

# Diabetes Management Protocol

Parameter	Diagnosis of diabetes	Treatment targets
Fasting Blood Sugar (FBS)	$\geq 7.0$ mmol/l	$<7.0$ mmol/l
Random Blood Sugar (RBS)	$\geq 11.1$ mmol/l	$<10$ mmol/l
HbA1c	$\geq 6.5\%$	$<7\%$ *

\*Majority of patients  $< 7\%$ . For elderly, frail, multiple comorbidities, CKD and recurrent hypoglycaemia, limited life expectancy 8%.

**Step 1**

Initiate Metformin 500mg once daily for 1 week\*

**Step 2**

Review after 1 week and if BS above target  
If no side effects, if target not achieved increase dose of Metformin 500mg twice daily for 4 weeks.\*\*

**Step 3**

Review after 1 month and if BS above target  
If no side effects, if target not achieved\*\* increase dose of Metformin to 1g twice daily for 4 weeks.\*\*\*

**Step 4**

Review after 1 month and if BS above target  
If no side effects, target not achieved,\*\* initiate Gliclazide 40mg once daily for 4 weeks and educate on hypoglycemic symptoms.\*\*\*\*

**Step 5**

Review after 1 month and if BS above target  
If no side effects, target not achieved,\*\* increase Gliclazide 80mg daily for 4 weeks.\*\*\*\*\*

**Step 6**

Review after 1 month and if BS above target  
If no side effects, target not achieved,\*\* increase Gliclazide 80mg twice daily for 4 weeks.\*\*\*\*\*

**Step 7**

Review after 1 month and if BS above target  
If no side effects, target not achieved, despite adherence to medication and diet and physical activity do HbA1C, urine dipstick, continue step 6 treatment and refer immediately to medical officer.

## Important considerations

\* DO NOT INITIATE/CONTINUE METFORMIN IF eGFR $<30$ .

\*\* Check urine dipstick, assess for intercurrent infections Counsel on diet, physical activity and adherence to medicines.

\*\*\* For Obese Patients maximum dose of Metformin 2550 mg in three divided doses. RBG, HbA1c, Hb, Urinalysis/dipstick & microscopy, Kidney function tests (Na<sup>+</sup>, K<sup>+</sup>, Ca<sup>+</sup>, HCO<sub>3</sub>- Urea, Creatinine, eGFR, Uric acid), HIV, Lipids, pregnancy test in women of child-bearing age

\*\*\*\* Educate on Hypoglycemic symptoms such as tremors, sweating, confusion, palpitations, loss of consciousness and how to manage hypoglycemia.

\*\*\*\*\* Severe thirst, frequent in urination, fruity – smelling breath, nausea and vomiting, confusion, drowsiness, rapid shallow breathing, dehydration. If HbA1C  $>10\%$  at diagnosis, refer to medical doctor for consideration of insulin initiation (refer to insulin protocol). Treat BP to achieve BP $<130/80$  according to hypertension protocol.

### Urgent Referral Criteria

- Acutely ill with signs and symptoms of severe hyperglycemia with RBG of  $>13.9$ mmol/L and ketonuria.\*\*\*\*\*
- Asymptomatic with plasma glucose  $>18$ mmol/l and or urine ketone.
- Uncontrolled Infections or comorbidities such as HTN, CAD, CKD, diabetic foot ulcer.
- Pregnancy: Refer directly to Ob-Gyn.
- Adolescents/Young Adults: ( $< 35$  years): Refer to specialist.

### Hypoglycemia Management

- Monitor for hypoglycemia symptoms at every visit.
- If Hypoglycemic and conscious patient should ingest 15 – 20g glucose (refer to guideline).
- If unconscious, infuse 50mls of dextrose 50% and refer to guideline for further management.

### Routine Screening and Monitoring

- Retinopathy: Screen retinas at diagnosis and every 12 months; refer if abnormal.
- Neuropathy: Examine feet at diagnosis, at every visit, and full examination yearly; refer if abnormal.
- Nephropathy: Test urine dipstick for protein at every visit and serum creatinine every 6 months; refer if abnormal.
- Cardiovascular Risk: Conduct lipid profile every 6 months. Prescribe Atorvastatin 20mg daily if  $>40$  years. Revised per important considerations comment above.