ANTICOAGULATION IN ATRIAL FIBRILLATION

Dr Shaba Nabi

Cardiovascular Lead Bristol CCG

November 2016

HOW DO WE CHOOSE?

Random Guess

Ask your colleague

Ask the patient


RIP
ASPIRIN
18.06.14
dreamstime.com

PROS AND CONS OF WARFARIN

ADVANTAGES

- Well established
- Reversible
- GFR < 15
- Significant valve disease
- INR checks compliance
- Long half life means less embolic risk if forget to take
- Once daily

DISADVANTAGES

- Frequent blood tests
- Many drug/alcohol /food interactions
- Overall inferior to NOACS
- Higher bleeding risks
- Poor TTR
- Changing dose so not suitable for blister packs

Open Heart 2016;**3**: doi:10.1136/openhrt-2015-000279

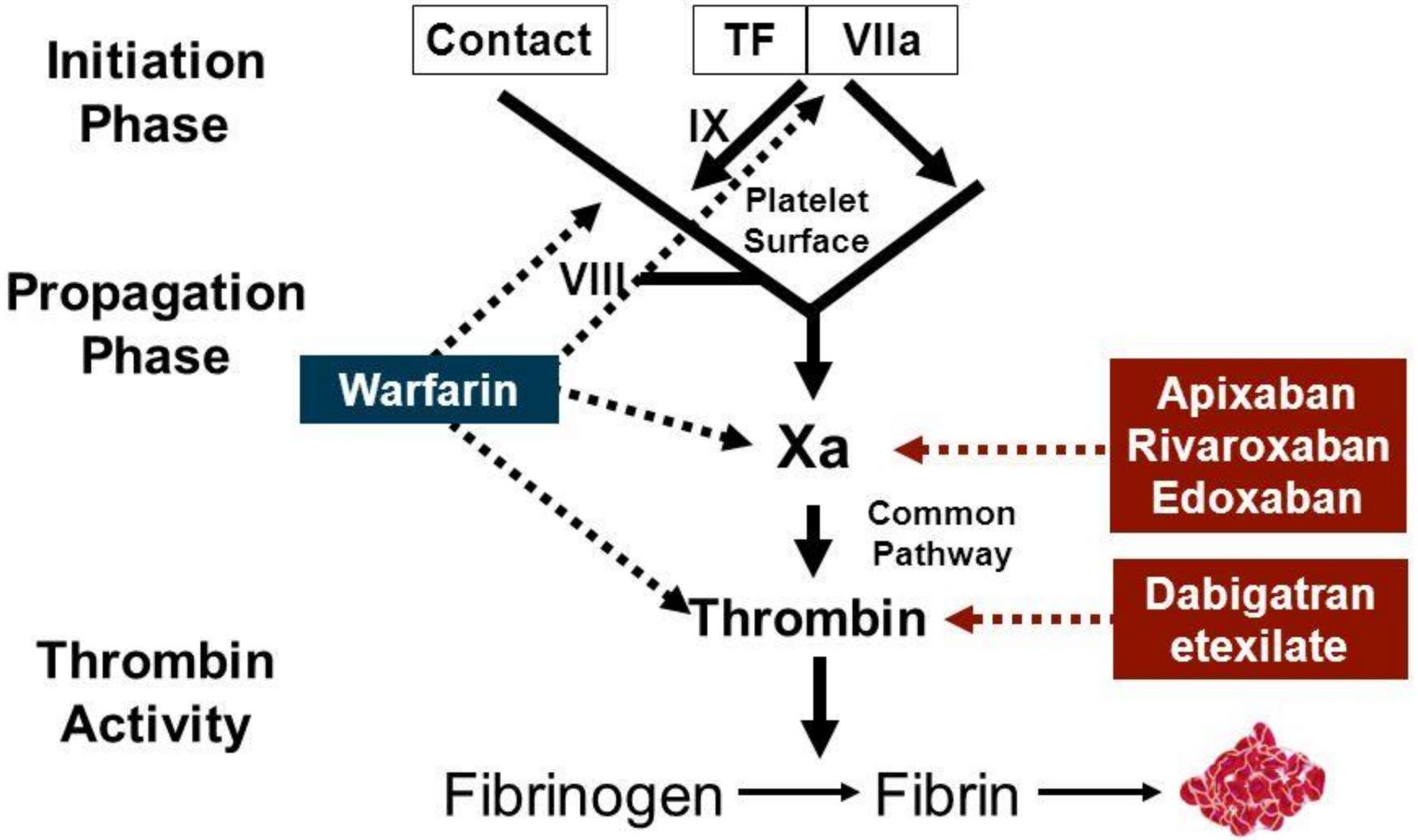
Meta-analysis

Original research article

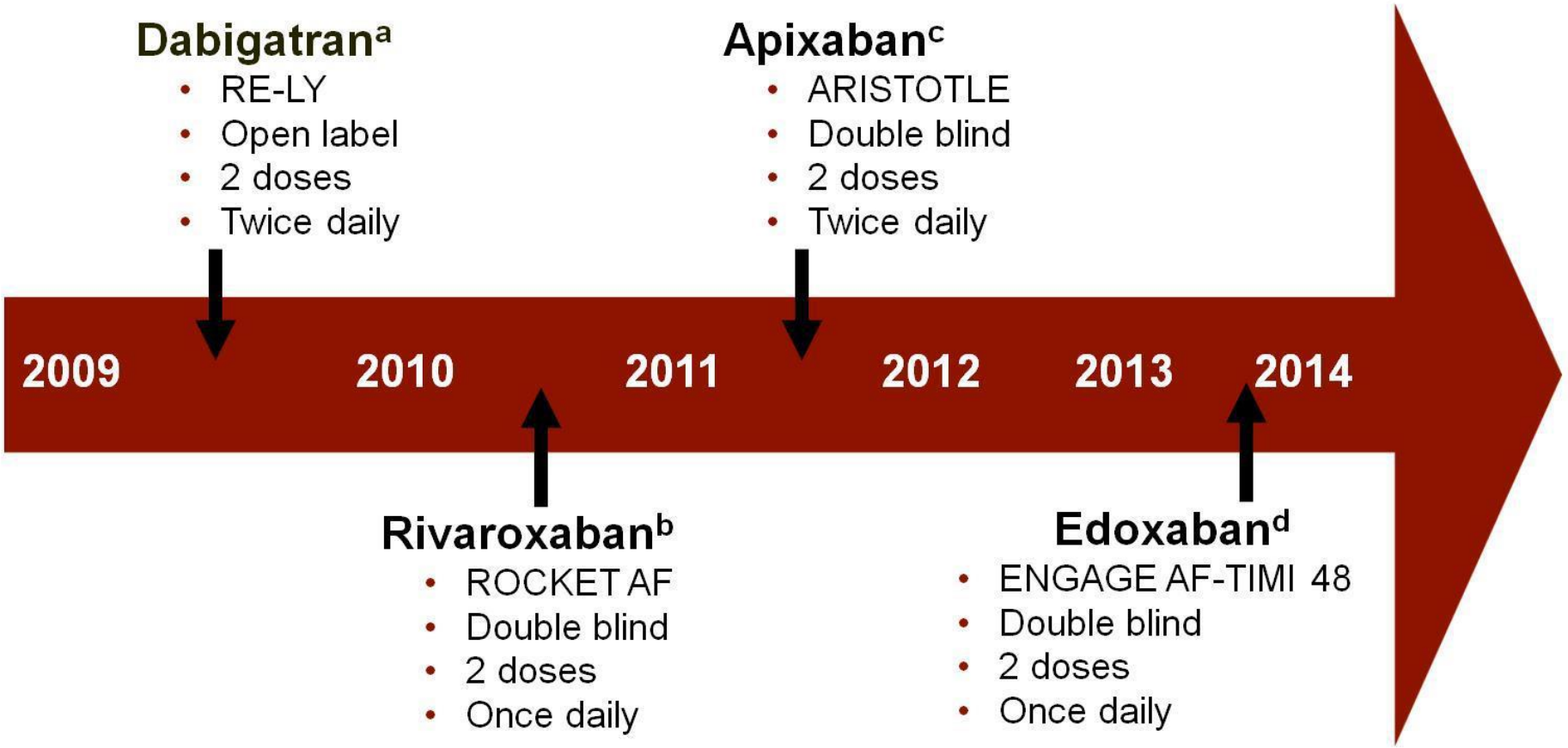
NOACs versus warfarin for stroke prevention in patients with AF: a systematic review and meta-analysis

Conclusions NOACs are superior to warfarin for the prevention of the composite of stroke and systemic embolism in patients with AF and an additional risk factor for stroke. There is a significant reduction in intracranial haemorrhage, which drives the finding of significantly lower mortality. During the poststudy switch from NOACs to warfarin there is an excess of the composite of stroke and systemic embolism as well as major bleeding events, which may be of significance in clinical practice.

Targets of New Oral Anticoagulants



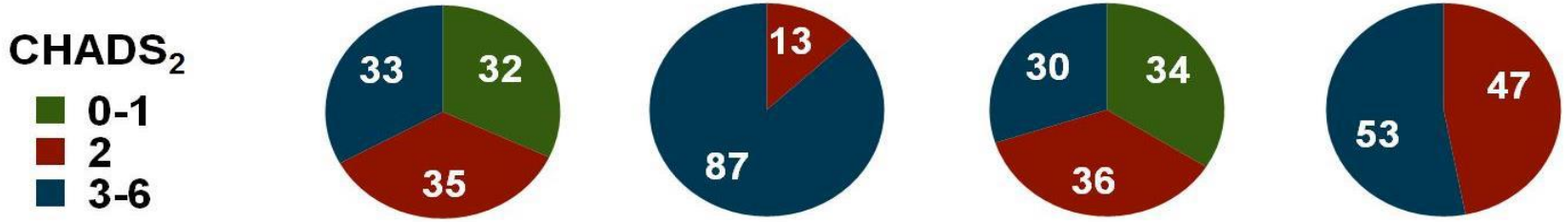
NOACs for Stroke Prevention in AF



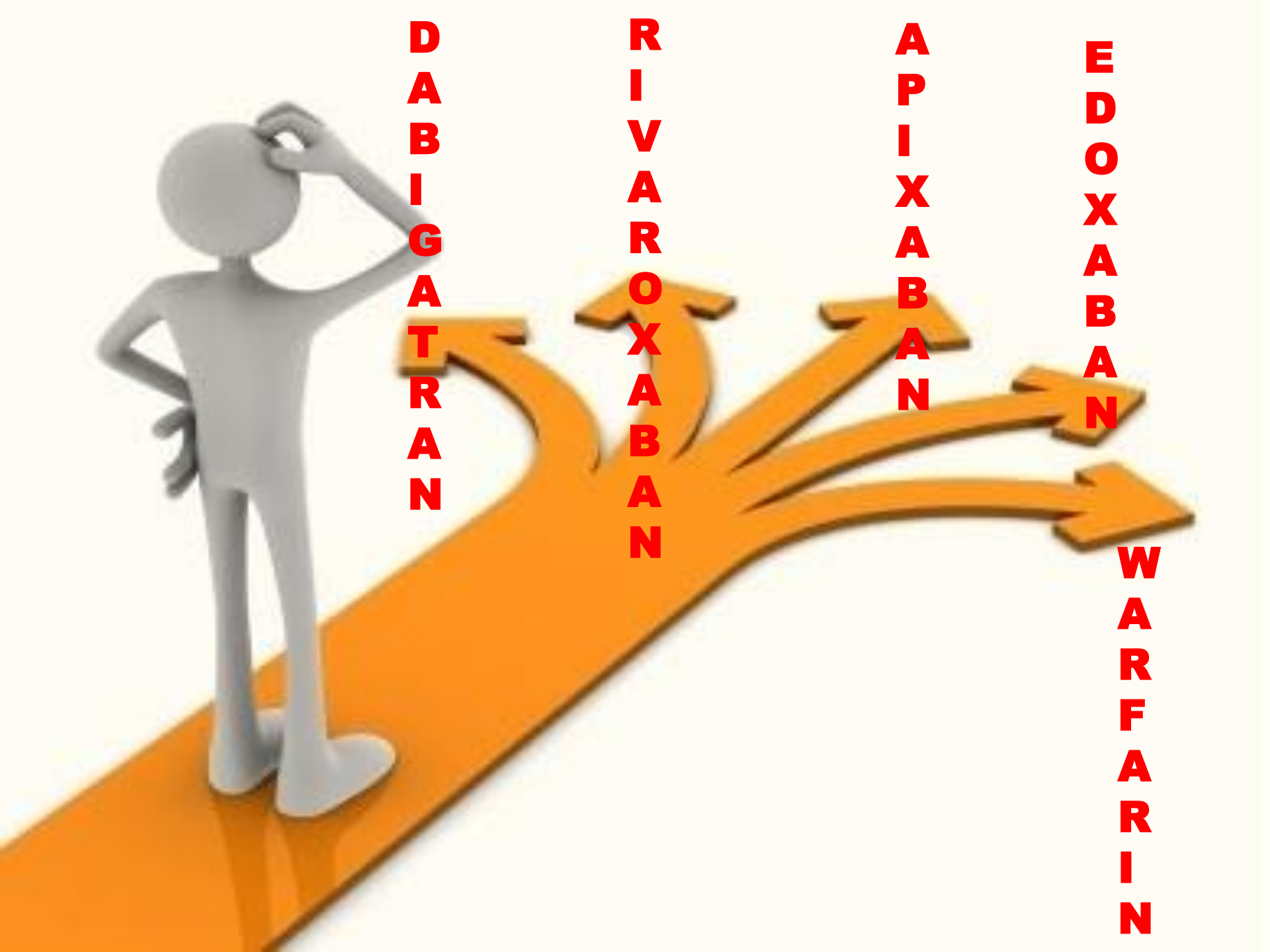
a. Connolly SJ, et al. *N Engl J Med*. 2009;361:1139-1151[4]; b. Patel MR, et al. *N Engl J Med*. 2011;365:883-891[5]; c. Granger CB, et al. *N Engl J Med*. 2011;365:981-992[6]; d. Giuliano RP, et al. *N Engl J Med*. 2013;369:2093-2104.[7]

TRIAL DATA – ALL AGAINST WARFARIN

	RE-LY[a] (Dabigatran)	ROCKET-AF[b] (Rivaroxaban)	ARISTOTLE[c] (Apixaban)	ENGAGE AF[d] (Edoxaban)
Randomized, N	18,113	14,264	18,201	21,105
Age, y	72 ± 9	73 [65-78]	70 [63-76]	72 [64-78]
Female, %	37	40	35	38
Paroxysmal AF, %	32	18	15	25
VKA naive, %	50	38	43	41
Aspirin use,%	40	36	31	29



a. Connolly SJ, et al. *N Engl J Med*. 2009;361:1139-1151[3]; b. Patel MR, et al. *N Engl J Med*. 2011;365:883-891[4]; c. Granger CB, et al. *N Engl J Med*. 2011;365:981-992[5];d. Giuliano RP, et al. *N Engl J Med*. 2013;369:2093-2104.[6]


DABIGATRAN
RIVAROXABAN
APIXABAN
EDOXABAN
WARFARIN

	DABIGATRAN 150/110 mg	RIVAROXABAN 20/15 mg	APIXABAN 5/2.5 mg	EDOXABAN 60/30 mg
STROKE RISK	↓↓↓ (D150) ↓ (D110)	↓	↓↓	↓
INTRACRANIAL HAEMORRHAGE	↓↓	↓	↓	↓
MAJOR BLEEDING	= (D150) ↓(D110)	=	↓↓	↓
GI BLEEDING	↑	↑	=	=
DYSPEPSIA	↑	-	-	-

	DABIGATRAN	RIVAROXABAN	APIXABAN	EDOXABAN
DOSING	150 MG BD	20 MG OD	5 MG BD	60 MG OD
BLISTER PACK	N	Y	Y	Y
INTAKE WITH FOOD	N	Y	N	N
AGE DOSE ADJUSTMENTS	➢ 80 years ➢ 110 mg bd	NIL	2.5MG DOSE IF 2 OUT OF 3	NIL
WEIGHT DOSE ADJUSTMENTS	NIL	NIL	SEE ABOVE	30MG DOSE IF WT < 60KG
RENAL DOSE ADJUSTMENTS	NOT FOR GFR < 30	NOT FOR GFR < 15 GFR 15 – 49: 15MG DOSE	NOT FOR GFR < 15 GFR 15 – 29: 2.5MG DOSE	NOT FOR GFR < 15 GFR 15 – 49: 30MG DOSE
CONVERSION FROM WARFARIN	Start when INR < 2	Start when INR ≤ 3	Start when INR < 2	Start when INR ≤ 2.5

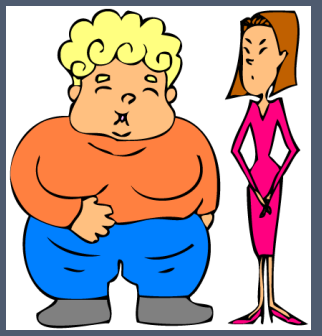
www.mdcalc.com/creatinine-clearance-cockcroft-gault-equation

eGFR vs Cr Clearance

Labs → MDRD formula

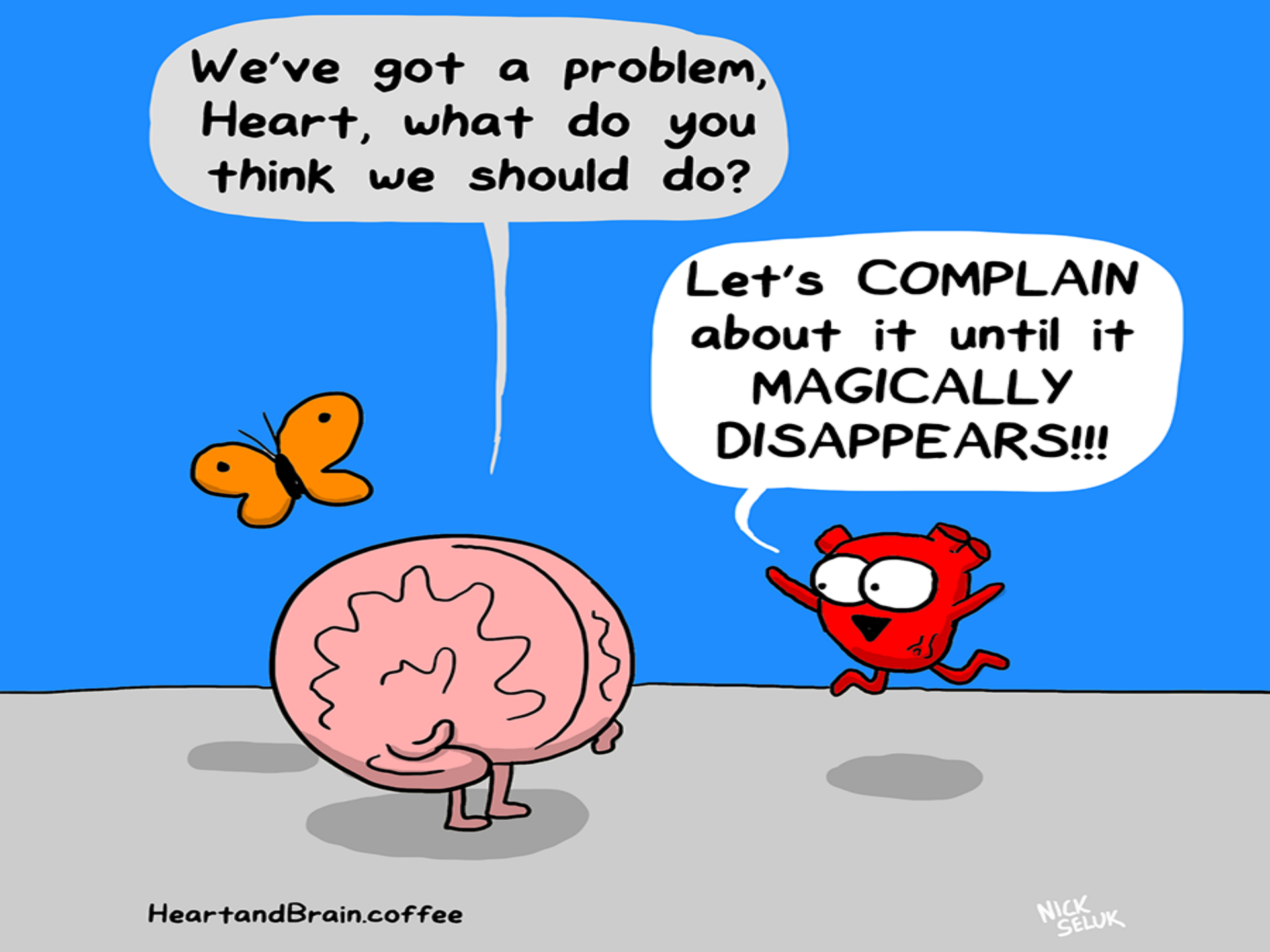
Drug Trials → Cockcroft and Gault formula

BMI > 30
BMI < 18



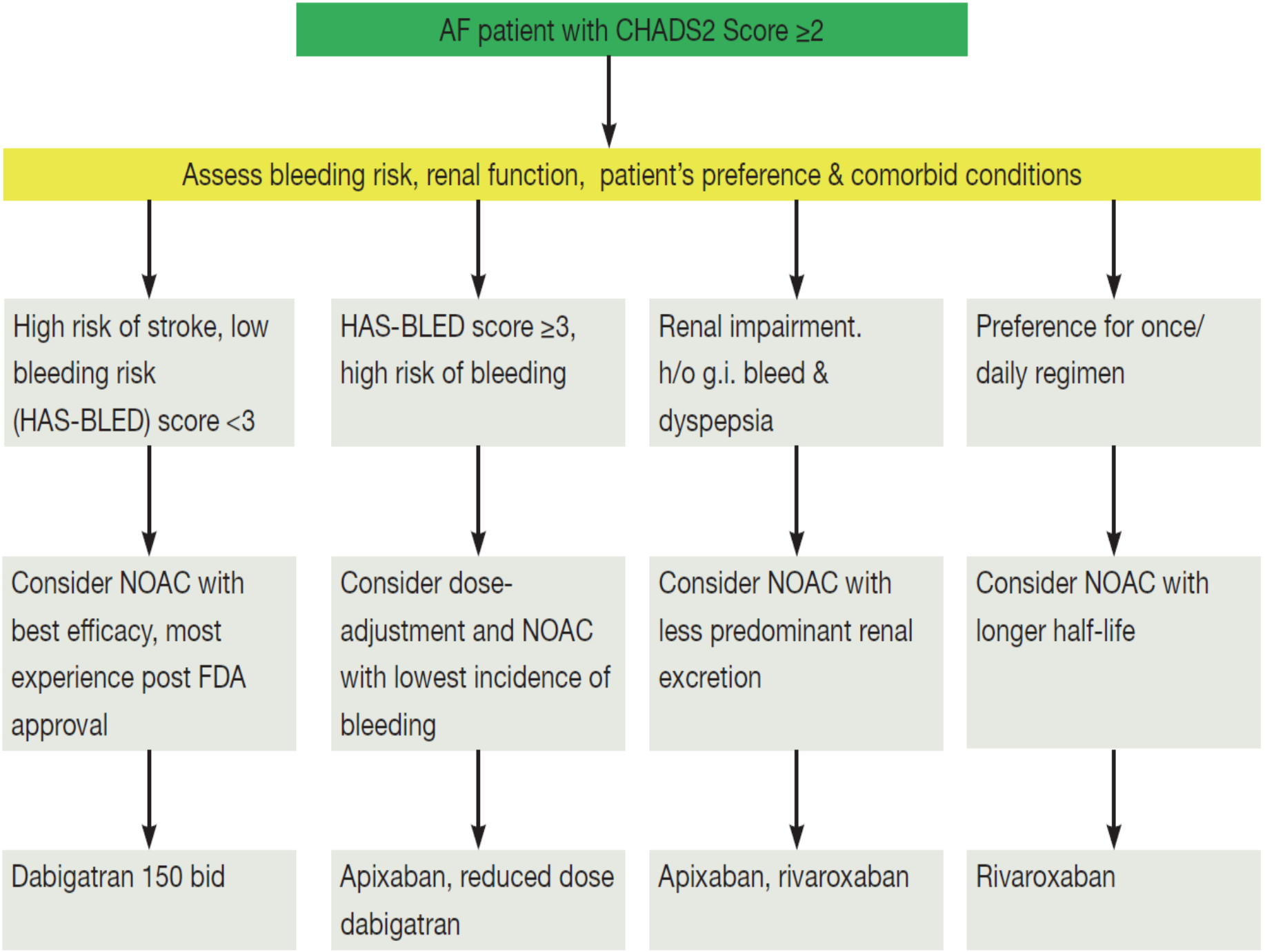
Age > 75

Low GFR < 60


We've got a problem, Heart, what do you think we should do?
Let's COMPLAIN about it until it MAGICALLY DISAPPEARS!!!
HeartandBrain.coffee
NICK SELUK

NOACS AND ANTI-PLATELETS

- Stable CAD and AF managed on OACs alone
- Prasugrel and Ticagrelor not recommended with NOACS
- Dual anti-plts + OAC as short time as possible
- Single anti-plt + OAC for 1 year only
- Reduce dose NOAC if combined with anti-plt
- Consider PPI for all combination therapies


AF patient with CHADS2 Score ≥2
Assess bleeding risk, renal function, patient's preference & comorbid conditions
High risk of stroke, low bleeding risk (HAS-BLED) score <3
HAS-BLED score ≥3, high risk of bleeding
Renal impairment. h/o g.i. bleed & dyspepsia
Preference for once/ daily regimen
Consider NOAC with best efficacy, most experience post FDA approval
Consider dose-adjustment and NOAC with lowest incidence of bleeding
Consider NOAC with less predominant renal excretion
Consider NOAC with longer half-life
Dabigatran 150 bid
Apixaban, reduced dose dabigatran
Apixaban, rivaroxaban
Rivaroxaban

BNSSG FORMULARY DECISION AID

- http://www.bnssgformulary.nhs.uk/includes/documents/BNSSG%20NOAC%20Decision%20guideV5%20update%20March16.pdf

"Oh waiter! Will you pass me the anticoagulant please?"