

# Prescribing Metformin in adults with mental illness

**ACTION:** Metformin is a Biguanide insulin sensitiser that reduces insulin resistance, reduces hepatic glucose production, increases peripheral utilisation of glucose and reduces cardiovascular mortality.

Metformin may be used to help reduce obesity and weight gain in people with mental illness. We present a list of risk factors that should prompt consideration of metformin along with structured nutritional counselling, advice on lifestyle modifications and smoking cessation counselling.

## REVIEW AND RECORD RISK FACTORS EVERY 3 MONTHS

- Family History of Diabetes or Cardiovascular Disease
- Aboriginal or Torres Strait Islander
- Polycystic Ovary Syndrome (hirsutism, acne, irregular periods or amenorrhoea)
- Waist Circumference:  $\geq 80$  cm in women,  $\geq 94$  cm in men\*
- Body Mass Index: 25-29 kg/m<sup>2</sup> Overweight,  $>30$  kg/m<sup>2</sup> Obese
- Weight Gain  $>7\%$  from baseline
- Waist Circumference Enlargement  $>7$ cm from baseline
- Impaired Fasting Lipids: Total Cholesterol  $>6.5$ , Triglycerides  $>2.0$ , HDL  $<1.0$ , LDL  $>4.0$
- Diabetes \*\*random BSL  $>11.1$ , HbA1c  $>6.5\%$  or Insulin Resistance, random BSL  $>6.1$ , HbA1C  $>6.5\%$ ,
- Elevated Blood Pressure:  $>140$  mmHg Systolic,  $>90$  mmHg Diastolic
- Sedentary Lifestyle, Current Smoker, Poor Diet
- Prescription of Psychotropic Medication Known to Worsen Risk Profile

## CONTRAINDICATIONS

- Renal failure with creatinine clearance  $<30$  mL/min (refer to Specialist)
- Severe liver dysfunction
- Alcohol abuse with evidence of liver injury

## COMMON SIDE EFFECTS

These include nausea, vomiting, anorexia and diarrhoea and can be minimised by using the slow release (XR) preparation and by taking metformin with main meals. Vitamin B12 absorption may also be impaired.

## HOW TO PRESCRIBE METFORMIN

1. Initiation Dose: 500mg daily with the main evening meal  
\*\*\*Non PBS script Metformin: 500mg, P.O, Qty: 100, maximum repeats: 5
2. Titration: Titrate slowly as tolerated over several weeks to a maximum dose of 2g with main evening meal or 1g BD with breakfast and main evening meal  
\*\*\*Non PBS script Metformin 1g, P.O, Qty: 90, maximum repeats: 5

## MONITORING

- Monitor vitamin B12 levels and plasma creatinine before starting and every 4-6 months
- If raised blood pressure and/or impaired fasting lipids are present refer to GP

\* Waist circumference values listed are for Caucasian men and women and may vary in other races, please refer to the International Diabetes Federation website for further details.

\*\* Specialist care is required when diabetes is diagnosed during screening.

\*\*\* Cost is \$18.77

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