ABNORMAL PRENATAL SCREENING TEST RESULTS

<table>
<thead>
<tr>
<th>DEFINITION</th>
<th>If any of the values of the various tests used in prenatal screening programs is abnormal, it may mean that the fetus or pregnancy may have significant problems or it may not predict any adverse outcome. A stepwise approach is needed to evaluate the values obtained.</th>
</tr>
</thead>
</table>
| SUBJECTIVE | May include:  
1. No symptoms.  
2. Vaginal spotting or bleeding. |
| OBJECTIVE | May include:  
1. Normal findings acceptable for gestational age.  
2. Size/dates discrepancy.  
3. Absence of fetal heart tones. |
| LABORATORY | Must include abnormal prenatal genetic screening test result(s). |
| ASSESSMENT | Patient with abnormal prenatal genetic screening test results. |

**PLAN**  
1. Verify the data upon that was used to interpret test results (gestational age, maternal weight, maternal diabetes).  
   a. If any data has changed, request re-evaluation of test results.  
   b. If any question exists about gestational age, recalculate using each estimate to see if either results in an abnormal test result.  
2. Depending on approach used, act on results as prescribed. Consult Table 1 to determine which abnormalities are associated with adverse pregnancy outcomes.  
   a. If abnormal test result does not have any association with adverse pregnancy outcome, advise patient of that fact and continue to provide routine prenatal care.  
   b. If abnormal test result(s) has association with adverse pregnancy outcome, consult MD, and implement routine follow-up procedures.  
      1) Elevated MS-AFP: fetal anatomy survey by ultrasound.  
      2) Decrease uE3: genetics referral.  
      3) Decreased MS-AFP: genetics referral.  
      4) Increased nuchal translucency: MD and genetics referral. |

**PATIENT EDUCATION**  
1. Provide the patient the information in the State pamphlet, for background.  
2. Women with values that are associated with adverse outcomes should be advised that their care will be transferred to a high risk specialist and to teams to further evaluate if her fetus/pregnancy faces problems. Note: even if a woman is not interested in terminating an abnormal pregnancy, advise her to keep follow-up appointments to determine if her fetus is affected and may need special help after delivery.  
3. Remind all women that these tests are screening tests that can both incorrectly diagnose problems and miss problems. |

**REFER to MD**  
1. Refer all cases with abnormal values that do not have automatic procedures established for follow-up.  
2. All women who decline further evaluation when it is indicated by standard procedures. |

**REFERENCES**  
REFERENCES (Continued)


Table 1
FIRST TRIMESTER ABNORMALITIES

<table>
<thead>
<tr>
<th>Associated with Adverse Outcomes</th>
<th>Not Associated with Adverse Outcomes*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low PAPP-A</td>
<td>Elevated PAPP-A</td>
</tr>
<tr>
<td>Low hCG</td>
<td>Elevated hCG</td>
</tr>
<tr>
<td>Nuchal cord translucency, large or thickened</td>
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</tbody>
</table>

SECOND TRIMESTER ABNORMALITIES

<table>
<thead>
<tr>
<th>Associated with Adverse Outcomes</th>
<th>Not Associated with Adverse Outcomes*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elevated MS-AFP (open NTD, renal agenesis, maternal ovarian tumor)</td>
<td>Low hCG</td>
</tr>
<tr>
<td>Elevated hCG</td>
<td>Low Inhibin-A</td>
</tr>
<tr>
<td>Elevated Inhibin-A</td>
<td>Elevated uE3</td>
</tr>
<tr>
<td>Decreased MS-AFP (fetal demise or Trisomy 18 or 21)</td>
<td></td>
</tr>
<tr>
<td>Decreased uE3 (genetic conditions)</td>
<td></td>
</tr>
</tbody>
</table>

Other associations:
- Placental previa with elevated MS-AFP: consider placenta accreta.
- Abnormal maternal uterine artery Doppler with elevated MS-AFP, hCG or Inhibin-A or decreased PAPP-A: greater risk IUGR and pre-eclampsia

*Routine antenatal care appropriate.

MS-AFP  maternal serum alpha-fetoprotein.
hCG  total human chorionic gonadotropin
uE3  unconjugated estriol
Inhibin-A Inhibin-A
PAPP-A pregnancy associated plasma protein A