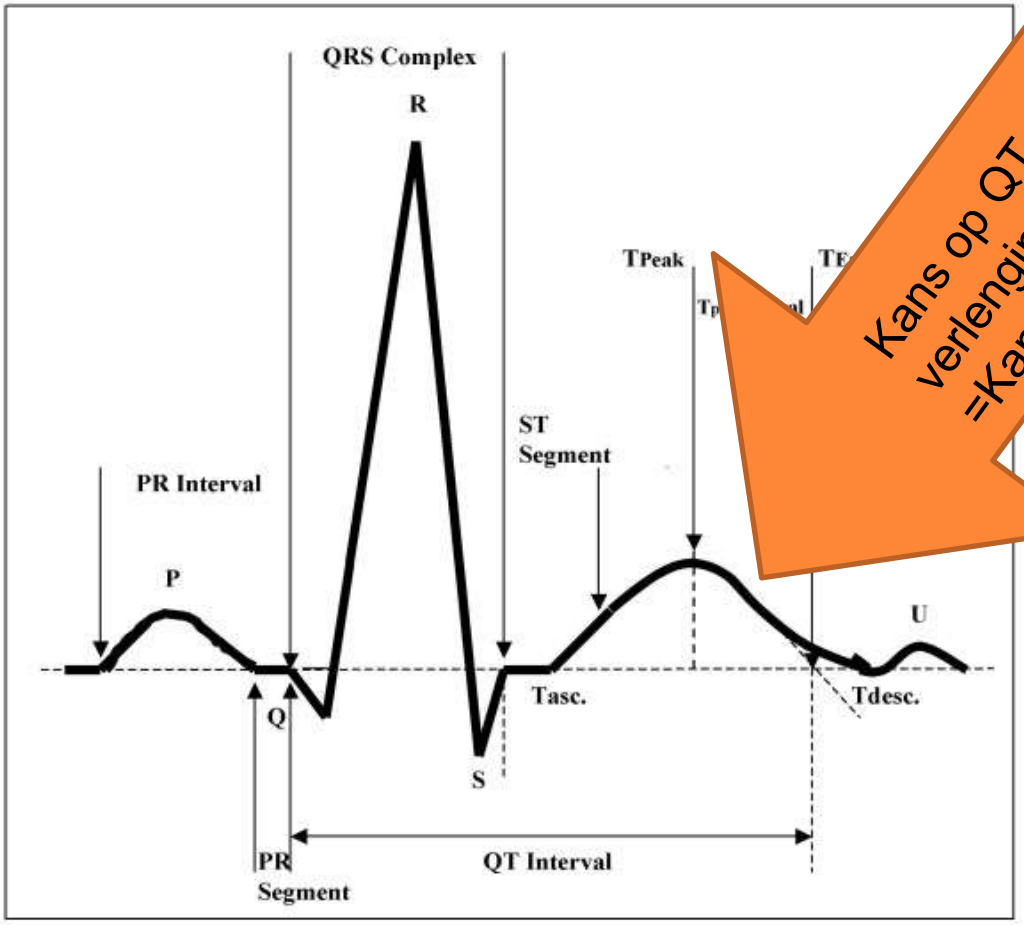
Controle ritme

- Sotacor
- Flecainide
- Cordarone
- Vernakalant



Controle ritme

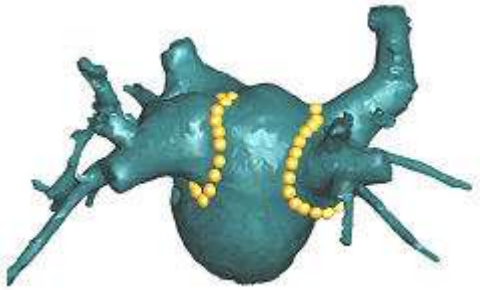
- Sotacor
- Flecainide
- Cordarone
- Vernakalant



Kans op QT tijd verlenging!!!
=Kans op ritme stoornis

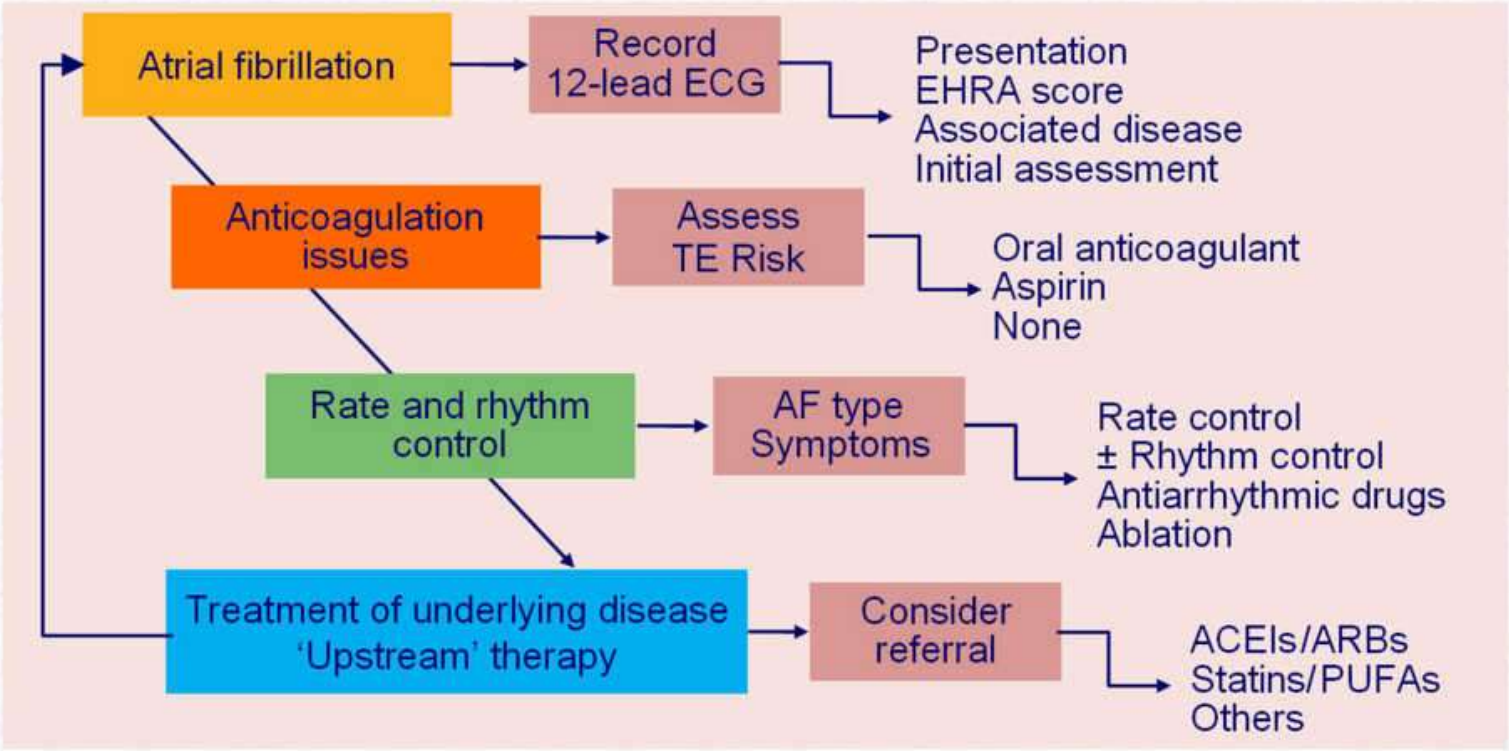
Niet-medicamenteuze opties

- Elektrische cardioversie
- Chirurgisch
- Catheter ablatie
  - Pulmonaalvene ablatie



- Resultaten afhankelijk van
  - Algemene conditie hart en patient
  - Duur AF
  - Grootte boezems

The management cascade for patients with AF



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Netwerk AF
Doelstellingen

- Verdere verbetering kwaliteit van zorg
- Verdere verbetering samenwerking
- Verbetering kennisoverdracht – en ontwikkeling
- Unieke positionering betrokken centra
- Wetenschappelijke evaluatie

Take home message…..

- Atriumfibrilleren is zoeken naar het individueel passende ritme
- Waarom ontstaat AF?
- Scoringslijsten jaarlijks evalueren
- Individueel kosten/baten analyse
- Nieuwe resultaten;

  nieuwe mogelijkheden maar

  ook nieuwe risico’s

De oplossing met zo min mogelijk bijwerkingen…