Standard Operating Procedure

Diagnosis and Management of Gestational Diabetes Mellitus (GDM)

Special Region (1)

Union of Myanmar

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Approved by: Internal Medicine Unit / Obstetrics Unit

1. PURPOSE

To provide standardized, evidence-based guidance for screening, diagnosis, treatment, and monitoring of Gestational Diabetes Mellitus (GDM).

2. SCOPE

Applicable to Antenatal Clinics (ANC), Obstetrics Wards, Internal Medicine Unit, and Primary Care Centers.

3. SCREENING STRATEGY

NICE: Risk-based 75g OGTT at 24–28 weeks if BMI ≥30, previous GDM, macrosomia ≥4.5 kg, first-degree relative with DM, high-risk ethnicity.
ADA: Universal or risk-based screening at 24–28 weeks.

Screening at 24–28 weeks is normal, routine repeat testing is not required. However, repeat testing should be considered if clinical features suggest late-onset gestational diabetes e.g., macrosomia and polyhydramnios.

4. DIAGNOSTIC CRITERIA

NICE (75g OGTT): Fasting ≥100 mg/dL OR 2-hour ≥140 mg/dL.
ADA (One-step 75g OGTT): Fasting ≥92 mg/dL, 1-hour ≥180 mg/dL, 2-hour ≥153 mg/dL (≥1 abnormal).
ADA (Two-step): 50g screen → 100g OGTT (≥2 abnormal values).

5. INITIAL MANAGEMENT

Medical Nutrition Therapy (3 meals + 2–3 snacks, complex carbs 40–50%).
Exercise: 30 minutes moderate activity daily.

6. GLYCEMIC TARGETS

Fasting ≤95 mg/dL.
1-hour ≤140 mg/dL.
2-hour ≤120 mg/dL.

7. GLUCOSE MONITORING

Self-monitoring: Fasting + 1-hour post meals daily until controlled, then 3–4 days/week.

8. PHARMACOLOGICAL THERAPY

Medication can be started immediately if:

- Fasting ≥126 mg/dL (suggests overt diabetes)
- Fasting ≥110–120 mg/dL persistently
- Symptomatic hyperglycaemia
- Evidence of fetal overgrowth at diagnosis

NICE: Metformin first-line if fasting <7 mmol/L; insulin if severe.
ADA: Insulin preferred; metformin acceptable.
Insulin starting dose: 0.7–1.0 units/kg/day.
Metformin: Start 500 mg daily, titrate to 2000–2500 mg/day.

9. FETAL MONITORING

Ultrasound at 28, 32, 36 weeks for growth and amniotic fluid.

10. DELIVERY

Diet-controlled: deliver by 40+6 weeks.
Insulin-treated: consider earlier delivery.
Consider CS if estimated fetal weight >4.5 kg.

11. INTRAPARTUM MANAGEMENT

Maintain glucose 70–110 mg/dL. Hourly capillary glucose monitoring.

12. POSTPARTUM MANAGEMENT

Blood glucose usually returns to normal within 24–72 hours.

Insulin resistance drops rapidly after placenta delivery.

Stop metformin and insulin after delivery unless overt DM.
Do 75g OGTT at 6–12 weeks postpartum and annual HbA1c thereafter.

Although hyperglycemia typically resolves after delivery, women with prior gestational diabetes have a 30–50% risk of developing type 2 diabetes within 10 years and require lifelong metabolic surveillance.

13. QUALITY INDICATORS

>90% screening coverage.
>80% achieve glycemic targets.

14. REFERENCES

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