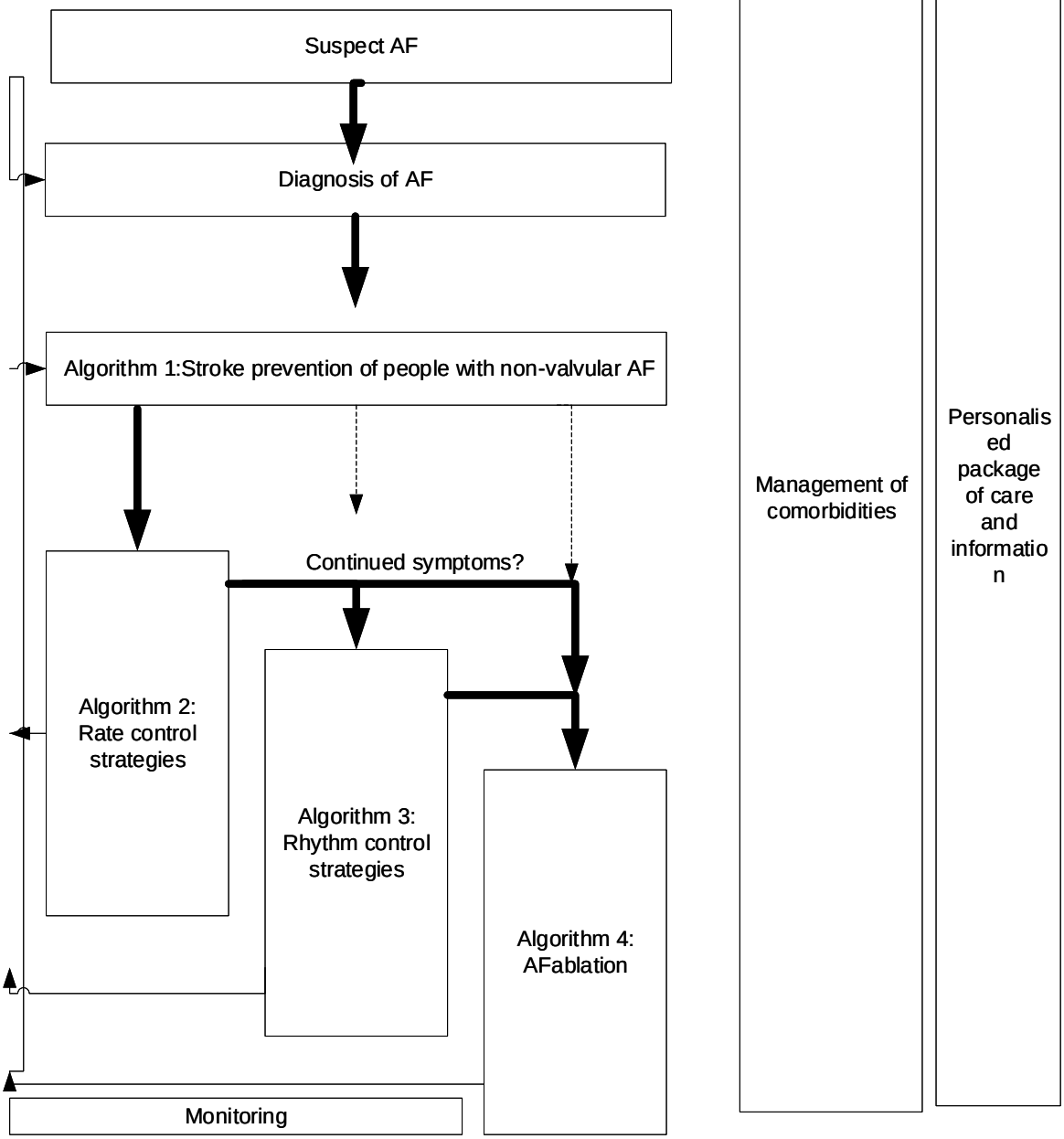
Overview of the Atrial Fibrilation (AF) Algorithms



Algorithm 1: Stroke prevention of people with AF

Assess stroke risk stratification using CHA_2DS_2-VASc

Assess bleeding risk stratification using ORBIT

Discuss risks and benefits of anticoagulation

People who choose not to have treatment

Identify low risk patients i.e. CHA_2DS_2-VASc=0 (men) or 1 (women)

Low risk

No anti-thrombotic therapy

CHA_2DS_2-VASc=1 (in men)
Consider oral anticoagulant

CHA_2DS_2-VASc≥2
Offer oral anticoagulant

Anticoagulation contraindicated

Discuss the options for anticoagulation with the person and base the choice on their clinical features and preferences

Use either Apixiban or Dabigatran

Not tolerated

Consider other DOACs

Other DOACs Contraindicated* or not tolerated

Poor control

Vitamin K antagonists

Contraindicated or not tolerated

Left atrial appendage occlusion [add link for specialist assessment]

Annual review for all patients

* Severe mitral stenosis or mechanical heart valve

Management of comorbidities

Algorithm 2: Rate control strategies

Offer rhythm control to people with atrial fibrillation:

- whose atrial fibrillation has a reversible cause
- who have heart failure thought to be primarily caused by atrial fibrillation
- with new-onset atrial fibrillation
- with atrial flutter whose condition is considered suitable for an ablation strategy to restore sinus rhythm
- for whom a rhythm control strategy would be more suitable based on clinical judgement.

Offer rate control as the first-line strategy to people with atrial fibrillation

AF and CHF: Follow the recommendations in the NICE guideline on chronic heart failure on the use of beta-blockers and avoiding calcium-channel blockers.

Offer a standard beta-blocker or a rate limiting calcium channel blocker as initial monotherapy to people with atrial fibrillaton who need drug treatment as part of a rate control strategy

Base the choice of drug on the person's symptoms, heart rate, comorbidities and preferences when considering drug treatment.

Consider digoxin monotherapy for people with non-paroxysmal atrial fibrillation only if they are sedentary (do no or very little physical exercise) or if comorbidities and/or patient preferences rule out other rate limiting options

Do not offer amiodarone for long-term rate control

If symptoms are not controlled

If monotherapy does not control symptoms, and if continuing symptoms are thought to be due to poor ventricular rate control, consider combination therapy with any 2 of the following:

- a beta blocker
- diltiazem
- digoxin

If symptoms are not controlled

Is patient eligible for a rhythm control strategy?

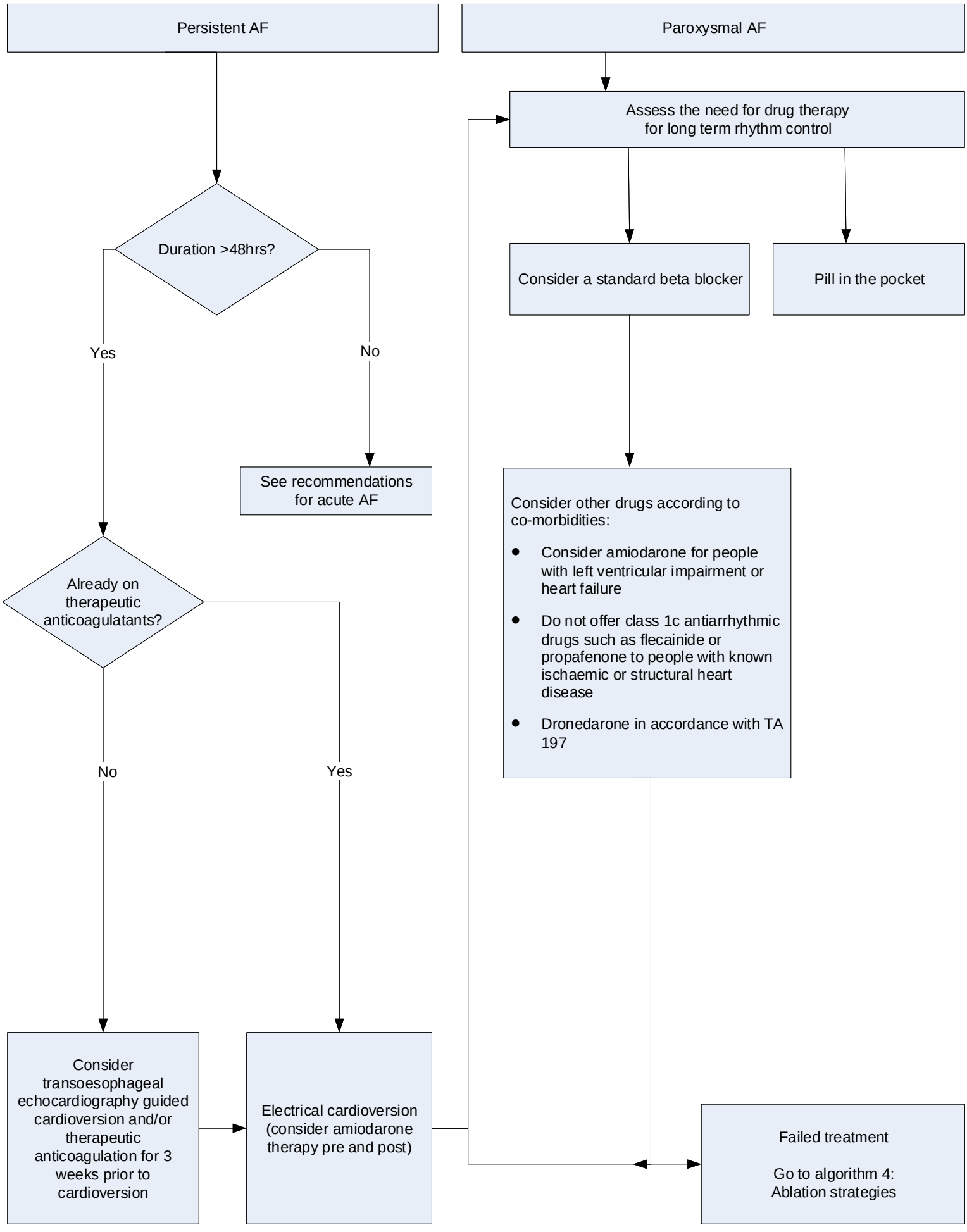
Yes

Go to algorithm 3:
Rhythm control strategies

No

Go to algorithm 4:
Ablation strategies

Algorithm 3: Rhythm control strategies



Algorithm 4: Left atrial ablation strategies

Cardiac surgery planned?

No

Is AF permanent?

No

Consider left atrial catheter ablation before pacing and atrioventricular node ablation

Left atrial ablation- consider ablation for people with symptomatic paroxysmal or persistent atrial fibrillation

If drug treatment has failed to control symptoms of atrial fibrillation or is not tolerated or is unsuitable:

- Consider radiofrequency point-by-point ablation or laser ablation
- Discuss the risks and benefits with the person and explain that the procedure is not always effective and that resolution of symptoms may not be long-lasting

Yes

Consider a pace and atrioventricular node ablate in permanent atrial fibrillation and high ventricular rates refractory to drug therapy

Reassess the need for AV node ablation after pacemaker implant and optimisation of rate control drug therapy

Yes

Offer left atrial surgical ablation at the same time as other cardiothoracic surgery to people with symptomatic atrial fibrillation

Shared decision making