Recos Diabète ESC

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Conflits d'intérêt

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Fees for lecture and/or consulting

- **Amgen**
- **Astra-Zeneca**
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2019 ESC Guidelines on diabetes, pre-diabetes, and cardiovascular diseases developed in collaboration with the EASD

The Task Force for diabetes, pre-diabetes, and cardiovascular diseases of the European Society of Cardiology (ESC) and the European Association for the Study of Diabetes (EASD)

Table 7 Cardiovascular risk categories in patients with diabetes[a]

Very high risk	Patients with DM **and** established CVD **or** other target organ damage[b] **or** three or more major risk factors[c] **or** early onset T1DM of long duration (>20 years)
High risk	Patients with DM duration ≥10 years without target organ damage plus any other additional risk factor
Moderate risk	Young patients (T1DM aged <35 years or T2DM aged <50 years) with DM duration <10 years, without other risk factors

CV = cardiovascular; CVD = cardiovascular disease; DM = diabetes mellitus; T1DM = type 1 diabetes mellitus; T2DM = type 2 diabetes mellitus.

[a]Modified from the 2016 European Guidelines on cardiovascular disease prevention in clinical practice.[27]

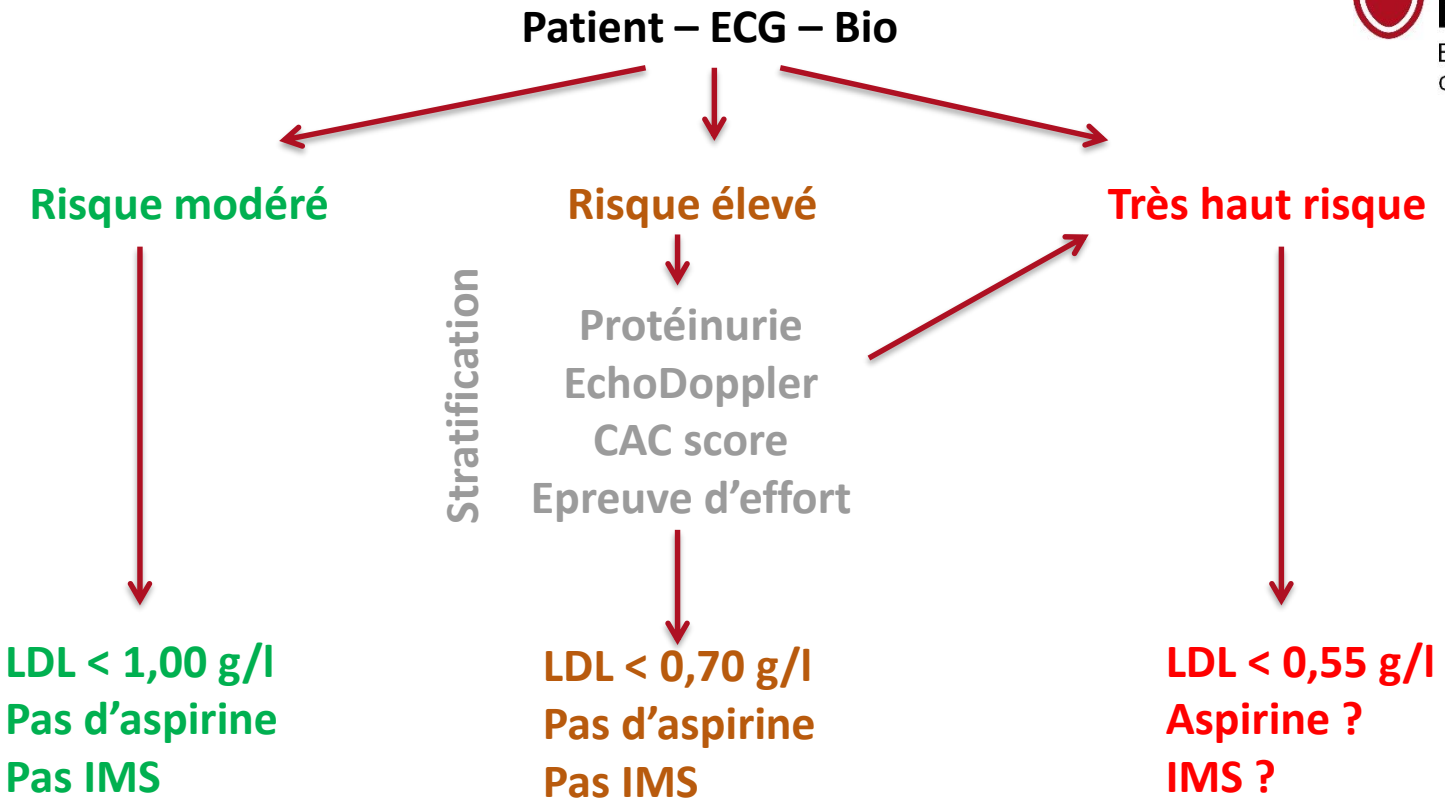
[b]Proteinuria, renal impairment defined as eGFR ≥30 mL/min/1.73 m^2, left ventricular hypertrophy, or retinopathy.

[c]Age, hypertension, dyslipidemia, smoking, obesity.

Recommendations for the use of laboratory, electrocardiogram, and imaging testing for cardiovascular risk assessment in asymptomatic patients with diabetes

Recommendations	Class[a]	Level[b]
Routine assessment of microalbuminuria is indicated to identify patients at risk of developing renal dysfunction or at high risk of future CVD.[27,38]	I	B
A resting ECG is indicated in patients with DM diagnosed with hypertension or with suspected CVD.[38,39]	I	C
Assessment of carotid and/or femoral plaque burden with arterial ultrasonography should be considered as a risk modifier in asymptomatic patients with DM.[60–62]	IIa	B
CAC score with CT may be considered as a risk modifier in the CV risk assessment of asymptomatic patients with DM at moderate risk.[c 63]	IIb	B
CTCA or functional imaging (radionuclide myocardial perfusion imaging, stress cardiac magnetic resonance imaging, or exercise or pharmacological stress echocardiography) may be considered in asymptomatic patients with DM for screening of CAD.[47,48,64,65,67–70]	IIb	B
ABI may be considered as a risk modifier in CV risk assessment.[76]	IIb	B
Detection of atherosclerotic plaque of carotid or femoral arteries by CT, or magnetic resonance imaging, may be considered as a risk modifier in patients with DM at moderate or high risk CV.[c 75,77]	IIb	B
Carotid ultrasound intima–media thickness screening for CV risk assessment is not recommended.[62,73,78]	III	A
Routine assessment of circulating biomarkers is not recommended for CV risk stratification.[27,31,35–37]	III	B
Risk scores developed for the general population are not recommended for CV risk assessment in patients with DM.	III	C

ABI = ankle–brachial index; CAC = coronary artery calcium; CAD = coronary artery disease; CT = computed tomography; CTCA = computed tomography coronary angiography; CV = cardiovascular; CVD = cardiovascular disease; DM = diabetes mellitus; ECG = electrocardiogram.
[a]Class of recommendation.
[b]Level of evidence.
[c]See *Table 7*.


Patient – ECG – Bio
Risque modéré
Risque élevé
Très haut risque
Stratification
Protéinurie
EchoDoppler
CAC score
Epreuve d'effort
LDL < 1,00 g/l
Pas d'aspirine
Pas IMS
LDL < 0,70 g/l
Pas d'aspirine
Pas IMS
LDL < 0,55 g/l
Aspirine ?
IMS ?

Recommendations for glycaemic control in patients with diabetes

Recommendations	Class[a]	Level[b]
It is recommended to apply tight glucose control, targeting a near-normal HbA1c (<7.0% or <53 mmol/mol), to decrease microvascular complications in individuals with DM.[145–149]	I	A
It is recommended that HbA1c targets are individualized according to the duration of DM, comorbidities, and age.[122,150]	I	C
Avoidance of hypoglycaemia is recommended.[136,139,140,151]	I	C
The use of structured self-monitoring of blood glucose and/or continuous glucose monitoring should be considered to facilitate optimal glycaemic control.[141–144]	IIa	A
An HbA1c target of <7.0% (or <53 mmol/mol) should be considered for the prevention of macrovascular complications in individuals with DM.	IIa	C

DM = diabetes mellitus; HbA1c = haemoglobin A1c.
[a]Class of recommendation.
[b]Level of evidence.

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HbA1C < 7%
Eviter hypoglycémies

Recommendations for the management of dyslipidaemia with lipid-lowering drugs

Recommendations	Class[a]	Level[b]
Targets		
In patients with T2DM at moderate CV risk,[c] an LDL-C target of <2.5 mmol/L (<100 mg/dL) is recommended.[210–212]	I	A
In patients with T2DM at high CV risk,[c] an LDL-C target of <1.8 mmol/L (<70 mg/dL) or an LDL-C reduction of at least 50% is recommended.[d] [210–212]	I	A
In patients with T2DM at very high CV risk,[c] an LDL-C target of <1.4 mmol/L (<55 mg/dL) or an LDL-C reduction of at least 50% is recommended.[d] [200,201,210]	I	B
In patients with T2DM, a secondary goal of a non-HDL-C target of <2.2 mmol/L (<85 mg/dL) in very high CV-risk patients, and <2.6 mmol/L (<100 mg/dL) in high CV-risk patients, is recommended.[d,213,214]	I	B
Treatment		
Statins are recommended as the first-choice lipid-lowering treatment in patients with DM and high LDL-C levels: administration of statins is defined based on the CV risk profile of the patient[c] and the recommended LDL-C (or non-HDL-C) target levels.[187]	I	A
If the target LDL-C is not reached, combination therapy with ezetimibe is recommended.[200,201]	I	B
In patients at very high CV risk, with persistent high LDL-C despite treatment with a maximum tolerated statin dose, in combination with ezetimibe, or in patients with statin intolerance, a PCSK9 inhibitor is recommended.[203–206]	I	A
Lifestyle intervention (with a focus on weight reduction, and decreased consumption of fast-absorbed carbohydrates and alcohol) and fibrates should be considered in patients with low HDL-C and high triglyceride levels.[191,207]	IIa	B
Intensification of statin therapy should be considered before the introduction of combination therapy.	IIa	C
Statins should be considered in patients with T1DM at high CV risk,[c] irrespective of the baseline LDL-C level.[187,215]	IIa	A
Statins may be considered in asymptomatic patients with T1DM beyond the age of 30 years.	IIb	C
Statins are not recommended in women of childbearing potential.[189,190]	III	A

Recommendations for the use of antiplatelet therapy in primary prevention in patients with diabetes

Recommendations	Class[a]	Level[b]
In patients with DM at high/very high risk,[c] aspirin (75 - 100 mg/day) may be considered in primary prevention in the absence of clear contraindications.[d 231]	IIb	A
In patients with DM at moderate CV risk,[c] aspirin for primary prevention is not recommended.	III	B
Gastric protection		
When low-dose aspirin is used, proton pump inhibitors should be considered to prevent gastrointestinal bleeding.[232,235]	IIa	A

Aspirine pour haut ou très hauts risques

IPP

Recommendations for the management of patients with diabetes and acute or chronic coronary syndromes

Recommendations	Class[a]	Level[b]
ACEIs or ARBs are indicated in patients with DM and CAD to reduce the risk of CV events.[326,345–347]	I	A
Statin therapy is recommended in patients with DM and CAD to reduce the risk of CV events.[211,348]	I	A
Aspirin at a dose of 75–160 mg/day is recommended as secondary prevention in patients with DM.[349]	I	A
Treatment with a $P2Y_{12}$ receptor blocker ticagrelor or prasugrel is recommended in patients with DM and ACS for 1 year with aspirin, and in those who undergo PCI or CABG.[350,351]	I	A
Concomitant use of a proton pump inhibitor is recommended in patients receiving DAPT or oral anticoagulant monotherapy who are at high risk of gastrointestinal bleeding.[253,336,352]	I	A
Clopidogrel is recommended as an alternative antiplatelet therapy in case of aspirin intolerance.[353]	I	B
Prolongation of DAPT beyond 12 months[c] should be considered, for up to 3 years, in patients with DM who have tolerated DAPT without major bleeding complications.[341,342,354–356]	IIa	A
The addition of a second antithrombotic drug on top of aspirin for long-term secondary prevention should be considered in patients without high bleeding risk.[d] [341,342,354–356]	IIa	A
Beta-blockers may be considered in patients with DM and CAD.[320–322]	IIb	B

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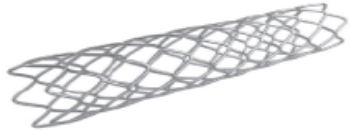
IPP si bithérapie AAP

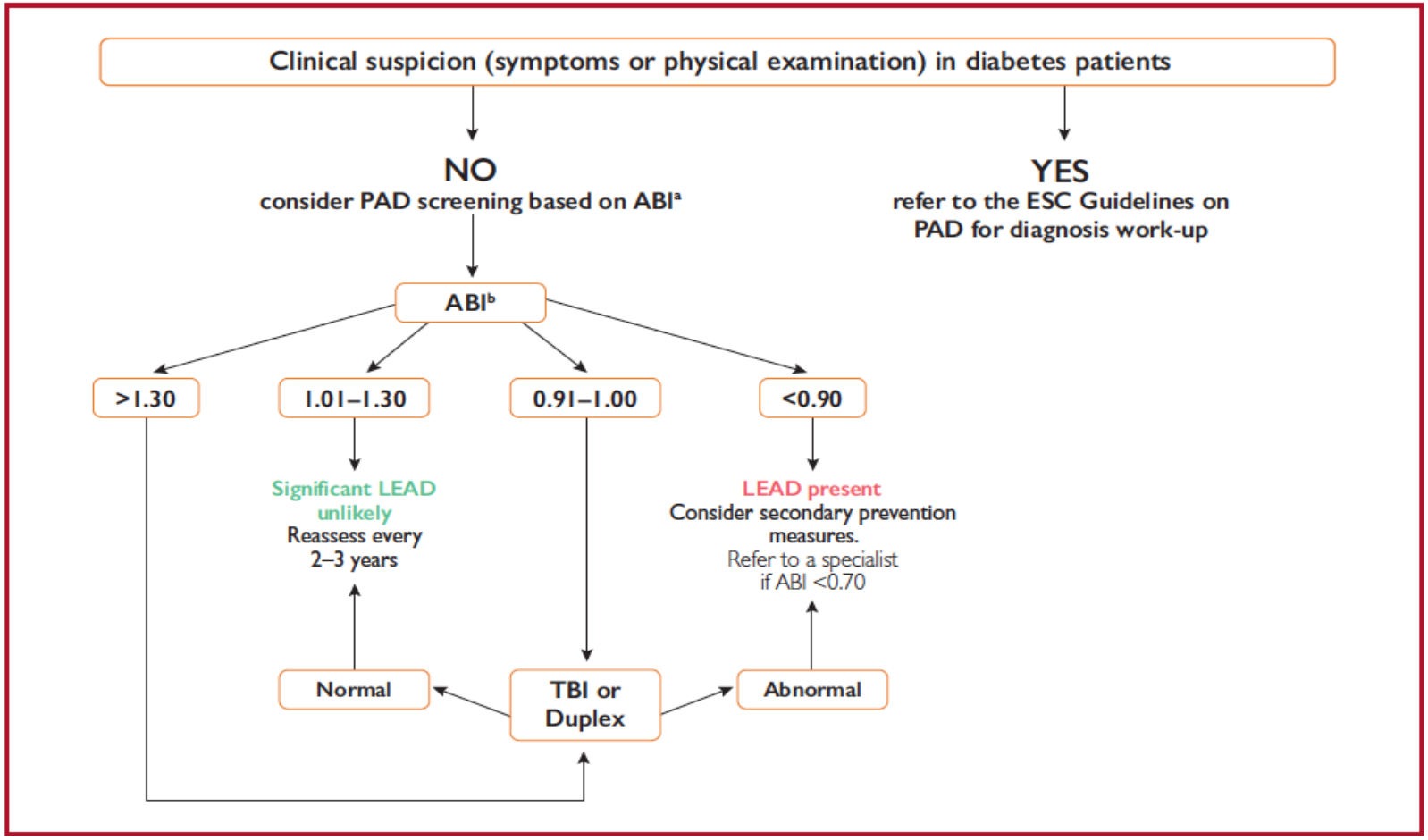
DAPT prolongée

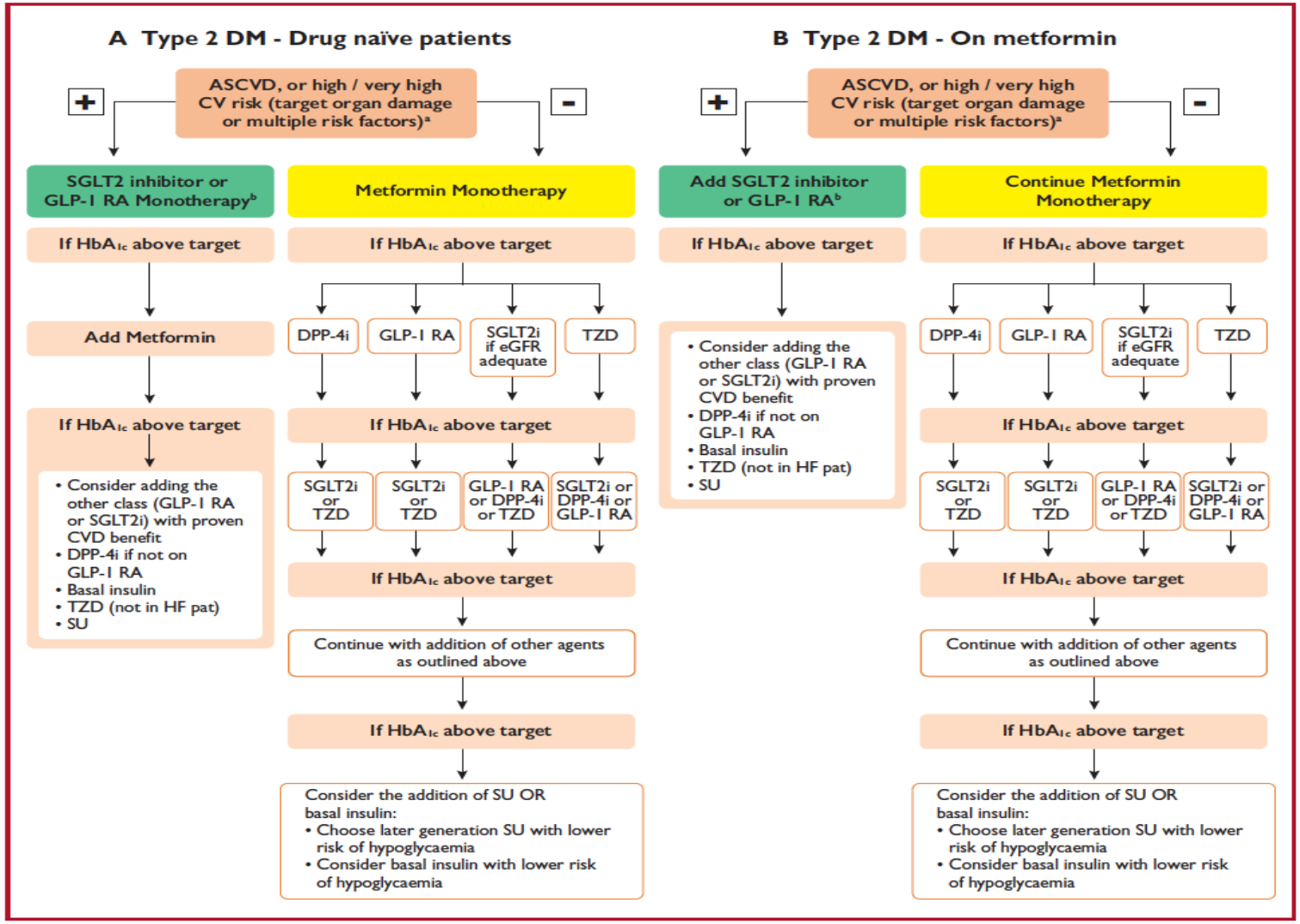
CABG	PCI
	
1-vessel or 2-vessel CAD, no proximal LAD	
1-vessel or 2-vessel CAD, proximal LAD	
3-vessel CAD	
Low complexity	
Intermediate or high complexity	
Left main CAD	
Low complexity	
Intermediate complexity	
High complexity	

	Class I		Class IIa
	Class IIb		Class III

Recommendations for the prevention and management of chronic kidney disease in patients with diabetes

Recommendations	Class[a]	Level[b]
It is recommended that patients with DM are screened annually for kidney disease by assessment of eGFR and urinary albumin:creatinine ratio.[543]	I	A
Tight glucose control, targeting HbA1c (<7.0% or <53 mmol/mol) is recommended to decrease microvascular complications in patients with DM.[145–149]	I	A
It is recommended that patients with hypertension and DM are treated in an individualized manner, targeting a SBP to 130 mmHg and <130 mmHg if tolerated, but not <120 mmHg. In older people (aged >65 years) the SBP goal is to a range of 130–139 mmHg.[155,159,181–183]	I	A
A RAAS blocker (ACEI or ARB) is recommended for the treatment of hypertension in patients with DM, particularly in the presence of proteinuria, microalbuminuria, or LVH.[167–170]	I	A
Treatment with an SGLT2 inhibitor (empagliflozin, canagliflozin, or dapagliflozin) is associated with a lower risk of renal endpoints and is recommended if eGFR is 30 to <90 mL/min/1.73 m^2).[306,311,313,496]	I	B
Treatment with the GLP1-RAs liraglutide and semaglutide is associated with a lower risk of renal endpoints, and should be considered for DM treatment if eGFR is >30 mL/min/1.73m^2.[176,299]	IIa	B


Clinical suspicion (symptoms or physical examination) in diabetes patients
NO
consider PAD screening based on ABI[a]
YES
refer to the ESC Guidelines on PAD for diagnosis work-up
ABI[b]
>1.30
1.01–1.30
0.91–1.00
<0.90
Significant LEAD unlikely
Reassess every 2–3 years
LEAD present
Consider secondary prevention measures.
Refer to a specialist if ABI <0.70
Normal
TBI or Duplex
Abnormal



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