

Maine Medical

PARTNERS

Women's Health

A department of Maine Medical Center

Fetal Surveillance Guidelines

The antepartum fetal surveillance protocols noted below should be used as a guideline for management. In the presence of additional risk factors, earlier and/or more frequent surveillance may be required. Additional risk factors include but are not limited to tobacco use, assisted reproductive technology, inherited thrombophilias, obesity, abnormal serum markers, race, nulliparity, low educational attainment and a previous growth restricted infant. In the absence of data from high-quality randomized trials, care of the patient should remain individualized.

Diabetes		
Indication	Initiate Surveillance	Testing Method
Gestational diabetes, A1 ^{15,12,16}	may consider at 36 weeks	BPP 1x/wk or NST/AFI 1x/wk
Gestational diabetes, A2 ^{5,15} or Pregestational diabetes ^{2,7}	28 weeks 0 days 32 weeks 0 days	BPP 1-2x/wk NST/AFI 1-2x/wk BPP 2x/wk NST/AFI 2x/wk
Diabetes, poor control	At diagnosis	BPP 1-2x/wk NST/AFI 1-2x/wk

Hypertension in Pregnancy		
Indication	Initiate Surveillance	Testing Method
Chronic hypertension ^{7,9,12,18,19,24}	32 weeks 0 days	BPP 1x/wk NST/AFI 1x/wk
Gestational hypertension ^{1,7}	At diagnosis	BPP 1-2x/wk NST/AFI 1-2x/wk
Preeclampsia without severe features ^{7,12,18}	At diagnosis	BPP 2x/wk NST/AFI 2x/wk
Superimposed preeclampsia without severe features ¹	At diagnosis	BPP 2x/wk NST/AFI 2x/wk
*Preeclampsia with severe features ^{1,7,12}	At diagnosis	BPP daily NST/AFI daily
Superimposed preeclampsia with severe features	At diagnosis	BPP daily NST/AFI daily

*Inpatient management

Multiple Gestation		
Indication	Initiate Surveillance	Testing Method
Dichorionic, diamniotic twins ^{3,12}	32 weeks 0 days	BPP 1x/wk NST/AFI 1x/wk
Monochorionic, diamniotic	16 weeks 0 days	Every 2 weeks screening

twins ^{23,25}	28 weeks 0 days	for TTTS BPP 1-2x/wk NST/AFI 1-2x/wk
Monochorionic, monoamniotic twins ⁶	At viability	BPP 2x/wk NST/AFI 2x/wk *BPP daily *NST/AFI daily
Triples and higher order multiples ^{11,12}	28 weeks 0 days	BPP 1-2x/wk NST/AFI 1-2x/wk

*Inpatient management

Indication	Initiate Surveillance	Testing Method
Antiphospholipid syndrome ^{4,7}	28 weeks 0 days	BPP 1-2x/wk NST/AFI 1-2x/wk
Chronic kidney disease ^{7,12,21}	28 weeks 0 days	BPP 1-2x/wk NST/AFI 1-2x/wk
Cyanotic heart disease ⁷	28 weeks 0 days	BPP 1-2x/wk NST/AFI 1-2x/wk
Decreased fetal movement ⁷	Once at time of complaint	BPP 1x
Fetal growth restriction ^{1,7}	At diagnosis	BPP 2x/wk NST/AFI 2x/wk Dopplers weekly
Hemoglobinopathies ⁷	32 weeks 0 days	BPP 1x/wk NST/AFI 1x/wk
Intrahepatic cholestasis of pregnancy ²⁷	At diagnosis	BPP 1-2x/wk NST/AFI 1-2x/wk
Isoimmunization ⁷	18 weeks 0 days to 28 weeks 0 days	BPP 1-2x/wk NST/AFI 1-2x/wk MCA Dopplers weekly to biweekly
Late Term ^{7,10,14,17}	41 weeks 0 days	BPP 2x/wk NST/AFI 2x/wk
Maternal age ≥ 40 ^{12,22}	32 weeks 0 days	BPP 1x/wk NST/AFI 1x/wk
Oligohydramnios ⁸	At diagnosis	BPP 2x/wk NST/AFI 2x/wk *BPP daily *NST/AFI daily
Polyhydramnios	At diagnosis	BPP 1x/wk NST/AFI 1x/wk
*Preterm premature rupture of membranes ¹³	At viability	BPP daily NST/AFI daily
Previous IUFD ^{3,7,26}	32 weeks 0 days or 1 week prior to previous stillbirth	BPP 1x/wk NST/AFI 1x/wk
Systemic lupus erythematosus ^{7,12}	28 weeks 0 days	BPP 1-2x/wk NST/AFI 1-2x/wk
Thyroid disease, poorly controlled ^{7,12}	32 weeks 0 days	BPP 1x/wk NST/AFI 1x/wk

*Inpatient management

Possible Indications for daily biophysical profile:

- Abnormal Doppler velocimetry
- Fetal growth restriction, severe
- Fetal hydrops
- Hypertension in pregnancy
- Indeterminate fetal heart rate tracing
- Maternal cardiovascular or pulmonary disease, severe
- Maternal diabetes, poor control
- Multiple gestations
- Oligohydramnios, severe
- Placental abruption
- Preterm premature rupture of membranes
- Twin-Twin Transfusion syndrome

Possible indications for daily non-stress testing:

- Abnormal Doppler velocimetry
- Fetal growth restriction, severe
- Fetal hydrops
- Hypertension in pregnancy
- Indeterminate fetal heart rate tracing
- Maternal cardiovascular or pulmonary disease, severe
- Maternal diabetes, poor control
- Multiple gestations
- Oligohydramnios, severe
- Placental abruption
- Preterm premature rupture of membranes
- Twin-Twin Transfusion syndrome

Possible indications for continuous fetal monitoring:

- Abnormal antepartum fetal surveillance (BPP, CST, MBPP, etc.)
- Abnormal Doppler velocimetry
- Fetal growth restriction, severe
- Hypertension in pregnancy
- Indeterminate fetal heart rate tracing
- Labor
- Maternal fever or sepsis
- Maternal hypoxia
- New admission evaluation
- Oligohydramnios, severe
- Placental abruption
- Tocolysis

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