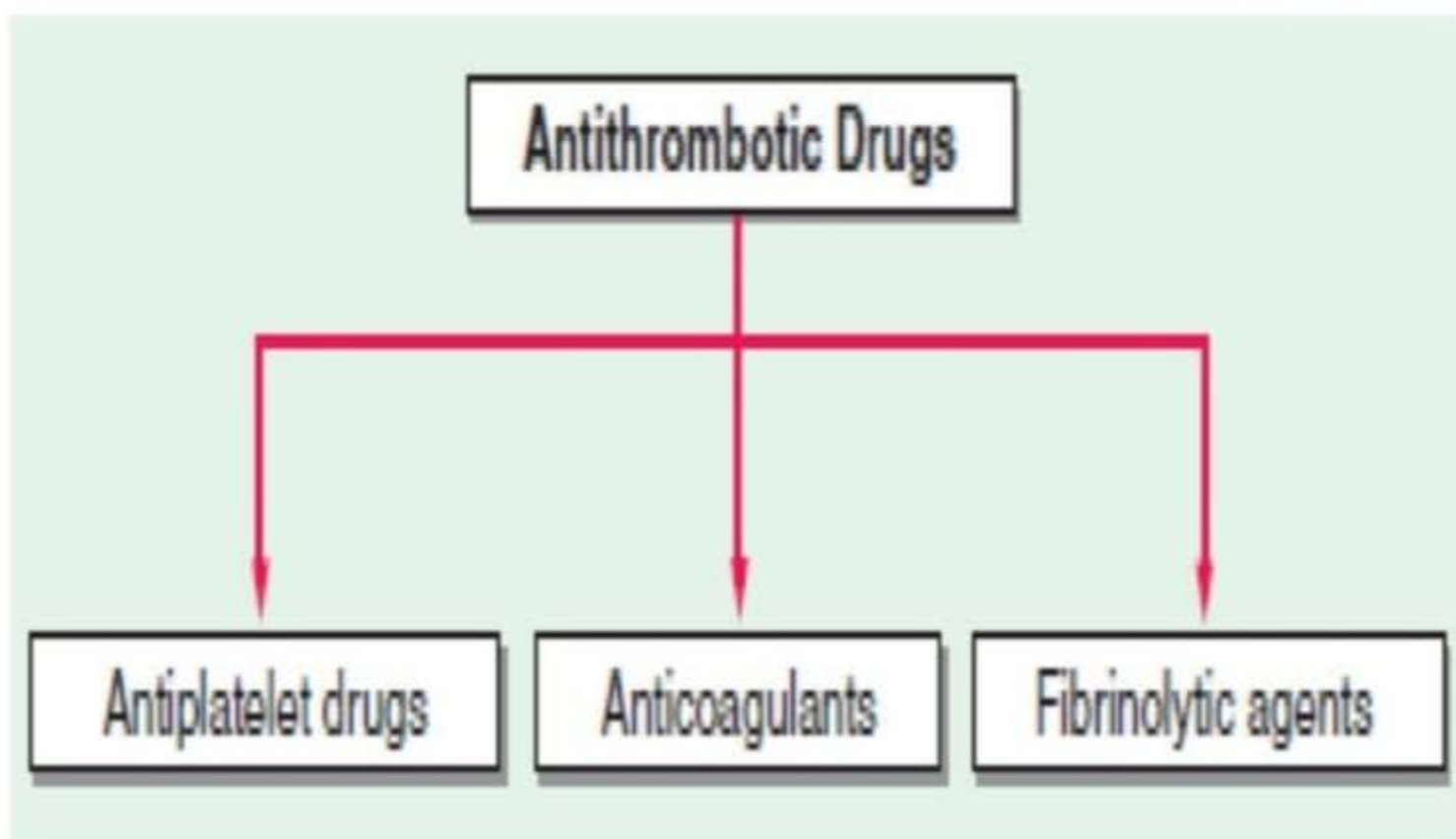


Classification



Anticoagulation Medical Uses

1

Atrial Fibrillation

Prevention of Stroke & Systemic Thromboembolism



2

DVT & PE

Initial, Long-Term & Extended Treatment



3

DVT & PE

Prevention in Major Orthopedic Surgery



4

DVT & PE

Extended Prophylaxis in acute ill patients



5

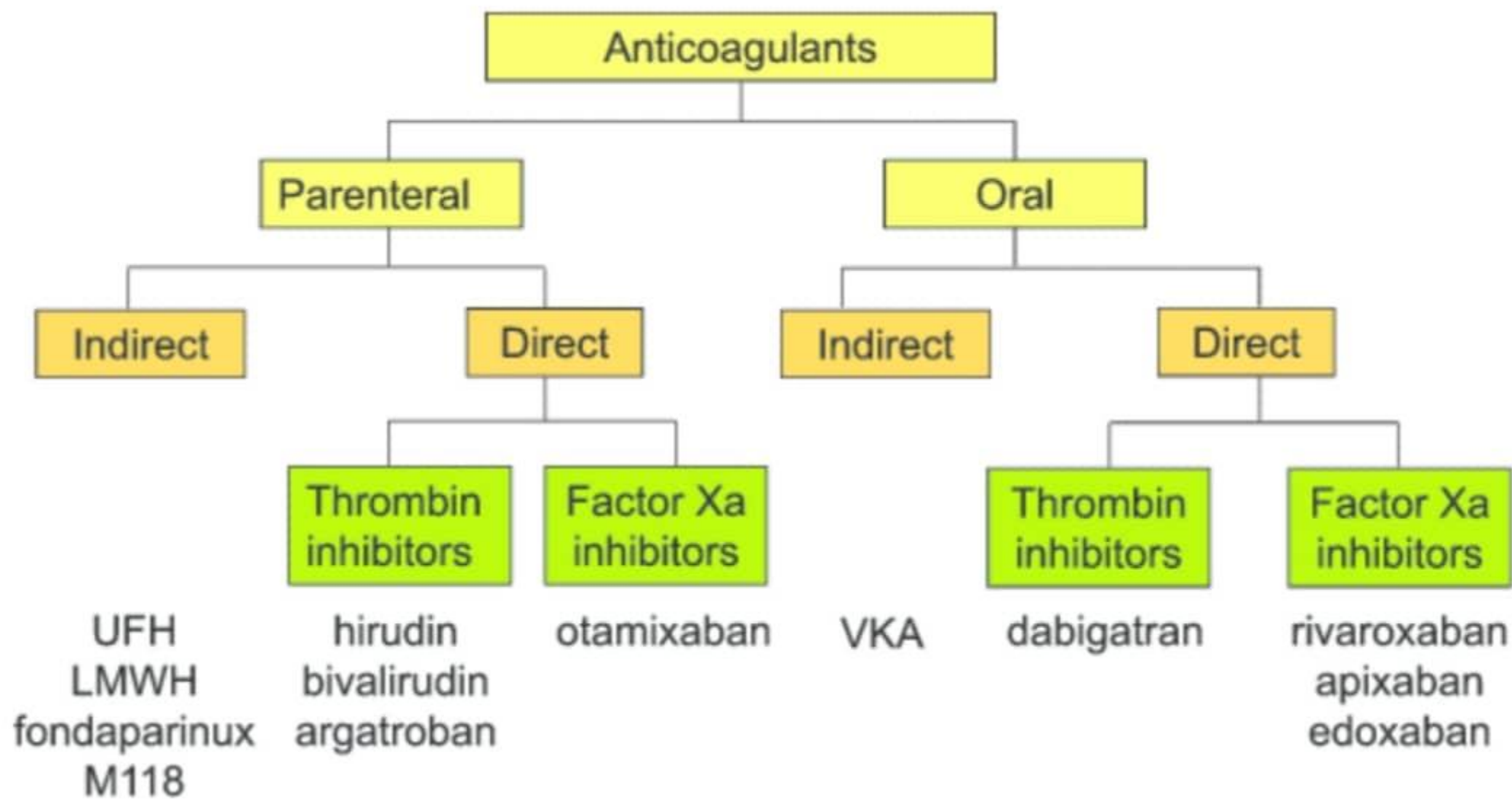
HIT

Initial Treatment & After Parenteral Treatment



To DOAC or Not To DOAC

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Evolution of Oral Anticoagulants

1954



WARFARIN

DABIGATRAN



2010

2011



RIVAROXABAN

APIXABAN



2012

2015



EDOXABAN

Betrixaban

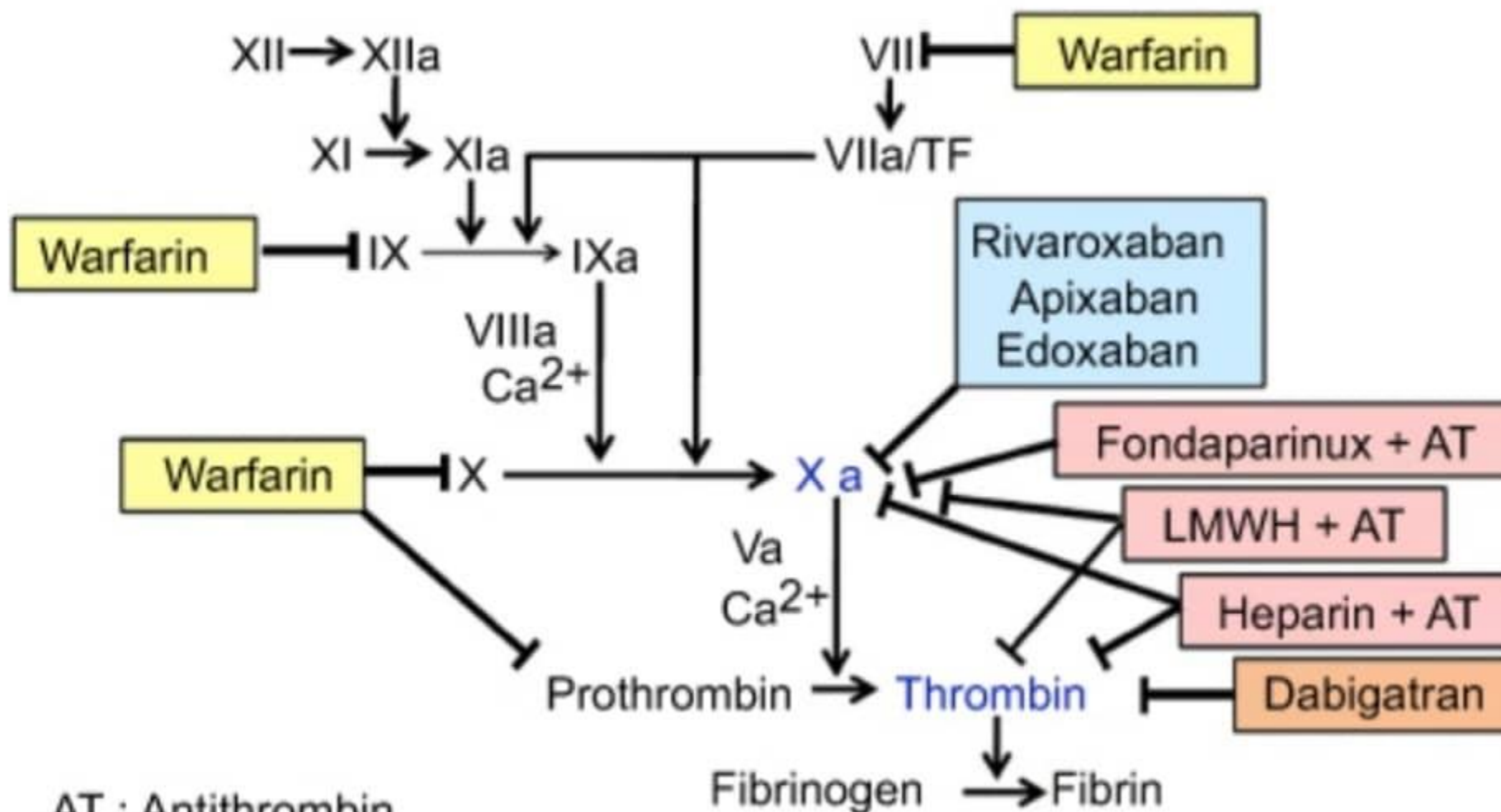


2017



To DOAC or Not To DOAC

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AT : Antithrombin

LMWH : Low molecular weight heparin

← Activation

⊥ Inhibition

Warfarin vs NOACs

Feature	Warfarin	NOACs
Onset	Slow	Rapid
Dosing	Variable	Fixed
Food effect	Yes	No
Drug interactions	Many	Few
Routine lab monitoring	Yes	No
Half-life	Long	Short
Reversal agent	Yes	Maybe



About



Sections



Tools



OPEN ACCESS

RESEARCH ARTICLE

Effectiveness and Safety of Oral Anticoagulants Among Nonvalvular Atrial Fibrillation Patients

The ARISTOPHANES Study

Gregory Y.H. Lip[✉], MD Allison Keshishian, MPH Xiaoyan Li, PhD
Melissa Hamilton, MPH Cristina Masseria, PhD
Kiran Gupta, PhD Xuemei Luo, PhD Jack Mardekian, PhD
Keith Friend, MD Anagha Nadkarni, PhD Xianying Pan, MS
Onur Baser, PhD Steven Deitelzweig MD

Originally published 8 Nov 2018 |

<https://doi.org/10.1161/STROKEAHA.118.020232> |

Stroke. 2018;49:2933–2944

the NOACs had lower rates of stroke/SE and variable comparative rates of MB versus warfarin.

Warfarin vs. NOACs

	Dabigatran	Rivaroxaban	Apixaban	Edoxaban
All Mortality	Non-Inferior	Non-Inferior	Superior	Non-Inferior
Bleeding	Non-Inferior	Non-Inferior	Superior	Superior
Stroke	Superior	Non-Inferior	Superior	Non-Inferior
Ischemic	Yes	No	No	No
Hemorrhagic	Yes	Yes	Yes	Yes

ORIGINAL ARTICLE

Apixaban versus Warfarin in Patients with Atrial Fibrillation

Christopher B. Granger, M.D., John H. Alexander, M.D., M.H.S., John J.V. McMurray, M.D., Renato D. Lopes, M.D., Ph.D., et for al.,
the ARISTOTLE Committees and Investigators*

September 15, 2011

N Engl J Med 2011; 365:981-992

DOI: 10.1056/NEJMoa1107039

Chinese Translation 中文翻译



ARISTOTLE

**Apixaban versus Warfarin in
Patients with Atrial Fibrillation**
Results of the ARISTOTLE Trial

Presented on behalf of the ARISTOTLE Investigators
and Committees

Conclusion

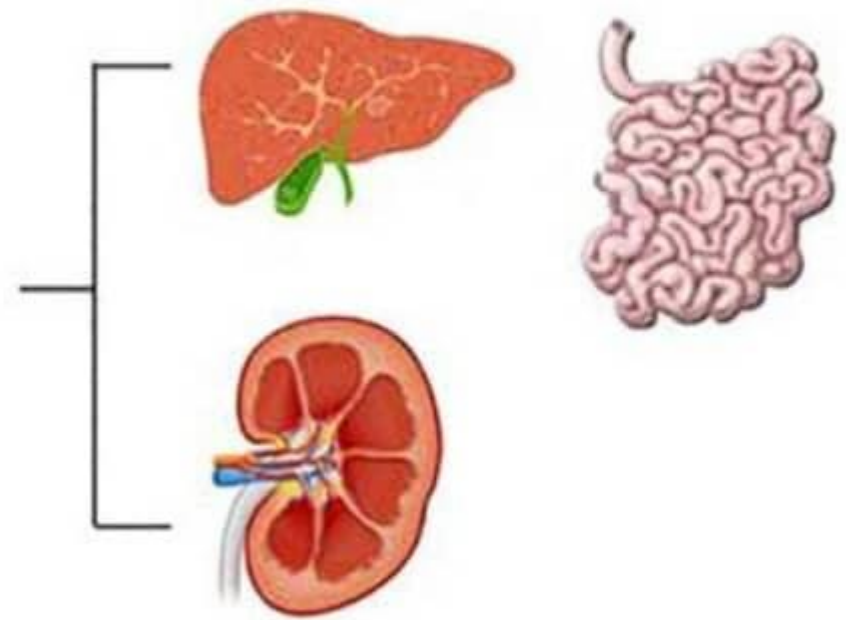


In patients with atrial fibrillation, apixaban is superior to warfarin at preventing stroke or systemic embolism, causes less bleeding, and results in lower mortality.

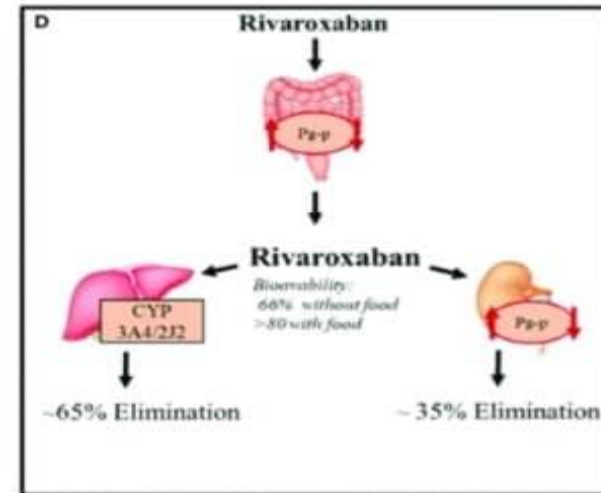
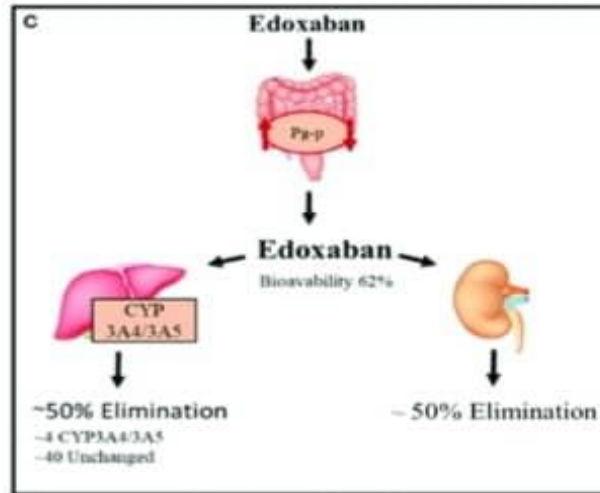
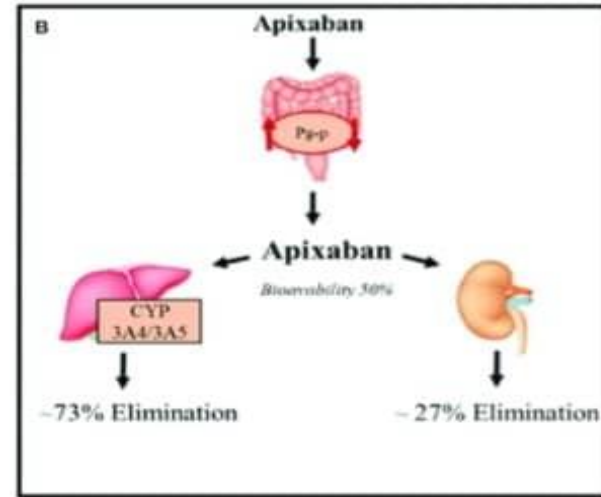
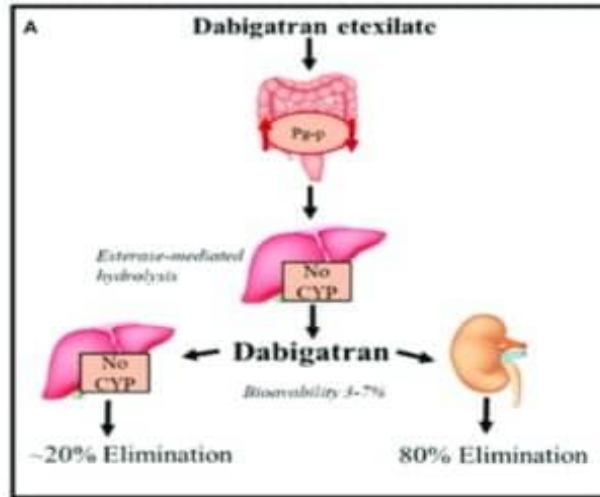
biliary and direct
intestinal excretion
followed by non-renal
clearance of absorbed
dose in 73%



100%
of apixaban



renal clearance
of absorbed dose in 27%



REMEMBER THESE **ABCD'S** 
TO MAKE **APIXABAN**
DOSE ADJUSTMENTS
FOR ATRIAL FIBRILLATION NICE & EASY

A AGE
 ≥ 80 years



B BODY WEIGHT
 ≤ 60 kg



C CREATININE
 ≥ 1.5 mg/dL

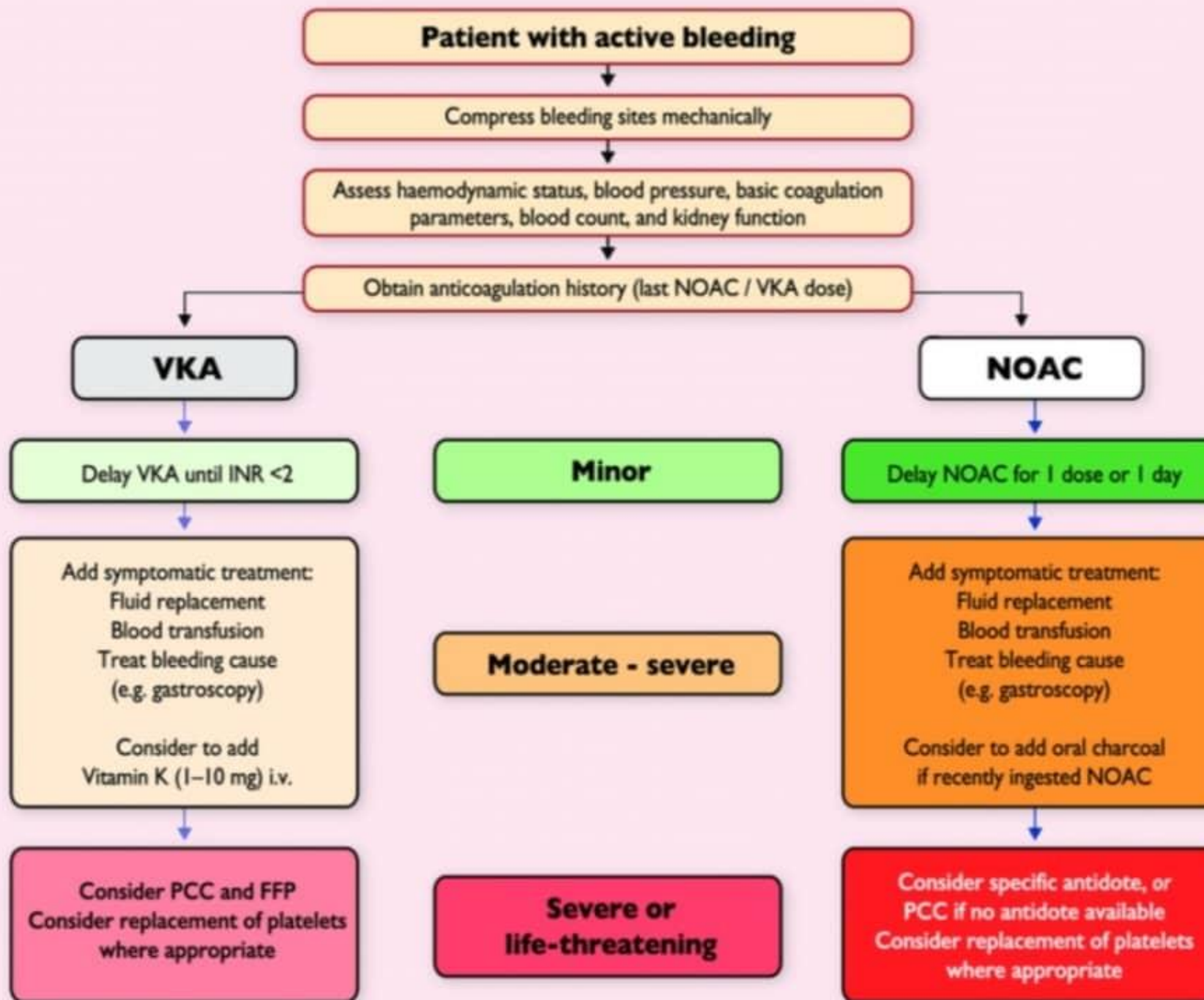


D DOUBLE
OF THESE
FACTORS?

≥ 2
DECREASE
DOSE FROM
5 mg \rightarrow **2.5** mg
TWICE DAILY

Dabigatran ^a		Rivaroxaban ^b		Edoxaban		Apixaban ^c	
CrCl mL/min	Dose	CrCl mL/min	Dose	CrCl mL/min	Dose	Metric	Dose
>30	150 mg BID	>50	20 mg QD	>95	Avoid Use		5 mg BID
30–15	75 mg BID	50–15	15 mg QD	>50–≤95	60 mg QD	2 of 3: ≥80 y SCr >1.5 mg/dL	2.5 mg BID
<15	Avoid Use	<15	Avoid Use	50–15	30 mg QD	Weight ≤60 kg	
		Hemodialysis	15 mg QD ^d	<15	Avoid Use	Hemodialysis	5 mg BID ^e

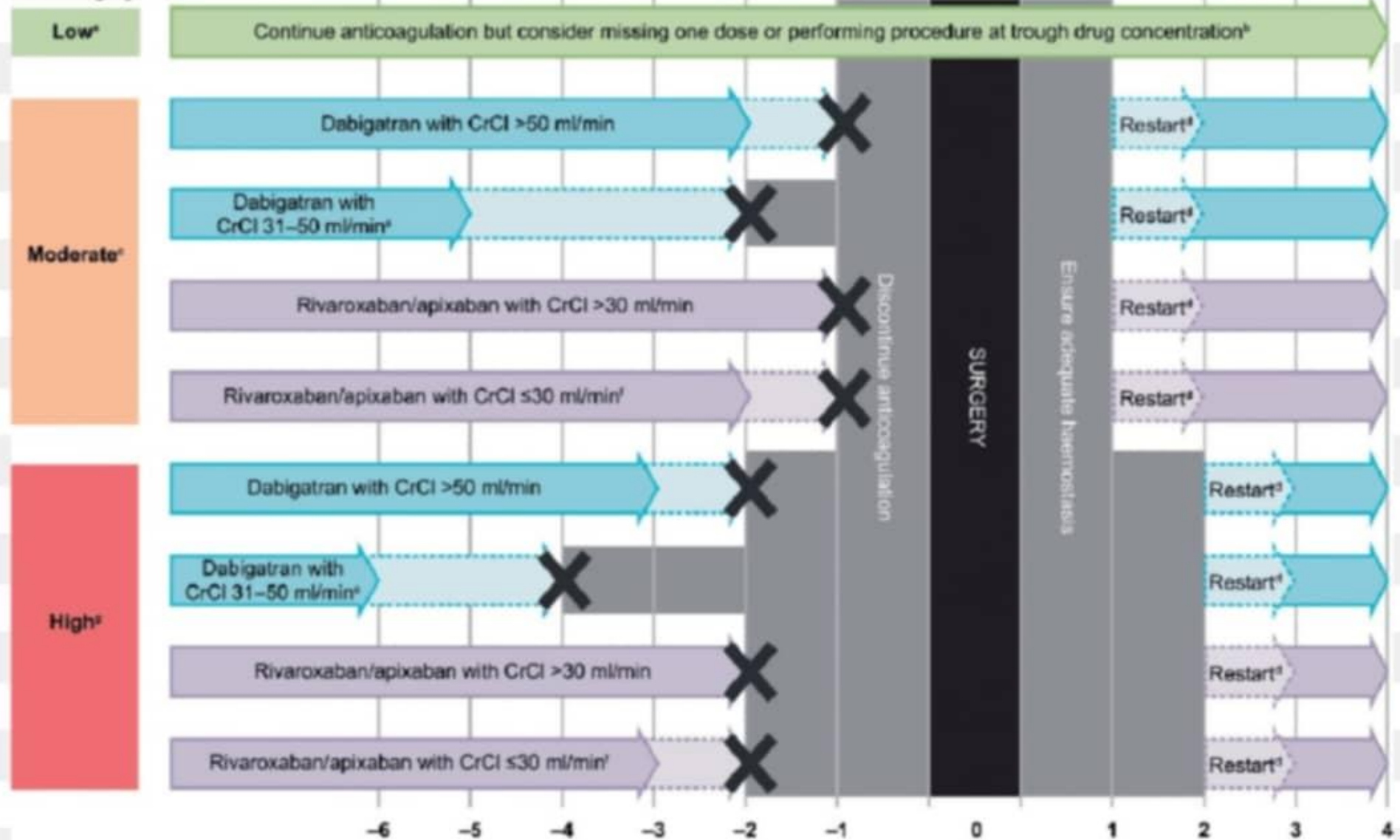
Oral Anticoagulant Agent	Child-Pugh Class	Food and Drug Administration Recommendation	European Medicines Agency Recommendation
Warfarin	A	Therapeutic INR	Therapeutic INR
	B		
	C		
Apixaban	A	No dose adjustment	Use with caution; No dose adjustment
	B	Use with caution; No dose adjustment	
	C	Not recommended	Not recommended
Dabigatran	A	No dose adjustment	Not recommended if AST/ALT >2 x ULN or Liver disease expected to affect survival
	B	Use with caution; No dose adjustment	
	C	Not recommended	
Edoxaban	A	No dose adjustment	No dose adjustment; use with caution, particularly if AST/ALT >2x ULN or total bilirubin >1.5x ULN
	B	Not recommended	
	C		Not recommended
Rivaroxaban	A	No dose adjustment	No dose adjustment
	B	Not recommended	Not recommended
	C		



Bleeding risk associated with surgery

Days before/after procedure

-6 -5 -4 -3 -2 -1 0 1 2 3 4



➔ Patient receiving anticoagulant ➔ Patient may continue/restart anticoagulant if judged appropriate X Anticoagulation must be stopped