ACVC
Association for
Acute CardioVascular Care

Edition 2025

CLINICAL DECISION MAKING TOOLKIT

Instant guidance for diagnosis, risk stratification and management

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The Clinical Decision Making Toolkit

is produced by the Association for Acute CardioVascular Care (ACVC) of the European Society of Cardiology (ESC).

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The Association for Acute CardioVascular Care

Clinical Decision-Making TOOLKIT

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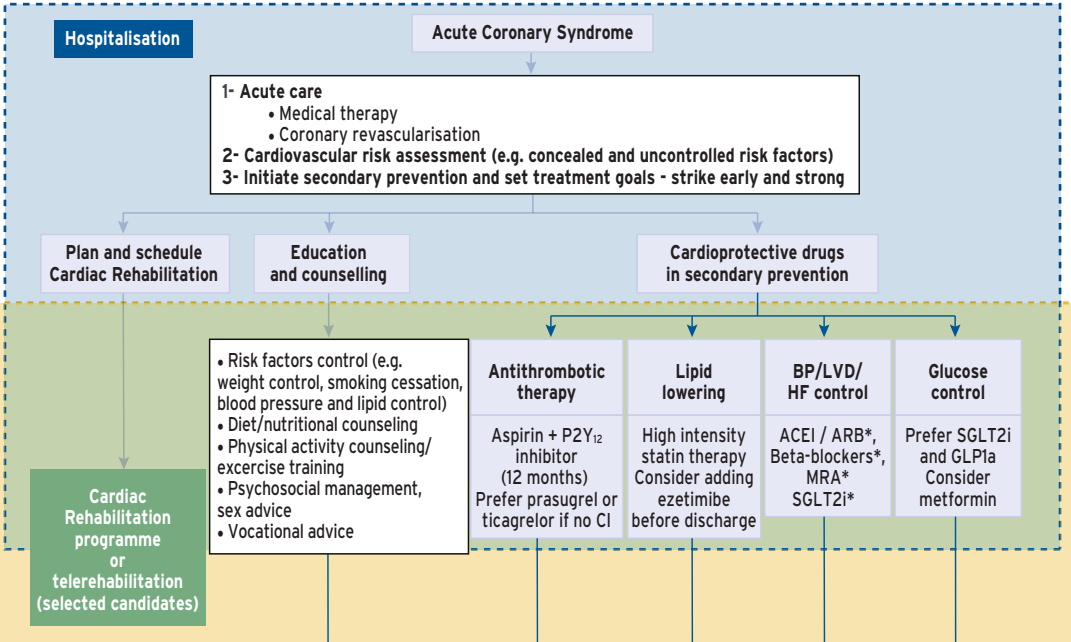
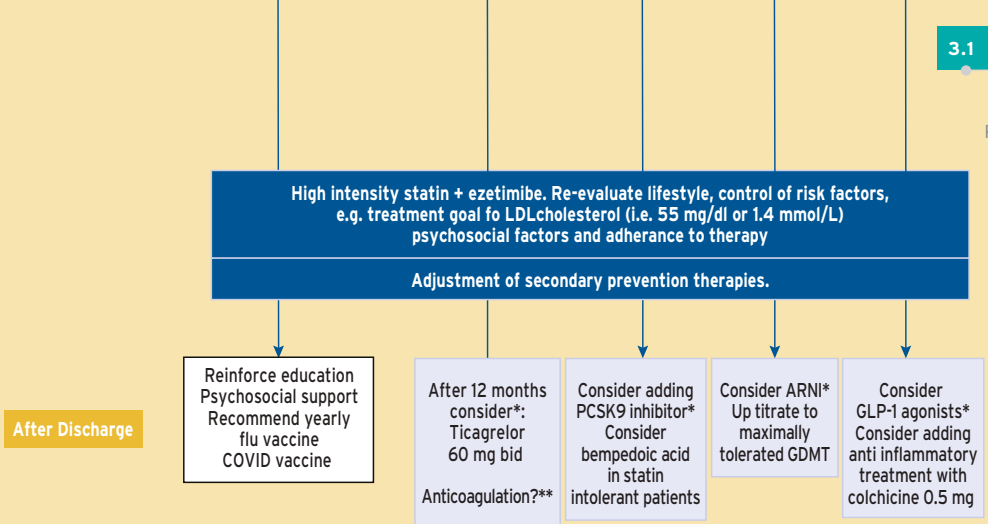
SECONDARY PREVENTION AFTER ACS

SECONDARY PREVENTION STRATEGIES after ACS





*When individually indicated and without specific contraindications. - **Rivaroxaban 2.5 mg bid pending approval for indication in chronic CAD.

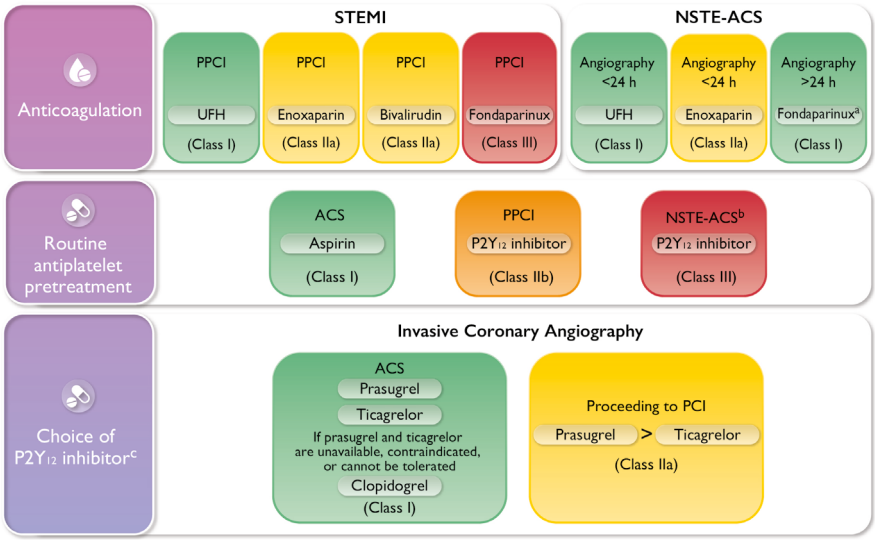
Repoduced with modifications from: Planning secondary prevention: Room for improvement European Journal of Preventive Cardiology, Volume 24, Issue 3_suppl, 1 June 2017, Pages 22–28,Figure 1.

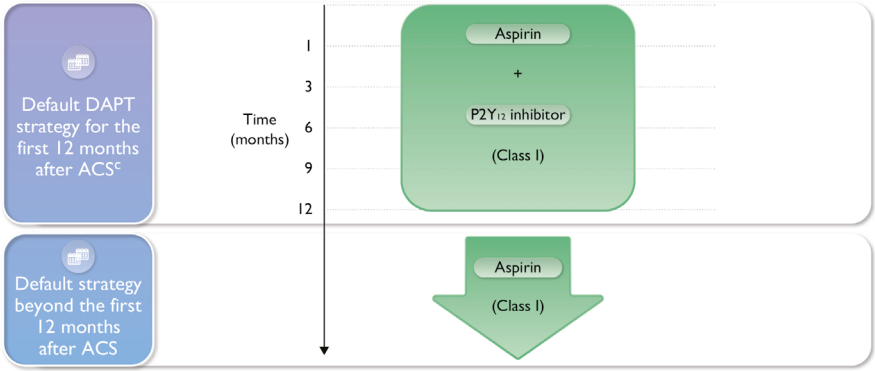
After ACS: Potential strategies to optimise SECONDARY PREVENTION THERAPY

Potential strategies to optimise secondary prevention therapy after ACS

- Participation in a comprehensive, multi-disciplinary cardiac rehabilitation programme after hospital discharge
- Coordination with primary care provider (and other specialists) in therapeutic plan and objectives
- Re-check and reinforce advise on all lifestyle changes (diet, physical activity, smoking cessation...) during follow-up visits
- Check and optimise doses of all indicated secondary prevention drugs
- Use of specialist support, nicotine replacement therapies, varenicline,and/or bupropion individually or in combination for patients who do not quit or restart smoking
- Use of PCSK9 inhibitor in patients who remain at high risk with LDL-cholesterol >55 mg/dl despite apropriate diet and maximally tolerated doses of statins and ezetemibe
- Use of a polypill or combination therapy in patients with suboptimal adherence to drug therapy
- Telerehabilitation
- Polypill
- Optimise antihyperglycemic treatment (initiate SGLT2i and GLP1a if no CI), stop TZDs, SU, consider replacing insulin with GLP1a
- If LDL-c >55 mg/dL – escalate lipid lowering therapy early – high intensity statin → ezetimibe → PCSK9. if statin intolerant, consider bempedoic acid and inclisiran
- Consider colchicine in selected patients
- Check lp(a): prioritize PCSK9i in patients with dyslipidemia and high lp(a). In patients with LDL-c > 190 mg/dL or Lp(a) > 150 mg/dL recommend first-degree relatives screening
- Consider extended DAPT or DAT regimens
- Vaccination
- Documenting patient's weight, height, and BMI. Consider GLP1-RA in patients with BMI > 27 (SELECT trial population).
- In patients with triglycerides 135 to 499 mg/dL, despite maximal statin therapy, and LDL-c <100 mg/dL, consider icosapent ethyl

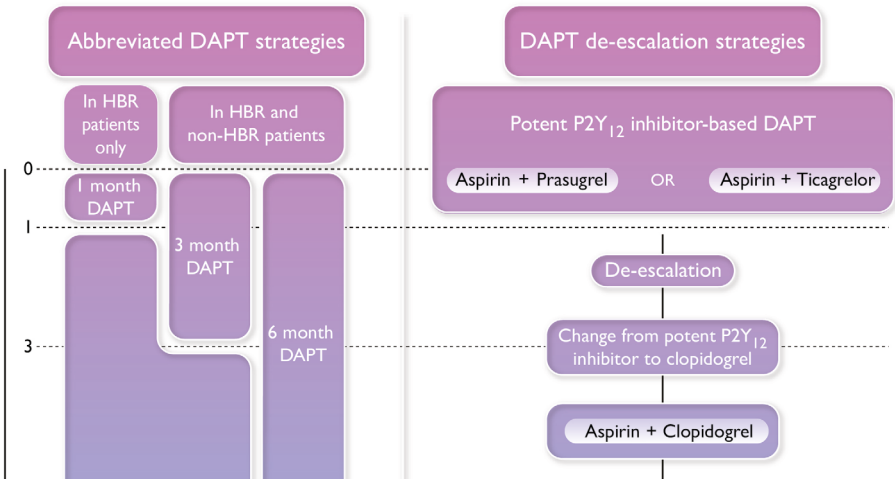
ANTITHROMBOTIC TREATMENT:
Dual antiplatelet therapy duration in patients with ACS





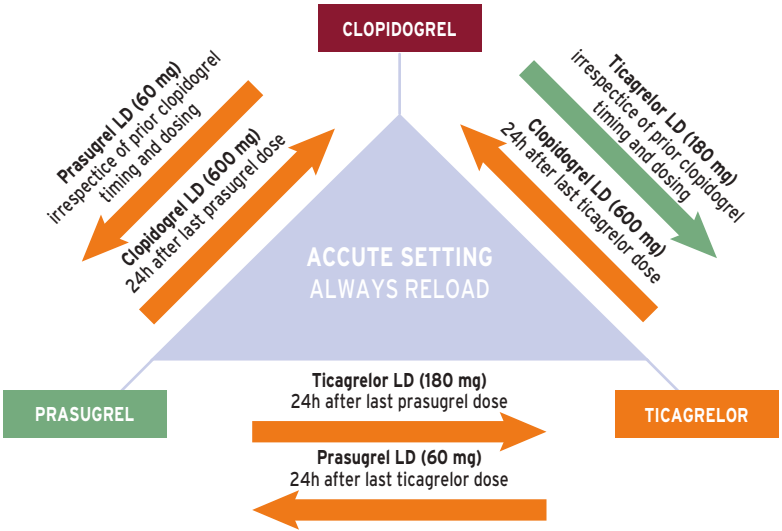
2023 ESC Guidelines for the management of acute coronary syndromes European Heart Journal, Volume 44, Issue 38, 7 October 2023, Pages 3720–3826
Figure 10

ANTITHROMBOTIC TREATMENT: Antiplatelet strategies to reduce bleeding risk in the first 12 months after ACS



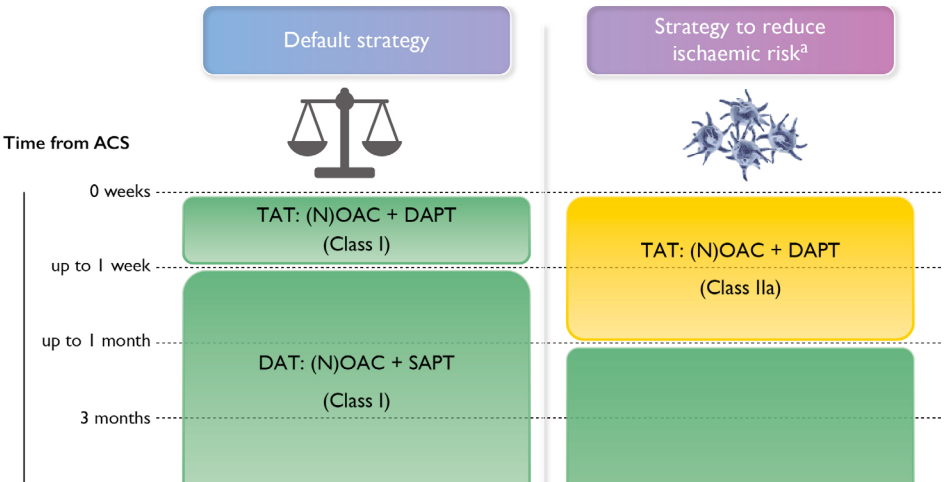
2023 ESC Guidelines for the management of acute coronary syndromes European Heart Journal, Volume 44, Issue 38, 7 October 2023, Pages 3720–3826
Figure 11

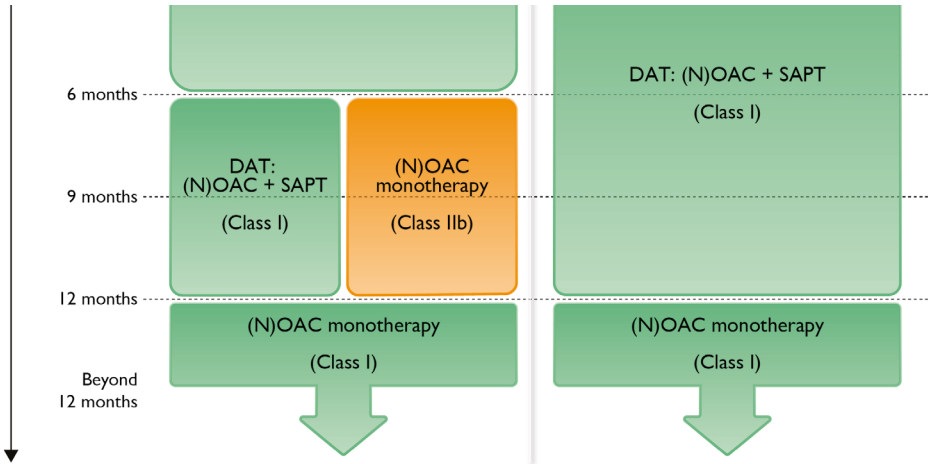
ANTITHROMBOTIC TREATMENT:
Switching between $P2Y_{12}$ inhibitors for DAPT after ACS



2017 ESC focused update on dual antiplatelet therapy in coronary artery disease European Heart Journal, Volume 39, Issue 3, 14 January 2018, Pages 213–260,Figure 2

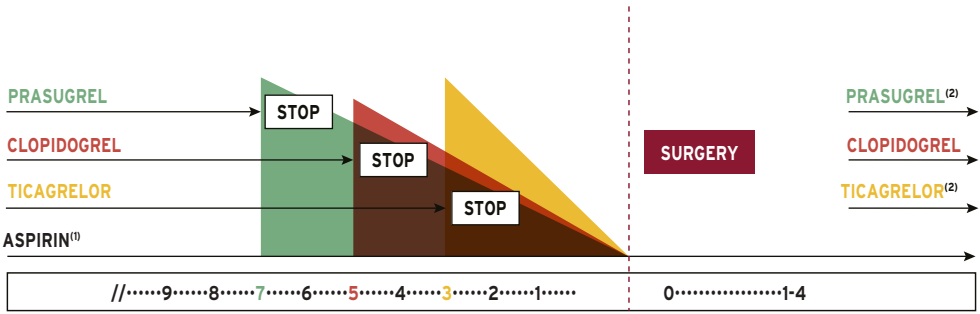
ANTITHROMBOTIC TREATMENT in patients with concomitant indication for DAPT and chronic oral anticoagulation





2023 ESC Guidelines for the management of acute coronary syndromes European Heart Journal, Volume 44, Issue 38, 7 October 2023, Pages 3720–3826 Figure 12

ANTITHROMBOTIC TREATMENT: Management of DAPT after ACS in patients with indication for surgery



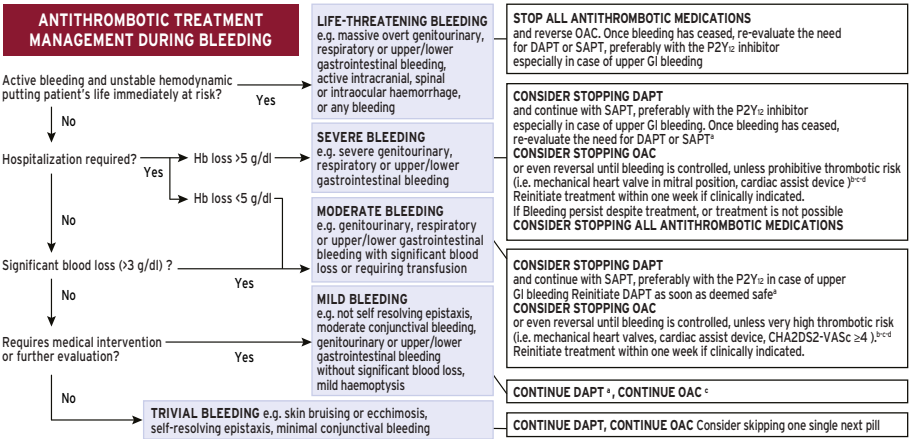
= Expected average platelet function recovery

(1) Decision to stop aspirin throughout surgery should be made on a single case basis taking into account the surgical bleeding risk

(2) In patients not requiring OAC

2017 ESC focused update on dual antiplatelet therapy in coronary artery disease European Heart Journal, Volume 39, Issue 3, 14 January 2018, Pages 213–260,Figure 9

ANTITHROMBOTIC TREATMENT: Management of acute bleeding after ACS



[a] Consider shortening DAPT duration or switching to less potent P2Y12 inhibitor (i.e. from ticagrelor/prasugrel to clopidogrel), especially if recurrent bleeding occurs [b] Reinitiate treatment within one week if clinically indicated. For Vitamin-K antagonist consider a target INR of 2.0-2.5 unless overriding indication (i.e. mechanical heart valves or cardiac assist device) for NOAC consider the lowest effective dose. - [c] In case of triple therapy consider downgrading to dual therapy, preferably with clopidogrel and OAC. - [d] If patients on dual therapy, consider stopping antiplatelet therapy if deemed safe.

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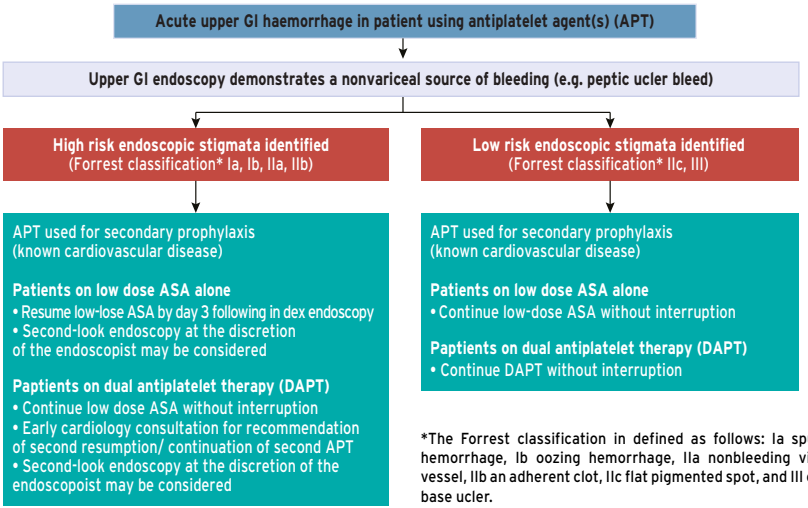
ANTITHROMBOTIC TREATMENT: Management of antiplatelet therapy after acute GI bleeding



*The Forrest classification in defined as follows: Ia spuring hemorrhage, Ib oozing hemorrhage, IIa nonbleeding visible vessel, IIb an adherent clot, IIc flat pigmented spot, and III clean base ucler.

Management of antithrombotic therapy after bleeding in patients with coronary artery disease and/or atrial fibrillation European Heart Journal, Volume 38, Issue 19, 14 May 2017, Pages 1455–1462,

Abbreviations

APTT = Activated partial thromboplastin time
AB = Airway and breathing
ABG = Arterial blood gas
AADs = Antiarrhythmic drugs
AAS = Acute aortic syndrome
ACEI = Angiotensin converting enzyme inhibitor
ACLS = Advanced cardiovascular life support
ACS = Acute coronary syndrome
ACT = Activated clotting time
AD = Aortic Dissection
AED = Automated external defibrillator
AF = Atrial fibrillation
ANA = Antinuclear antibodies
Ao = Aortic
aPTT = Activated partial thromboplastin time
ARB = Angiotensin receptor blockers
AS = Aortic stenosis
AV = Atrioventricular
AVB = Atrioventricular conduction block
AVN = Atrioventricular node
AVNRT = Atrioventricular nodal re-entrant tachycardia
AVNT = Atrioventricular nodal tachycardia
BID = Twice a day
BBB = Bundle branch block
BLS = Basic life support
BNP = Brain natriuretic peptide
BP = Blood pressure
CABG = Coronary artery bypass grafting
CAD = Coronary artery disease
Cath Lab = Catheterisation laboratory
CCB = Calcium channel blockers
CCU = Coronary care unit
CHF = Congestive heart failure
CMR = Cardiovascular magnetic resonance
COPD = Chronic obstructive pulmonary disease
CPAP = Continuous positive airway pressure
CPR = Cardiopulmonary resuscitation
Cr = Creatinine blood level (mg/dL)
CrCl = Creatinine clearance
CRP = C-reactive protein
CS = Cardiogenic shock
CSM = Carotid sinus massage
CSNRT = Corrected sinus node recovery time

Abbreviations (Cont.)

CSS = Carotid sinus syndrome
CT = Computed tomography
CT-angio = Computed tomography angiography
cTn = Cardiac troponin
CUS = Compression venous ultrasound
CV = Cardiovascular
CVA = Cerebrovascular accident
CXR = Chest X-ray
DAPT = Dual antiplatelet therapy
DD = Dyastolic dysfunction
DM = Diabetes mellitus
dTT = Diluted thrombin time
DVT = Deep vein thrombosis
ECG = Electrocardiogram
Echo = Echocardiogram
ECMO = Extracorporeal membrane oxygenation
ECT = Ecarin clotting time
ED = Emergency department
EF = Ejection fraction
EG = Electrograms
eGFR = Estimated glomerular filtration rate (ml/min/1.73 m^2)
EMB = Endomyocardial biopsy
EMS = Emergency medical services
EPS = Electrophysiological study
ERC = European Resuscitation Council
ESR = Erythrocyte sedimentation rate
ETT = Exercice treadmill testing
FFP = Fresh frozen plasma
FMC = First medical contact
GER = Gastroesophageal reflux
GFR = Glomerular flow rate
GI = Gastrointestinal
GP = Glycoprotein
Hb = Haemoglobin
HF = Heart failure
HIT = Heparin-induced thrombocytopenia
HOCM = Hypertrophic obstructive cardiomyopathy
HTN = Hypertension
HR = Heart rate
hsTn = High-sensitive troponin
IABP = Intra-aortic balloon pump
ICC = Intensive cardiac care
ICCU = Intensive cardiac care unit

Abbreviations (Cont.)

ICD = Implantable cardioverter defibrillator
ICI = Immune checkpoint inhibitors
IHD = Ischemic heart disease
IMH = Intramural hematoma
IRF = Immediate-release formulation
ISFC = International Society and Federation of Cardiology
i.o. = Intraosseous
IV = Invasive ventilation
i.v. = Intravenous
KD = Kidney disease
LBBB = Left bundle branch block
LD = Loading dose
LGE = Late gadolinium enhancement
LMWH = Low-molecular weight heparin
LOC = Loss of consciousness
LV = Left ventricular
LVAD/Bi-AD = left ventricular, bi-ventricular assist device
LVD = Left ventricular dysfunction
LVEF = Left ventricular ejection fraction
LVH = Left ventricular hypertrophy
LVSD = Left ventricular systolic dysfunction
MCS = Mechanical circulatory support
MD = Maintenance dose
MDCT = Computed tomography with >4 elements
MI = Myocardial infarction
MRA = Mineralocorticoid receptor antagonist
MRI = Magnetic resonance imaging
Mvo = Microvascular obstruction
NIV = Non-invasive ventilation
NOAC = New oral anticoagulants
NSAID = Non-steroidal anti-inflammatory drugs
NSVT = Non-sustained ventricular tachycardia or recurrent
NSTE-ACS = Non ST-segment elevation acute coronary syndrome
NSTEMI = Non ST-segment elevation myocardial infarction
NTG = Nitroglycerin
NT-proBNP = N-terminal pro brain natriuretic peptide
NVAF = Non-valvular atrial fibrillation
NYHA = New York Heart Association

Abbreviations (Cont.)

OH = Orthostatic hypotension
PAP = Pulmonary arterial pressure
PAU = Penetrating aortic ulcer
PCI = Percutaneous coronary intervention
PCM = Physical counter-measures
PCP = Pulmonary capillary pressure
PE = Pulmonary embolism
PEA = Pulmonary endarterectomy
PEEP = Positive end expiratory pressure
PPC = Prothrombin complex concentrate
PR = Pulmonary regurgitation
PRECISE-DAPT = PREdicting bleeding Complications In patients undergoing Stent implantation and subsEquent Dual Anti Platelet Therapy
PRF = Prolonged-release formulation
ProCT = Procalcitonin
PRN = Pro re nata
PS-PEEP = Pressure support-positive end-expiratory pressure
PSVT = Paroxysmal supraventricular tachycardia
QD = Once a day
QPM = Every evening
rFVIIa = Recombinant factor VIIa
rtPA = Recombinant tissue plasminogen activator
RV = Right ventricular
RVOT-VT = Right ventricular outflow tract ventricular tachycardia
SBP = Systemic blood pressure
s.c = Subcutaneous
SIRS = Systemic inflammatory response syndrome
SLE = Systemic lupus erythematosus
SMU = Syncope management units
STE-ACS = ST-segment elevation acute coronary syndrome
STEMI = ST-segment elevation myocardial infarction
SVT = Supraventricular tachycardia
Spo_2 = Oxygen saturation
TEE = Transesophageal echocardiography
TEVAR = Thoracic endovascular aortic repair
TIA = Transient ischemic attack
TID = Three times a day
TLOC = Transient loss of consciousness
TOE = Transoesopageal echocardiography

Abbreviations (Cont.)

TSH = Thyroid-stimulating hormone
TTE = Transthoracic echocardiography
UA = Unstable angina
UFH = Unfractionated heparin
ULN = Upper limit of normal
VBGA = venous blood gas analysis
VF = Ventricular fibrillation
VR = Vascular resistance
VT = Ventricular tachycardia
VTE = Venous thromboembolism
VVS = Vasovagal syncope
WBC = white blood cell count
WHO = World Health Organization
WPW = Wolff-Parkinson-White

References and copyright acknowledgments

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