CLINICAL PATHWAY

Women & Children

Gestational Diabetes Mellitus

CHRISTIANA CARE HEALTH SYSTEM

Gestational Diabetes Mellitus

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INTRODUCTION

This clinical pathway supports optimal care of patients diagnosed with gestational diabetes mellitus by standardizing the process of clinical care based on available best evidence, and by reducing the risk of harm that may occur due to unnecessary variations in clinical care.

Scope of this Pathway

This pathway will serve all patients seen within Christiana Care's OB-GYN practices with gestational diabetes or considered at risk, from the point of first contact to two months post-delivery.

Pathway Contacts

The content of this pathway is developed and maintained by the Women & Children service line of Christiana Care Health System. Questions or feedback about the content may be directed to:

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CLINICAL PATHWAY

Screening, Diagnosis and Testing

Early Screening Criteria

Early screening for Gestational Diabetes (GDM) is indicated for women with:

- Previous history of GDM.
- Known impaired glucose metabolism.
- Obesity (body mass index greater than or equal to 30).
- Hispanic or Asian ethnicity.
- 1st degree relative with diabetes.
- History of large-for-gestational-age baby (>8.5 lbs.).

Diagnostic and Testing

- Streamline/improve compliance with screening: two-hour glucose tolerance test (2hr GTT) – A “one-step” test used extensively in Europe.
  - » Schedule at-risk patients (listed above) for a two-hour initial prenatal visit.
  - » Instruct patient to fast overnight and obtain the 2hr GTT at the initial visit.
  - » One abnormal value on test is diagnostic for GDM.

- Low-risk women will be screened at 24-28 weeks using the standard one-hour glucose tolerance test (1hr GTT).

- Mothers treated for GDM will be tested for preexisting diabetes after they give birth.
  - » Goal: to establish diagnosis prior to discharge.
  - » Establish appointment for patient to follow-up with primary care physician.

TABLE 1: 2HR GTT CRITERIA

TIME	VALUE
Fasting	> or = 92 mg/dl
1 Hour	> or = 180 mg/dl
2 Hour	> or = 153 mg/dl

Therapeutics

- Diet:
  - » Carbohydrates 45-50% of calories.
  - » Protein 20-25%.
  - » Fat 30%.
- Exercise.
- Evaluate for diet control and, if indicated, prescribe oral hypoglycemic or insulin.

Management

Daily Monitoring

- Goals of therapy:
  - » Fasting glucose < 90 mg/dl.
  - » 1-hour post prandial glucose < 130 mg/dl.

Nutrition

- Controlling blood glucose via diet:
  - » Daily food/walking log.
  - » Basic carbohydrate counting.
  - » Three small meals plus two snacks -- include source of protein.
  - » No fruit juices.
  - » High-fiber foods.

Note: See Therapeutics section for Diet control monitoring parameters.

Education

The following education is reviewed:

- Basic nutrition and GDM plan that recognizes cultural dietary preferences.
- Delivery implications, both maternal and fetal complications associated with poorly controlled blood sugars.
- Signs and symptoms of hypoglycemia and hyperglycemia.
- Importance of physical activity: encourage 30 minutes/day.

Equipment:

- Provide prescription for glucometer and testing supplies.
- Instruct/return demonstration on how to check finger-stick blood sugars.
- Review recording and reporting process.

Post-Partum Follow-Up

Day of Discharge

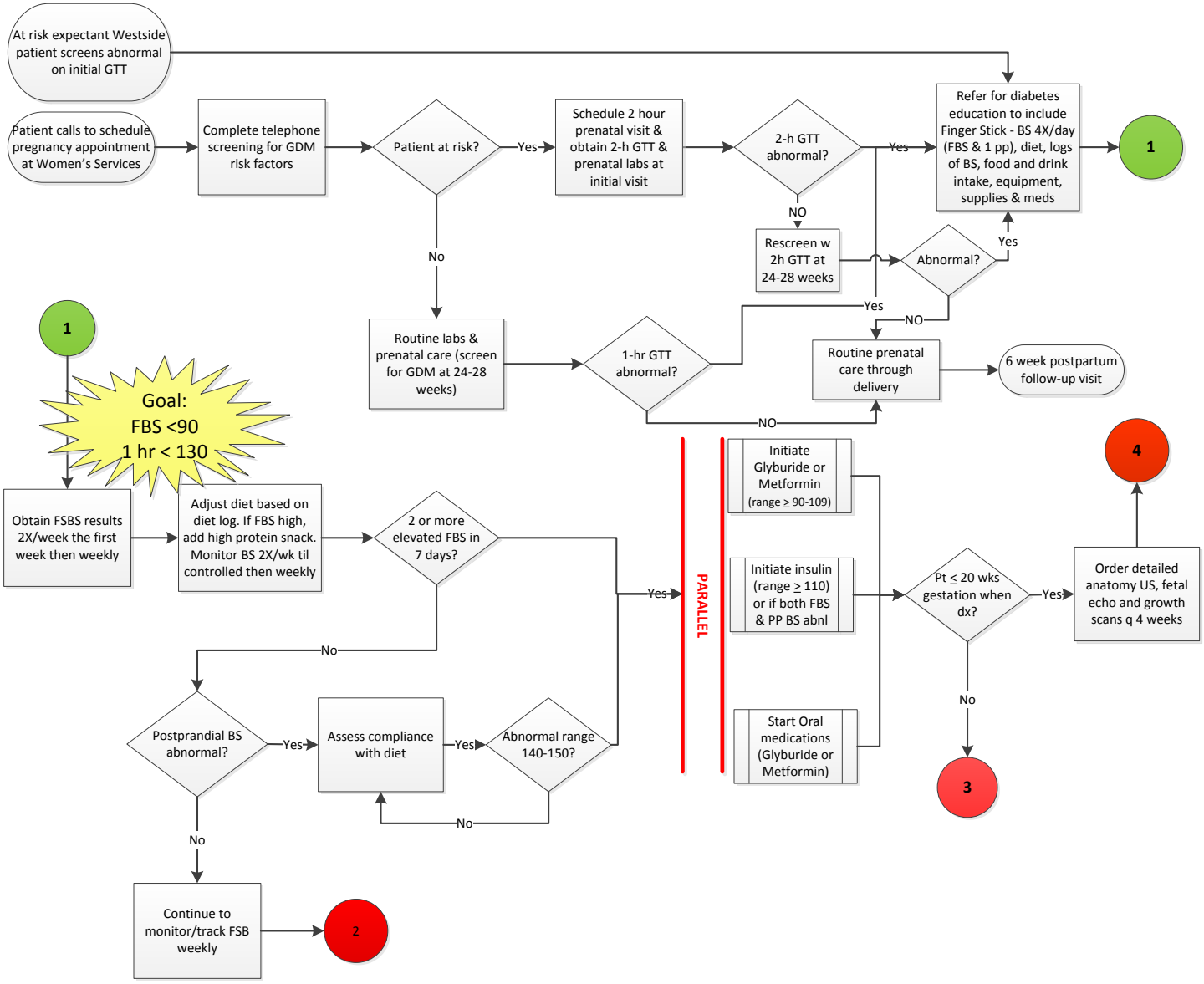
- Perform 2hr GTT prior to discharge.
- Schedule 6-week postpartum appointment with OB/GYN.
- If abnormal postpartum 2hr GTT coordinate appropriate medical follow-up.

6-Week Postpartum

- Review progress and counsel on risks with future pregnancies.
- Reinforce healthy life style choices to optimize future well-being.
- Ensure notification of internist/family physician and transition care.

PATHWAY ALGORITHMS

ALGORITHM 1: FUTURE STATE WC PROCESS MAP (1 OF 2)



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ALGORITHM 2: FUTURE STATE WC PROCESS MAP (2 OF 2)

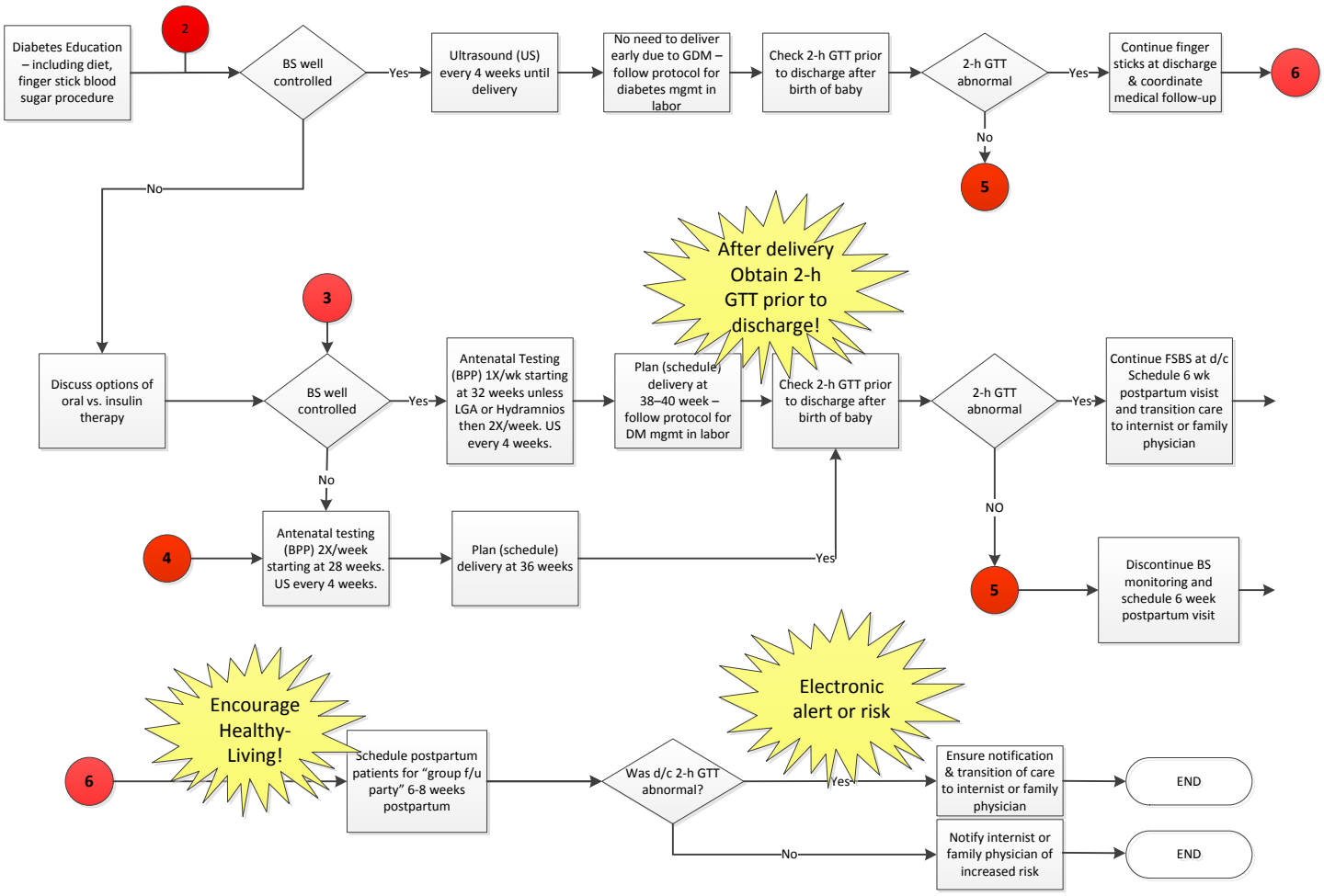

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TABLE 2: POTENTIAL RISKS/CONSIDERATIONS

NEW PROCESS STEP	POTENTIAL RISKS	POTENTIAL CAUSES	CONSIDERATIONS/ RECOMMENDATIONS
Patient calls for initial appointment	• Delay in scheduling • Late to seek prenatal care • At-risk patient not identified	• Appointment availability • No show • Insurance issues • Pre-screening did not occur	• Cancellation fill process.
Obtain 75gm 2h GTT at initial prenatal visit for patients at-risk.	• Patient does not fast overnight. • Inactive or no insurance. • Wrong screening test ordered • Language barrier • Patient doesn't show	• Insurance issues • Non-compliance (provider) • Transportation issues • Time constraints • Child care issues • Intolerance to Glucola	• Test at time of visit • Staff to follow-up with patients (i.e., Care Link) • Scheduled home visit for GTT
Obtain FSBS results 2x/week for 1st week then weekly	• No equipment and supplies • Phone issues • Non-compliance (patient) • Language barriers	• Lack of education/don't understand • No accountability • Insurance issues/can't afford supplies • Discomfort	• Identify patient as non-compliant • Refer to Social Services for supplies and resources
Adjust diet based on diet log.	• Non-compliant to checking BS. • Language barriers. • Time constraints to follow-up. • Patient does not keep or bring diet log. • Patient doesn't call in BS	• Lack of education/don't understand. • No accountability. • Limited or no access to proper nutrition. • Diet plans are not in cultural alignment with diet patterns (cultural awareness of diet). • Distaste for healthy food	• Electronic format for reporting information. • Weekly home visit. • Create culturally focused dietary education
Abnormal result, refer to GDM education-MFM.	• Patient does not follow thru with referral • Financial barriers • Delays in appointments	• Insurance issues • Non-compliance (patient) • Transportation issues • Time constraints	• Telehealth education • Access centers for education • Designated staff to follow-

NEW PROCESS STEP	POTENTIAL RISKS	POTENTIAL CAUSES	CONSIDERATIONS/ RECOMMENDATIONS
	• No show • Prior balance/higher deductibles • Patient declines services • Language barriers		up • Teaming with Primary Care or Endocrine education staff
Order detailed anatomy ultrasound, fetal echo, and growth scans q4 weeks.	• Patient has balance with MFM • Inactive Medicaid. • No insurance	• Missing information to reinstate • Financial burden • Transportation issues • Time constraints	• Onsite access to Social Services to identify reason for gaps in coverage
After delivery obtain 2hr GTT in hospital prior to discharge	• Test is not completed prior to discharge. • Inpatient logistics for completing test while an inpatient	• Test is not ordered • Patient leaves prior to test • Patient does not fast overnight	• Integrate order into power plans for GDM • Use Get Well Network to reinforce education on importance of testing
Schedule 6 week postpartum visit and notify/transition care to internist/family physician	• Provider does not know who to notify • Patient does not show for postpartum visit	• Patient does not have an internist/family physician • Insurance issues • Transportation issues • Child care demands	• Care Link for follow-up • Provide reminder call for the appointment. • Refer to Social work • Electronic alert • Schedule postpartum follow-up as group "party" *
*For future consideration: Postpartum group follow-up "party" with mother and baby (Peer to Peer Shared visit).	• Patient doesn't show • Scheduling • Space • Staff • Resources	• Transportation issues. • Doesn't want to participate	• Use Care Link. • Incentivize visit with offering of baby supplies • Ask about participation during follow- up call. • Provide reminder call to "fast" for the appointment.

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The Christiana Care Way

We serve our neighbors as respectful, expert, caring partners in their health. We do this by creating innovative, effective, affordable systems of care that our neighbors value.

Christiana Care Health System