

Antiaggreganti

Recommendations for antithrombotic therapy

Recommendations	Class	Level
Aspirin 75–100 mg daily is recommended for secondary prevention of CVD.	I	A
Clopidogrel 75 mg daily is recommended as an alternative to aspirin in secondary prevention in case of aspirin intolerance.	I	B
Clopidogrel 75 mg daily may be considered in preference to aspirin in patients with established ASCVD.	IIb	A
Concomitant use of a proton pump inhibitor is recommended in patients receiving antiplatelet therapy who are at high risk of gastrointestinal bleeding.	I	A
In patients with DM at high or very high CVD risk, low-dose aspirin may be considered for primary prevention in the absence of clear contraindications.	IIb	A
Antiplatelet therapy is not recommended in individuals with low/moderate CV risk due to the increased risk of major bleeding.	III	A

Recommendation for anti-inflammatory therapy

Recommendations	Class	Level
Low-dose colchicine (0.5 mg o.d.) may be considered in secondary prevention of CVD, particularly if other risk factors are insufficiently controlled or if recurrent CVD events occur under optimal therapy.	IIb	A

Recommendations for coronary artery disease (3)

Recommendations	Class	Level
Adding a second antithrombotic drug to aspirin for long-term secondary prevention may be considered in patients with a moderate risk of ischaemic events and without a high bleeding risk.	IIb	A
ACE inhibitors (or ARB) are recommended if a patient has other conditions (e.g. HF, hypertension, or DM).	I	A
Beta-blockers are recommended in patients with LV dysfunction or systolic HF.	I	A
In patients with established ASCVD, oral lipidlowering treatment with an ultimate LDL-C goal of <1.4 mmol/L (55 mg/dL) and a $\geq 50\%$ reduction in LDL-C vs. baseline is recommended.	I	A

Recommendations for patients with cerebrovascular disease (1)

Recommendations	Class	Level
In patients with a cerebrovascular event, improvement of lifestyle factors in addition to appropriate pharmacological management is recommended.	I	A
In patients with ischaemic stroke or TIA, prevention with antithrombotics is recommended; choice of antithrombotic depends on the mechanism of event. Use of an antiplatelet is recommended for patients with non-cardioembolic ischaemic stroke or TIA, and use of an anticoagulant is recommended in patients with cardioembolic ischaemic stroke or TIA.	I	A

Recommendations for patients with cerebrovascular disease (2)

Recommendations	Class	Level
In patients with non-cardioembolic ischaemic stroke or TIA, prevention with aspirin only, or dipyridamole plus aspirin, or clopidogrel alone is recommended.	I	A
In patients with minor ischaemic stroke ^a or TIA, DAPT with aspirin and clopidogrel or with aspirin and ticagrelor, for 3 weeks after the acute event should be considered.	IIa	A
In patients with stroke or TIA who have BP of 140/90 mmHg or higher, BP lowering is recommended.	I	A

Recommendations for patients with lower extremity artery disease: best medical therapy (1)

Recommendations	Class	Level
Smoking cessation is recommended in all patients with LEAD.	I	B
Healthy diet and PA are recommended for all patients with LEAD.	I	C
In patients with intermittent claudication:	I	A
- Supervised exercise training is recommended	I	A
- Non-supervised exercise training is recommended when supervised exercise training is not feasible or available.	I	C
Antiplatelet therapy is recommended in patients with symptomatic LEAD. ^a	I	C

Recommendations for patients with lower extremity artery disease: best medical therapy (2)

Recommendations	Class	Level
In patients with LEAD and hypertension, it is recommended to control BP at <140/90 mmHg.	I	A
In patients with LEAD and DM, strict glycaemic control is recommended.	I	A
ACE inhibitors or ARBs should be considered as first-line therapy in patients with PAD and hypertension. ^a	IIa	B
In patients with DM and chronic symptomatic LEAD without high bleeding risk, a combination of low-dose rivaroxaban (2.5 mg b.i.d.) and aspirin (100 mg o.d.) may be considered.	IIb	B

Recommendations for the treatment of dyslipidaemias in older people (>70 years)

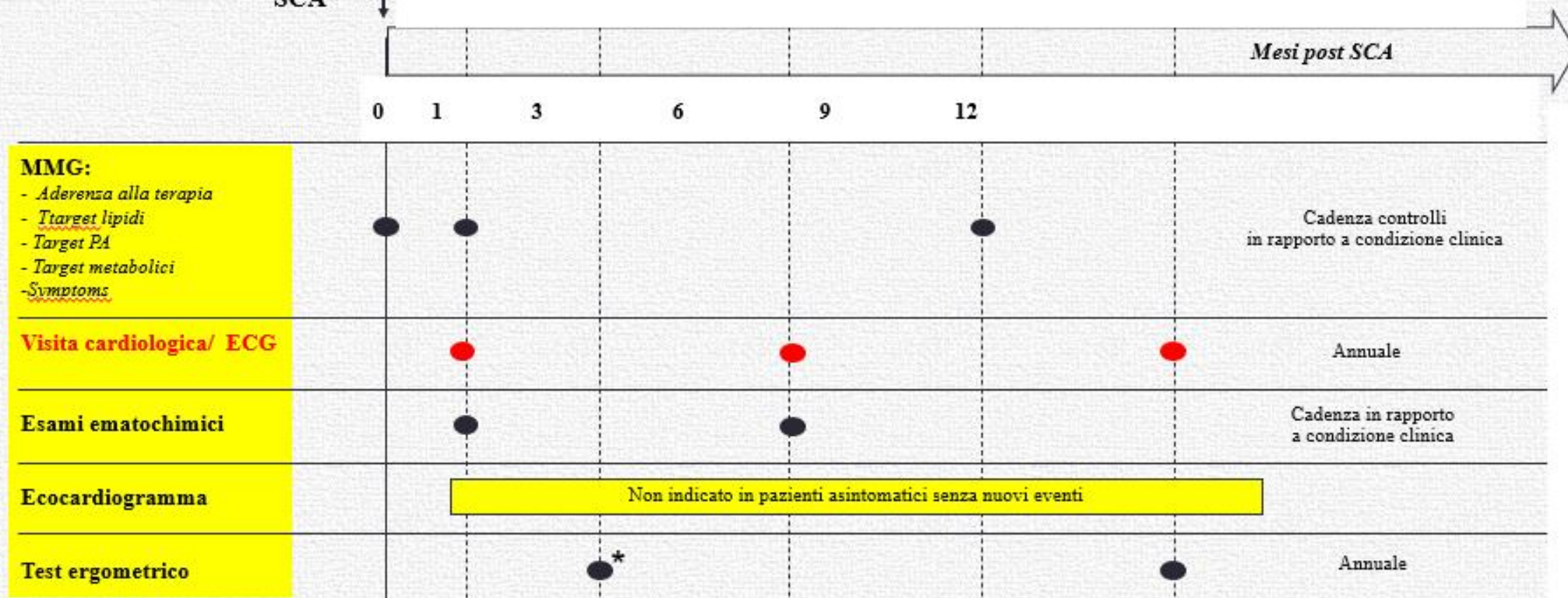
Recommendations	Class	Level
Treatment with statins is recommended for older people with ASCVD in the same way as for younger patients.	I	A
Initiation of statin treatment for primary prevention in older people aged ≥ 70 may be considered, if at high risk or above.	IIb	B
It is recommended that the statin is started at a low dose if there is significant renal impairment and/or the potential for drug interactions.	I	C

FOLLOW UP DEL PAZIENTE CON CARDIOPATIA ISCHEMICA

Alto rischio trombotico

Riabilitazione cardiologica ambulatoriale/Ambulatorio cardiologico prevenzione secondaria/MMG

SCA ↓

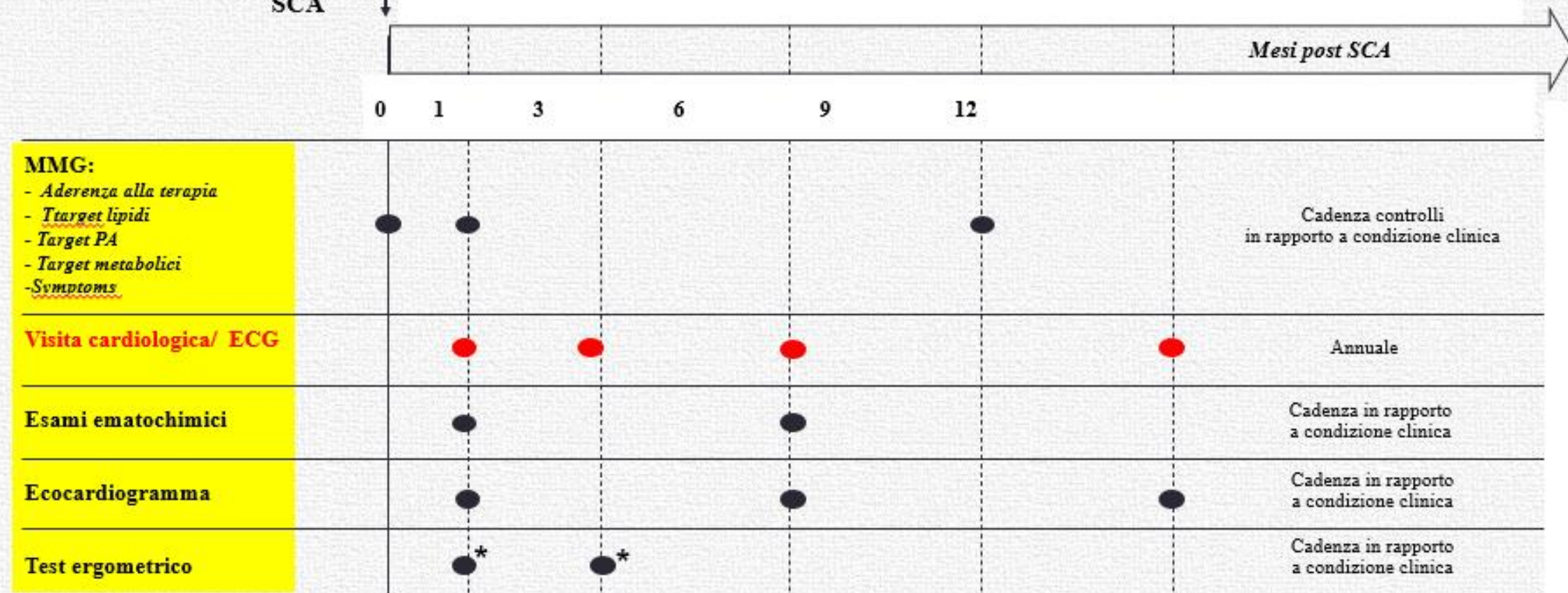


* Prova da sforzo precoce indicata in caso di risultato subottimale della procedura

Alto rischio: scompenso cardiaco o disfunzione ventricolare sinistra

Riabilitazione cardiologica degenziale/ambulatorio controlli seriati/MMG

SCA

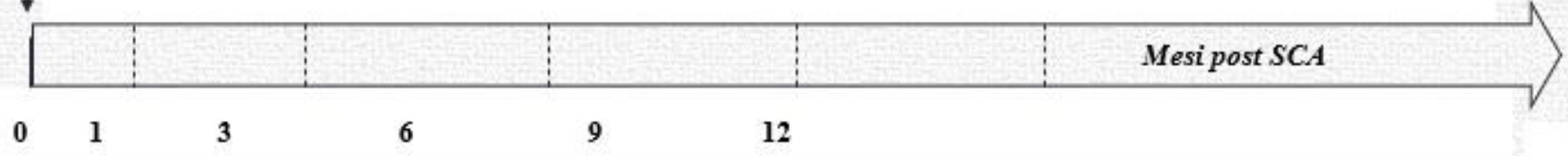


* Prova da sforzo per valutazione funzionale pre e post riabilitazione cardiologica

BASSO RISCHIO

Ambulatorio cardiologico H o territoriale/MMG

SCA ↓



MMG:

- Aderenza alla terapia
- Target lipidi
- Target PA
- Target metabolici
- Symptoms

Cadenza controlli
in rapporto a condizione clinica

Visita cardiologica/ ECG

Annuale

Esami ematochimici

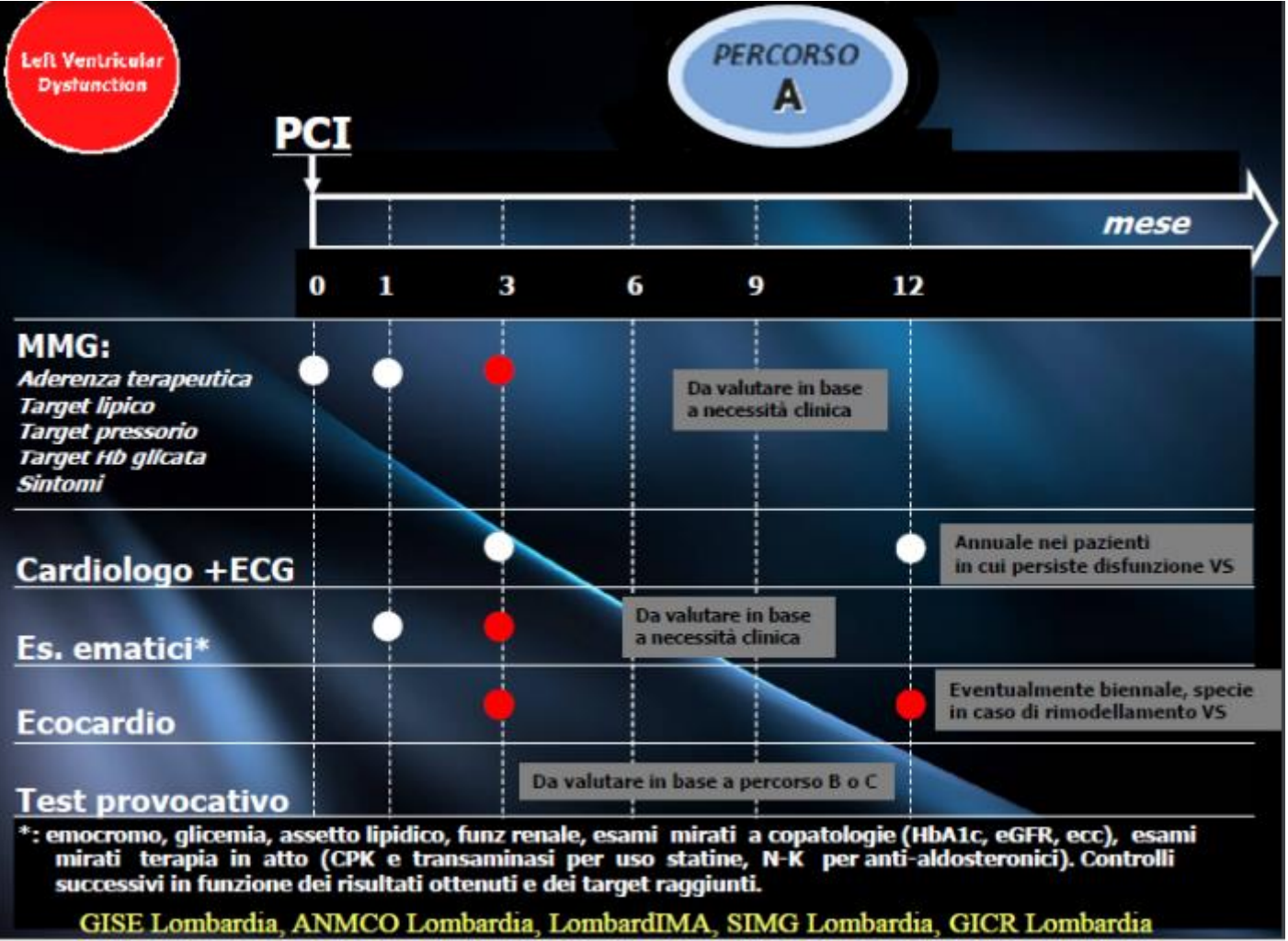
Cadenza in rapporto
a condizione clinica

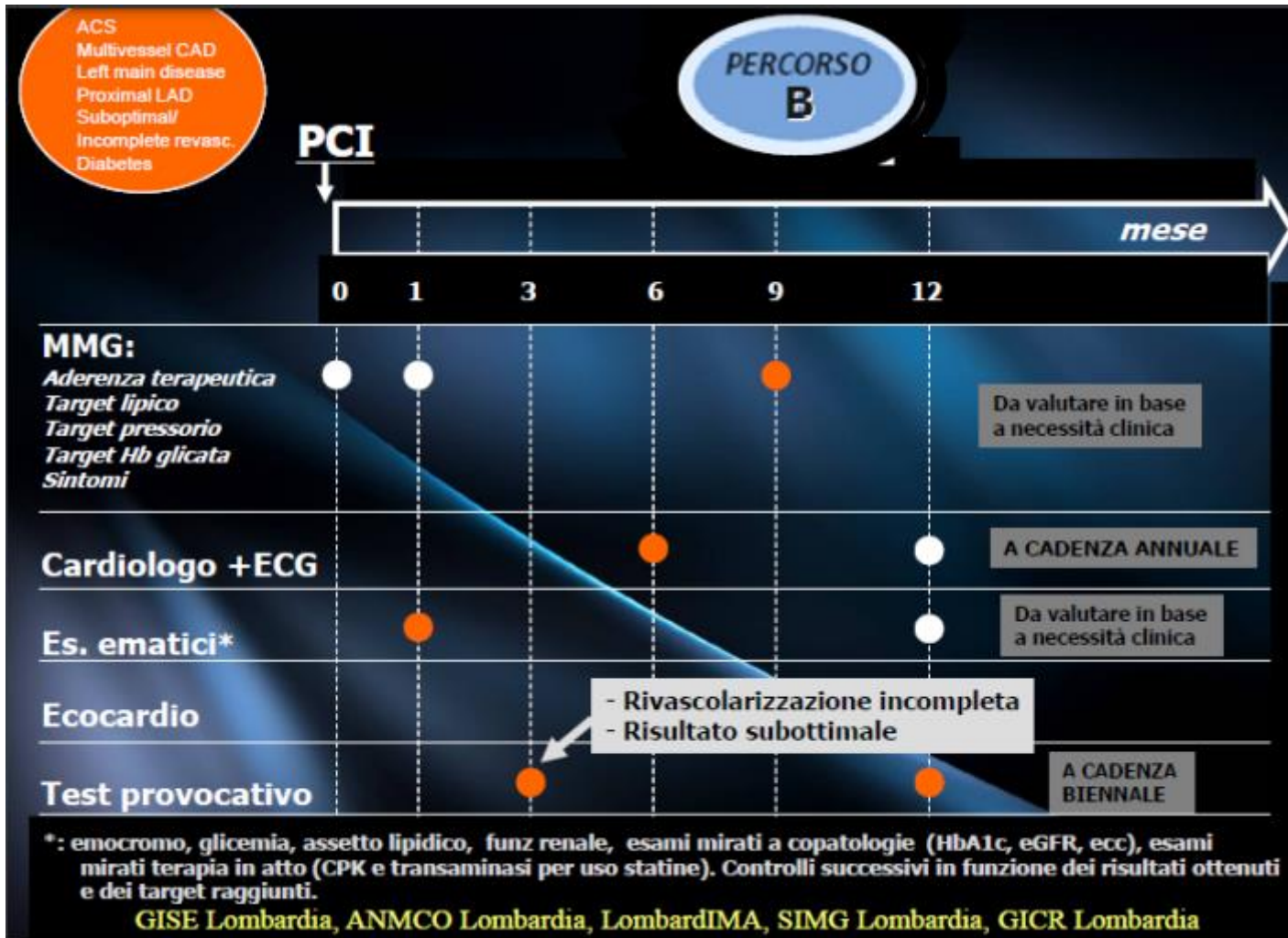
Ecocardiogramma

Non indicato in pazienti asintomatici senza nuovi eventi

Test ergometrico

Non indicato in pazienti asintomatici senza nuovi eventi





Patients with
"Lone" PCI

PERCORSO
C

PCI

mese

0 1 3 6 9 12

MMG:

*Aderenza terapeutica
Target lipico
Target pressorio
Target Hb glicata
Sintomi*

FOLLOW-UP PRESSO MMG

Cardiologo + ECG

Es. ematici*

Ecocardio

Test provocativo

TEST PROVOCATIVO ROUTINARIO NON INDICATO NEL PAZIENTE ASINTOMATICO

*: emocromo, glicemia, assetto lipidico, creatinina, esami mirati alla terapia in atto (es. CPK e transaminasi per uso statine, ecc.)

GISE Lombardia, ANMCO Lombardia, LombardIMA, SIMG Lombardia, GICR Lombardia



Percorso "C"

Percorsi "B" - "A"

SCOMPENSO

Pharmacological treatments indicated in patients with (NYHA class II-IV) heart failure with reduced ejection fraction (LVEF \leq 40%) ESC

Recommendations	Class	Level
An ACE-I is recommended for patients with HFrEF to reduce the risk of HF hospitalization and death.	I	A
A beta-blocker is recommended for patients with stable HFrEF to reduce the risk of HF hospitalization and death.	I	A
An MRA is recommended for patients with HFrEF to reduce the risk of HF hospitalization and death.	I	A
Dapagliflozin or empagliflozin are recommended for patients with HFrEF to reduce the risk of HF hospitalization and death.	I	A
Sacubitril/valsartan is recommended as a replacement for an ACE-I in patients with HFrEF to reduce the risk of HF hospitalization and death.	I	B

ACE-I = angiotensin-converting enzyme inhibitor; HF = heart failure; HFrEF = heart failure with reduced ejection fraction; LVEF = left ventricular ejection fraction; MRA = mineralocorticoid receptor antagonist; NYHA = New York Heart Association.

Other pharmacological treatments indicated in selected patients with NYHA class II-IV heart failure with reduced ejection fraction (LVEF $\leq 40\%$) (1)

Recommendations	Class	Level
Loop diuretics		
Diuretics are recommended in patients with HFrEF with signs and/or symptoms of congestion to alleviate HF symptoms, improve exercise capacity, and reduce HF hospitalizations.	I	C
ARB		
An ARB ^a is recommended to reduce the risk of HF hospitalization and CV death in symptomatic patients unable to tolerate an ACE-I or ARNI (patients should also receive a beta-blocker and an MRA).	I	B

ACE-I = angiotensin-converting enzyme inhibitor; ARB = angiotensin-receptor blocker; ARNI = angiotensin receptor-neprilysin inhibitor; CV = cardiovascular; HF = heart failure; HFrEF = heart failure with reduced ejection fraction; MRA = mineralocorticoid receptor antagonist; NYHA = New York Heart Association.

^aThe ARBs with evidence in HFrEF are candesartan, losartan, and valsartan.

Other pharmacological treatments indicated in selected patients with NYHA class II-IV heart failure with reduced ejection fraction (LVEF \leq 40%) (4)



Recommendations	Class	Level
Digoxin		
Digoxin may be considered in patients with symptomatic HFrEF in sinus rhythm despite treatment with an ACE-I (or ARNI), a beta-blocker and an MRA, to reduce the risk of hospitalization (both all-cause and HF hospitalizations).	IIb	B

ACE-I = angiotensin-converting enzyme inhibitor; ARNI = angiotensin receptor-neprilysin inhibitor; HF = heart failure; HFrEF = heart failure with reduced ejection fraction; MRA = mineralocorticoid receptor antagonist.

Management of HFrEF

To reduce mortality - for all patients

ACE-I/ARNI

BB

MRA

SGLT2i

To reduce HF hospitalization/mortality - for selected patients

Volume overload

Diuretics

SR with LBBB ≥ 150 ms

CRT-P/D

SR with LBBB 130–149 ms or non LBBB ≥ 150 ms

CRT-P/D

Ischaemic aetiology

ICD

Non-ischaemic aetiology

ICD

Atrial fibrillation

Anticoagulation

Atrial fibrillation

Digoxin

PVI

Coronary artery disease

CABG

Iron deficiency

Ferric carboxymaltose

Aortic stenosis

SAVR/TAVI

Mitral regurgitation

TEE MV Repair

Heart rate SR >70 bpm

Ivabradine

Black Race

Hydralazine/ISDN

ACE-I/ARNI intolerance

ARB

For selected advanced HF patients

Heart transplantation

MCS as BTT/BTC

Long-term MCS as DT

To reduce HF hospitalization and improve QOL - for all patients

Exercise rehabilitation

Multi-professional disease management

Strategic phenotypic overview of the management of heart failure with reduced ejection fraction

ACE-I = angiotensin-converting enzyme inhibitor; ARB = angiotensin receptor blocker; ARNI = angiotensin receptor-neprilysin inhibitor; BB = beta-blocker; b.p.m. = beats per minute; BTC = bridge to candidacy; BTT = bridge to transplantation; CABG = coronary artery bypass graft; CRT-D = cardiac resynchronization therapy with defibrillator; CRT-P = cardiac resynchronization therapy pacemaker; DT = destination therapy; HF = heart failure; HFrEF = heart failure with reduced ejection fraction; ICD = implantable cardioverter-defibrillator; ISDN = isosorbide dinitrate; LBBB = left bundle branch block; MCS = mechanical circulatory support; MRA = mineralocorticoid receptor antagonist; MV = mitral valve; PVI = pulmonary vein isolation; QOL = quality of life; SAVR = surgical aortic valve replacement; SGLT2i = sodium-glucose co-transporter 2 inhibitor; SR = sinus rhythm; TAVI = transcatheter aortic valve replacement; TEE = transcatheter edge to edge. Colour code for classes of recommendation: Green for Class of recommendation I; Yellow for Class of recommendation IIa (see Table 1 for further details on classes of recommendation).

The Figure shows management options with Class I and IIa recommendations. See the specific Tables for those with Class IIb recommendations.

Recommendations for the treatment of patients with heart failure with preserved ejection fraction



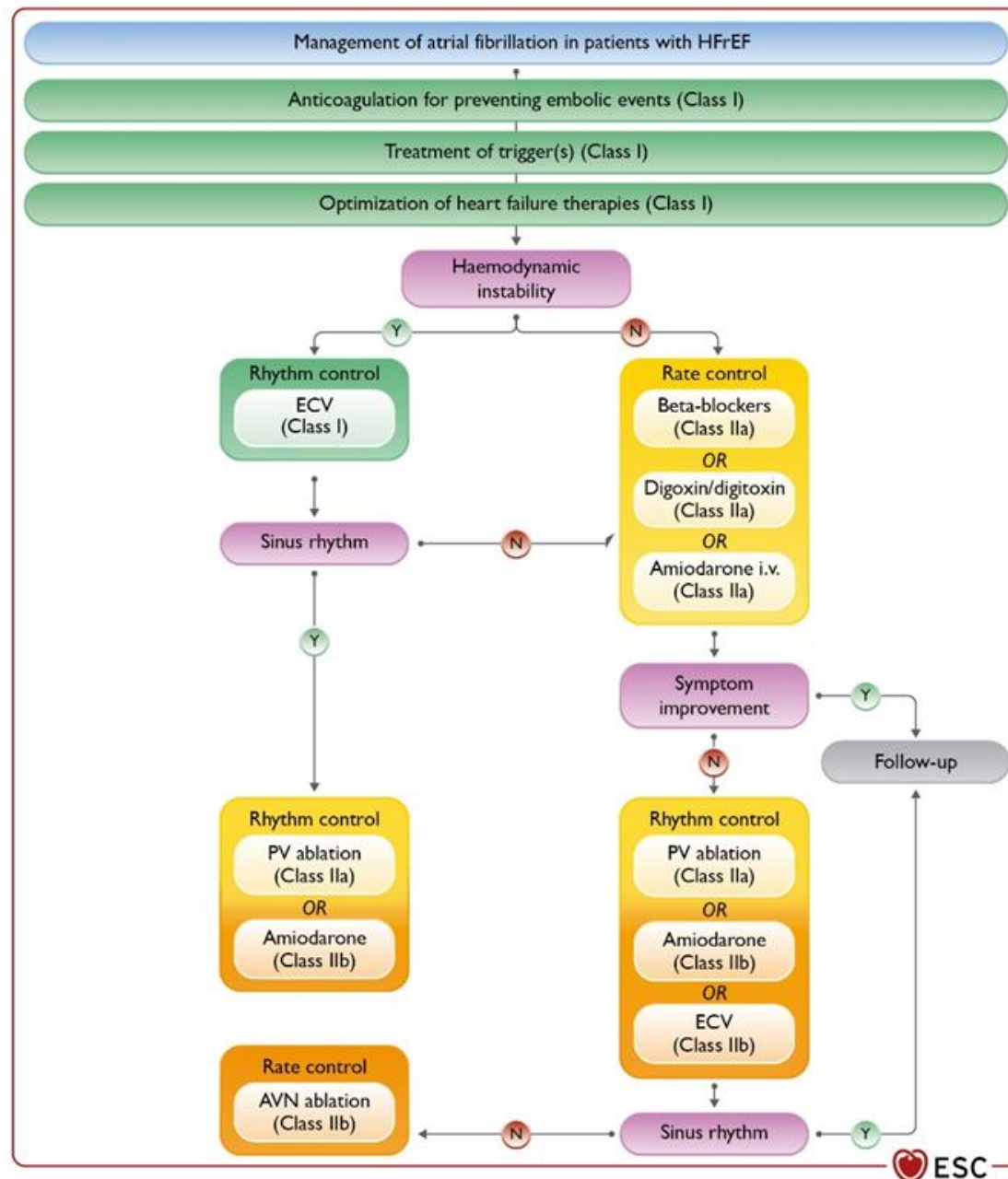
Recommendations	Class	Level
Screening for, and treatment of, aetiologies, and cardiovascular and non-cardiovascular comorbidities is recommended in patients with HFpEF (see relevant sections of this document).	I	C
Diuretics are recommended in congested patients with HFpEF in order to alleviate symptoms and signs.	I	C

HFpEF = heart failure with preserved ejection fraction.

Recommendations for the primary prevention of heart failure in patients with risk factors for its development ESC

Recommendations	Class	Level
Treatment of hypertension is recommended to prevent or delay the onset of HF, and to prevent HF hospitalizations.	I	A
Treatment with statins is recommended in patients at high risk of CV disease or with CV disease in order to prevent or delay the onset of HF, and to prevent HF hospitalizations.	I	A
SGLT2 inhibitors (canagliflozin, dapagliflozin, empagliflozin, ertugliflozin, sotagliflozin) are recommended in patients with diabetes at high risk of CV disease or with CV disease in order to prevent HF hospitalizations.	I	A
Counselling against sedentary habit, obesity, cigarette smoking, and alcohol abuse is recommended to prevent or delay the onset of HF.	I	C

CV=cardiovascular; HF=heart failure; SGLT2=sodium-glucose co-transporter 2.



Management of atrial fibrillation in patients with heart failure with reduced ejection fraction

AF = atrial fibrillation; AVN = atrioventricular node; ECV = electrical cardioversion; HF = heart failure; i.v. = intravenous; PV = pulmonary vein.

Colour code for classes of recommendation: Green for Class of recommendation I; Yellow for Class of recommendation IIa; Orange for Class of recommendation IIb; Red for Class of recommendation III (see Table 1 for further details on classes of recommendation).

Recommendations for anaemia and iron deficiency in patients with heart failure

Recommendations	Class	Level
It is recommended that all patients with HF be periodically screened for anaemia and iron deficiency with a full blood count, serum ferritin concentration, and TSAT.	I	C
Intravenous iron supplementation with ferric carboxymaltose should be considered in symptomatic patients with LVEF <45% and iron deficiency, defined as serum ferritin <100 ng/mL or serum ferritin 100–299 ng/mL with TSAT <20%, to alleviate HF symptoms, improve exercise capacity and QOL.	IIa	A
Intravenous iron supplementation with ferric carboxymaltose should be considered in symptomatic HF patients recently hospitalized for HF and with LVEF <50% and iron deficiency, defined as serum ferritin <100 ng/mL or serum ferritin 100–299 ng/mL with TSAT <20%, to reduce the risk of HF hospitalization.	IIa	B

HF = heart failure; LVEF = left ventricular ejection fraction; QOL= quality of life; TSAT = transferrin saturation.