

Review Article

Guidelines for Diabetes in Pregnancy / Gestational Diabetes Mellitus

Including Early GDM, DIPSI, EGGI, and Metformin Recommendations A Comparative Clinical Summary

Amit Kumar¹, Chandan kumar^{2*}

1. Associate Prof Dr Amit Kumar, Department of Community Medicine, Dr BS Kushwah Institute of Medical Sciences, Kanpur, India; Corresponding author*: Dr Chandan Kumar, MD, Department of Community Medicine, Dr BS Kushwah Institute of Medical Sciences, Kanpur, India; email: dr.chandan712@gmail.com

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There is no single global consensus on how to screen for and diagnose gestational diabetes mellitus (GDM). The major divide is between the one-step approach (75g OGTT, IADPSG-derived thresholds, adopted by WHO, ADA, and most of the world) and the two-step approach (50g glucose challenge test

1. Comparison Table of Major Guidelines

followed by 100g OGTT, used in the United States by ACOG). Separate, less-standardized guidance also exists for “Early GDM” – screening and diagnosis before 24 weeks, generally before 15–20 weeks – including India-specific frameworks such as DIPSI and the emerging EGGI concept.

Organization (Guideline)	Screening approach	Diagnostic thresholds	Early GDM position	Ref.
IADPSG (2010)	One-step: 75g OGTT, 24–28 wks	Fasting ≥ 5.1 ; 1-h ≥ 10.0 ; 2-h ≥ 8.5 mmol/L – 1 value = GDM	Basis for most one-step early-testing extensions	[1]
WHO 2013	One-step, IADPSG-aligned	Same as IADPSG; overt diabetes: fasting ≥ 7.0 or 2-h ≥ 11.1 mmol/L	Separate “overt diabetes in pregnancy” category, usable at any gestational age	[2]
ADA (2026)	Either one-step or two-step; universal 24–28 wk	Two-step (Carpenter-Coustan) or one-step (IADPSG) accepted	Screen for abnormal glucose metabolism before 15 weeks	[3][4]
ACOG (Practice Bulletins 190/230)	Two-step only	50g GCT (135–140 mg/dL) → 100g OGTT, 2 abnormal values	Early screening only for risk factors suggesting pre-existing T2DM	[5][6]
NICE NG3 (UK)	One-step (modified), 24–28 wks	Fasting ≥ 5.6 or 2-h ≥ 7.8 mmol/L	Early OGTT/self-monitoring offered to women with prior GDM soon after booking	[7][8]
ADIPS (Australasia)	One-step, IADPSG-aligned	Same as IADPSG	Dedicated consensus statement on early-pregnancy testing; flags evidence gaps	[9]
FIGO / WHO (overt diabetes)	One-step, pragmatic for low-resource settings	IADPSG/WHO thresholds; overt diabetes 2-h ≥ 199 mg/dL before 24 wks	Explicit early-OGTT criterion for overt diabetes	[10]
DIPSI (India)	Single-step, non-fasting 75g OGTT; doubles as screening + diagnosis	2-h venous plasma glucose ≥ 140 mg/dL	Can be done at first antenatal visit as well as 24–28 wks	[11] [12]
EGGI (Early Gestational Glucose Intolerance, India-based)	Very early screening via postprandial glucose, proposed by ~10th week	Proposed 2-hr PPBG cutoff ≥ 110 mg/dL	Emerging framework for true “Early GDM” identification + early treatment	[13]

2. Narrative Summary

IADPSG / WHO vs. ACOG

The one-step approach traces to the IADPSG 2010 consensus, built on the HAPO study's finding of a continuous relationship between maternal glucose and adverse outcomes, and was subsequently adopted by WHO in 2013 using diagnostic thresholds derived from a 1.75-fold increased odds of adverse pregnancy outcomes at mean glucose values – giving cut-offs of fasting glucose ≥ 5.1 mmol/L, 1-hour glucose ≥ 10 mmol/L, and 2-hour glucose ≥ 8.5 mmol/L [1][2]. ACOG, by contrast, continues to recommend the two-step method, using a cut-off for an abnormal 1-hour screen of 135-140 mg/dL followed by 2 abnormal values on a 3-hour OGTT [5] [6], a position reinforced by a NICHD consensus conference and USPSTF draft guidance.

NICE (UK)

NICE NG3 uses its own thresholds rather than IADPSG's – gestational diabetes is diagnosed with a fasting glucose ≥ 5.6 mmol/L or a 2-hour plasma glucose ≥ 7.8 mmol/L on OGTT [7][8], chosen for cost-effectiveness rather than the HAPO odds-ratio methodology used by IADPSG.

ADA 2026 Early Screening

The ADA's newest Standards of Care formalize early testing: before 15 weeks of gestation, clinicians should screen for abnormal glucose metabolism, defined as A1C 5.9-6.4% or fasting plasma glucose 110-125 mg/dL, to identify individuals at higher risk of adverse pregnancy and neonatal outcomes and at high risk of a later GDM diagnosis [3][4].

DIPSI (Diabetes in Pregnancy Study Group India)

Designed for the Indian/South Asian context where fasting compliance and follow-up can be difficult, DIPSI guidelines recommend a non-fasting 75-g OGTT as a single-step screening and diagnostic test for GDM [11], with GDM diagnosed if venous plasma glucose exceeds 140 mg/dL at 2 hours, irrespective of fasting state or timing of the last meal [12]. Its convenience comes at a sensitivity cost – in one validation study, of 106 women diagnosed with GDM by IADPSG criteria, only 24 were also diagnosed by DIPSI [11]. Its main advantages are the avoidance of morning sickness/vomiting associated with fasting

tests, minimal training requirements, and feasibility for high-volume, low-resource antenatal clinics.

EGGI (Early Gestational Glucose Intolerance)

EGGI is a more recent, India-centered proposal – not yet an internationally ratified guideline – for universal screening around the 10th week of gestation. Proponents advocate implementing universal Early Gestational Glucose Intolerance screening by the 10th week of gestation using a ≥ 110 mg/dL postprandial value, with timely identification and intervention using medical nutrition therapy and metformin significantly improving pregnancy outcomes [13]. In the underlying studies, only about 1.4% of women given early metformin intervention went on to develop GDM, compared with roughly 96% of untreated positive-screen women in comparator groups [13]. This should be treated as an emerging, evolving concept built on DIPSI-context infrastructure, rather than an internationally adopted standard.

3. Metformin: Position by Guideline Body

Body	Position	Ref.
NICE (UK)	Explicit first-line pharmacological agent	[14] [15]
ADA (US)	Insulin traditionally preferred for GDM; metformin more prominent as first-line in newer, non-obstetric hyperglycemia contexts	[3] [16]
ACOG / SMFM (US)	Insulin preferred; metformin a reasonable alternative, not first choice	[17] [18]
WHO / IADPSG / FIGO	No unified pharmacologic stance; metformin acceptable low-cost alternative	[19]
DIPSI	Metformin as second line, insulin remain as First line along with metformin	

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IADPSG / WHO vs. ACOG

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