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ESC News

The '10 commandments' for the 2023 ESC Guidelines for the management of cardiovascular disease in patients with diabetes

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The new 2023 ESC Guidelines for the management of cardiovascular disease in patients with diabetes[1] mainly focuses on two aspects (*Figure 1*).

- Screening and cardiovascular risk assessment
- Evidence-based, person-centred treatment strategies in patients with type 2 diabetes and cardiovascular disease

Screening and cardiovascular risk assessment

Patients with type 2 diabetes (T2DM) exhibited an increased risk to develop cardiovascular disease (CVD) as well as chronic kidney disease (CKD), and the presence of these comorbidities in a given patient has a major impact on the prognosis and also on treatment strategies. Therefore, it is of utmost importance to identify patients with diabetes and CVD as well as patients with diabetes and CKD.

(1) Given the high prevalence of undetected diabetes, it is recommended that all patients with CVD are screened for the presence of diabetes using fasting plasma glucose and HbA1C.
(2) All patients with diabetes should be evaluated for the presence of CVD by assessing medical history and the presence of symptoms suggestive of atherosclerotic cardiovascular disease (ASCVD).
(3) Systematic survey for heart failure (HF) symptoms and/or signs of HF is recommended at each clinical encounter in all patients with diabetes.
(4) Patient with diabetes should be regularly screened for the presence of CKD by assessing estimated glomerular filtration rate defined by chronic kidney disease epidemiology/CKD epidemiology collaboration and urine albumin-to-creatinine ratio (UACR).
(5) It is recommended to categorize CV risk in patients with T2DM based on the presence of ASCVD or severe target organ damage, or—in patients without ASCVD or severe target organ damage—based on the results of the dedicated T2DM CVD risk score, SCORE2-Diabetes.

Evidence-based, person-centred treatment strategies in patients with type 2 diabetes and cardiovascular disease

(6) The use of glucose-lowering medications with proven benefit should be prioritized followed by agents with proven CV safety over agents without proven CV benefit or proven CV safety.
(7) It is recommended to switch drugs from glucose-lowering medications without proven benefit or proven safety to drugs with proven benefit.
(8) To reduce CV risk in patients with T2DM and ACSVD, it is recommended to treat with a GLP-1 receptor agonist and an SGLT 2 inhibitor with proven benefit, on top of standard of care and independent of glucose control or target HbA1C.
(9) In patients with HF—irrespective of ejection fraction—it is recommended that patients with T2DM are treated with an SGLT 2 inhibitor on top of standard of care to reduce HF-related endpoints such as HF hospitalization or CV death.
(10) Patients with T2DM and CKD should be treated with an SGLT 2 inhibitor and the non-steroidal mineralocorticoid receptor

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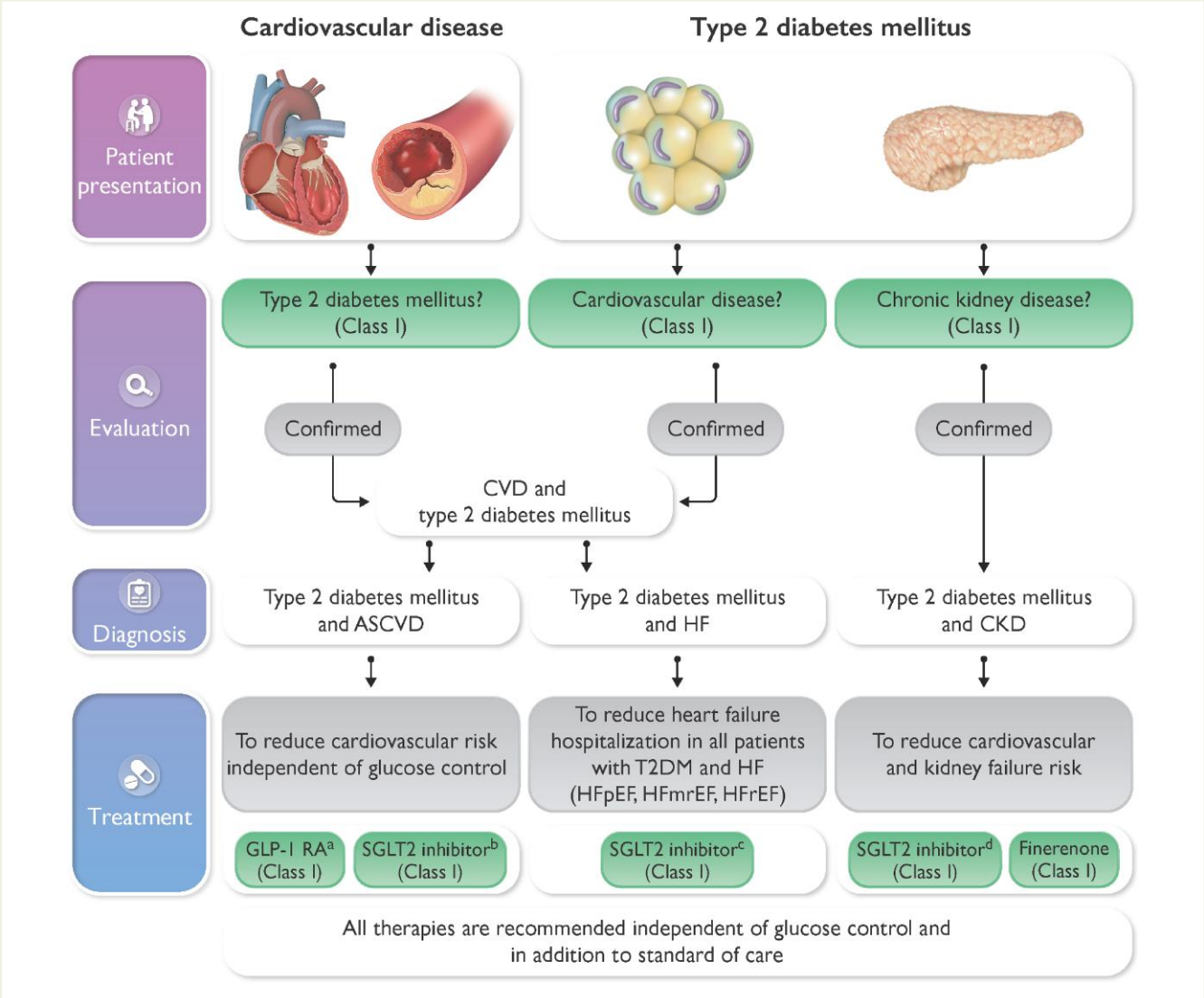

Figure 1 Management of cardiovascular disease in patients with type 2 diabetes: clinical approach and key recommendations. ASCVD, atherosclerotic cardiovascular disease; CKD, chronic kidney disease; CVD, cardiovascular disease; GLP-1 RA, glucagon-like peptide-1 receptor agonist; HF, heart failure; HFmrEF, heart failure with mildly reduced ejection fraction; HFpEF, heart failure with preserved ejection fraction; HFrEF, heart failure with reduced ejection fraction; s.c., subcutaneous; SGLT 2, sodium–glucose co-transporter 2; T2DM, type 2 diabetes mellitus. [a]GLP-1 RAs with proven cardiovascular benefit: liraglutide, semaglutide s.c., dulaglutide, and efpeglenatide. [b]SGLT 2 inhibitors with proven cardiovascular benefit: empagliflozin, canagliflozin, dapagliflozin, and sotagliflozin. [c]Empagliflozin, dapagliflozin, and sotagliflozin in HFrEF; empagliflozin and dapagliflozin in HFpEF and HFmrEF. [d]Canagliflozin, empagliflozin, and dapagliflozin

antagonist finerenone to reduce both CV and kidney failure risk. In addition, these patients should receive a statin-based regimen, treatment with Angiotensin-converting enzyme inhibitors (ACE-I) or Angiotensin-II receptor blocker, and appropriate blood pressure control (≤130/80 mmHg).

Overall, the management of CVD in patients with diabetes requires an interdisciplinary approach to implement evidence-based, person-centred strategies to reduce the burden of disease in each patient and to improve the prognosis.

Declarations

Disclosure of Interest

K.S. has received personal fees for lectures from Amgen, AstraZeneca, Bayer, Boehringer Ingelheim, Lilly, MSD, Novo Nordisk, Novartis, and

OmniaMed and served as an advisor for Amgen, AstraZeneca, Bayer, Boehringer Ingelheim, and Novo Nordisk. M.F. received unrestricted research grant by EFSD/Sanofi initiative; has given lectures for Novo Nordisk, Lilly & Co, Boehringer Ingelheim, Daiichi-Sankyo, Amgen, and Merck Sharp & Dohme; and has served as an advisor for Novo Nordisk, Lilly & Co, Boehringer Ingelheim, Amarin, Amgen, Merck Sharp & Dohme, and Organon; all fees were approved by the University of Rome Tor Vergata (Italian law n. 165/2001, art. 53). M.V. declares no competing interests. N.M. has given lectures for Bayer, Boehringer Ingelheim, sanofi-aventis, MSD, BMS, AstraZeneca, Lilly, and Novo Nordisk; has received unrestricted research grants from Boehringer Ingelheim; and has served as an advisor for Bayer, Boehringer Ingelheim, sanofi-aventis, MSD, BMS, AstraZeneca, and Novo Nordisk. In addition, he served in trial leadership for Boehringer Ingelheim and Novo Nordisk. N.M. declines all personal compensation from pharma or device companies. D.M.-W. has acted as a consultant and has served on the speaker bureau for Amarin, Amgen, AstraZeneca, Bayer, Boehringer Ingelheim, Daiichi-Sankyo, Lilly, Merck Sharp & Dohme, Novo Nordisk, and Sanofi.

Reference

1. Marx N, Federici M, Schütt K, Müller-Wieland D, Ajjan RA, Antunes MJ, *et al.* 2023 ESC Guidelines for the management of cardiovascular disease in patients with diabetes. *Eur Heart J* 2023;**44**:4043–140. https://doi.org/10.1093/eurheartj/ehad192