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Type 2 Diabetes

Screening & Diagnosis

- screen adults ≥ 40 y.o. q3yr with FPG (fasting plasma glucose) and/or HbA1c
- screen ALL adults (FPG, 2hrOGTT, HbA1c) q1-2yr who have these risk factors: pre-diabetes, 1^o family hx, high-risk population, complications associated with diabetes, vascular disease, gest. diabetes/macrosomic infant, HTN, dyslipidemia, obesity, PCOS, meds (corticosteroids, atypical antipsychotics)

T2DM diagnosed if one of:

- FPG ≥ 7.0 mmol/L
- 2hrOGTT ≥ 11.1 mmol/L
- HbA1c $\geq 6.5\%$ (in adults)
- random glucose ≥ 11.1 mmol/L with symptoms (polyuria, polydipsia, weight loss)

****diagnosis must be confirmed with a 2nd test unless patient is metabolically decompensated**

Pre-Diabetes diagnosed if FPG is 6.1-6.9mmol/L, OGTT is 7.8-11.0mmol/L, or A1c is 6.0-6.4%

Surveillance After T2DM Diagnosed

| ** Do all at diagnosis | | Ongoing Frequency |
|------------------------|--|---|
| Physical Exam | fundoscopy | every 1 - 2 yrs. by optometrist/ophthalmologist |
| | blood pressure | each visit |
| | neuropathy screen | annually: check light touch/vibration in big toe |
| | foot exam | annually: skin changes/deformities/ROM/pedal pulses |
| Investigations | glucometer use | avoid hypoglycemia; personalize per pt: fasting 4.0-7.0mmol/L; postprandial 5.0-10.0 (8.0 if HbA1c >7.0%) |
| | HbA1c | every 3 months, goal $\leq 7.0\%$; (7.1-8.5% if elderly/frail/frequent hypog./short life expectancy) |
| | fasting lipids | annually (aim for LDL<2.0, or \downarrow by at least 50%) |
| | urine microalbumin + creatinine (eGFR) | annually (every 6 months if chronic kidney disease) |
| | ECG | every 3-5 yrs unless <40yo AND N lipids/BP/waist/non-smoking; select stress ECG in some patients |
| Assess Regularly: | smoking cessation, erectile dysfunction, immunizations (flu, <i>S. pneumo</i>) | |
| | mental health (provide coping skills, screen for Dx with questionnaires) | |
| | self-management of disease (eg. medication compliance) | |
| | diet; weight control; exercise (patients should do <i>at least</i> 150min/wk of aerobic exercise AND 3x/wk of resistance exercise) | |

Medication Management

Glucose Control / Insulin Resistance

- if HbA1c $\geq 8.5\%$, start meds at diagnosis: Metformin + [DPP-4 inhibitor or SGLT2 inhibitor or GLP1 rec. agonist]; **OR** straight to insulin (then taper if possible)
- if HbA1c 7.0-8.5%, trial of 3 months of lifestyle changes, then Metformin
- **target HbA1c:** $\leq 7.0\%$ within 3mo of tx; if reached, congratulate pt & monitor

Complications & Co-Morbidities

- **hypoglycemia:** educate pt regarding symptoms; ensure pt has carbs on-hand
- **HTN** (i.e. BP > 130/80): ACEi **OR** ARB (monitor creatinine; **NEVER** give together), then try DHP CCB, thiazide-like diuretic, β -blocker or non-DHP CCB in that order
- **dyslipidemia:** tx with statin; add fibrate if Total Cholesterol >10.0
- **albuminuria:** ACEi or ARB if creat. clearance >30, careful/refer if <30; stop if hypo-volemic/severely ill; check creatinine & [K+] in 2wks then re-check periodically
- **painful neuropathy:** antidepressant/TCA/anticonvulsant/nitrate spray; reserve opioid analgesics for rare scenarios given risks of dependence, abuse, s/e, etc.
- **erectile dysfunction:** PDE5 inhibitor if no contraindications (e.g. nitrate use); search for hypogonadism, other causes if not effective