



Management and Clinical Outcomes of Incidental Abnormal Umbilical Artery Dopplers in Appropriate for Gestational Age (AGA) Fetuses: A QIP

Implementing a SOP for Repeat Assessment and Escalation to Optimise Outcomes and Reduce Unnecessary Intervention

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BACKGROUND

- Incidentally detected abnormal Umbilical Artery (UA) Dopplers in AGA pregnancies are common and often lead to variation in management.
- Unnecessary intervention may occur after a single abnormal result, while persistent abnormalities may be missed or inadequately escalated.

BASELINE AUDIT (Before SOP)

Period: 01/04/2023 – 30/06/2023

Total scans reviewed → AGA pregnancies → Abnormal Dopplers
168 → **88** → **45** (51.1%)

SGA / FGR **11/45** (24.4%)
Induction of Labour **22/45** (48.9%)
LSCS Rate **27/45** (60%)

BASELINE KEY ISSUES IDENTIFIED

- ✗ Variation in repeat Doppler timing and location
- ✗ Unnecessary repeat scans
- ✗ Missed or delayed escalation of persistent abnormalities
- ✗ Intervention after a single abnormal Doppler
- ✗ Lack of a standardised pathway and documentation

CONCLUSION OF BASELINE AUDIT

Abnormal UA Dopplers in AGA pregnancies are not always benign; structured follow-up is required to identify those at risk while avoiding unnecessary intervention.

NEW CLINICAL PATHWAY (SOP INTRODUCED)

Incidentally Detected Abnormal
UA Doppler in AGA Pregnancy

Repeat UA Doppler & Growth Scan
7–14 days
(at same location)

Review in Appropriate Location
(Triage as per Clinical Risk)

Maternal Screening
FBC, U&Es, LFTs, Blood Pressure, Urine Dip

DOPPLER NORMALISES

- No further escalation needed
- Continue antenatal care as per standard pathway

DOPPLER PERSISTS ABNORMAL

- Escalate as per severity
- Refer to GMC / Consultant Clinic
- Consider further surveillance, investigations and management

DOCUMENT DECISION & PLAN
Clear recording in notes and patient information

CONTINUOUS REVIEW & RE-AUDIT

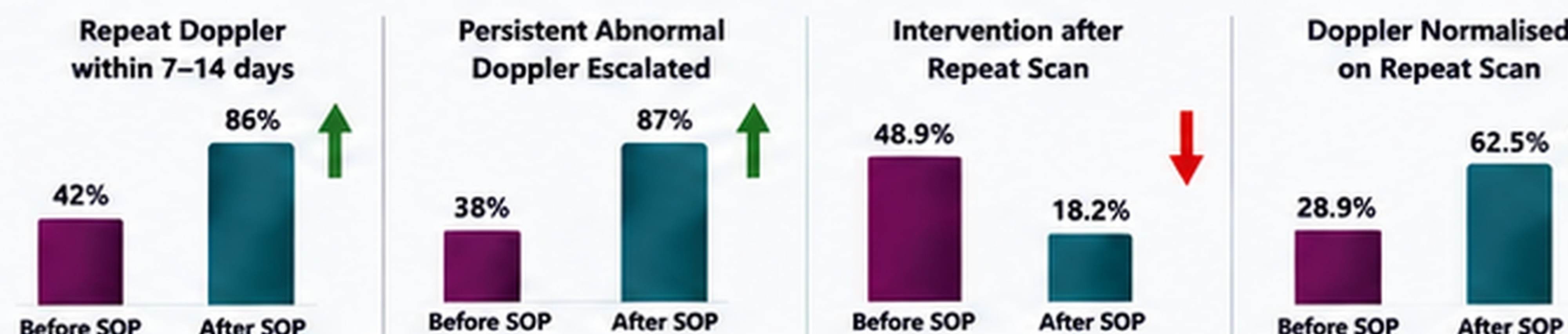
KEY PRINCIPLES OF THE SOP

- Timely repeat Doppler within 7–14 days
- Appropriate location & triage
- Screen, assess & escalate as per severity
- Avoid intervention based on a single abnormal Doppler
- Standardise documentation & decision making

POST-INTERVENTION QUALITY IMPROVEMENT FINDINGS (After SOP)

- Appropriate repeat Doppler performed – unnecessary repeated Dopplers reduced
- Timeframe for repeat Doppler reduced (within 7–14 days)
- No patients missed – improved tracking and follow-up
- Increased escalation of persistent abnormal Dopplers through GMC / Consultant clinic
- Fewer interventions after repeat scan – less unnecessary induction & LSCS
- More abnormal Dopplers normalized on repeat assessment

IMPROVEMENT IN KEY PARAMETERS (Comparison)



(Data representative of audit comparison – actual numbers available on request)

PDSA CYCLE



LEARNING & FUTURE ACTION

- Standardised pathway has improved safety and consistency
- Timely repeat assessment prevents unnecessary intervention
- Persistent abnormalities are now appropriately escalated
- Vigilant follow-up reduces both missed cases and overtreatment
- Continue training, audit and feedback
- Next re-audit cycle in 6 months

CONCLUSION



A structured SOP with timely repeat assessment and escalation has improved the quality of clinical decision-making, reduced unnecessary intervention and ensured that persistent abnormalities are not missed.

BETTER CARE. SAFE CARE. RIGHT CARE.

