VII Congresso
Novas Fronteiras
em Cardiologia

17 de Fevereiro 2017
Aula Magna da Faculdade
de Medicina da Universidade
de Lisboa

18 e 19 de Fevereiro 2017
Hotel Marriott Praia Del-Rey

CENÁRIOS DA VIDA REAL... Comorbilidades

Insuficiência Cardíaca

Anemia, Coagulação e Contra-coagulação

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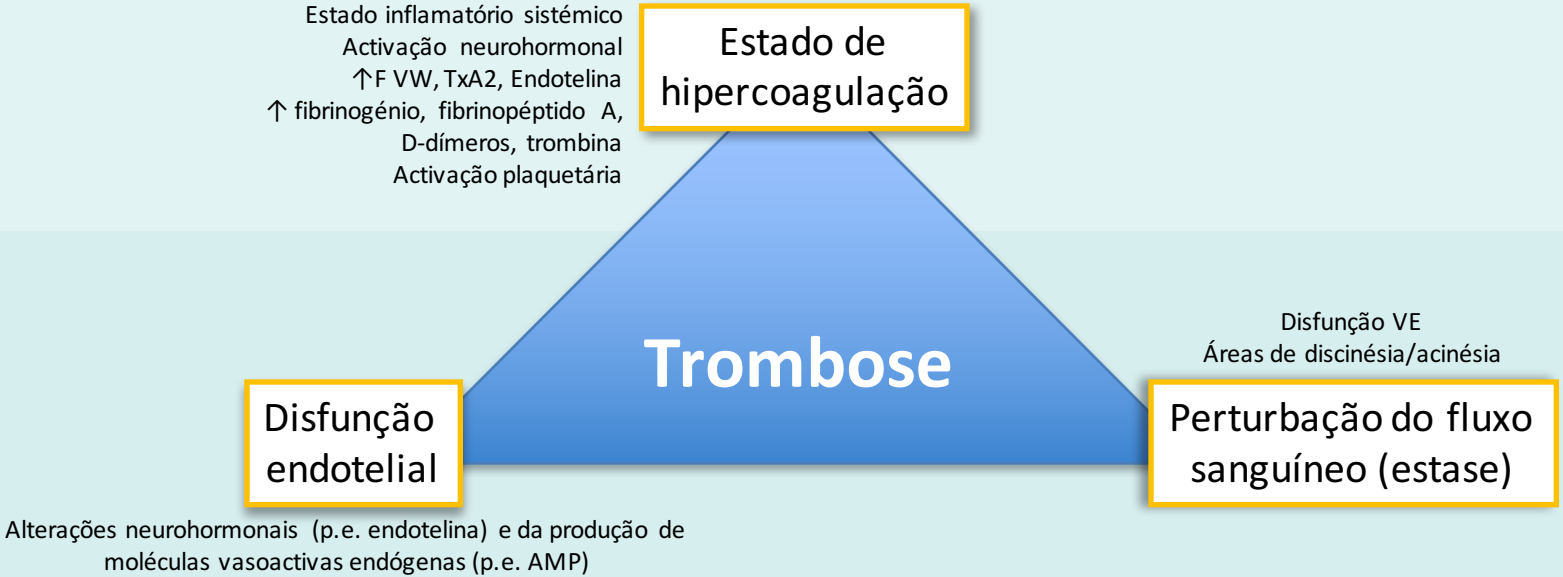
Contextualização

- Terapêutica anticoagulante→ ↓ risco trombótico
- Doentes com IC→ ↑ Risco trombótico (Tríade de Virchow)



Zeitler, EP and Eapen, ZJ. J Atr Fibrillation. 2015 May 1; 8(1): 31–38.

7.5.2 Oral anticoagulants and antiplatelet therapy

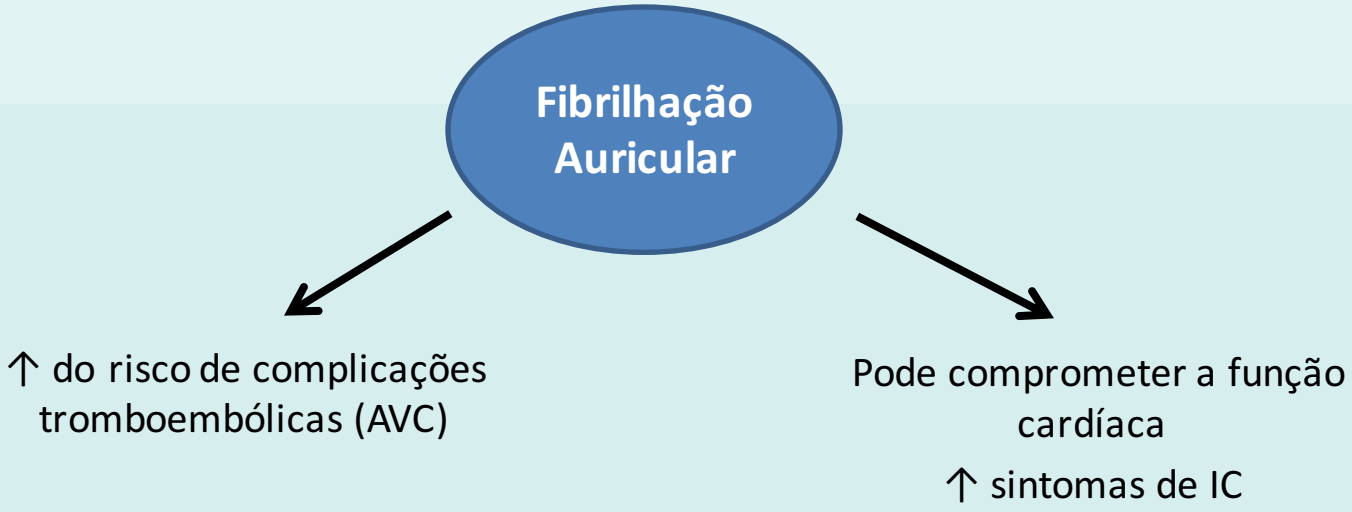
Other than in patients with AF (both HFrEF and HFpEF), there is no evidence that an oral anticoagulant reduces mortality/morbidity compared with placebo or aspirin.[206,207] Studies testing the non-vitamin K antagonist oral anticoagulants (NOACs) in patients with HFrEF are currently ongoing. Patients with HFrEF receiving oral anticoagulation because of concurrent AF or risk of venous thromboembolism should continue anticoagulation. Detailed information is provided in Section 10.1.

Similarly, there is no evidence on the benefits of antiplatelet drugs (including acetylsalicylic acid) in patients with HF without accompanying CAD, whereas there is a substantial risk of gastrointestinal bleeding, particularly in elderly subjects, related with this treatment.

Ponikowski, P et al. 2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure. European Heart Journal (2016) 37, 2129–2200

Fibrilhação Auricular e Insuficiência Cardíaca

- FA é a disritmia mais comum na IC independentemente da FEVE
- Até 50% dos doentes com IC avançada têm FA



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$CHA_2DS_2VASC \geq 2$

Recomenda-se um NOAC em todos os doentes com FA paroxística, persistente ou permanente e com $CHA_2DS_2VASC \geq 2$, na ausência de contra-indicações (I, A)

$CHA_2DS_2VASC = 1$(M) ou 2 (F)

Deve ser considerada a anticoagulação tendo em conta o balanço de risco trombótico/hemorrágico e a preferência do doente

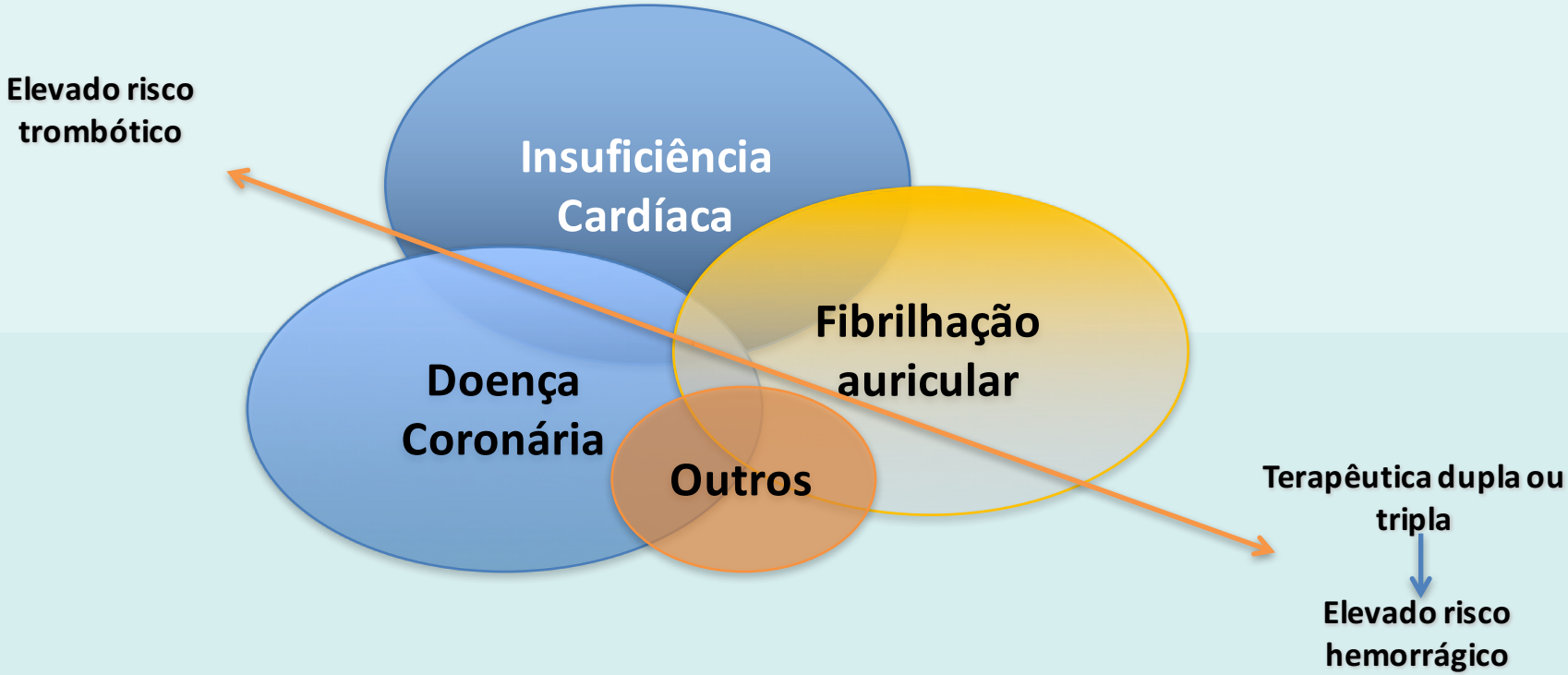
CHA_2DS_2-VASc risk factor	Points
Congestive heart failure Signs/symptoms of heart failure or objective evidence of reduced left ventricular ejection fraction	+1
Hypertension Resting blood pressure >140/90 mmHg on at least two occasions or current antihypertensive treatment	+1
Age 75 years or older	+2
Diabetes mellitus Fasting glucose >125 mg/dL (7 mmol/L) or treatment with oral hypoglycaemic agent and/or insulin	+1
Previous stroke, transient ischaemic attack, or thromboembolism	+2
Vascular disease Previous myocardial infarction, peripheral artery disease, or aortic plaque	+1
Age 65–74 years	+1
Sex category (female)	+1

Table 11 Clinical risk factors for stroke, transient ischaemic attack, and systemic embolism in the CHA_2DS_2-VASc score

Kirchhof, P et al. 2016 ESC Guidelines for the management of atrial fibrillation developed in collaboration with EACTS. European Heart Journal (2016) 37, 2893–2962
Ponikowski, P et al. 2016 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure. European Heart Journal (2016) 37, 2129–2200

Doença Coronária e Insuficiência Cardíaca

- A cardiopatia isquémica é a causa mais frequente de insuficiência cardíaca
- Muitos doentes com antecedentes de SCA ou que foram submetidos a angioplastia electiva → indicação para antiagregação
- 6-8% dos doentes submetidos a angioplastia têm indicação para anticoagulação oral



Insuficiência cardíaca
Anemia, coagulação e contra-coagulação

Num doente com elevado risco trombótico e elevado risco hemorrágico…

Quais as recomendações?

CHA_2DS_2-VASc risk factor	Points
Congestive heart failure Signs/symptoms of heart failure or objective evidence of reduced left ventricular ejection fraction	+1
Hypertension Resting blood pressure >140/90 mmHg on at least two occasions or current antihypertensive treatment	+1
Age 75 years or older	+2
Diabetes mellitus Fasting glucose >125 mg/dL (7 mmol/L) or treatment with oral hypoglycaemic agent and/or insulin	+1
Previous stroke, transient ischaemic attack, or thromboembolism	+2
Vascular disease Previous myocardial infarction, peripheral artery disease, or aortic plaque	+1
Age 65–74 years	+1
Sex category (female)	+1

Letter	Clinical characteristic[a]	Points awarded
H	Hypertension	1
A	Abnormal renal and liver function (1 point each)	1 or 2
S	Stroke	1
B	Bleeding	1
L	Labile INRs	1
E	Elderly (e.g. age >65 years)	1
D	Drugs or alcohol (1 point each)	1 or 2
		Maximum 9 points

Modifiable bleeding risk factors
Hypertension (especially when systolic blood pressure is >160 mmHg)[a,b,c]
Labile INR or time in therapeutic range <60%[a] in patients on vitamin K antagonists
Medication predisposing to bleeding, such as antiplatelet drugs and non-steroidal anti-inflammatory drugs[a,d]
Excess alcohol (≥8 drinks/week)[a,b]
Potentially modifiable bleeding risk factors
Anaemia[b,c,d]
Impaired renal function[a,b,c,d]
Impaired liver function[a,b]
Reduced platelet count or function[b]
Non-modifiable bleeding risk factors
Age[e] (>65 years)[a] (≥75 years)[b,c,d]
History of major bleeding[a,b,c,d]
Previous stroke[a,b]
Dialysis-dependent kidney disease or renal transplant[a,c]
Cirrhotic liver disease[a]
Malignancy[b]
Genetic factors[b]
Biomarker-based bleeding risk factors
High-sensitivity troponin[e]
Growth differentiation factor-15[e]
Serum creatinine/estimated CrCl[e]

Insuficiência cardíaca
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developed
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Recommendations	Class[a]	Level[b]	Ref[c]
Blood pressure control in anticoagulated patients with hypertension should be considered to reduce the risk of bleeding	IIa	B	511
When dabigatran is used, a reduced dose (110 mg twice daily) may be considered in patients >75 years to reduce the risk of bleeding.	IIb	B	490
In patients at high-risk of gastrointestinal bleeding, a VKA or another NOAC preparation should be preferred over dabigatran 150 mg twice daily, rivaroxaban 20 mg once daily, or edoxaban 60 mg once daily.	IIa	B	321, 396, 402, 405, 490, 492, 493, 512
Advice and treatment to avoid alcohol excess should be considered in all AF patients considered for OAC.	IIa	C	

Apixabano
Dabigatrano 110mg

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Recommendations for occlusion or exclusion of the left atrial appendage

Recommendations	Class[a]	Level[b]	Ref[c]
After surgical occlusion or exclusion of the LAA, it is recommended to continue anticoagulation in at-risk patients with AF for stroke prevention.	I	B	461, 462
LAA occlusion may be considered for stroke prevention in patients with AF and contra-indications for long-term anticoagulant treatment (e.g. those with a previous life-threatening bleed without a reversible cause).	IIb	B	449, 453, 454
Surgical occlusion or exclusion of the LAA may be considered for stroke prevention in patients with AF undergoing cardiac surgery.	IIb	B	463
Surgical occlusion or exclusion of the LAA may be considered for stroke prevention in patients undergoing thoracoscopic AF surgery.	IIb	B	468

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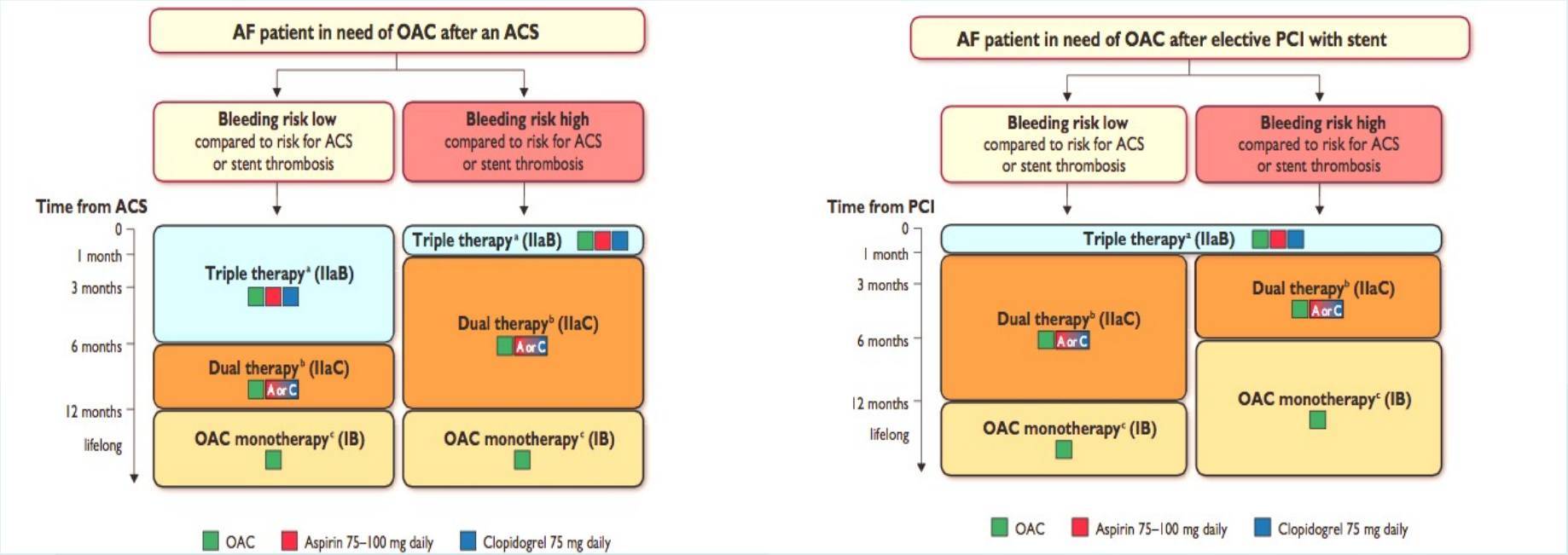

Não usar **Ticagrelor ou Prasugrel** na terapia tripla
Reduzir a dose do anticoagulante na terapêutica tripla

- Terapêutica dupla com Clopidogrel e qualquer NOAC pode ser considerada em doentes selecionados como alternativa a terapia inicial tripla (IIb, C)

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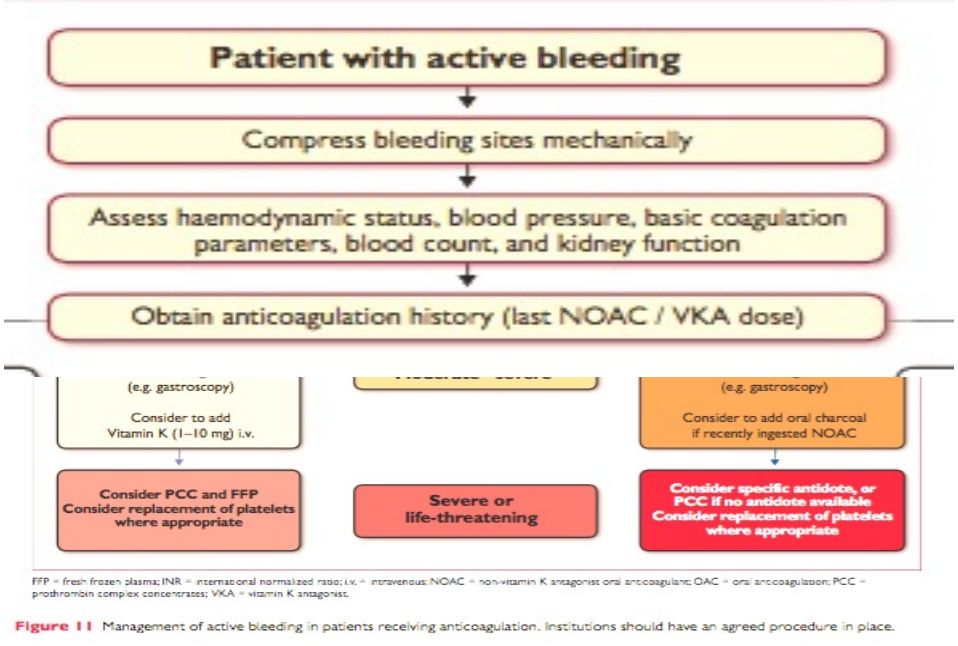

Figure 11 Management of active bleeding in patients receiving anticoagulation. Institutions should have an agreed procedure in place.

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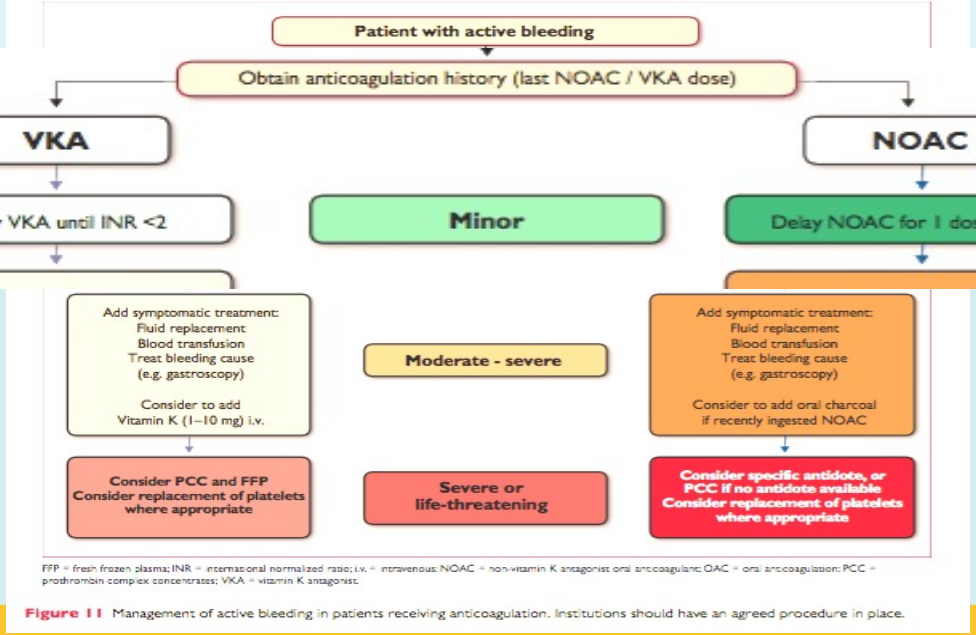

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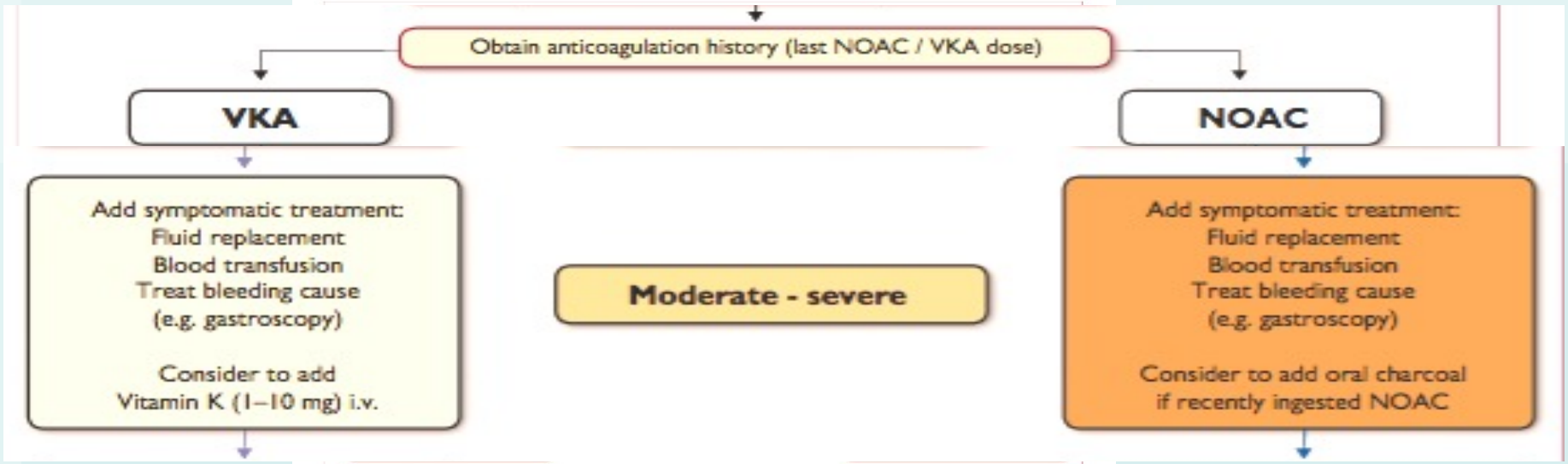

FFP = fresh frozen plasma; INR = international normalized ratio; i.v. = intravenous; NOAC = non-vitamin K antagonist oral anticoagulant; OAC = oral anticoagulation; PCC = prothrombin complex concentrates; VKA = vitamin K antagonist.

Figure 11 Management of active bleeding in patients receiving anticoagulation. Institutions should have an agreed procedure in place.

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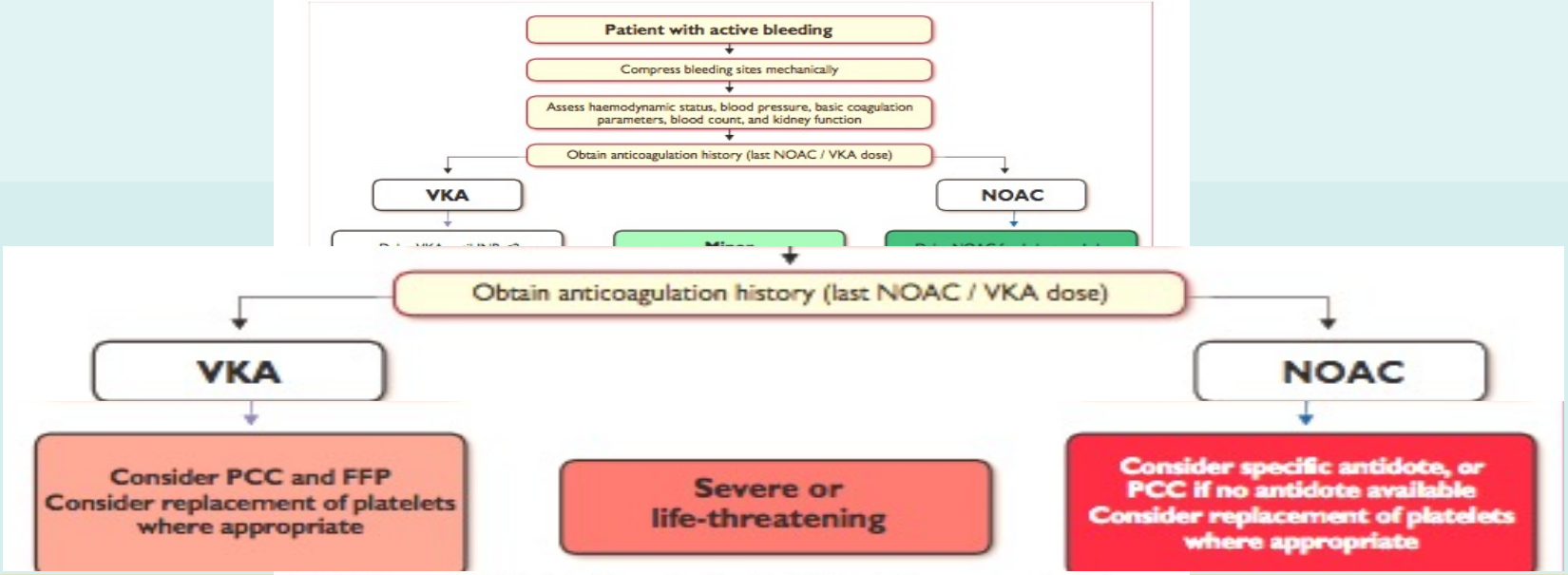

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Caso Clínico

Caso Clínico

Identificação: Sexo masculino, 64 anos, raça caucasiana

Antecedentes pessoais:

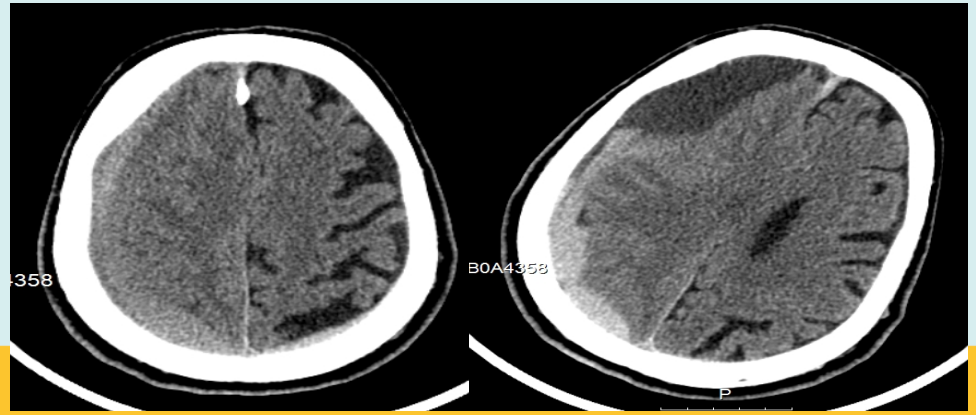
- Hipertensão arterial essencial
- DM tipo 2
- Obesidade
- SAOS
- DRC estadio II-III (Cr basal de 1,2)
- Portador de PMK DDDR (Junho 2016) por BAV 2:1

Caso Clínico

Insuficiência cardíaca
Anemia, coagulação e contra-coagulação

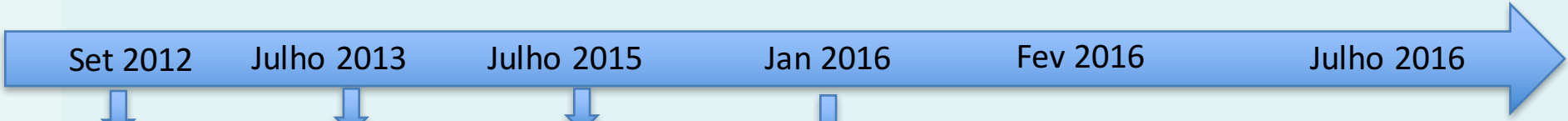
Caso Clínico

Set 2012	Julho 2013	Julho 2015	Jan 2016	Fev 2016	Julho 2016
SCA	SCA FA *de novo*	Hematoma subdural			
AAS 150mg + Clopidogrel	AAS 150mg + Clopidogrel + Dabigatrano 150mg	Dabigatrano 150mg (6 semanas após)			



Insuficiência cardíaca
Anemia, coagulação e contra-coagulação

Caso Clínico



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AAS 150mg + Clopidogrel	AAS 150mg + Clopidogrel + Dabigatrano 150mg	Dabigatrano 150mg (6 semanas após)	AAS 150mg + Ticagrelor

Coronariografia:

DA com reestenose intra e pós-stent → PTCA

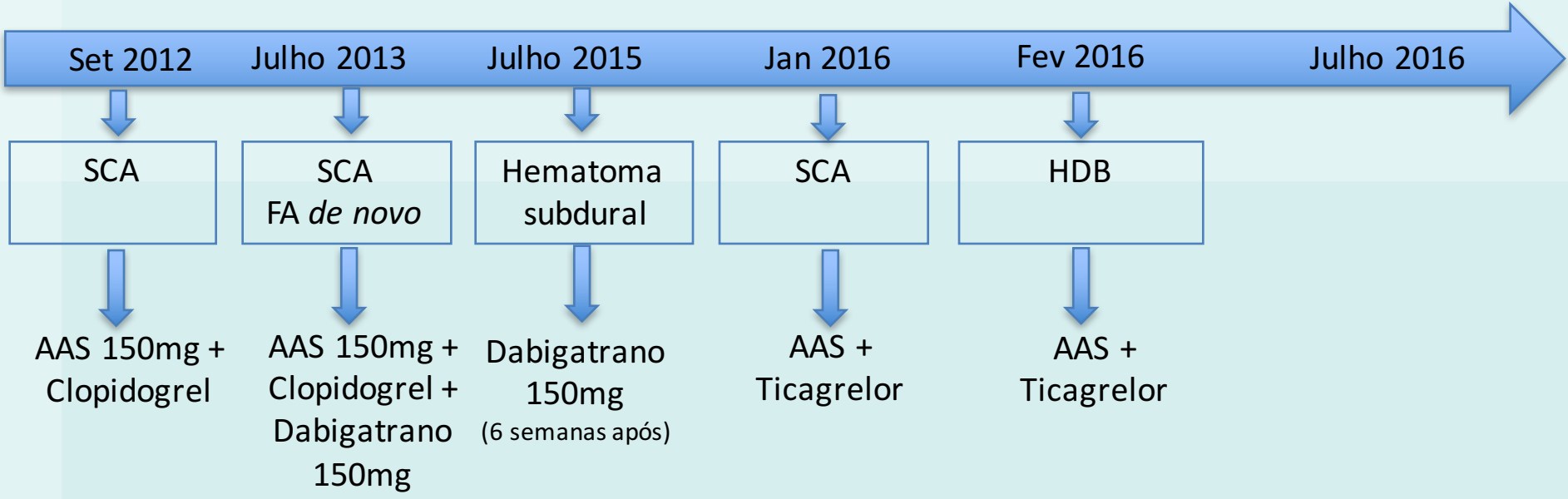
Cxm lesão suboclusiva → PTCA

CD bom resultado de angioplastia prévia

Insuficiência cardíaca

Anemia, coagulação e contra-coagulação

Caso Clínico



Insuficiência cardíaca
Anemia, coagulação e contra-coagulação

Caso Clínico

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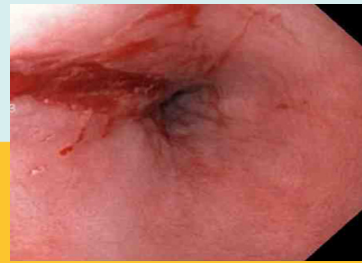
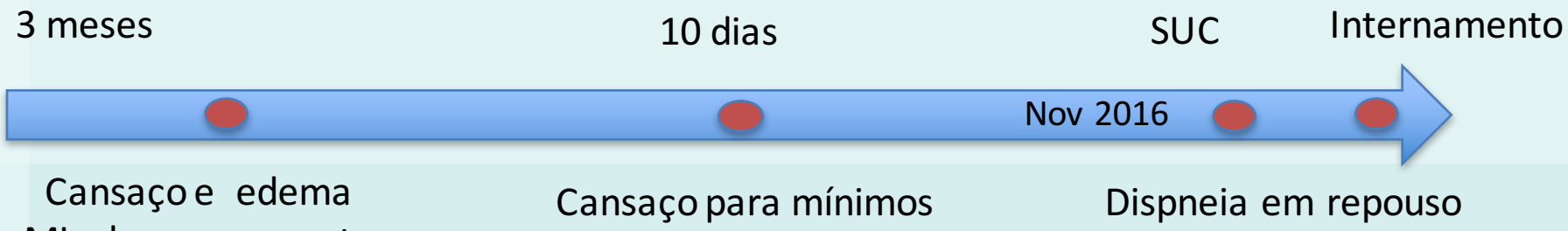


Insuficiência cardíaca
Anemia, coagulação e contra-coagulação

Caso Clínico - Doença actual



Ponto de situação:

Homem, 64 anos, múltiplos FRCV

- Cardiopatia isquémica - Doença coronária de 3 vasos
  - **Vários episódios de SCA**
    - Angioplastia da DA em Novembro/2012
    - Angioplastia da CD em Julho/2013
    - Angioplastia da Cx e da DA (lesão de novo e reestenose de stent) em Janeiro/2016
  - **Ecocardiograma (Jan 2016)**: hipocinesia dos segmentos meso-basais das paredes inferior e posterior, com FSG preservada (Fej 53%). Regurgitação mitral moderada. AE gravemente dilatada (65,3ml/m2). Sem outras alterações significativas.

- Fibrilhação auricular
  - CVE em Julho/2013
  - CHADs2VASC2 = 4
  - HASBLED = 3

- História de hemorragia digestiva
- História de hematoma subdural

Internamento por IC crónica agudizada

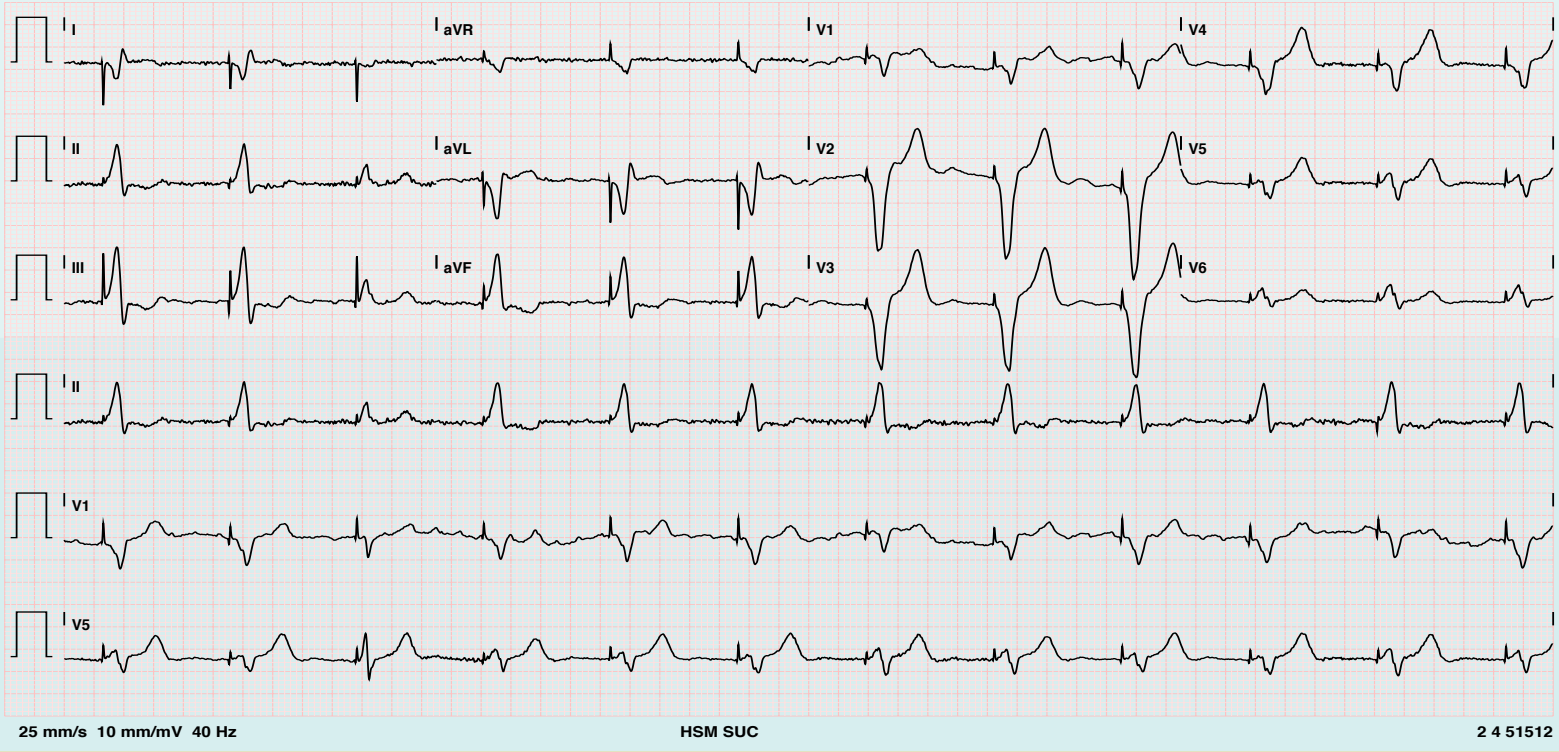
Insuficiência cardíaca
Anemia, coagulação e contra-coagulação

Caso Clínico – Doença actual

Exame objectivo

- GCS 15
- PA= **201/102**mmhg, FC **87**bpm; apirético
- SpO2(AA) 90%, **IVJ** 8cm a 45º
- AP: **Fervores crepitantes 2/3 inferiores** bilateralmente
- AC: **S1+S2 rítmicos**, **SS II/VI**, audível no **ápex com irradiação axilar** esquerda
- Abdómen distendido, indolor, sem semiologia de ascite
- **Edemas** dos MIs bilateralmente até aos joelhos, godet +++

Exames Complementares de Diagnóstico



Insuficiência cardíaca

Anemia, coagulação e contra-coagulação

Exames Complementares de Diagnóstico

Hb	**11,5 g/dL ↓**
Htc	33,9% ↓
VGM	91fL
HGM	30,7pg
Leuc	5100
N/E/B/L/M (%)	78,8/3,2/0,3/12,4/5,4
Plaq	174000

INR	**1,06**
TP	12,4/11,6
aPTT	29,9/29

Creat	**1,5 mg/dL ↑**
Ureia	48 mg/dL
TFGe	**45,8 mL/min/1,73 ↓**
Na^+	141 mmol/L
K^+	3,7 mmol/L
Mg^{2+}	1,8mg/dL
Ca^{2+} corr.	9,1 g/dL
ALT	13 U/L
AST	15 U/L
BT	0,78mg/dL
GGT	23U/L

TnT-hs	**52 ng/L**
NTproBNP	**1521 pg/mL**
Fe	93 ug/dL
CTFF	312 ug/dL
Sat transf.	30%
Ferritina	234,5ug/dL
PCR	0,32 mg/dL
c-LDL	110mg/dL
HbA1c	7,5%

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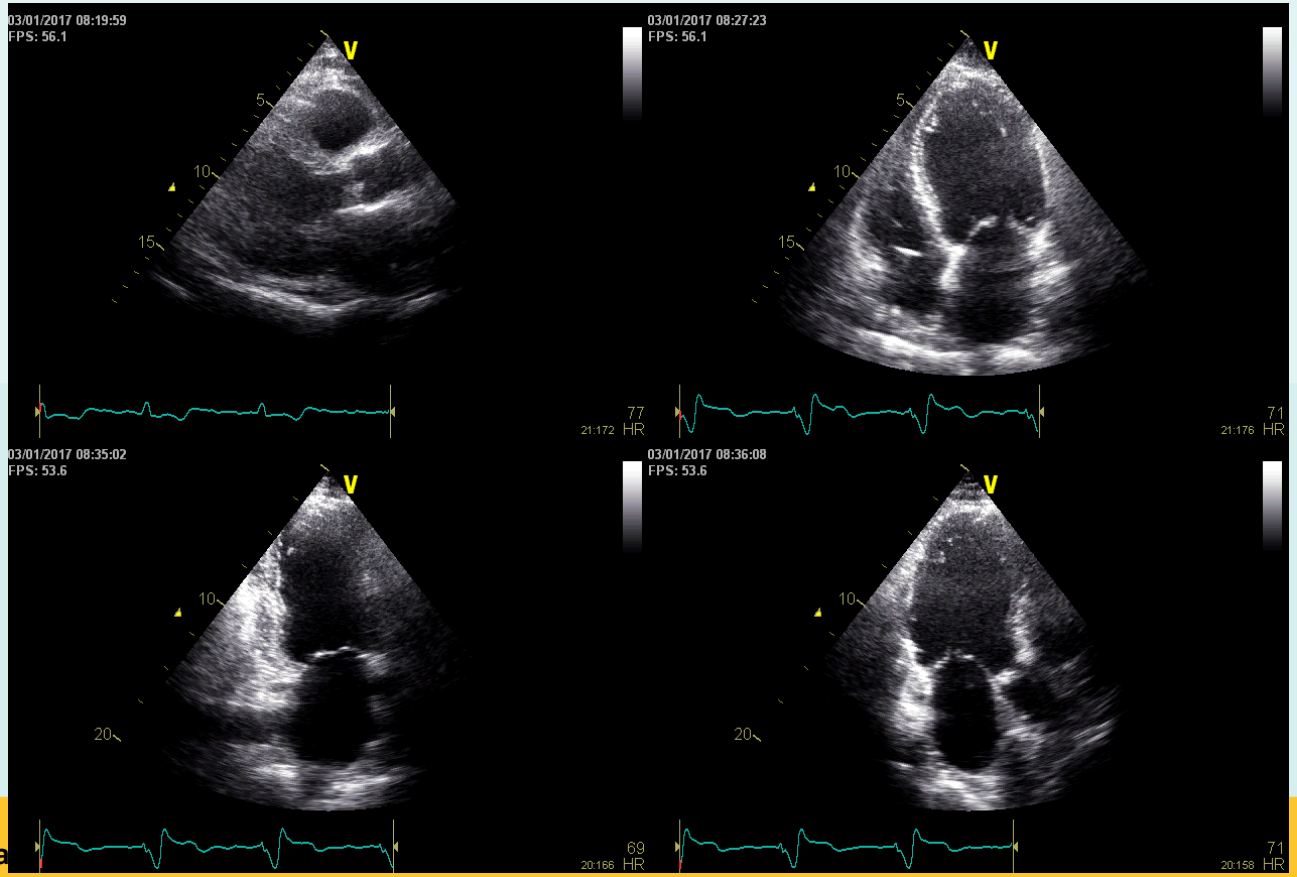
Exames Complementares de Diagnóstico



Insuficiência ca

Anemia, coagulação e contra-coagulação

Caso Clínico – Doença actual

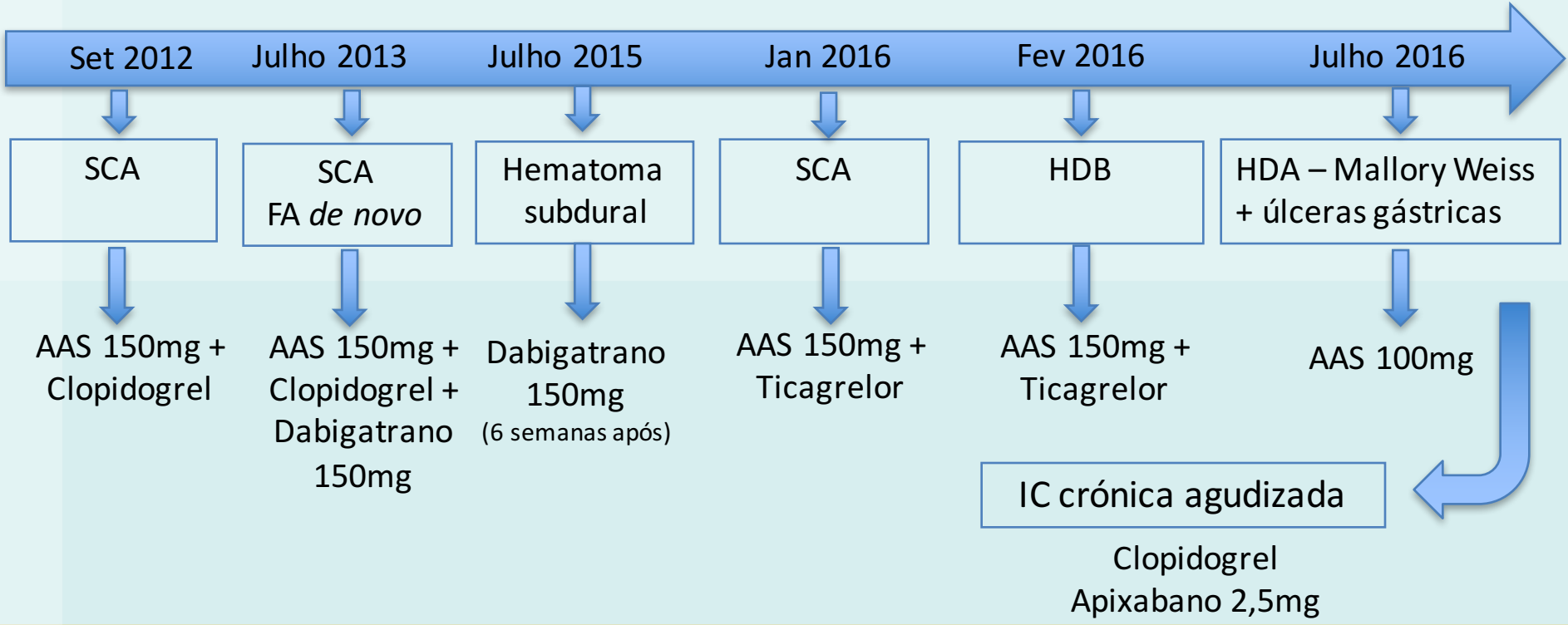
- 5º dia de internamento
  - Classe II da NYHA, sem recidiva de precordialgia
  - Sem necessidade de aporte adicional de O2
  - PA 125/73mmHg, FC 70bpm
  - Cr 1,2mg/dL, TFGe 50,5ml/min

Alta medicado com:

- Apixabano 2,5mg bid
- Clopidogrel 75mg id
- Enalapril 20mg bid
- Bisoprolol 5mg id
- Atorvastatina 40mg
- Furosemida 40mg
- Metformina 500mg
- Pantoprazol 40mg

Discussão
Revisão passo a passo?

Caso Clínico



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AAS 150mg + Clopidogrel	AAS 150mg + Clopidogrel + Dabigatrano 150mg	Dabigatrano 150mg (6 semanas após)	AAS + Ticagrelor	AAS + Ticagrelor	AAS

Insuficiência cardíaca
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Caso Clínico

Janeiro 2014
Julho 2014

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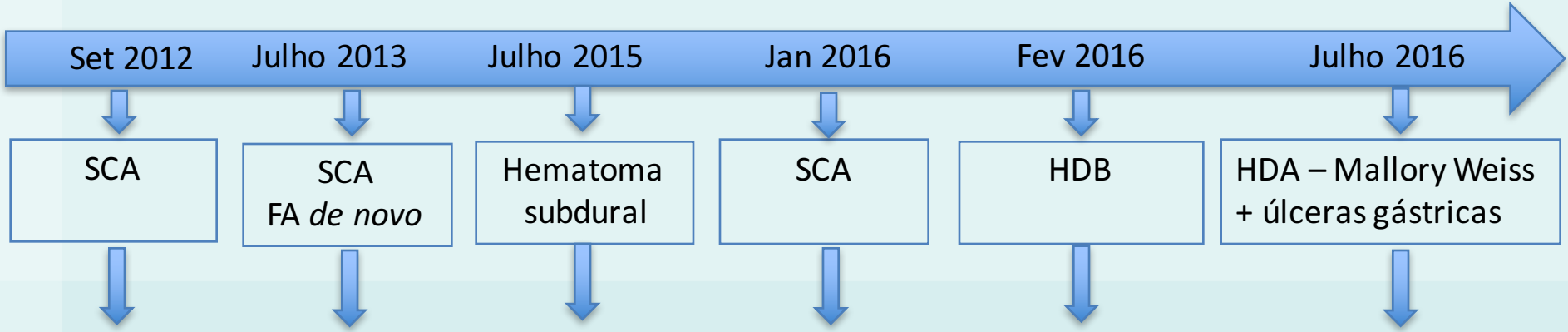
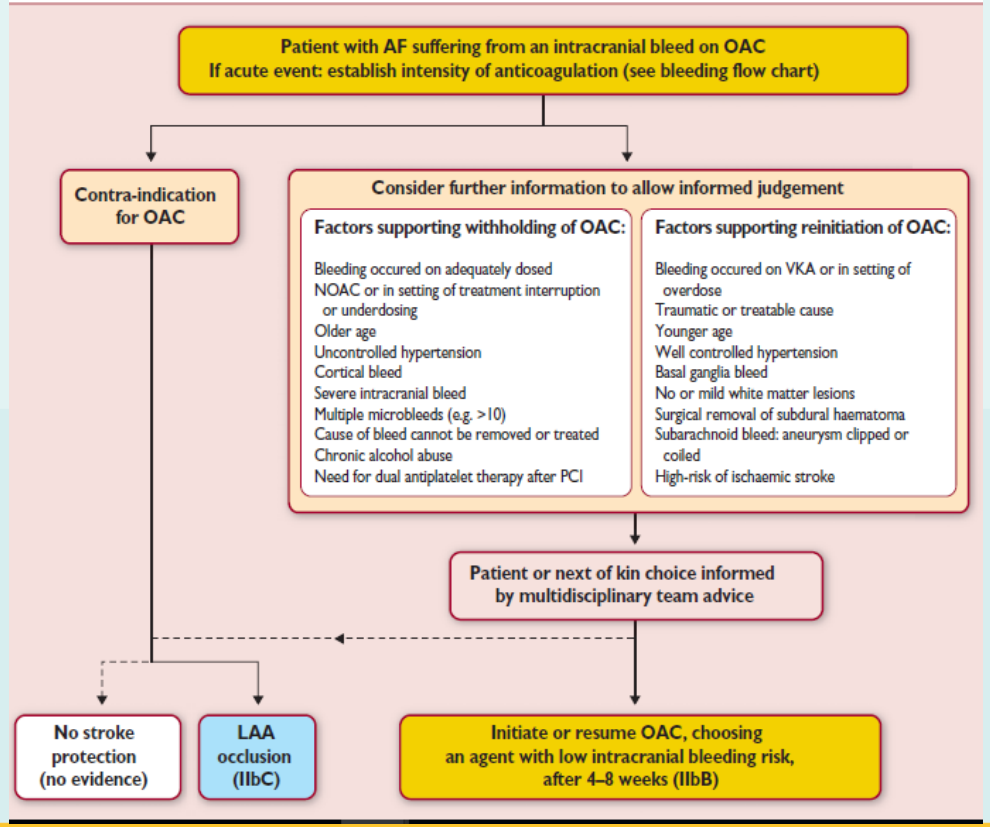
Caso Clínico



Anticoagulação após hemorragia intracraniana



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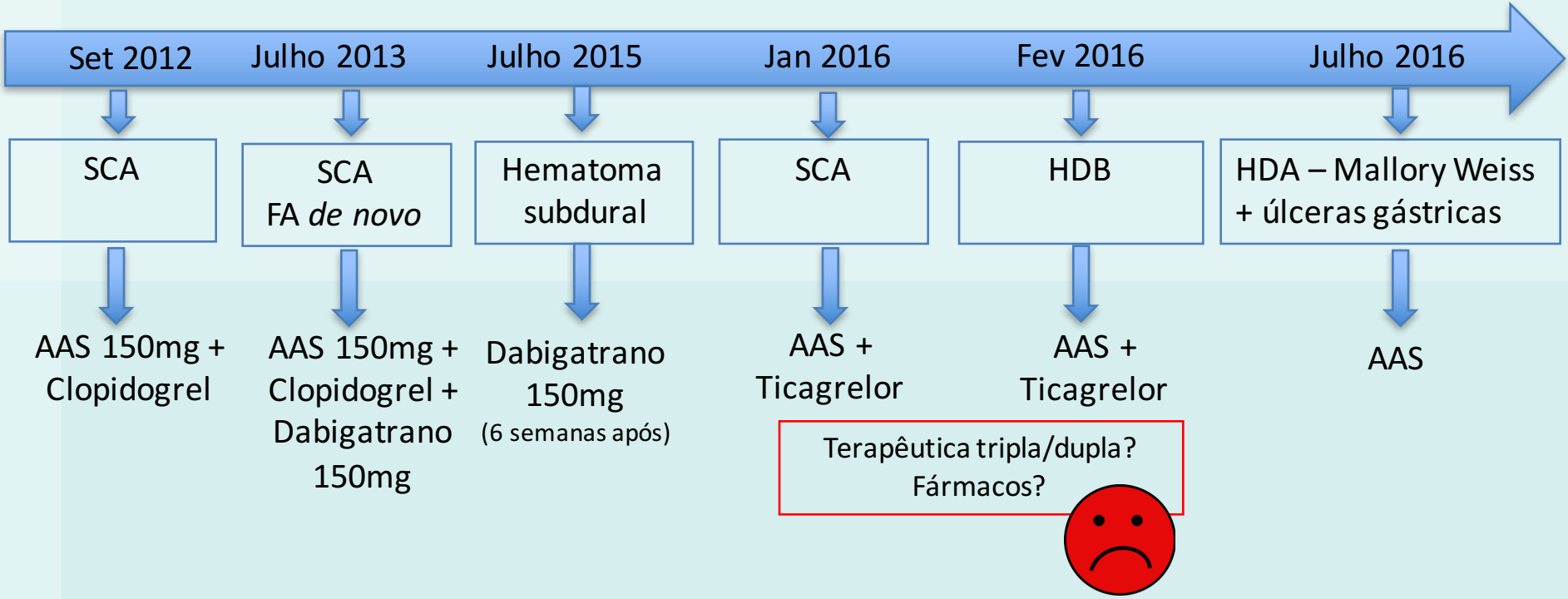

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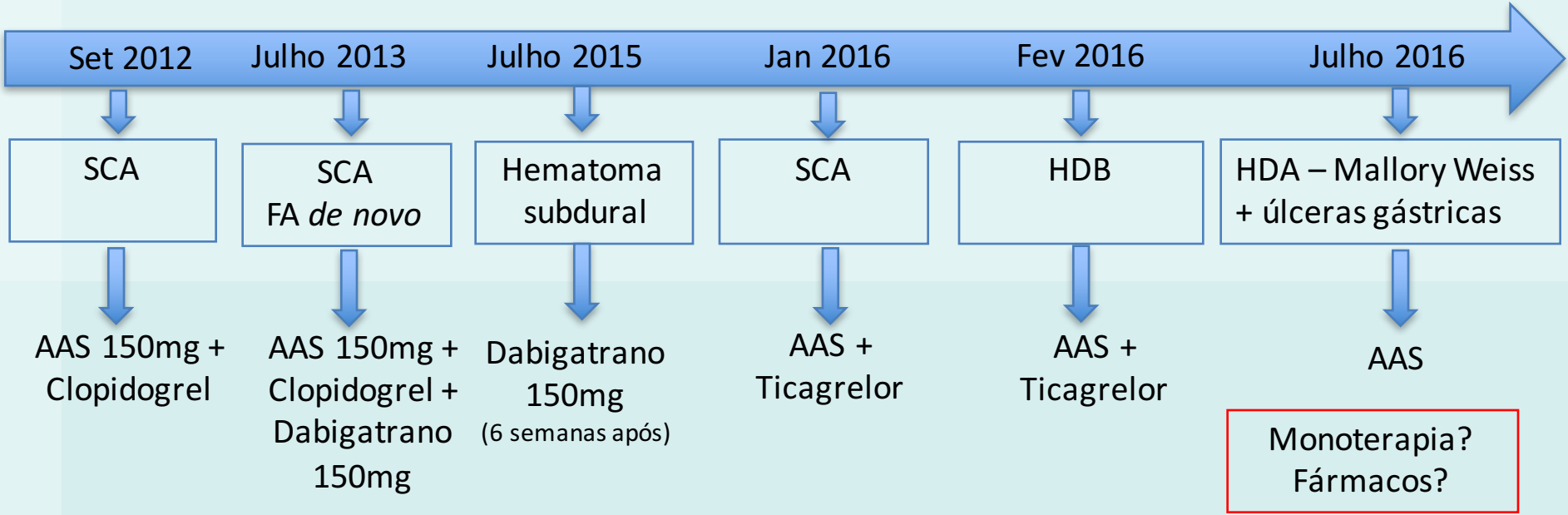

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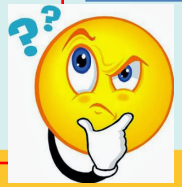
IC crónica agudizada

Que terapêutica? Fármacos/outras alternativas?



Clopidogrel
Apixabano 2,5mg

Insuficiência cardíaca
Anemia, coagulação e contra-coagulação

Conclusões/Discussão

- Os doentes com IC estão predispostos a eventos trombóticos
- Frequentemente é necessário instituir terapêutica tripla nos doentes com IC, o que acarreta aumento do risco hemorrágico
- A gestão da terapêutica anticoagulante e antiagregante nos doentes com IC é complexa
- Abordagem multidisciplinar é essencial
- **É fundamental a revisão de terapêutica em cada avaliação clínica e ponderação de métodos não farmacológicos**

Obrigada pela vossa atenção.

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