ESSENTIAL MESSAGES FROM ESC GUIDELINES

Committee for Practice Guidelines
To improve the quality of clinical practice and patient care in Europe

EASD
European Association for the Study of Diabetes

EUROPEAN SOCIETY OF CARDIOLOGY®

Diabetes

GUIDELINES ON DIABETES, PRE-DIABETES AND CARDIOVASCULAR DISEASES

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ESC ESSENTIAL MESSAGES

ESC GUIDELINES ON DIABETES, PRE-DIABETES AND CARDIOVASCULAR DISEASES DEVELOPED IN COLLABORATION WITH EASD*

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

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European Heart Journal 2013 - doi:10.1093/eurheartj/eht108

Take home messages

1 - Diabetes mellitus is

- A metabolic disorder characterized by chronic hyperglycaemia resulting from defects in insulin secretion or action, or a combination of both.
- ≈ 95% comprised by T2DM.
- An important contributor to vascular damage inducing a high risk of macro-and microvascular complications.

2 - Identification

- Screening for T2DM can be implemented using a non-invasive risk score (e.g. FINDRISC) supplemented by the assessment of glycaemia in people at high risk.
- Diagnosis of DM can be made by the measurement of FPG (≥7.0 mmol/L), 2hPG (≥11.1 mmol/L) or HbA_{1c} (≥6.5%).
- HbA_{1C} <6.5% does not exclude a diagnosis of diabetes which should be further investigated by OGTT in people at high risk of disturbed glucose metabolism..
- Abnormal PG or HbA_{1C} test results should be repeated to confirm the diagnosis.

3 - Prevention

- Progression of IGT to DM can be delayed by lifestyle intervention in about 50% of individuals.
- The intervention effect is sustained after lifestyle counselling has ceased.
- Pharmacotherapies (α-glucosidase inhibitors, metformin, glitazones, insulin, ARBs) can delay progression to DM in people with IGT whilst the drug is taken.

4 - Assessment of individual cardiovascular risk

- Classical risk factors (family history, lifestyle, smoking, hypertension, dyslipidaemia).
- Glycaemic status.
- Macrovascular disease (coronary, cerebrovascular and peripheral artery disease, heart failure).
- Microvascular disease (retinopathy, nephropathy, neuropathy).
- Arrhythmias especially atrial fibrillation.

5 - Multifactorial management of cardiovascular risk

- Patient education and empowerment.
- Life style advice.
- Smoking cessation.
- Personalised treatment of blood pressure, lipids, glucose and thrombotic risk.

6 - Life style intervention

- Daily consumption of vegetable and fruits.
- Increased dietary fibre intake.
- Moderate intake of simple carbohydrates.
- Reduced total dietary fat intake.
- Replacement of saturated fat by monounsaturated or polyunsaturated fat.
- Physical activity ≥30 min/day or at least 150 min/week.
- Weight reduction ≥5% if BMI ≥25 kg/m^2.
- Moderate alcohol consumption.

Take home messages

7 - Key targets* for prevention of cardiovascular disease

- BP <140/85 mmHg.
- LDL cholesterol <1.8 mmol/L (<70 mg/dL).
- HbA_{1c} <7% (<53 mmol/mol).

*These targets should be applied with individual needs taken into account.

8 - Multifactorial medical management

- A combination of blood pressure lowering agents is often required to achieve control and RAAS blockade should be part of the treatment.
- Lipid control is based on statins.
- Antiplatelet therapy is recommended for secondary prevention of CVD.
- A combination of glucose lowering agents is often required to achieve glycaemic control and metformin should be considered as first line treatment especially in overweight/obese patients.

9 - Options for revascularisation

- Acute coronary syndromes
  Early angiography and culprit lesion revascularization should be offered.
- Stable coronary artery disease
  CABG is preferred if the myocardial area at risk is large (multi-vessel disease, complex coronary lesions).
  PCI with DES may be performed for symptom control in single- and two-vessel disease.
- Peripheral artery disease
  Critical limb ischaemia and symptomatic carotid artery disease should be revascularised.

10 - Heart failure

- T2DM is a major risk factor for the development of heart failure.
- The combination of DM and heart failure has a 12-fold higher mortality than DM alone.
- Pharmacological management include combinations of RAAS inhibitors, beta blockade and diuretic therapy.
- Non-pharmacological approaches should be considered as in patients without DM.

11 - Multidisciplinary strategies

- Comprehensive care of DM patients often requires collaboration between specialists in cardiology, diabetology and primary care and several other subspecialties such as surgery ophthalmology, nephrology and psychiatry.
- Nurses, dieticians, podiatrists and physiotherapists and care professionals are important collaborators.

Major gaps in evidence

1 - There is a need for biomarkers and diagnostic strategies useful for the early detection of CAD in asymptomatic patients.

2 - Long-term CVD outcomes for most glucose-lowering treatments are not known.

3 - Optimal blood pressure targets are unknown.

4 - Are the metabolic side effects of beta-blockers or diuretics clinically relevant?

5 - Efficiency and safety of drugs increasing/improving HDL-C particles is unclear.

6 - The optimal antithrombotic regimen for primary prevention of CVD needs to be established.

7 - Pleiotropic effects of glucose lowering therapies on CVD outcomes is not fully understood.

8 - The role and level of glycaemic control in the outcome in ACS patients remain to be established.

9 - The role and level of glycaemic control in the outcome during and after myocardial revascularization remain to be established.

10 - The impact of glucose-lowering drugs including metformin, GLP-1 analogues and DPP-IV inhibitors on the prevention of heart failure is unknown.

11 - What is the role of hypoglycaemia and other predictors in sudden cardiac death?

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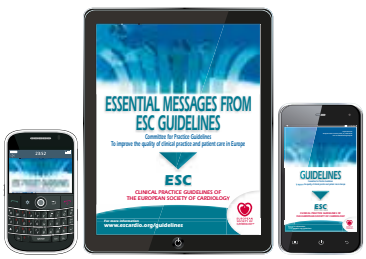

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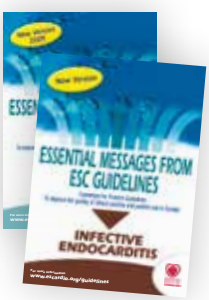

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To read the full report as published by the European Society of Cardiology, visit our Web Site at:
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