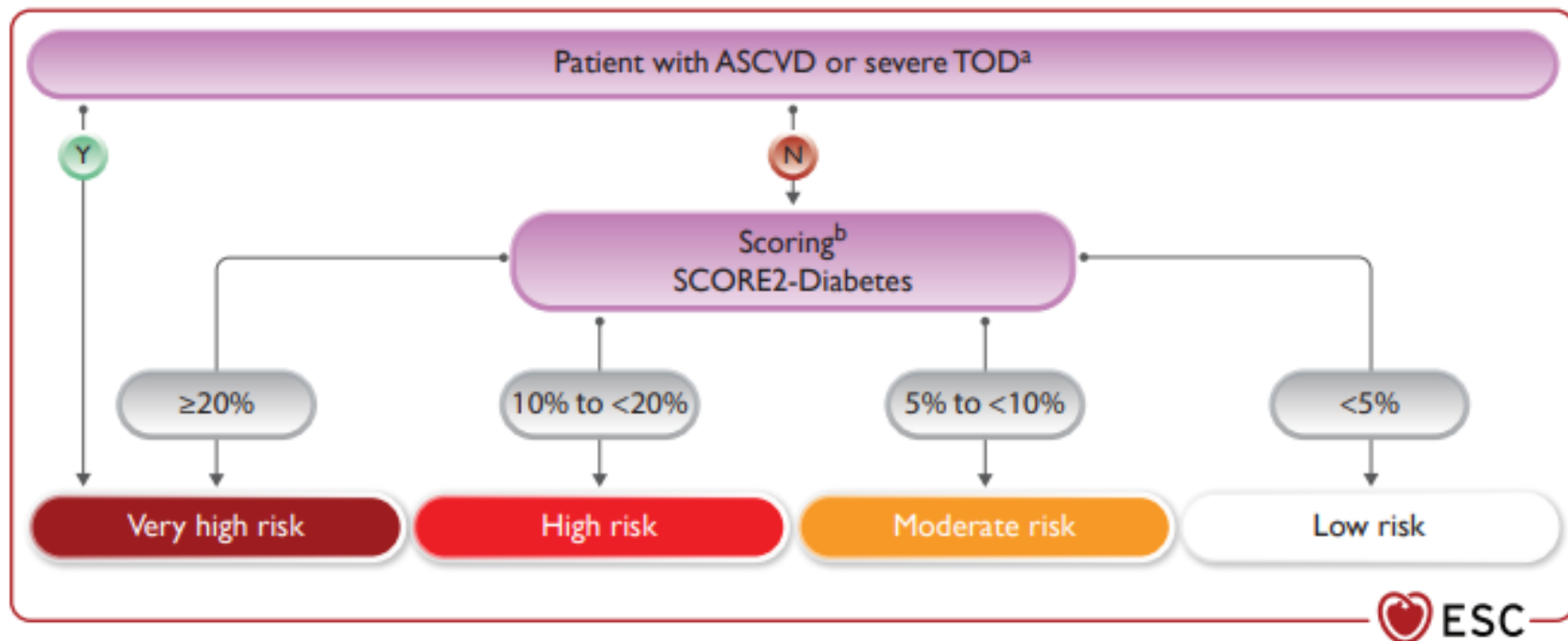# Cardiovascular risk assessment in patients with type 2 diabetes

Cardiovascular risk assessment in patients with type 2 diabetes Individuals with T2DM are at a two- to four-fold higher risk of developing CVD during their lifetime alongside its manifestations CAD, stroke, HF, and AF, as well as peripheral artery diseases (PAD)

Very high CV risk	Patients with T2DM with: • Clinically established ASCVD or • Severe TOD or • 10-year CVD risk ≥20% using SCORE2-Diabetes
High CV risk	Patients with T2DM not fulfilling the very high-risk criteria and a: • 10-year CVD risk 10 to <20% using SCORE2-Diabetes
Moderate CV risk	Patients with T2DM not fulfilling the very high-risk criteria and a: • 10-year CVD risk 5 to <10% using SCORE2-Diabetes
Low CV risk	Patients with T2DM not fulfilling the very high-risk criteria and a: • 10-year CVD risk <5% using SCORE2-Diabetes

In patients aged ≥40 years with T2DM without ASCVD or severe TOD, it is recommended to estimate 10-year CVD risk using the SCORE2-Diabetes algorithm

SCORE2-Diabetes integrates information on conventional CVD risk factors (i.e. age, smoking status, systolic blood pressure [SBP], and total and high-density lipoprotein [HDL]-cholesterol) with diabetes-specific information (e.g. age at diabetes diagnosis, HbA1c, and eGFR)

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┌─────────────────────────────────────────────────────────────────────────────┐
│  Patient with ASCVD or severe TOD[a]                                          │
│                                                                               │
│      Y                         N                                              │
│                                                                               │
│                          Scoring[b]                                           │
│                          SCORE2-Diabetes                                      │
│                                                                               │
│        ≥20%        10% to <20%        5% to <10%           <5%                 │
│                                                                               │
│   Very high risk    High risk        Moderate risk      Low risk              │
└─────────────────────────────────────────────────────────────────────────────┘
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ESC

Recommendation Table 2 — Recommendations for assessing cardiovascular risk in patients with type 2 diabetes

Recommendations to assess cardiovascular risk in patients with diabetes	Class[a]	Level[b]
It is recommended to screen patients with diabetes for the presence of severe TOD.[c,43,44]	I	A
It is recommended to assess medical history and the presence of symptoms suggestive of ASCVD in patients with diabetes.[53–55]	I	B

Continued

In patients with T2DM without symptomatic ASCVD or severe TOD,[c] it is recommended to estimate 10-year CVD risk via SCORE2-Diabetes.[d,50]	I	B

example

- Patient is a 52-year old African American woman with a past medical history of hypertension and rheumatoid arthritis.
- She is a past smoker, quit 10 years ago.
- Her mother had a stroke at age 62 years.
- Meds: hydrochlorothiazide 25 mg daily, methotrexate 7.5 mg weekly, folic acid 1 mg daily
- BP: 138/85 mmHg, BMI 30.2 kg/m2 Lipids: total chol 236 mg/dL, HDL-C 44 mg/dL, LDL-C 142 mg/dL, TG 250 mg/dL Glucose: 110 mg/dL

- WNL Lifestyle: Diet is high in carbohydrates and saturated fats; no regular exercise; however, she states she walks her dog once a day for 3-4 blocks

10-year ASCVD risk: 8.0% (intermediate risk)

Key challenges

- Although the patient is at the low end of intermediate risk, she has both elevation in LDL-C and triglycerides (mixed dyslipidemia) and risk enhancing factors: premature family history of stroke, rheumatoid arthritis, and metabolic syndrome.
- Need to convey that she falls within the risk range for starting statin therapy and the presence of risk enhancing factors further increases her risk.
- BP is not optimally controlled, and if she is adherent to current medication, we should discuss adding another medication.
- Lifestyle strategies can also improve risk reduction
- Patient conveys that she prefers not to take cholesterol medication; others have told her about muscle pain with statins.

VISUAL REPRESENTATION OF ASCVD RISK SCORE
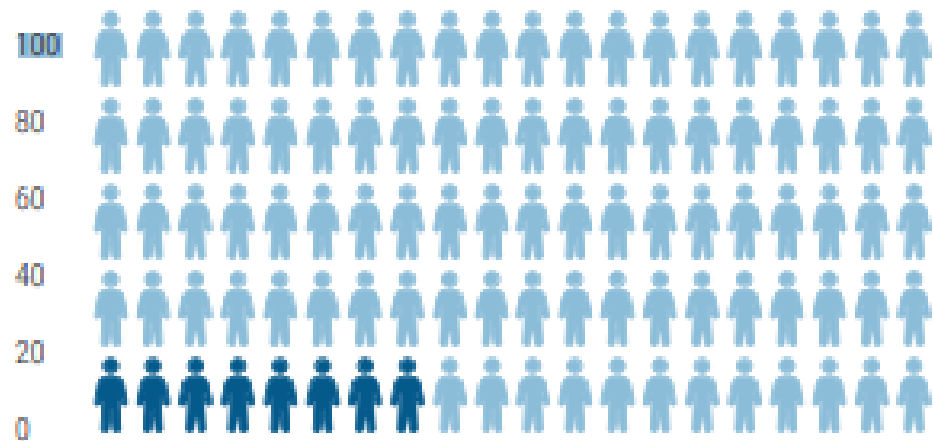
8 out of 100 people like you will have a heart attack or stroke in the next 10 years

92 out of 100 people like you will not have a heart attack or stroke in the next 10 years.

RISK REDUCTION BY THERAPY