

Post-treatment Management for Prevention: What and How?

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Disclosure

- Research funds
 - *Cook*
 - *Medtronic*
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Case

C.C : Leg pain for 1 day

PI : 77 y.o. male patient admitted to ER with right lower leg pain and **color change**

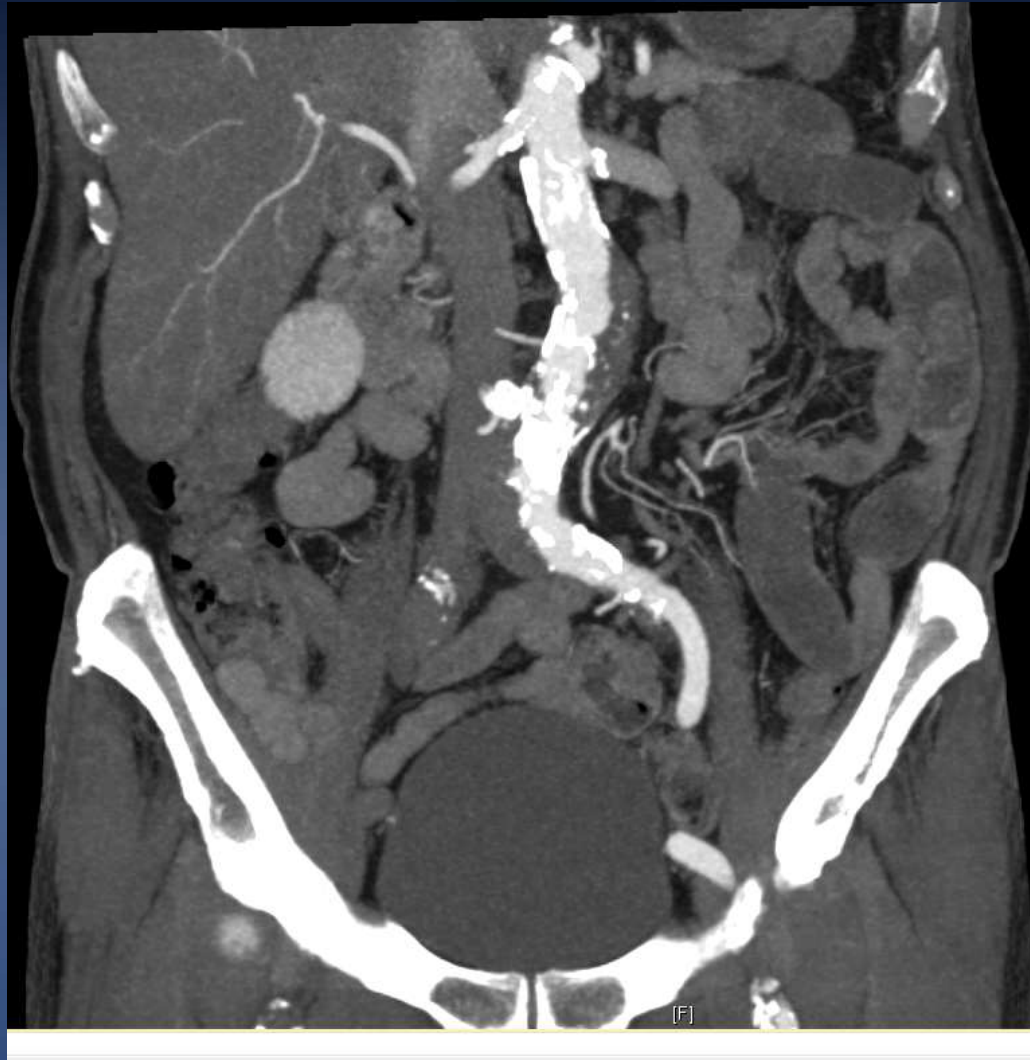
PHx : Hypertension(+) DM(+) Dyslipidemia(-)

Smoking: 40 PYR Alcohol: social

P/Ex : Pulse – **CFA (-/-), Pop (-/-), Dorsalis (-/-)**

N/Ex : **Sensory (-) Motor (-)**

Lower Extremity CT scan





Acute Limb Ischemia (ALI)

- Abrupt decrease in arterial perfusion of limb
- Potential causes
 - PAD progression, Aortic dissection, Cardiac embolization, Thrombosis of vascular graft or popliteal aneurysm, Popliteal artery entrapment, Hypercoagulable state, etc..
- Limb viability is threatened and prompt management is needed for limb salvage

Acute Limb Ischemia (ALI)

- Acute onset (within 2 weeks)
- Severe hypo-perfusion of the limb (6 Ps)
 - Pain / Pallor / Pulselessness
 - Poikilothermia (cold)
 - Paraesthesias / Paralysis
- Once the diagnosis is established, treatment with unfractionated heparin should be given

Diagnostic Approach

Hospitalization for acute limb ischemia including acute ischemia caused by:

- Arterial emboli
- Arterial thrombosis
- Arterial trauma from a vascular procedure

AND
Either A or B

A. History and Exam

Clinical history suggesting a rapid or sudden decrease in limb perfusion

AND

New pulse deficit with associated rest pain, pallor, paresthesias or paralysis

B. Direct Confirmation

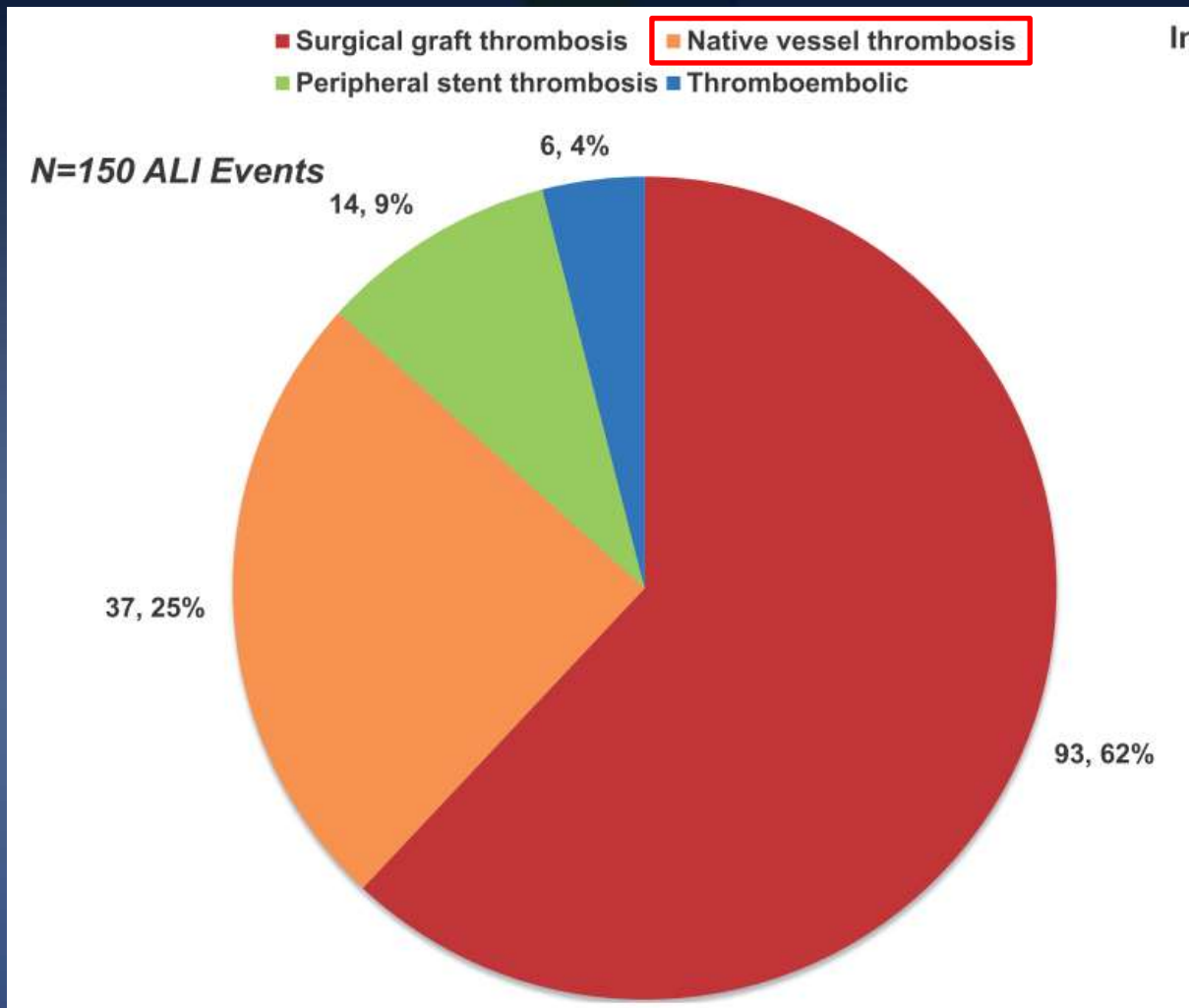
Confirmation of arterial obstruction by imaging (including ultrasound, CT, MRI, or conventional angiography), surgical findings or pathology

OR

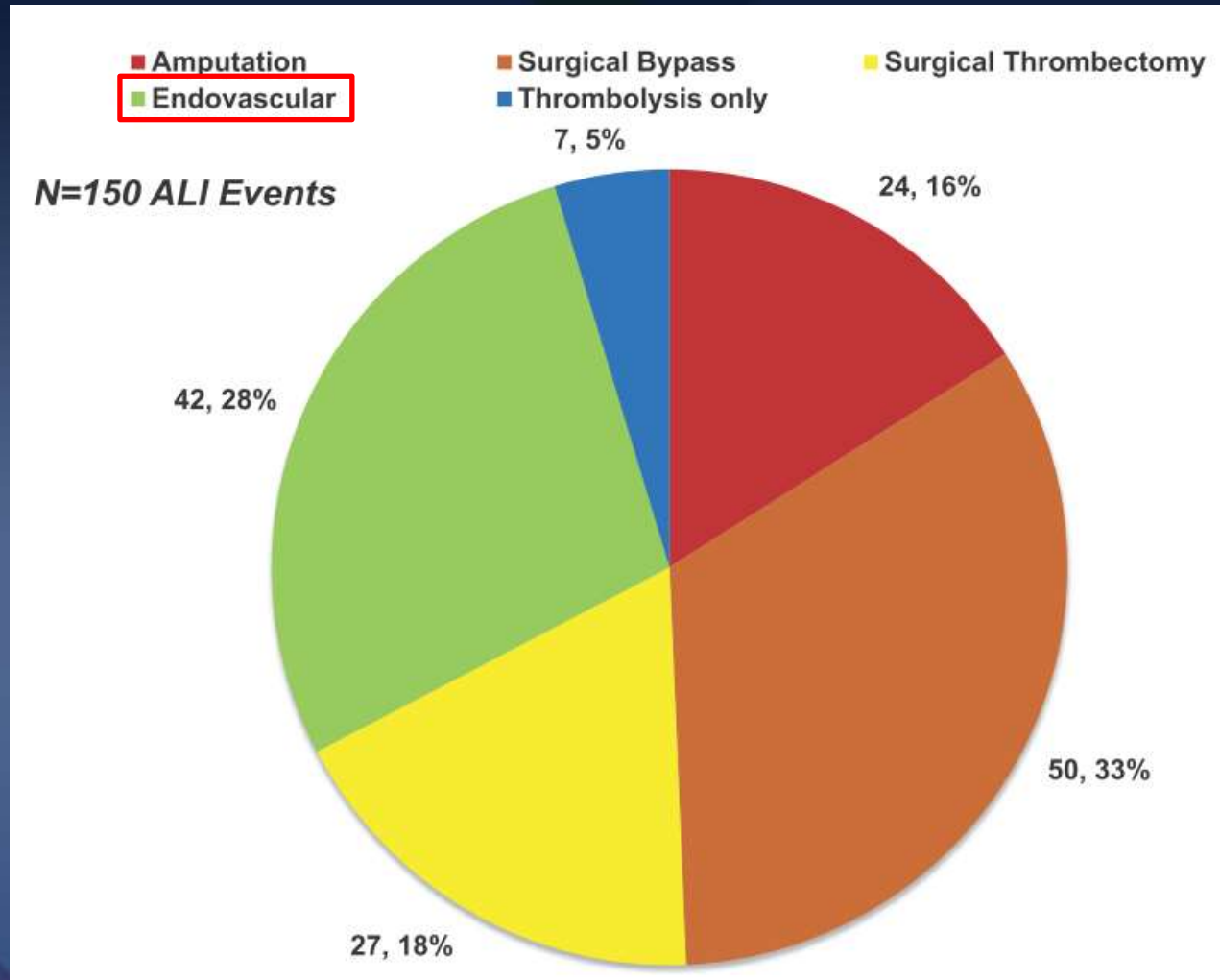
Clinical Categories of ALI

Grade	Category	Sensory loss	Motor deficit	Prognosis
I	Viable	None	None	No immediate threat
IIA	Marginally threatened	None or minimal (toes)	None	Salvageable if promptly treated
IIB	Immediately threatened	More than toes	Mild/moderate	Salvageable if promptly revascularized
III	Irreversible	Profound, anesthetic	Profound, paralysis (rigor)	Major tissues loss, permanent nerve damage inevitable

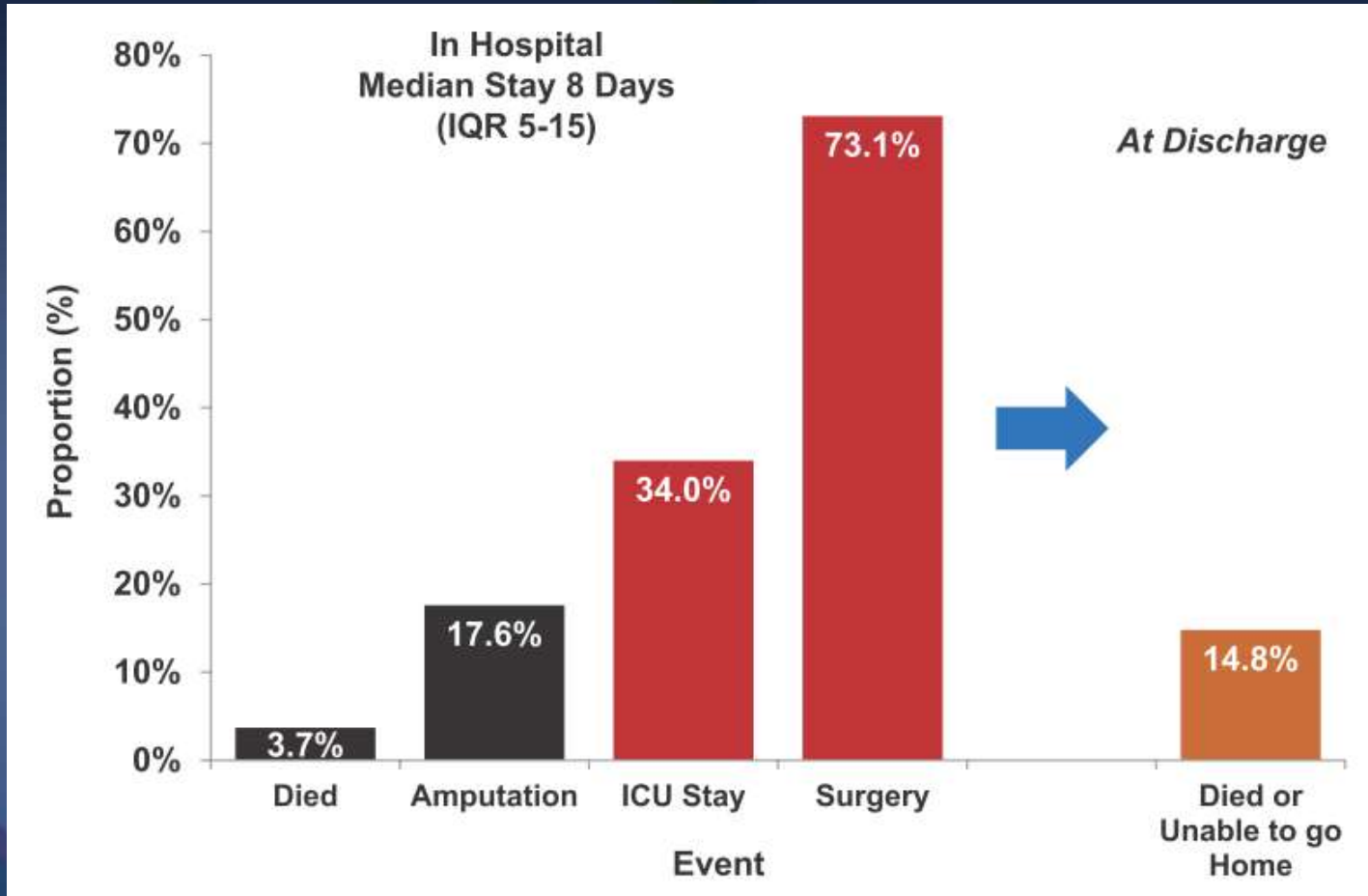
Causes of ALI



Initial Treatment for ALI



Outcomes of hospitalized ALI



Treatment Strategy

- Revascularization modalities
 - Percutaneous catheter-directed thrombolysis
 - Percutaneous mechanical thrombus extraction
 - Surgical thrombectomy
 - Endovascular revascularization
 - Bypass surgery
- Treatment depends on
 - Presence of neurological deficit
 - Ischemia duration
 - Comorbidities

Recommendations for ALI

Recommendations	Class ^a	Level ^b
In the case of neurological deficit, urgent revascularization is indicated. ^{246,331,c}	I	C
In the absence of neurological deficit, revascularization is indicated within hours after initial imaging in a case-by-case decision. ^{246,331}	I	C
Heparin and analgesics are indicated as soon as possible. ^{246,331}	I	C

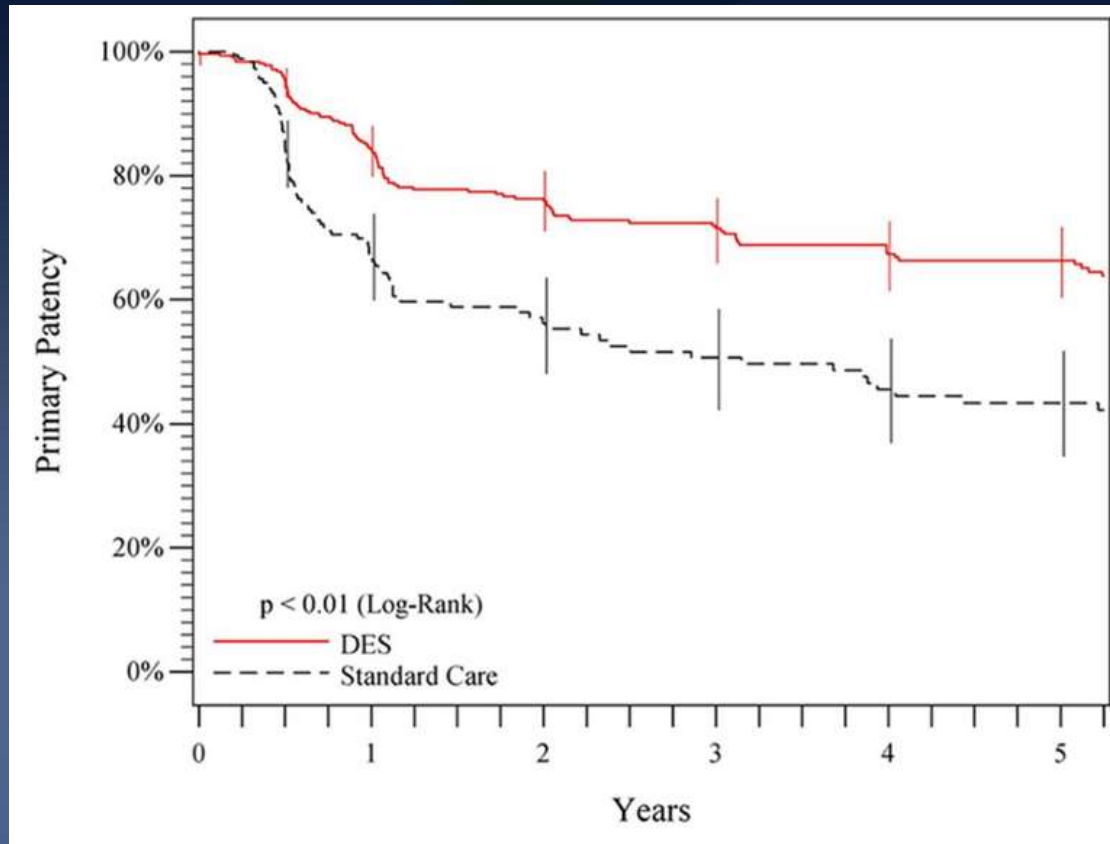
Best Medical Therapy

- **Class I recommendation**
 - Smoking cessation
 - Healthy diet with physical activity
 - **Statins are recommended in all PAD pts**
 - LDL-C < 70 mg/dl
 - Strict glycemic control
 - Anti-platelet therapy
 - BP < 140/90 mmHg

Antithrombotic therapy

- Long-term SAPT is recommended in **symptomatic patients** and those who have **undergone revascularization**
- **DAPT with aspirin and clopidogrel for at least 1 month** should be considered after infra-inguinal stent implantation
- Due to lack of proven benefit, antiplatelet therapy is not routinely indicated in asymptomatic LEAD
- In patients with **PADs and AF**, OAC is recommended when CHA₂DS₂-VASc score is ≥ 2

ZILVER PTX TRIAL



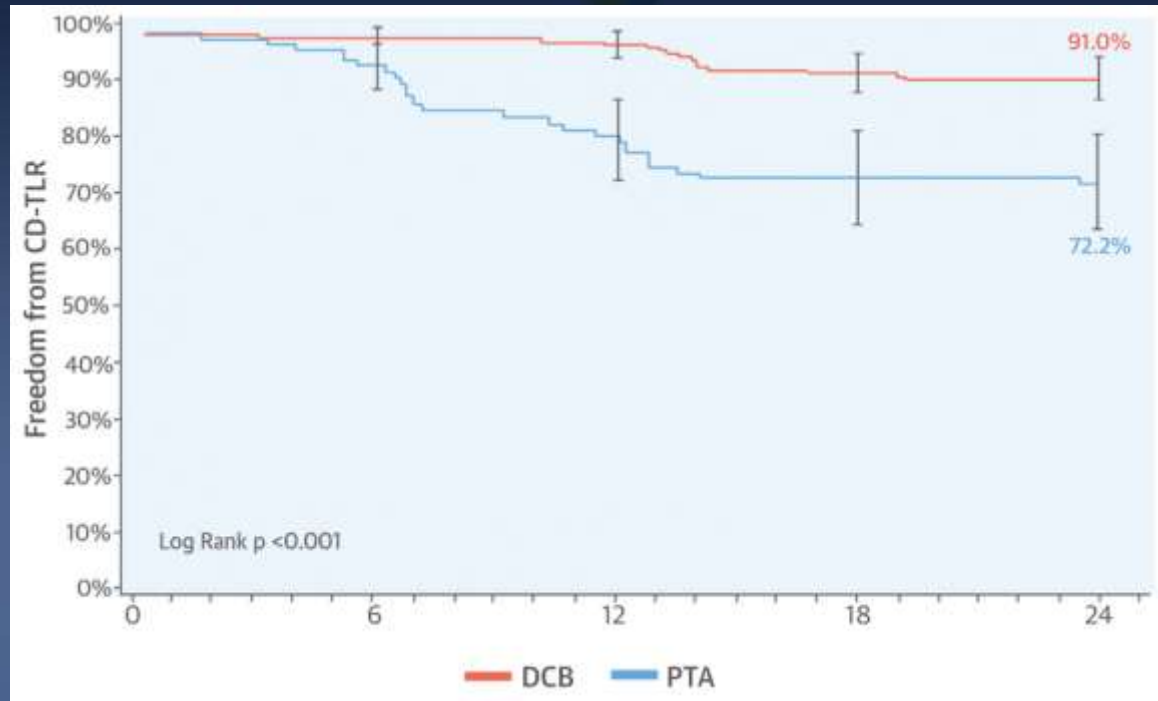
Symptomatic PAD (Femoropopliteal)

→ PTA vs DES → **Clopidogrel + Aspirin 2 months**

→ **Lifelong Aspirin** treatment

IN.PACT SFA

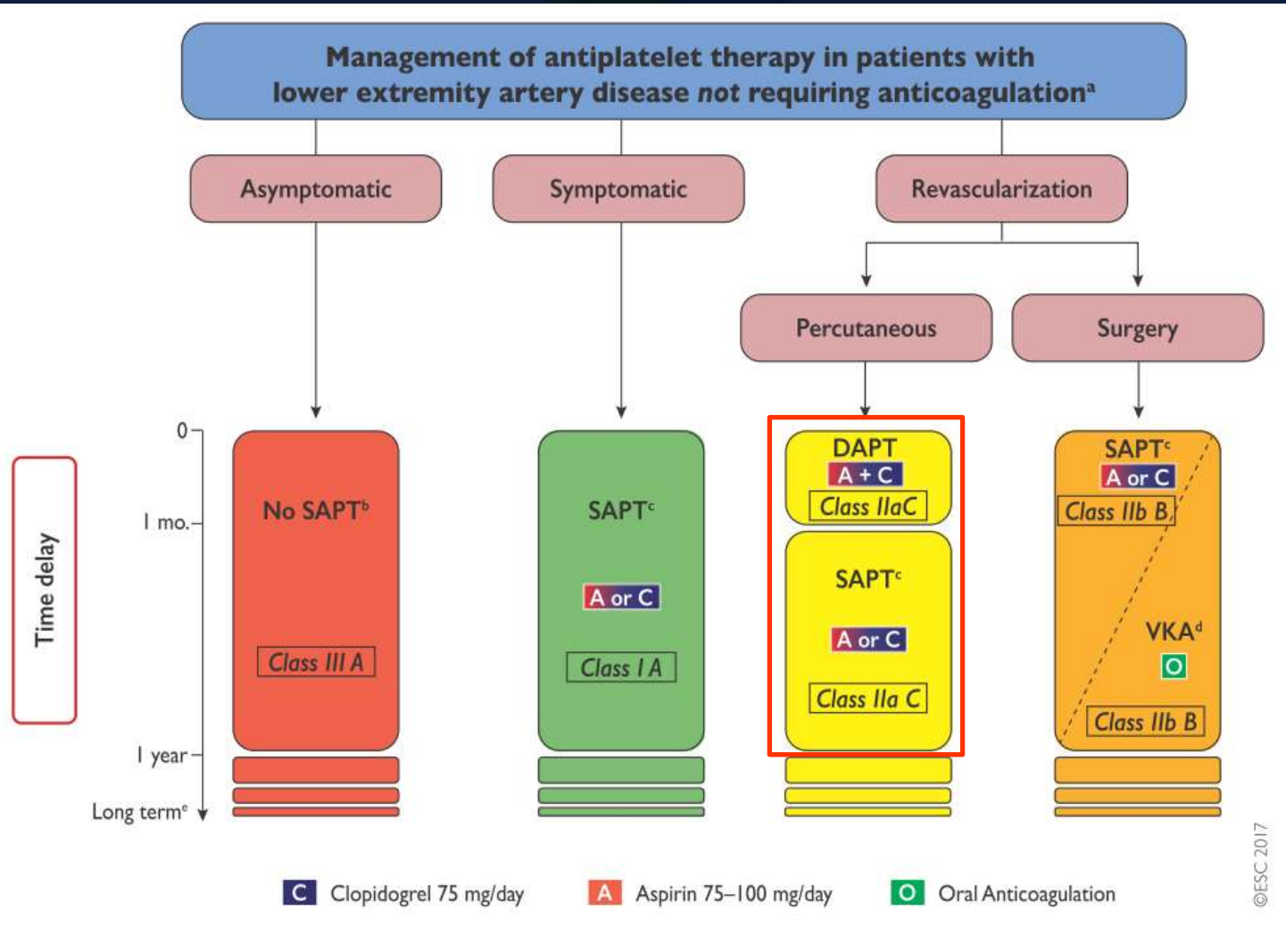
IN.PACT Admiral DCB vs. PTA



DCB vs PTA at femoropopliteal lesions

→ 50% of enrolled PTs were **maintained with DAPT for 1 year**

Antiplatelet after ALI



Anticoagulation therapy after ALI

- AF is frequent in patients with ALI
 - OAC should be continued in high risk PTs
 - CHA₂DS₂-VASc score ≥ 2
 - Mechanical heart valve
 - DVT or PTE

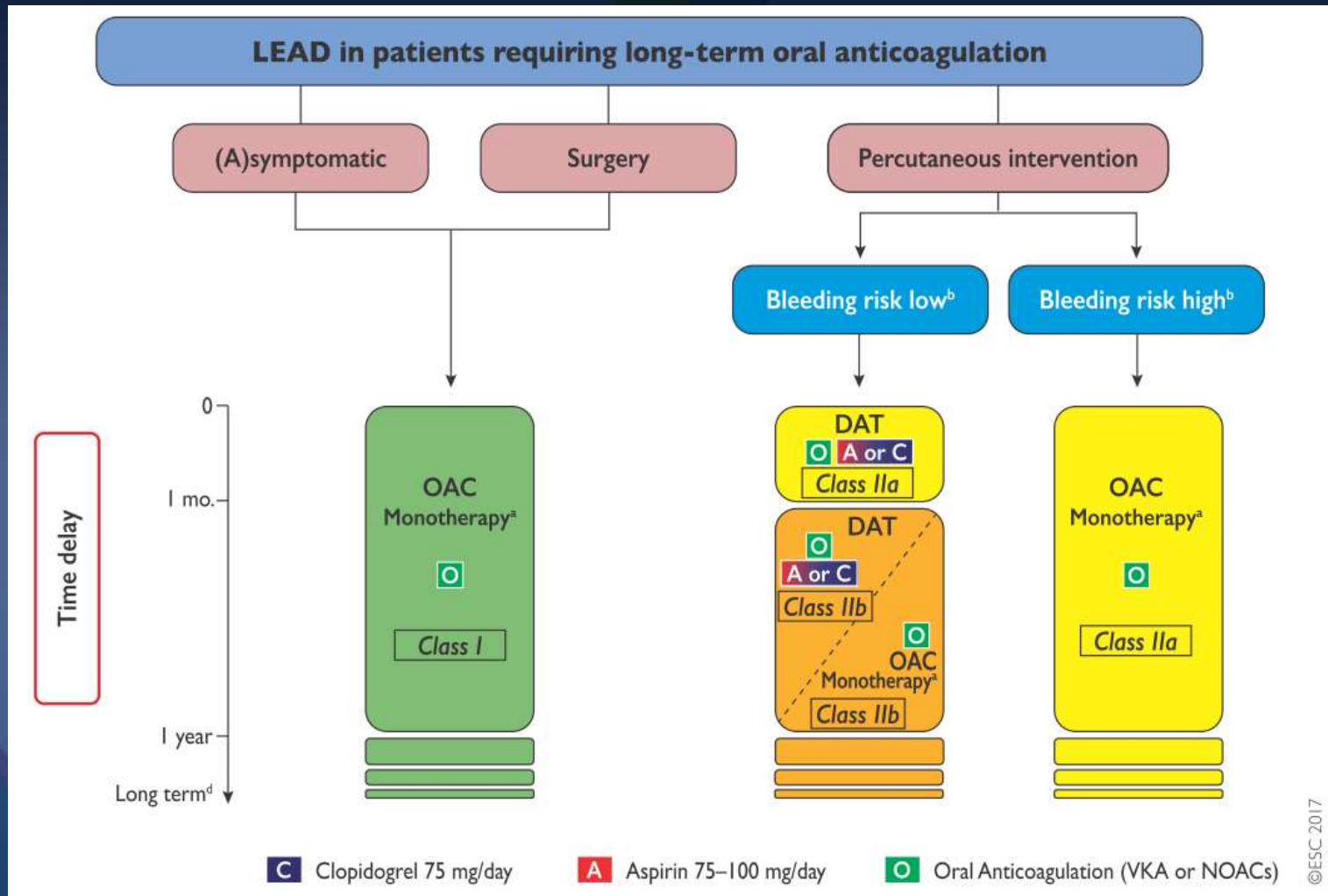
PADs and atrial fibrillation^c

In patients with LEAD and atrial fibrillation, oral anticoagulation:⁸³

- is recommended with a CHA₂DS₂-VASc score ≥ 2
- should be considered in all other patients.

I	A
IIa	B

Anticoagulation after ALI



Take Home Message

- ALI severely threatens patients' limb survival
- Urgent revascularization is mandatory
- UFH should be given immediately
- DAPT is recommended at least 1 month after endovascular revascularization
- Anticoagulation should be considered in the indicated patients

Thank You for Attention !

