Quản lý Đái tháo đường
&
Ca lâm sàng tiếp cận Quản lý đái tháo đường

PGS.TS Nguyễn Thị Bích Đào

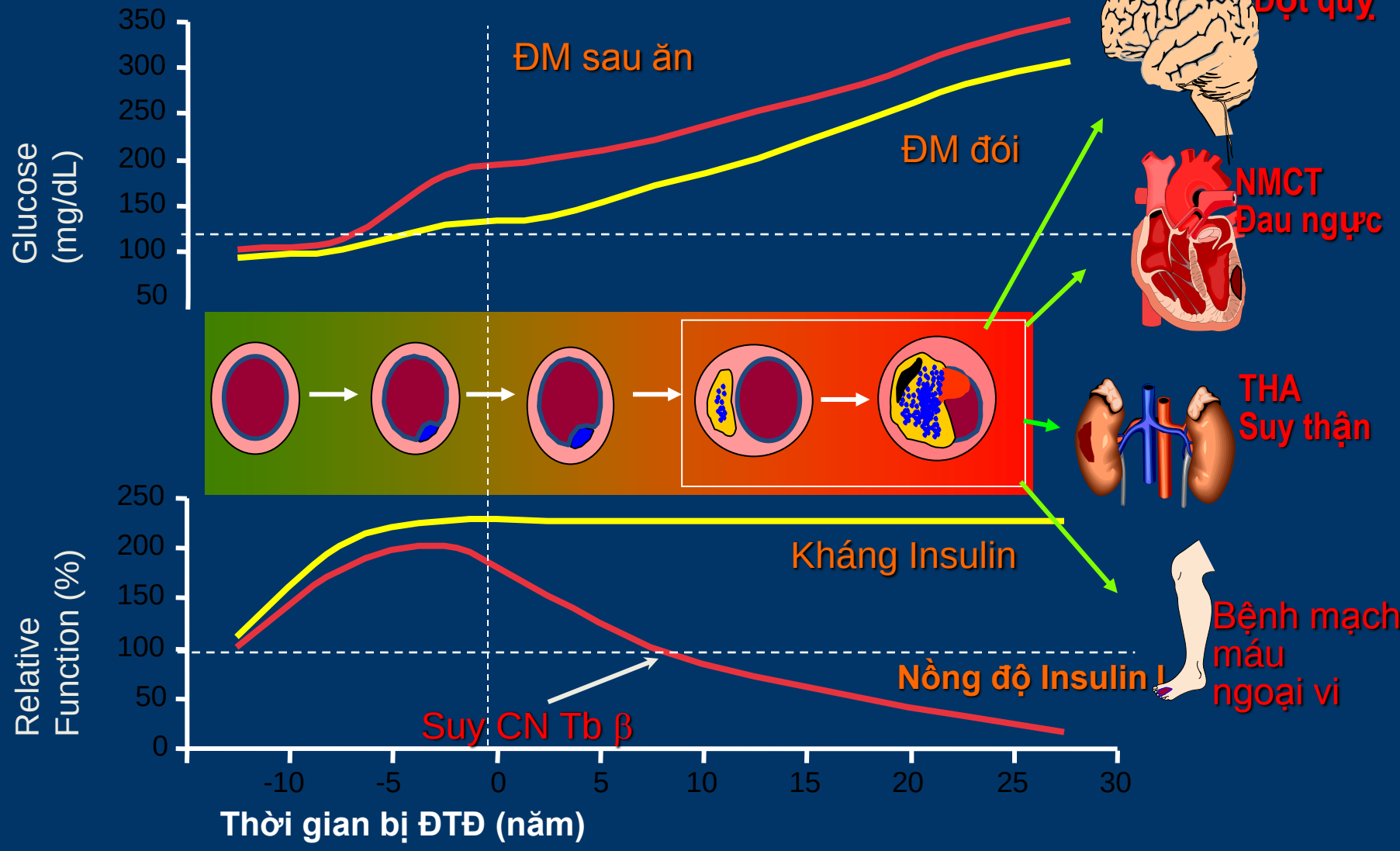
Bộ môn Nội tiết - ĐH Y Dược Tp HCM

NỘI DUNG

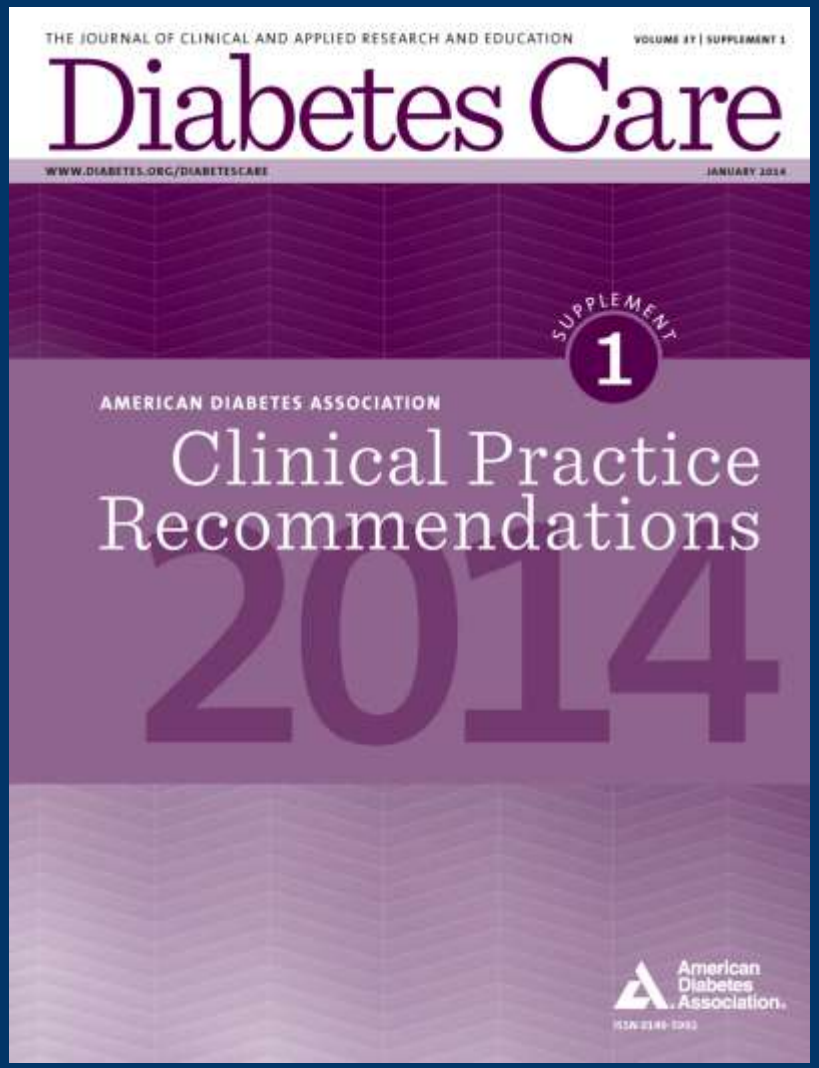
- Tại sao phải quản lý ĐTĐ.
- “ Các tiêu chuẩn chăm sóc trong ĐTĐ” theo ADA 2014
- Ca lâm sàng tiếp cận Quản lý đái tháo đường cho bệnh nhân ĐTĐ típ 2.

1. Tại sao phải quản lý Đái tháo đường.

Béo phì - RLDN Glucose - ĐTĐ - Tăng ĐM không kiểm soát



2. STANDARDS OF MEDICAL CARE IN DIABETES—2014



American Diabetes Association.

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I. CLASSIFICATION AND DIAGNOSIS

Classification of Diabetes

- Type 1 diabetes
  - β-cell destruction
- Type 2 diabetes
  - Progressive insulin secretory defect
- Other specific types of diabetes
  - Genetic defects in β-cell function, insulin action
  - Diseases of the exocrine pancreas
  - Drug- or chemical-induced
- Gestational diabetes mellitus (GDM)

ADA. I. Classification and Diagnosis. Diabetes Care 2014;37(suppl 1):S14

Criteria for the Diagnosis of Diabetes

A1C ≥6.5%*

OR

Fasting plasma glucose (FPG) ≥126 mg/dL (7.0 mmol/L)*

OR

2-h plasma glucose ≥200 mg/dL (11.1 mmol/L) during an OGTT*

OR

A random plasma glucose ≥200 mg/dL (11.1 mmol/L)

*In the absence of unequivocal hyperglycemia, result should be confirmed by repeat testing.

ADA. I. Classification and Diagnosis. Diabetes Care 2014;37(suppl 1):S15; Table 2

Categories of Increased Risk for Diabetes (Prediabetes)*

FPG 100–125 mg/dL (5.6–6.9 mmol/L): IFG

OR

2-h plasma glucose in the 75-g OGTT 140–199 mg/dL (7.8–11.0 mmol/L): IGT

OR

A1C 5.7–6.4%

*For all three tests, risk is continuous, extending below the lower limit of a range and becoming disproportionately greater at higher ends of the range.

ADA. I. Classification and Diagnosis. Diabetes Care 2014;37(suppl 1):S16; Table 3

V. DIABETES CARE

Diabetes Care: Initial Evaluation

- A complete medical evaluation should be performed to
  - Classify the diabetes
    - Detect presence of diabetes complications
    - Review previous treatment, risk factor control in patients with established diabetes
    - Assist in formulating a management plan
    - Provide a basis for continuing care
- Perform laboratory tests necessary to evaluate each patient's medical condition

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S21

Components of the Comprehensive Diabetes Evaluation (3)

Medical history

- History of diabetes-related complications
  - Microvascular: retinopathy, nephropathy, neuropathy
    - Sensory neuropathy, including history of foot lesions
    - Autonomic neuropathy, including sexual dysfunction and gastroparesis
  - Macrovascular: CHD, cerebrovascular disease, PAD
  - Other: psychosocial problems,* dental disease*

*See appropriate referrals for these categories.

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S21; Table 7

Components of the Comprehensive Diabetes Evaluation (5)

Laboratory evaluation

- A1C, if results not available within past 2–3 months
- If not performed/available within past year
  - Fasting lipid profile, including total, LDL, and HDL cholesterol and triglycerides
  - Liver function tests
  - A/C : urine albumin-to-creatinine ratio
  - Serum creatinine and calculated GFR
  - TSH in type 1 diabetes, dyslipidemia, or women over age 50 years

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S21; Table 7

Diabetes Care: Glycemic Control

- Patient self-monitoring of blood glucose (SMBG), or interstitial glucose
- A1C

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S21

Recommendations: Glucose Monitoring (1)

- Patients on multiple-dose insulin (MDI) or insulin pump therapy should do SMBG **B**
  - Prior to meals and snacks
  - Occasionally postprandially
  - At bedtime
  - Prior to exercise
  - When they suspect low blood glucose
  - After treating low blood glucose until they are normoglycemic
  - Prior to critical tasks such as driving

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S21

Recommendations: A1C

- Perform the A1C test at least two times a year in patients meeting treatment goals (and have stable glycemic control) **E**
- Perform the A1C test quarterly in patients whose therapy has changed or who are not meeting glycemic goals **E**
- Use of point-of-care (POC) testing for A1C provides the opportunity for more timely treatment changes **E**

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S22–S23

Correlation of A1C with Average Glucose

A1C (%)	Mean plasma glucose mg/dL	Mean plasma glucose mmol/L
6	126	7.0
7	154	8.6
8	183	10.2
9	212	11.8
10	240	13.4
11	269	14.9
12	298	16.5

These estimates are based on ADAG data of ~2,700 glucose measurements over 3 months per A1C measurement in 507 adults with type 1, type 2, and no diabetes. The correlation between A1C and average glucose was 0.92. A calculator for converting A1C results into estimated average glucose (eAG), in either mg/dL or mmol/L, is available at http://professional.diabetes.org/eAG.

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S23; Table 8

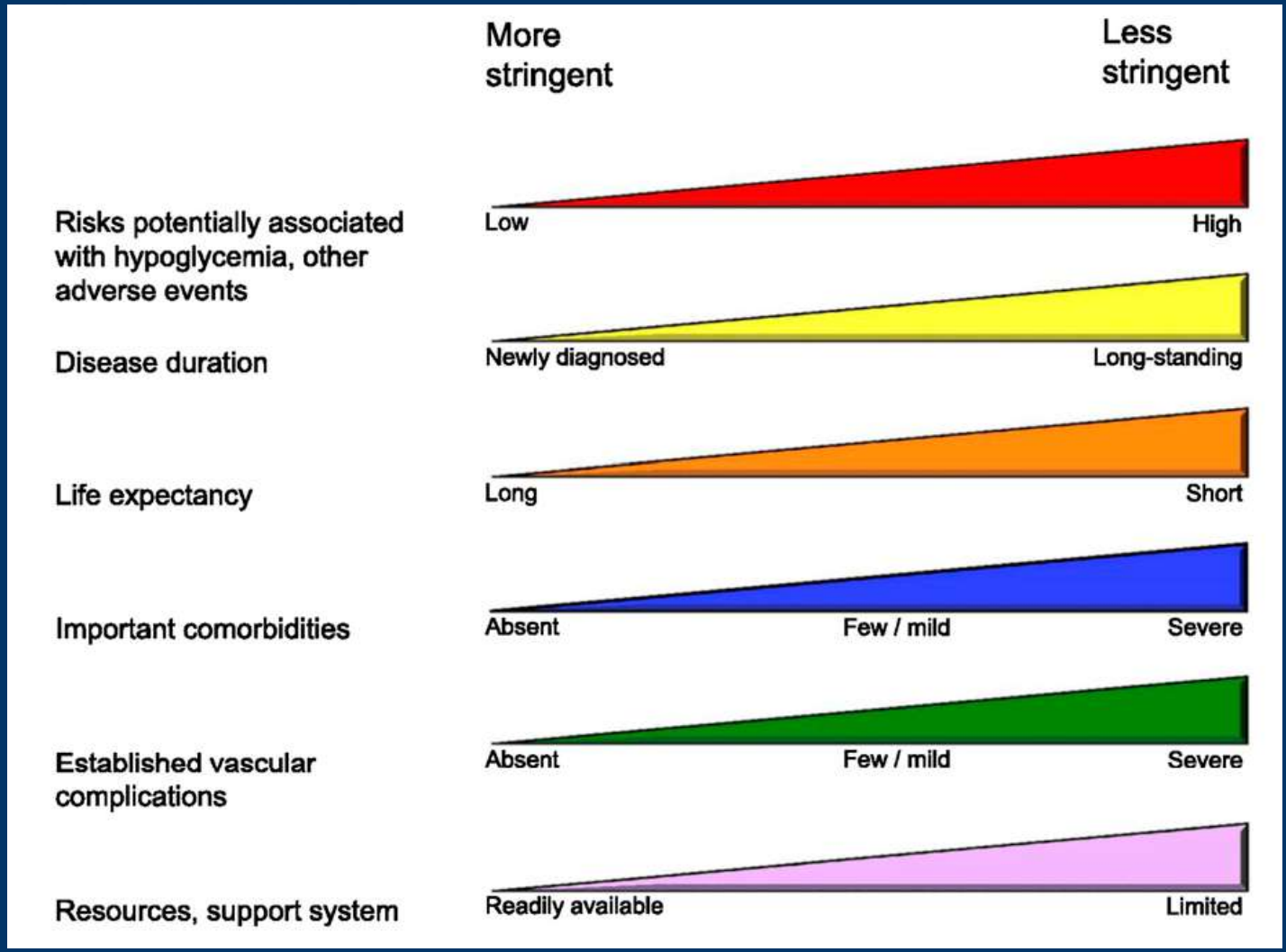
Glycemic Recommendations for Nonpregnant Adults with Diabetes (1)

A1C	<7.0%*
Preprandial capillary plasma glucose	70–130 mg/dL* (3.9–7.2 mmol/L)
Peak postprandial capillary plasma glucose†	<180 mg/dL* (<10.0 mmol/L)

*Goals should be individualized based on these values.
†Postprandial glucose measurements should be made 1–2 h after the beginning of the meal, generally peak levels in patients with diabetes.

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S26; Table 9

Approach to Management of Hyperglycemia



ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S25. Figure 1; adapted with permission from Ismail-Beigi F, et al. Ann Intern Med 2011;154:554-559

Recommendations: Insulin Therapy for Type 1 Diabetes (1)

Most people with type 1 diabetes should

- Be treated with MDI injections (3–4 injections per day of basal and prandial insulin) or continuous subcutaneous insulin infusion (CSII) **A**
- Be educated in how to match prandial insulin dose to carbohydrate intake, premeal blood glucose, and anticipated activity **E**
- Use insulin analogs to reduce hypoglycemia risk **A**

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S26

Recommendations: Insulin Therapy for Type 1 Diabetes (2)

Screening

- Consider screening those with type 1 diabetes for other autoimmune diseases (thyroid, vitamin B12 deficiency, celiac) as appropriate **B**

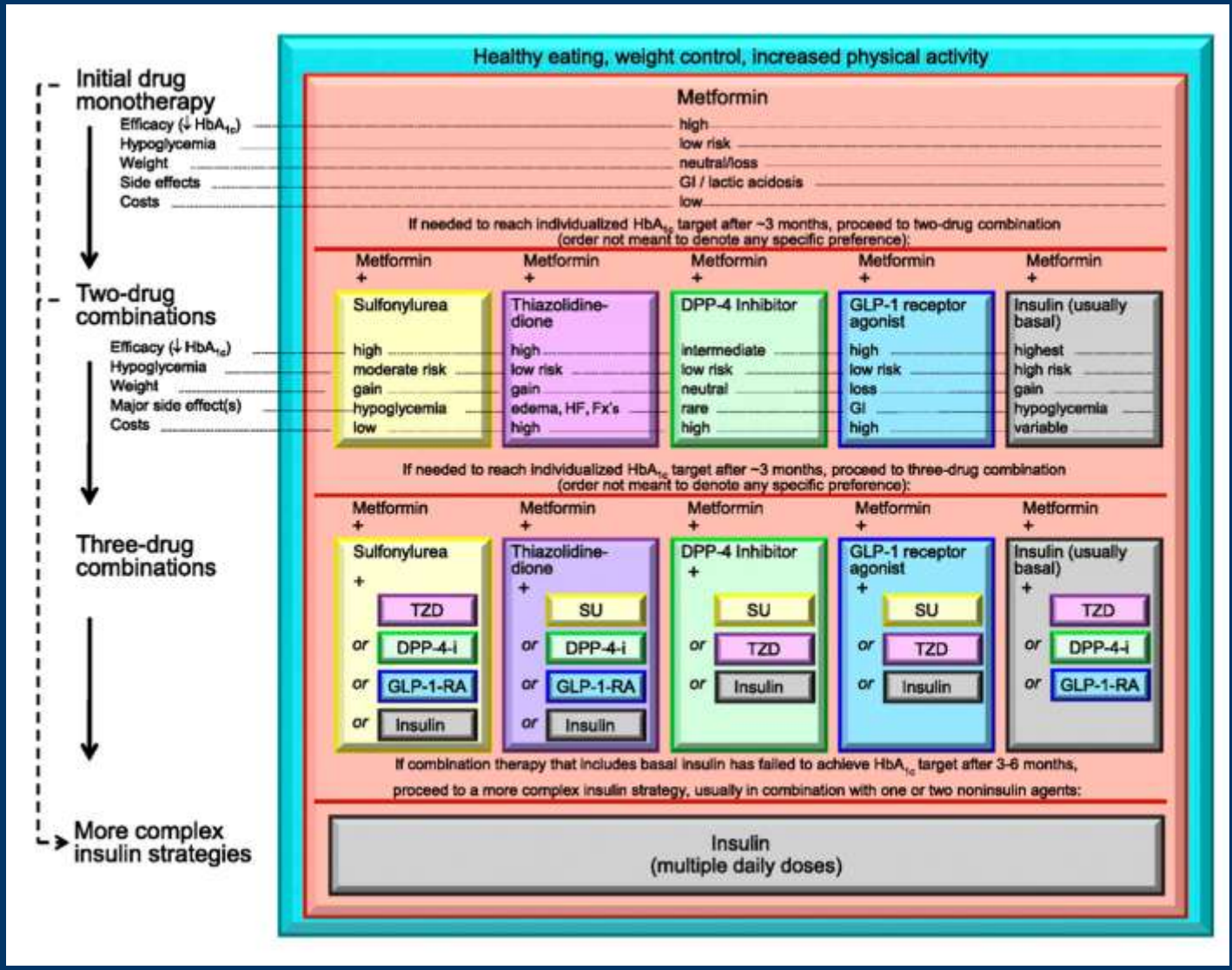
ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S26

Recommendations: Therapy for Type 2 Diabetes (1)

- Metformin, if not contraindicated and if tolerated, is the preferred initial pharmacological agent for type 2 diabetes **A**
- In newly diagnosed type 2 diabetic patients with markedly symptomatic and/or elevated blood glucose levels or A1C, consider insulin therapy, with or without additional agents, from the outset **E**

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S27

Antihyperglycemic Therapy in Type 2 Diabetes



American Diabetes Association.

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S27. Figure 2; adapted with permission from Inzucchi SE, et al. Diabetes Care 2012;35:1364–1369

Recommendations: Medical Nutrition Therapy (MNT)

- Nutrition therapy is recommended for all people with type 1 and type 2 diabetes as an effective component of the overall treatment plan **A**
- Individuals who have prediabetes or diabetes should receive individualized MNT as needed to achieve treatment goals, preferably provided by a registered dietitian familiar with the components of diabetes MNT **A**

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S28

Recommendations: Diabetes Self-Management Education, Support

- People with diabetes should receive DSME/DSMS according to National Standards for Diabetes Self-Management Education and Support at diagnosis and as needed thereafter **B**
- Effective self-management, quality of life are key outcomes of DSME/DSMS; should be measured, monitored as part of care **C**
- DSME/DSMS should address psychosocial issues, since emotional well-being is associated with positive outcomes **C**

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S30

Recommendations: Physical Activity

- Children with diabetes/prediabetes: engage in at least 60 min/day physical activity **B**
- Adults with diabetes: at least 150 min/wk of moderate-intensity aerobic activity (50–70% of maximum heart rate), over at least 3 days/wk with no more than 2 consecutive days without exercise **A**
- If not contraindicated, adults with type 2 diabetes should perform resistance training at least twice weekly **A**

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S31

Recommendations: Psychosocial Assessment and Care

- Routinely screen for psychosocial problems:

+ depression.

+ diabetes-related distress, anxiety, eating disorders, cognitive impairment **B**

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S32

Recommendations: Hypoglycemia

- Individuals at risk for hypoglycemia should be asked about symptomatic and asymptomatic hypoglycemia at each encounter **C**
- Glucose (15–20 g) preferred treatment for conscious individual with hypoglycemia **E**
- Glucagon should be prescribed for all individuals at significant risk of severe hypoglycemia and caregivers/family members instructed in administration **E**

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S33

Recommendations: Bariatric Surgery

- Consider bariatric surgery for adults with BMI ≥35 kg/m^2 and type 2 diabetes **B**
- After surgery, life-long lifestyle support and medical monitoring is necessary **B**
- Insufficient evidence to recommend surgery in patients with BMI <35 kg/m^2 outside of a research protocol **E**
- Well-designed, RCTs comparing optimal medical/lifestyle therapy needed to determine long-term benefits, cost-effectiveness, risks **E**

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S34

Recommendations: Immunization (1)

- Provide influenza vaccine annually to all diabetic patients ≥6 months of age **C**
- Administer pneumococcal polysaccharide vaccine to all diabetic patients ≥2 years **C**
  - One-time revaccination recommended for those >65 years of age if immunized >5 years ago
  - Other indications for repeat vaccination: nephrotic syndrome, chronic renal disease, other immunocompromised states (such as after transplantation)

Recommendations: Immunization (2)

- Administer hepatitis B vaccination to unvaccinated adults with diabetes who are aged 19–59 years **C**
- Consider administering hepatitis **B** vaccination to unvaccinated adults with diabetes who are aged ≥60 years **C**

ADA. V. Diabetes Care. Diabetes Care 2014;37(suppl 1):S35

VI. PREVENTION AND MANAGEMENT OF DIABETES COMPLICATIONS

Cardiovascular Disease

- CVD is the major cause of morbidity, mortality for those with diabetes
  - Largest contributor to direct/indirect costs
- Common conditions coexisting with type 2 diabetes (e.g., hypertension, dyslipidemia) are clear risk factors for CVD
- Diabetes itself confers independent risk
- Benefits observed when individual cardiovascular risk factors are controlled to prevent/slow CVD in people with diabetes

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S36

Recommendations: Hypertension/Blood Pressure Control

Screening and diagnosis

- Blood pressure should be measured at every routine visit
- Patients found to have elevated blood pressure should have blood pressure confirmed on a separate day **B**

Goals

- People with diabetes and hypertension should be treated to a systolic blood pressure goal of <140 mmHg **B**
- Lower systolic targets, such as <130 mmHg, may be appropriate for certain individuals, such as younger patients, if it can be achieved without undue treatment burden **C**
- Patients with diabetes should be treated to a diastolic blood pressure <80 mmHg **B**

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S36

Recommendations: Hypertension/Blood Pressure Control

Treatment (1)

- Patients with blood pressure >120/80 mmHg should be advised on lifestyle changes to reduce blood pressure **B**
- Patients with confirmed blood pressure higher than 140/80 mmHg should, in addition to lifestyle therapy, have prompt initiation and timely subsequent titration of pharmacological therapy to achieve blood pressure goals **B**

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S36

Recommendations: Hypertension/Blood Pressure Control

Treatment (2)

- Lifestyle therapy for elevated blood pressure **B**
  - Weight loss if overweight
  - DASH-style dietary pattern including reducing sodium, increasing potassium intake
  - Moderation of alcohol intake
  - Increased physical activity

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S36

Recommendations: Hypertension/Blood Pressure Control

Treatment (3)

- Pharmacological therapy for patients with diabetes and hypertension **C**
  - A regimen that includes either an ACE inhibitor or angiotensin II receptor blocker; if one class is not tolerated, substitute the other
- Multiple drug therapy (two or more agents at maximal doses) generally required to achieve blood pressure targets **B**
- Administer one or more antihypertensive medications at bedtime **A.**
- If ACE inhibitors, ARBs, or diuretics are used, serum creatinine/eGFR and potassium levels should be monitored **E**
- In pregnant patients with diabetes and chronic hypertension, blood pressure target goals of 110–129/65–79 mmHg are suggested in interest of long-term maternal health and minimizing impaired fetal growth; ACE inhibitors, ARBs, contraindicated during pregnancy **E**

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S36

Recommendations: Dyslipidemia/Lipid Management (1)

Screening

- In most adult patients with diabetes, measure fasting lipid profile at least annually **B**
- In adults with low-risk lipid values
  - LDL cholesterol <100 mg/dL
  - HDL cholesterol >50 mg/dL
  - Triglycerides <150 mg/dL)
- Repeat lipid assessments every 2 years **E**

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S38

Recommendations: Dyslipidemia/Lipid Management (2)

Treatment recommendations and goals (1)

- To improve lipid profile in patients with diabetes, recommend lifestyle modification **A**, focusing on
  - Reduction of saturated fat, trans fat, cholesterol intake
  - Increase of n-3 fatty acids, viscous fiber, plant stanols/sterols
  - Weight loss (if indicated)
  - Increased physical activity

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S38

Recommendations: Dyslipidemia/Lipid Management (3)

Treatment recommendations and goals (2)

- Statin therapy should be added to lifestyle therapy, regardless of baseline lipid levels
  - with overt CVD **A**
  - without CVD >40 years of age who have one or more other CVD risk factors **A**

- For patients at lower risk (e.g., without overt CVD, <40 years of age) **C**
  - Consider statin therapy in addition to lifestyle therapy if LDL cholesterol remains >100 mg/dL
  - In those with multiple CVD risk factors

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S38

Recommendations: Dyslipidemia/Lipid Management (4)

Treatment recommendations and goals (3)

- In individuals without overt CVD
  - Goal is LDL cholesterol <100 mg/dL (2.6 mmol/L) **B**
- In individuals with overt CVD
  - Lower LDL cholesterol goal of <70 mg/dL (1.8 mmol/L), with a high dose of a statin, is an option **B**

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S38

Recommendations: Dyslipidemia/Lipid Management (5)

Treatment recommendations and goals (4)

- If targets not reached on maximal tolerated statin therapy
  - Alternative therapeutic goal: reduce LDL cholesterol ~30–40% from baseline **B**
- Triglyceride levels <150 mg/dL (1.7 mmol/L), HDL cholesterol >40 mg/dL (1.0 mmol/L) in men and >50 mg/dL (1.3 mmol/L) in women, are desirable **C**
  - However, LDL cholesterol–targeted statin therapy remains the preferred strategy **A**

Statin therapy is contraindicated in pregnancy **B**

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S38

Recommendations: Glycemic, Blood Pressure, Lipid Control in Adults

A1C	<7.0%*
Blood pressure	<140/80 mmHg†
Lipids: LDL cholesterol	<100 mg/dL (<2.6 mmol/L)‡ Statin therapy for those with history of MI or age >40+ or other risk factors

*More or less stringent glycemic goals may be appropriate for individual patients. Goals should be individualized based on duration of diabetes, age/life expectancy, comorbid conditions, known CVD or advanced microvascular complications, hypoglycemia unawareness, and individual patient considerations.

†Based on patient characteristics and response to therapy, lower SBP targets may be appropriate.

‡In individuals with overt CVD, a lower LDL cholesterol goal of <70 mg/dL (1.8 mmol/L), using a high dose of a statin, is an option.

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S40; Table 10

Recommendations: Antiplatelet Agents (1)

- Consider aspirin therapy (75–162 mg/day) **C**
  - As a primary prevention strategy in those with type 1 or type 2 diabetes at increased cardiovascular risk (10-year risk >10%)
  - Includes most men >50 years of age or women >60 years of age who have at least one additional major risk factor
    - Family history of CVD
    - Hypertension
    - Smoking
    - Dyslipidemia
    - Albuminuria

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S40

Recommendations: Antiplatelet Agents (2)

- Aspirin should not be recommended for CVD prevention for adults with diabetes at low CVD risk, since potential adverse effects from bleeding likely offset potential benefits **C**
  - Low risk: 10-year CVD risk <5%, such as in men <50 years, women <60 years with no major additional CVD risk factors
- In patients in these age groups with multiple other risk factors (10-year risk 5–10%), clinical judgment is required **E**

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S40

Recommendations: Antiplatelet Agents (3)

- Use aspirin therapy (75–162 mg/day)
  - Secondary prevention strategy in those with diabetes with a history of CVD **A**
- For patients with CVD and documented aspirin allergy
  - Clopidogrel (75 mg/day) should be used **B**
- Dual antiplatelet therapy is reasonable for up to a year after an acute coronary syndrome **B**

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S40

Recommendations: Smoking Cessation

- Advise all patients not to smoke or use tobacco products **A**
- Include smoking cessation counseling and other forms of treatment as a routine component of diabetes care **B**

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S41

Recommendations: Cardiovascular Disease (1)

Screening

- In asymptomatic patients, routine screening for CAD is not recommended because it does not improve outcomes as long as CVD risk factors are treated **A**

Treatment (1)

- To reduce risk of cardiovascular events in patients with known CVD, consider
  - ACE inhibitor **C**
  - Aspirin* **A**
  - Statin therapy* **A**
- In patients with a prior MI
  - β-blockers should be continued for at least 2 years after the event **B**

*If not contraindicated.

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S42

Recommendations: Cardiovascular Disease (2)

Treatment (2)

- In patients with symptomatic heart failure, avoid thiazolidinedione treatment **C**
- In patients with stable CHF, metformin **B**
  - May be used if renal function is normal
  - Should be avoided in unstable or hospitalized patients with CHF

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S42

Recommendations: Nephropathy (1)

- To reduce the risk or slow the progression of nephropathy
  - Optimize glucose control **A**
  - Optimize blood pressure control **A**

Screening

- Assess urine albumin excretion annually **B**
  - In type 1 diabetic patients with diabetes duration of ≥5 years
  - In all type 2 diabetic patients at diagnosis

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S42

Recommendations: Nephropathy (2)

Treatment (1)

- ACE inhibitor, ARB not recommended in diabetic patients with normal blood pressure, albumin excretion <30 mg/24 h for primary prevention of diabetic kidney disease **B**
- Nonpregnant patient with modestly elevated (30–299 mg/day) **C** or higher levels (>300 mg/day) **A** of urinary albumin excretion
  - Use either ACE inhibitors or ARBs (not both)

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S42

Recommendations: Nephropathy (3)

Treatment (2)

- For people with diabetes and diabetic kidney disease (albuminuria >30 mg/24 h), reducing dietary protein below usual intake not recommended **A**
  - When ACE inhibitors, ARBs, or diuretics are used, monitor serum creatinine, potassium levels for increased creatinine or changes in potassium **E**

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S42–S43

Definitions of Abnormalities in Albumin Excretion

Category	Spot collection (µg/mg creatinine)
Normal	<30
Increased urinary albumin excretion*	≥30

*Historically, ratios between 30 and 299 have been called microalbuminuria and those 300 or greater have been called macroalbuminuria (or clinical albuminuria).

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S44; Table 11

Stages of Chronic Kidney Disease

Stage	Description	GFR (mL/min per 1.73 m^2 body surface area)
1	Kidney damage* with normal or increased GFR	≥90
2	Kidney damage* with mildly decreased GFR	60–89
3	Moderately decreased GFR	30–59
4	Severely decreased GFR	15–29
5	Kidney failure	<15 or dialysis

GFR = glomerular filtration rate

*Kidney damage defined as abnormalities on pathologic, urine, blood, or imaging tests.

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S44; Table 12

Management of CKD in Diabetes (1)

GFR	Recommended
All patients	Yearly measurement of creatinine, urinary albumin excretion, potassium
45-60	Referral to a nephrologist if possibility for nondiabetic kidney disease exists
	Consider dose adjustment of medications
	Monitor eGFR every 6 months
	Monitor electrolytes, bicarbonate, hemoglobin, calcium, phosphorus, parathyroid hormone at least yearly
	Assure vitamin D sufficiency
	Consider bone density testing
	Referral for dietary counselling

American Diabetes Association.

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S45; Table 13; Adapted from http://www.kidney.org/professionals/KDOQI/guideline_diabetes/

Management of CKD in Diabetes (2)

GFR	Recommended
30-44	Monitor eGFR every 3 months
	Monitor electrolytes, bicarbonate, calcium, phosphorus, parathyroid hormone, hemoglobin, albumin weight every 3–6 months
	Consider need for dose adjustment of medications
<30	Referral to a nephrologist

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S45; Table 13; Adapted from http://www.kidney.org/professionals/KDOQI/guideline_diabetes/

Recommendations: Retinopathy

- To reduce the risk or slow the progression of retinopathy
  - Optimize glycemic control **A**
  - Optimize blood pressure control **A,**

Screening (1)

- Initial dilated and comprehensive eye examination by an ophthalmologist or optometrist
  - Adults with type 1 diabetes
    - Within 5 years after diabetes onset **B**
  - Patients with type 2 diabetes
    - Shortly after diagnosis of diabetes **B**

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S44

Recommendations: Neuropathy Screening, Treatment (1)

- All patients should be screened for distal symmetric polyneuropathy (DPN) **B**
  - At diagnosis of type 2 diabetes and 5 years after diagnosis of type 1 diabetes
  - At least annually thereafter using simple clinical tests
- Electrophysiological testing rarely needed
  - Except in situations where clinical features are atypical **E**

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S45

Recommendations: Neuropathy Screening, Treatment (2)

- Screening for signs and symptoms of cardiovascular autonomic neuropathy
  - Should be instituted at diagnosis of type 2 diabetes and 5 years after the diagnosis of type 1 diabetes
  - Special testing rarely needed; may not affect management or outcomes **E**
- Medications for relief of specific symptoms related to DPN, autonomic neuropathy are recommended
  - Reduce pain **B**; improve quality of life **E**

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S46

Recommendations: Foot Care (1)

- For all patients with diabetes, perform an annual comprehensive foot examination to identify risk factors predictive of ulcers and amputations **B**
  - Inspection
  - Assessment of foot pulses
  - Test for loss of protective sensation: 10-g monofilament plus testing any one of
    - Vibration using 128-Hz tuning fork
    - Pinprick sensation
    - Ankle reflexes
    - Vibration perception threshold

ADA. VI. Prevention, Management of Complications. Diabetes Care 2014;37(suppl 1):S47

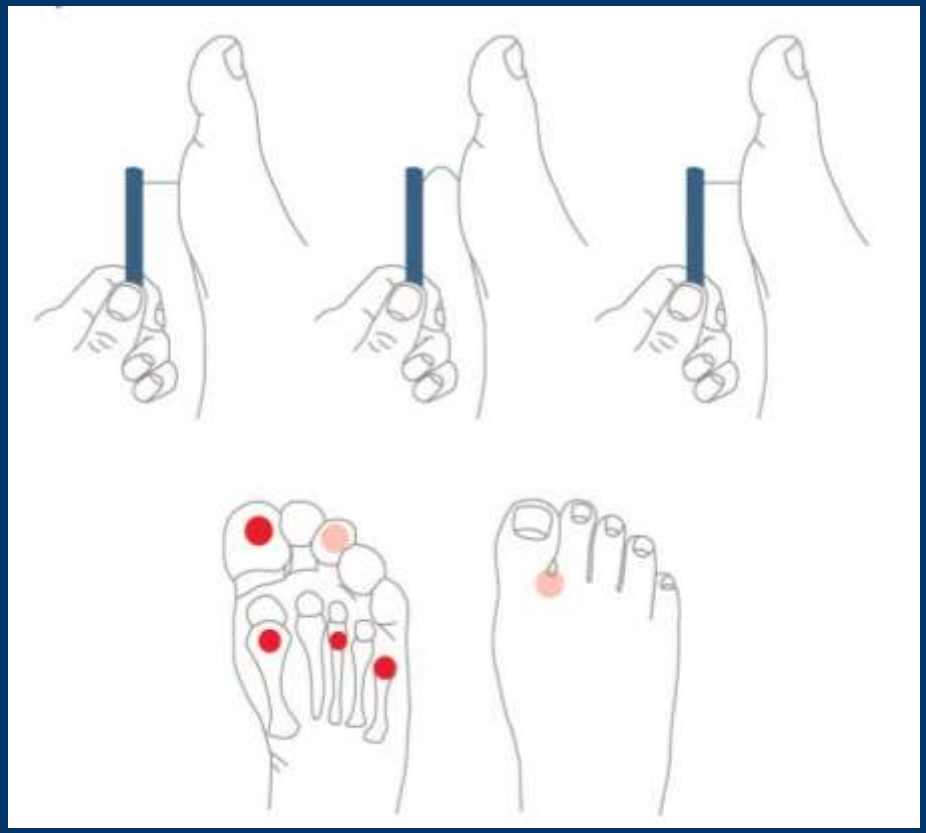
Recommendations: Foot Care (2)

Upper panel

- To perform the 10-g monofilament test, place the device perpendicular to the skin, with pressure applied until the monofilament buckles
- Hold in place for 1 second and then release

Lower panel

- The monofilament test should be performed at the highlighted sites while the patient's eyes are closed



Boulton AJM, et al. Diabetes Care 2008;31:1679–1685

VII. ASSESSMENT OF COMMON COMORBID CONDITIONS

Recommendation: Assessment of Common Comorbid Conditions

- Consider assessing for and addressing common comorbid conditions that may complicate the management of diabetes **B**
- Common comorbidities

Depression
Obstructive sleep apnea
Fatty liver disease
Cancer
Fractures
Cognitive impairment
Low testosterone in men
Periodontal disease
Hearing impairment

ADA. VII. Assessment of Common Comorbid Conditions. Diabetes Care 2014;37(suppl 1):S49

Ca lâm sàng tiếp cận Quản lý đái tháo đường cho bệnh nhân ĐTĐ típ 2.

- Bệnh nhân NG. V. N 66 tuổi.
- Bn từ vùng B chuyển đến vùng A ở.
- Đến khám phòng khám A lần đầu tiên: BN bị Đái tháo đường đã 10 năm.
- Các bước tiếp cận quản lý ĐTĐ đ/v Bn?

Ca lâm sàng tiếp cận Quản lý đái tháo đường cho bệnh nhân ĐTĐ típ 2.

Các bước tiếp cận quản lý ĐTĐ đ/v Bn?

Đánh giá Bn qua

- Bệnh sử/ lý do đến khám
- Tiền sử : - Các bệnh đi kèm
- Các biến chứng m/m lớn, m/m nhỏ, ngoài m/m
- Chế độ điều trị đang sử dụng
- Đáp ứng của điều trị đó trong KS ĐH. HA, lipid máu, tổng trạng
- Đợt tăng- Hạ
- Khám lâm sàng
- XN CLS
-

Ca lâm sàng tiếp cận Quản lý đái tháo đường cho bệnh nhân ĐTĐ típ 2.

Các bước tiếp cận quản lý ĐTĐ đ/v Bn?

Đánh giá Bn qua

- Lý do đến khám: khám định kỳ
- Tiền sử :

+ Các biến chứng m/m lớn, m/m nhỏ, ngoài m/m

  Ghi nhận có THA, NMCT, RLLPM, BTTMCB, đã điều trị mắt bằng laser quang đông.

+ Chế độ điều trị đang sử dụng:

  Glibenclamid 5mg 1 v x 2/ ngày + Metformin 2 g/ ngày.

  Amlordipin 5mg/ ngày + Enalapril 10 mg/ ngày

  Atorvastatin 10mg/ ngày

  Aspirin 81mg/ ngày

  ISMN 60mg 1 v / ngày

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Ca lâm sàng tiếp cận Quản lý đái tháo đường cho bệnh nhân ĐTĐ típ 2.

Các bước tiếp cận quản lý ĐTĐ đ/v Bn?

Đánh giá Bn qua

+ Đáp ứng của điều trị đó trong

ĐH: Bn không tự TDĐH tại nhà, thỉnh thoảng XN ĐH khoảng 200- 250 mg/dl – HbA1c không biết

HA: thường 140-160/ 90 mmHg

Lipid máu: thỉnh thoảng có làm nhưng ko biết bao nhiêu.

hay yếu mệt.

Đợt tăng- Hạ ĐH: thỉnh thoảng có cơn hạ ĐH, chưa bị hôn mê tăng ĐH và HĐH

+ Các bệnh đi kèm: Thoái hóa khớp gối, đi lại khó khăn.

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Ca lâm sàng tiếp cận Quản lý đái tháo đường cho bệnh nhân ĐTĐ típ 2.

Các bước tiếp cận quản lý ĐTĐ đ/v Bn?

Đánh giá Bn qua

- Khám lâm sàng:

  BMI 23 kg/m2 HA: 150/90 mmHg M: 90 l/phút, đều.

+ Các cơ quan

  Cơ teo, sức cơ giảm

  Khám bàn chân: giảm cảm giác nông sâu, nhiệt.

  Thoái hóa khớp gối 2 bên.

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Ca lâm sàng tiếp cận Quản lý đái tháo đường cho bệnh nhân ĐTĐ típ 2.

Các bước tiếp cận quản lý ĐTĐ đ/v Bn?

Đánh giá Bn qua

XN CLS

- ĐH đói: 283mg/dl
- HbA 1c: 10,7%
- eGFR: 40 ml/phút/ 1,73m2
- AST, ALT, GGT: trong giới hạn BT
- Lipid máu:

  TG: 313 mg/dl – Choles: 250 mg/dl

  LDL-c: 145mg/dl – HDL-c: 33 mg/dl

Ca lâm sàng tiếp cận Quản lý đái tháo đường cho bệnh nhân ĐTĐ típ 2.

Các bước tiếp cận quản lý ĐTĐ đ/v Bn?

XN CLS

A/C niệu: 52 mg/g.

XQ ngực: bóng tim to. Phổi : BT

Ca lâm sàng tiếp cận Quản lý đái tháo đường cho bệnh nhân ĐTĐ típ 2.

Các bước tiếp cận quản lý ĐTĐ đ/v Bn?

_ Đánh giá các vấn đề của bệnh nhận

ĐTĐ: + Kiểm soát ĐH kém.

+ Mục tiêu điều trị: HbA1c: 7-7,5%

+ Chế độ điều trị : phải thay đổi do

BN có bệnh thận mạn ĐTĐ

Có cơn hạ ĐH ở nhà

Teo cơ.

HA: + KS chưa đạt mục tiêu

+ Mục tiêu điều trị: < 130/80

+ Chế độ điều trị : phải thay đổi do

BN có bệnh thận mạn ĐTĐ- Tim mạch

Lipid máu: LDL-c ?

BN được gửi khám, tham vấn với BS CK mắt, thận, tim mạch, dinh dưỡng