Group B Streptococcus (GBS) Update:
New Recommendations for Intrapartum Prophylaxis
Prepared by: Michelle Alfa, Peter Pieroni

Group B Streptococcus (GBS)
- Causes early- and late-onset neonatal sepsis leading to significant morbidity and mortality
- Early-onset infection in neonates is preventable if at-risk mothers receive intrapartum antibiotic prophylaxis

GBS Screening
- It is recommended by both the Centers for Disease Control and Prevention (CDC) and the Society of Obstetricians and Gynecologists of Canada (SOGC) that screening should be offered to all women at 35-37 weeks of gestation
  - Optimal specimen is a single swab used to sample the vagina AND rectum
  - If only a vaginal swab is taken, it will miss approximately 20% of women who are GBS-positive

Who should be given GBS prophylaxis at the time of labour or rupture of membranes (ROM)?

Known GBS Status:
Intrapartum GBS prophylaxis for women if:
- positive for GBS screen culture taken at 35-37 weeks gestation
- they have had an infant previously infected with GBS, regardless of screening results
- documented GBS bacteriuria during current pregnancy (screening swabs at 35-37 weeks are not required in women with documented GBS bacteriuria in the current pregnancy)

Unknown GBS Status (use Risk Factor Approach):
Intrapartum GBS prophylaxis if any of the following risks are present:
- Prolonged rupture of membranes ≥18 hours
- Pre-term delivery (<37 weeks gestation)
- Fever (≥38°C)

KEY MESSAGE:
1. Erythromycin is no longer recommended for intrapartum prophylaxis.
2. If a patient has a serious penicillin allergy (anaphylaxis, angioedema, respiratory distress, urticaria), it is important to know the antibiotic sensitivity of the patient’s isolate as GBS is commonly resistant to clindamycin (see Table 2).

Table 1: Recommended Intrapartum Prophylaxis for GBS*

<table>
<thead>
<tr>
<th>Clinical Scenario</th>
<th>Antibiotic Dose</th>
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<tbody>
<tr>
<td>No penicillin allergy</td>
<td>Penicillin G 5 million units IV, then 2.5-3.0 million units q4h</td>
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<tr>
<td>Penicillin allergy – No history of anaphylaxis, angioedema, respiratory distress, urticaria</td>
<td>Cefazolin 2g IV initial dose, then 1g IV q8h</td>
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<tr>
<td>Serious penicillin allergy (history of anaphylaxis, angioedema, respiratory distress, urticaria) with GBS isolate susceptible to clindamycin**</td>
<td>Clindamycin 900 mg IV q8h</td>
</tr>
<tr>
<td>Serious penicillin allergy (history of anaphylaxis, angioedema, respiratory distress, urticaria) with GBS isolate resistant to clindamycin**</td>
<td>Vancomycin 1g IV q12h</td>
</tr>
</tbody>
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*Note: The doses given in this table assume normal renal function. Consult with references for dose adjustment when renal failure is present. Broader antibiotics necessary if chorioamnionitis suspected

**When sending a vaginal/rectal swab for GBS detection, indicate on the requisition if the patient is penicillin allergic. The microbiology laboratory will automatically perform susceptibility testing for clindamycin if notified regarding the presence of a penicillin allergy.

Table 2: Antibiotic susceptibility profile for 162 GBS isolates from vaginal/rectal specimens from women in the Winnipeg and Westman areas, 2012

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>Percent susceptibility</th>
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<tbody>
<tr>
<td>Penicillin</td>
<td>100%</td>
</tr>
<tr>
<td>Clindamycin</td>
<td>60%</td>
</tr>
<tr>
<td>Vancomycin</td>
<td>100%</td>
</tr>
</tbody>
</table>

References:
2. MMWR Recommendations and Reports, November 19, 2010/Vol. 59/No. RR-10