Cardiometabolic Risk Management

Lifestyle
- Smoking
- Diet
- Activity

Weight
- Smoking
- Cessation
- Balanced Diet

Blood Pressure
- Weight
- Blood Pressure

Glucose
- Activity

Lipids
- Smoking

Lifestyle Intervention (Diet, Physical Activity and Smoking Cessation); Refer for assessment and intervention by appropriate health professional if necessary

DANGER ZONE

TARGET

FPG = Fasting Plasma Glucose; RPG = Random Plasma Glucose; BMI = Body Mass Index; Total Chol = total cholesterol; LDL = Low Density Lipoprotein; HDL = High Density Lipoprotein; BP = Blood pressure

Antipsychotics (Mood Stablizers & Antidepressants*)

*Despite less available evidence, similar principles apply to these medication classes

Metabolic Syndrome

Any 3 of:
- Waist Circum: ≥ 88 cm women ≥102 cm men
- F. HDL: < 1 mmol/L men < 1.2 mmol/L women
- F. Gluc: ≥ 5.6 mmol/L
- BP: ≥ 130/85 mmHg

Interventions are based on 10-year calculated CV risk


Treat individual factors using relevant guidelines

Non-fasting HDL 2.6 mmol/L

Refer to Framingham and Reynolds Risk values: http://cvriskchecksecure.com/default.aspx

Treat to individual BMI, BP, glucose, and lipid targets Global CV Risk Management

For Most:
- <140/90 mmHg
- Diabetes/CKD/CV Disease:
  - <130/80 mmHg
- HbA1C <6.5-7 %

Reflecting tighter control for the first 5 years

Fasting glucose 4-5.9 mmol/L

HbA1C <6.5-7 % reflecting tighter control for the first 5 years

Fasting glucose 4-5.9 mmol/L

Meaning 10-year CV risk


Estimate 10-year CV risk using an established tool

FPG = Fasting Plasma Glucose; RPG = Random Plasma Glucose; BMI = Body Mass Index; Total Chol = total cholesterol; LDL = Low Density Lipoprotein; HDL = High Density Lipoprotein; BP = Blood pressure
Monitoring: How Often and What to Do

Applies to patients prescribed antipsychotics and metabolically active mood stabilizers and antidepressants

**Frequency:** As a minimum review those prescribed a new agent at baseline and at least once after 3 months. Weight should be assessed monthly in the first 3 months of taking a new antipsychotic as rapid early weight gain may predict severe weight gain in the longer term. Subsequent review should take place annually unless an abnormality of physical health emerges, which should then prompt appropriate action and/or continuing review at least every 3 months.

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¹Smoking, diet, and physical activity ²If fasting lipid profile cannot be obtained, a non-fasting sample is satisfactory

Derived from consensus guidelines 2004, J clin. psych 65:2

### Investigations

Fasting estimates of plasma glucose (FPG), HbA1c, and lipids (total cholesterol, non-HDL, HDL, triglycerides). If fasting samples are impractical, then non-fasting samples are satisfactory for most measurements except for LDL and triglycerides.

### Specific Adjunctive Pharmalogical Interventions

For mitigation of excess weight gain associated with antipsychotic use, the strongest evidence is for off-label use of Metformin and Topiramate (Mayan, 2010). Consider Metformin first due to better tolerability profile unless there is a co-morbid binge-eating disorder (McElroy, SI, 2009). Please be advised that off-label use requires documented informed consent. Discontinue if no sign of efficacy (continuing weight gain if used for weight loss or stabilization) after 3 months at therapeutic dose.

**Metformin:**
- **Weight Gain & Primary Prevention of Diabetes:** Start 250 mg po BID, titrate every 1-2 weeks as clinically indicated and tolerated. Dose range is 750 mg - 2 Gm/day

**Topiramate:**
- **Weight Gain:** Start 12.5 mg po BID; titrate by 25-50 mg per day in divided doses every 1-2 weeks as tolerated to a maximum of 100 mg po BID.
- Caution with renal or hepatic impairment. Avoid excessive alcohol use. Monitor for cognitive changes. Parasthesias are common but generally well-tolerated.

### Review of Antipsychotic Medication

Choose lower metabolic liability medication first-line when possible. Response in first episode psychosis is robust independent of agent. Changing or discontinuing antipsychotic requires careful clinical judgment, balancing metabolic benefits against relapse risk. Ideally psychiatrist supervised. Should be a priority if there is:

- Rapid weight gain (e.g. 5kg <3 months) following antipsychotic initiation.
- Rapid development (<3 months) of abnormal lipids, BP, or glucose.

The psychiatrist should consider whether the antipsychotic drug regimen has played a causative role in these abnormalities and, if so, whether an alternative regimen could be expected to offer less adverse effect:

If clinical judgment and patient preference support continuing with the same treatment then ensure appropriate further monitoring and clinical considerations. Avoid antipsychotic polypharmacy when possible; Avoid off-label use of antipsychotics.

### DON’T JUST SCREEN: INTERVENE!

The primary care provider and psychiatrist will work together to ensure appropriate monitoring and interventions are provided and communicated to avoid over or under monitoring. The primary care provider will usually lead on supervising the provision of physical health interventions. The psychiatrist will usually lead on decisions to significantly change antipsychotic medicines.

**FOR ALL PATIENTS IN THE DANGER ZONE**

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Adapted for use by the Ontario Metabolic Task Force.

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