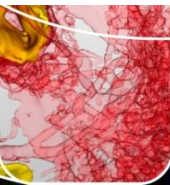
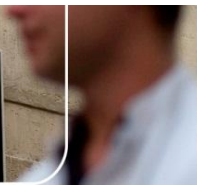


Mini symposium



VHL 18 juni 2013
An Stroobants



Programma

- **Introductie: *An Stroobants***
- **Evaluatie van screeningstests**
Rol van PT en APTT in screening op NOAC gebruik: ***Harry de Wit***
- **Evaluatie van specifieke tests en onderzoek**
 - Validatie dTT en anti-Xa assay met Rivaroxaban calibrator op de ACL-TOP: ***Margo Molhoek***
 - Analyse NOAC's en metabolieten met specifieke stolassays en UPLC-MS/MS: ***Daan vd Kerkhof***
 - De effecten van Cofact op Rivaroxaban plasma in trombine generatie assays: ***Jasper Dinkelaar***
 - Evaluatie en onderzoek NOAC testen: ***Yvonne Henskens***
 - A randomised study of dabigatran in elective percutaneous coronary intervention in stable coronary artery disease patients: ***Monique de Maat***
- **Dagelijkse praktijk/ protocollen**
NOAC's en Coagucheck: ***Joost v Pelt***



A collage of various anticoagulant medications. In the top left, there is a blister pack of red tablets. Next to it is a box of Warfarin. In the top right, there is a box of Sintrom (acenocoumarol) and a glass vial. The center features a box of Warfarin Tablets BP (1mg) and several bottles. The bottom left shows a box of Sintrom 4 (acenocoumarol) and a blister pack of orange tablets. The bottom right shows a blister pack of orange tablets and a box of a soy-based product.

**Estimated worldwide use
anticoagulants:**

30 million patients

Medication Use Leading to Emergency Department Visits for Adverse Drug Events in Older Adults

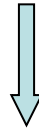
Daniel S. Budnitz, MD, MPH; Nadine Shehab, PharmD; Scott R. Kegler, PhD; and Chesley L. Richards, MD, MPH

Most commonly implicated medications†

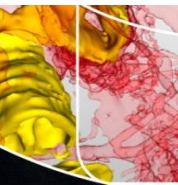
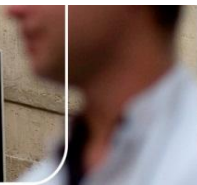
Warfarin	854	17.3 (12.7–21.9)
Insulin	616	13.0 (9.4–16.6)
Aspirin	232	5.7 (3.3–8.2)
Clopidogrel	173	4.7 (1.5–7.9)§
Digoxin	130	3.2 (1.6–4.7)
Metformin	103	2.3 (1.4–3.2)
Glyburide	98	2.2 (0.9–3.5)
Acetaminophen–hydrocodone	76	1.7 (1.0–2.5)
Phenytoin	78	1.5 (0.8–2.3)
Glipizide	57	1.5 (0.8–2.1)

Ann Intern Med. 2007;147:755-765.

New oral anti coagulants



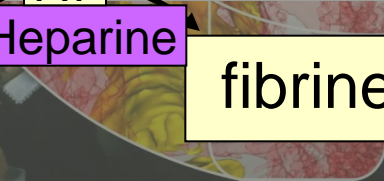
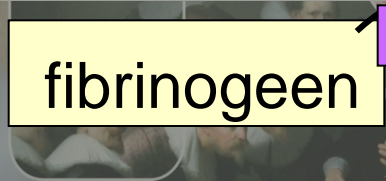
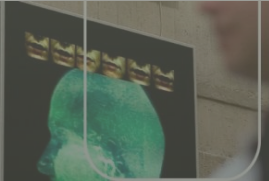
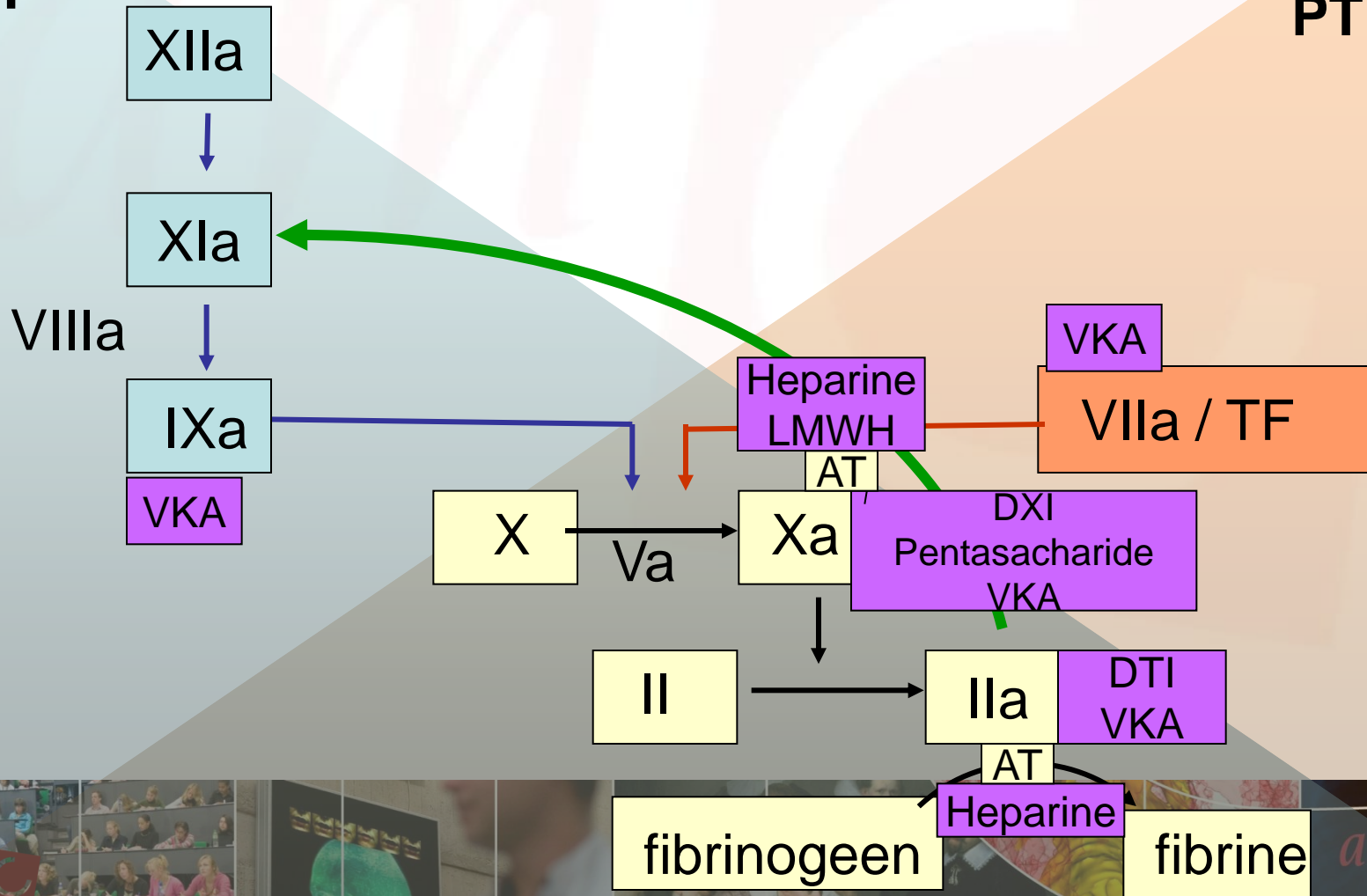
Oral Direct Inhibitors/ Direct Oral Anti Coagulants



Aangrijpingspunten

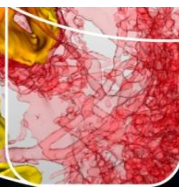
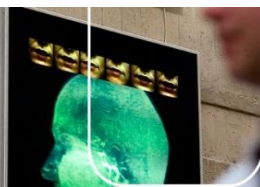
aPTT

PT / INR



Indicaties laboratorium controle

- onder/overgewicht ($< 50\text{kg}$ of $> 110\text{ kg}$)
- neonaten en kinderen
- patiënten met nierinsufficiëntie (klaring $< 30\text{ ml/min}$)
- vermoeden van overdosering
- trombose onder therapie
- monitoring van therapietrouw
- reden tot couperen van antistollingstherapie (ernstige bloeding, acute interventie, chirurgische ingreep)



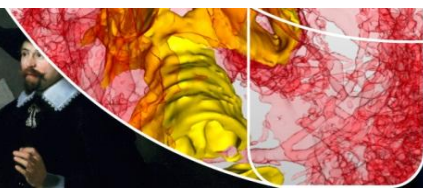
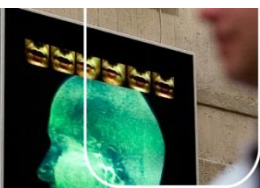
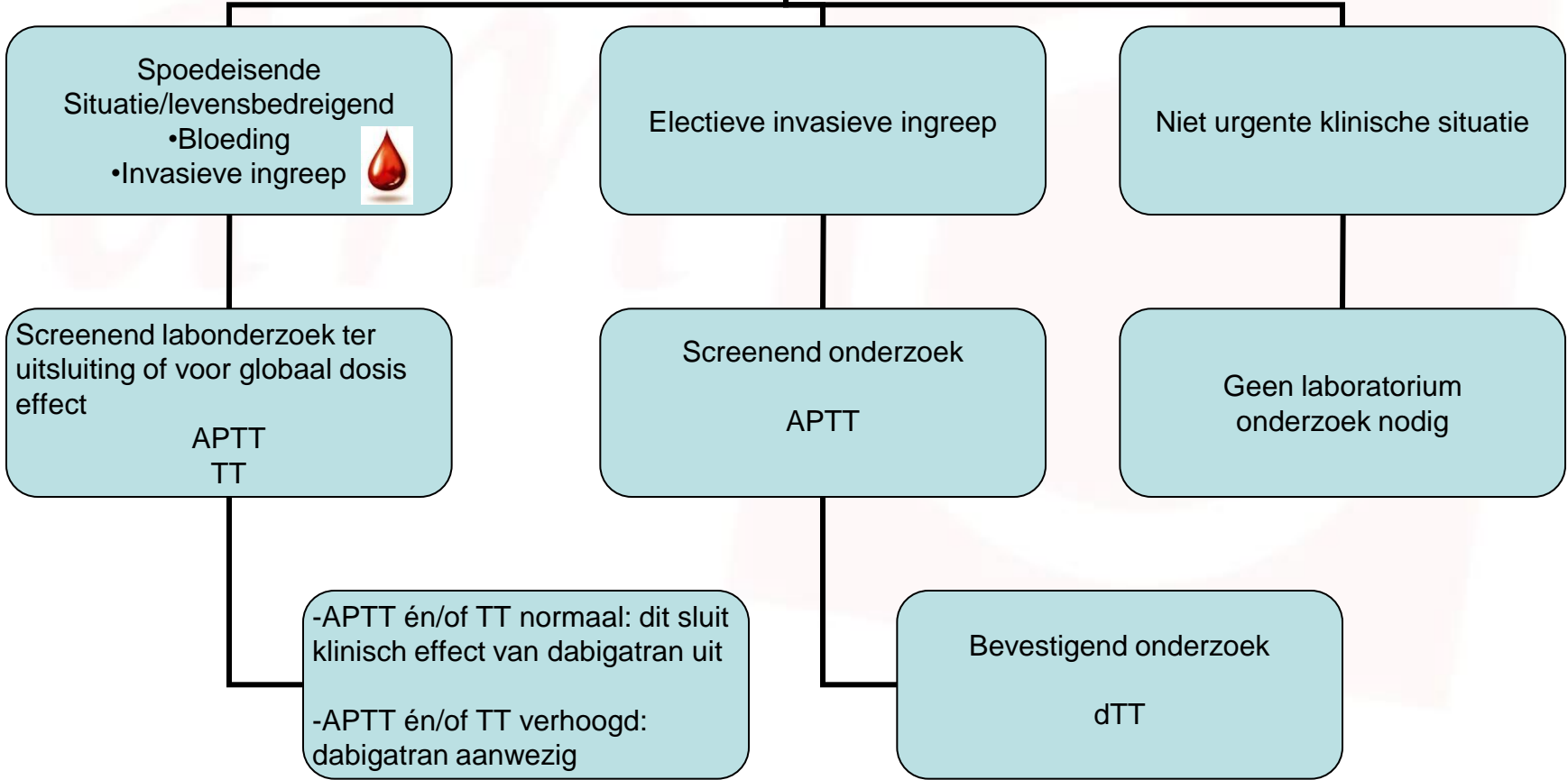
Internationale ontwikkelingen

- SSC werkgroep: control of anticoagulation
 - Rivaroxaban, dabigatran, apixaban
- Nederland:
 - werkgroep hemostase VHL aanbeveling labtesten
 - orde medisch specialisten richtlijn NOAC
- België: BSTH werkgroep
- Duitsland:
 - DTI: dTT
 - DXI: anti-Xa
- Zweden:
 - richtlijn NOAC www.ssth.se



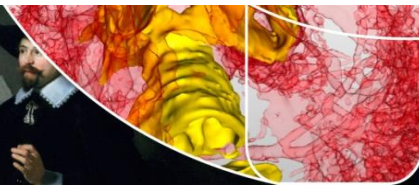


DABIGATRAN

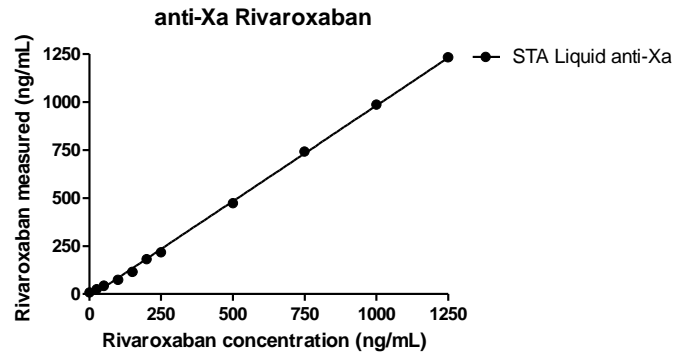
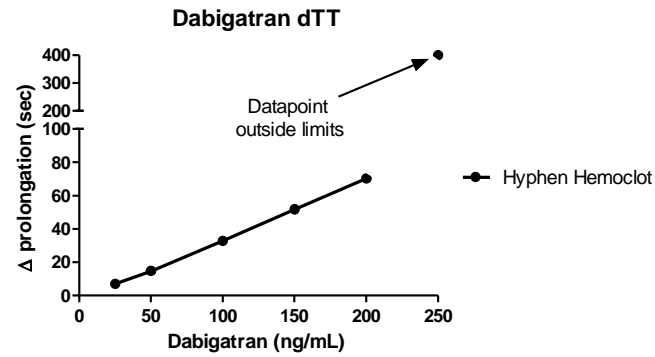
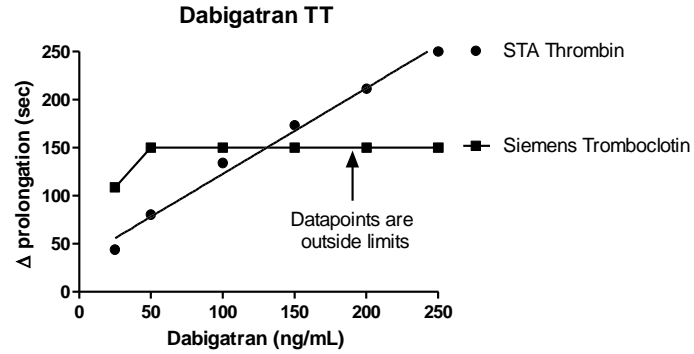


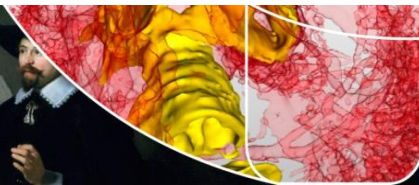
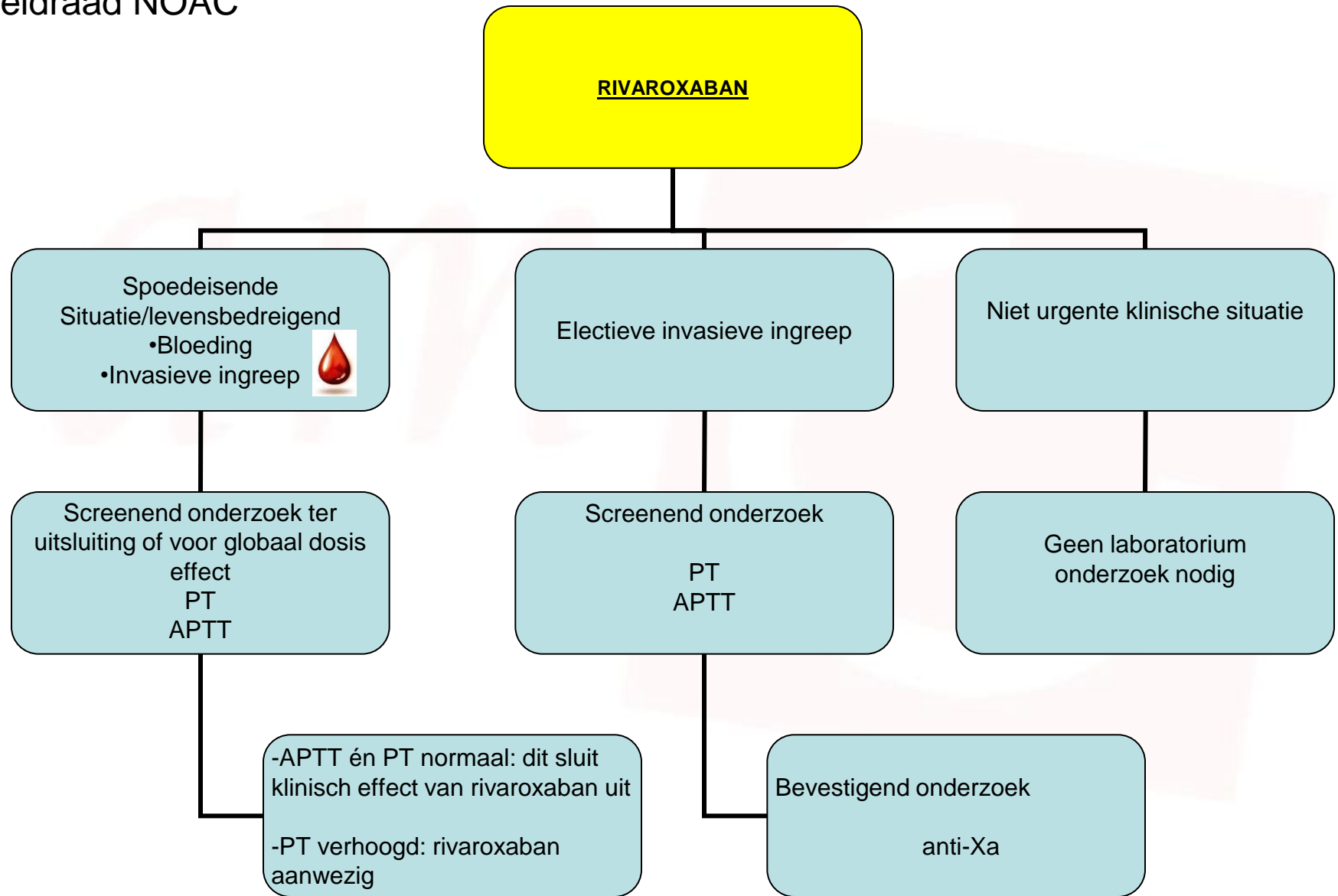
Streefwaarden

Dabigatran	(Vrijwel)afwezig	Therapeutisch	Te hoog/overdosering
APTT	Normaal	Piek: 2 - 3 x bovengrens Dal: 1,5 - 2 x bovengrens	Piek: > 3x bovengrens Dal: > 2x bovengrens
dTT ($\mu\text{g/L}$)	35	Piek: 35 - 447 Dal: 10 - 96	Piek: > 450 Dal: > 225

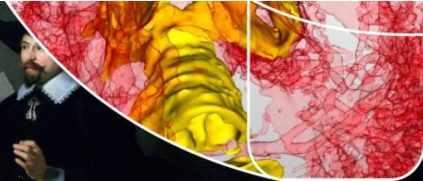
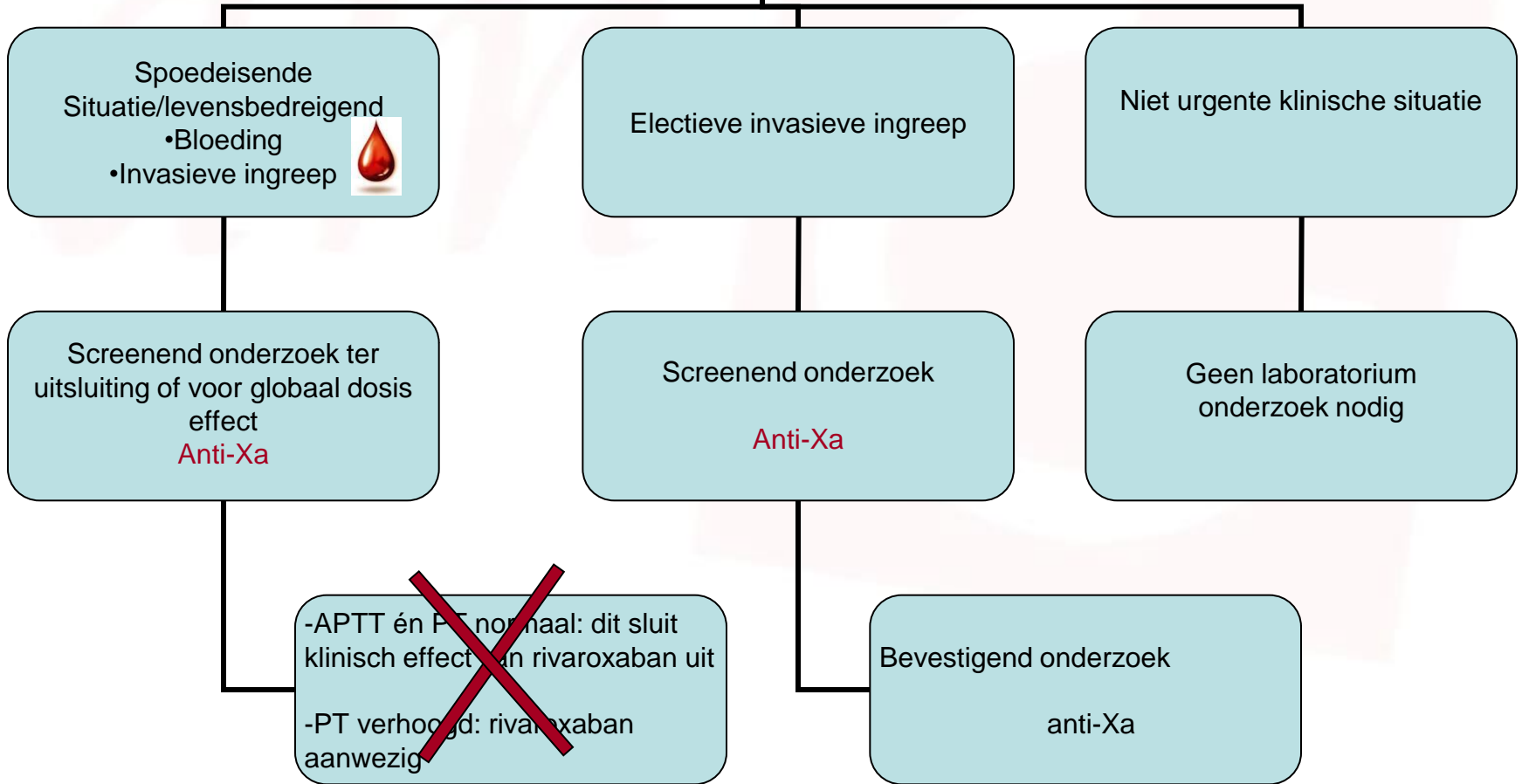


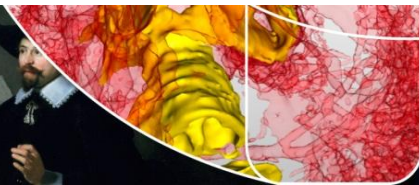
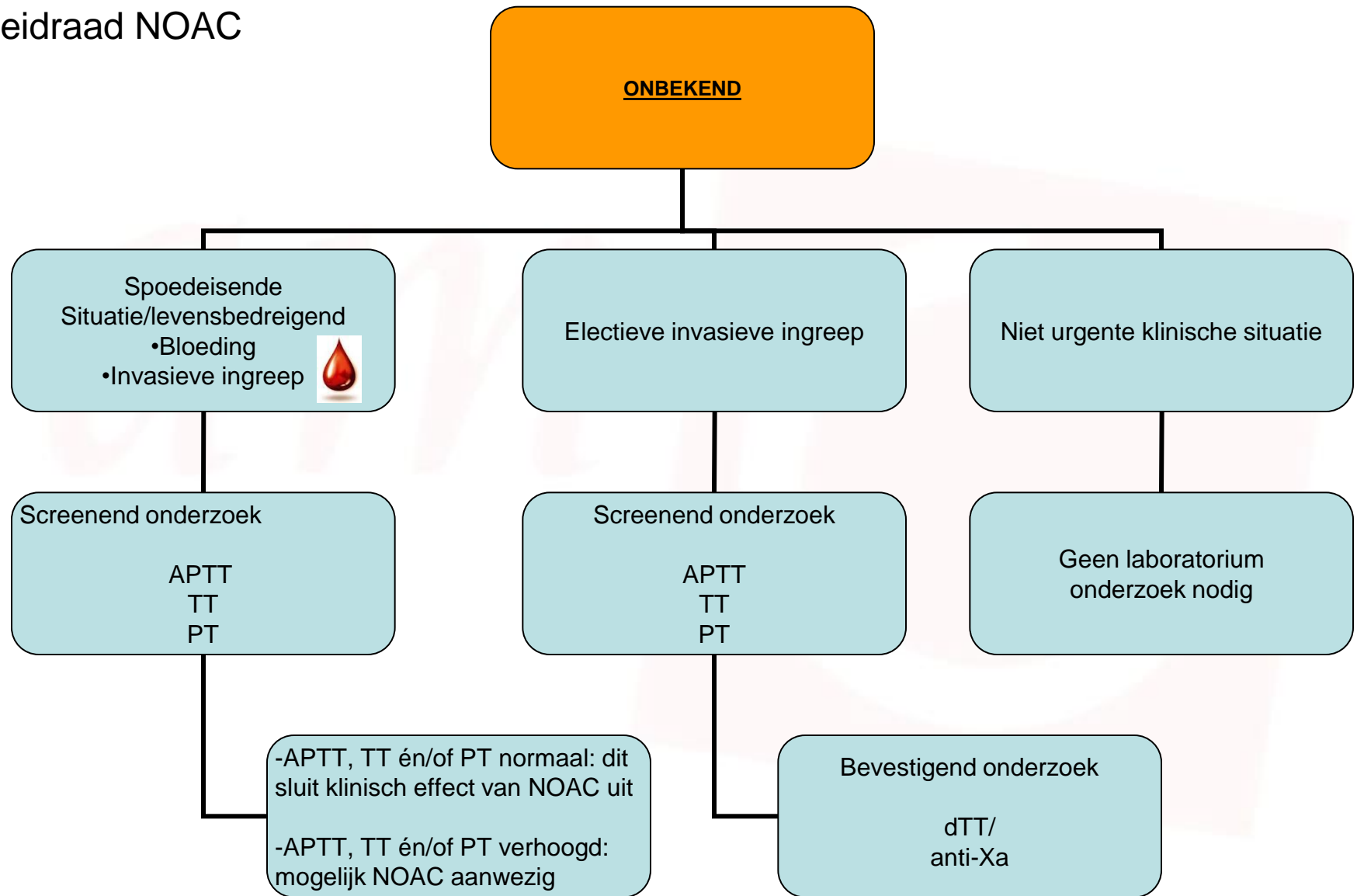
(d) TT en anti Xa

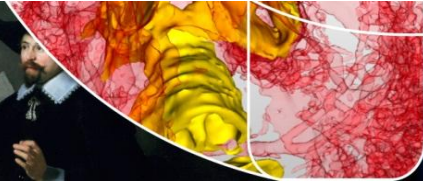
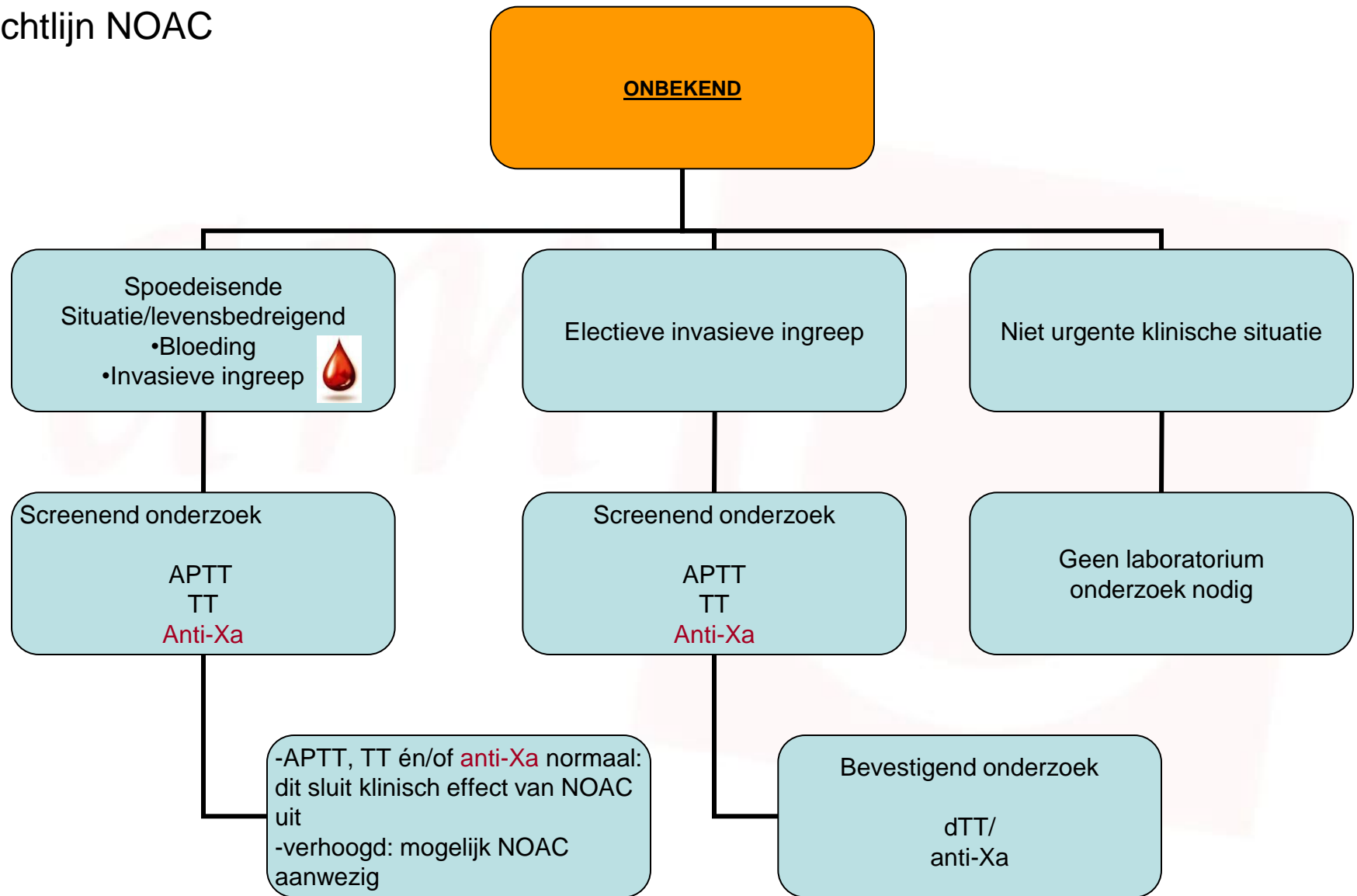




RIVAROXABAN







Conclusie

	Screening	Concentratie bepaling
Dabigatran	aPTT en TT	dTT ($\mu\text{g/l}$)
Rivaroxaban	anti-Xa activiteit	anti-Xa ($\mu\text{g/l}$)
Apixaban	anti-Xa activiteit?	anti-Xa ($\mu\text{g/l}$)?

- Screenende testen: reagens afhankelijk!
- Specifieke testen: calibratie met juiste middel

