**INTENDED USE**
Remel Amies Transport Medium w/ and w/o Charcoal are semisolid media recommended for use in qualitative procedures for the transport of clinical swab specimens to the laboratory.

**SUMMARY AND EXPLANATION**
Amies Transport Medium is a modification of Stuart Transport Medium, introduced by Stuart et al. in 1954.1,2 Cary and Blair determined that sodium glycerophosphate was an energy source that allowed contaminants to overgrow pathogens that may be present in specimens.3 Amies substituted a balanced salt solution containing inorganic phosphate buffer for sodium glycerophosphate.4 In further testing, Amies’ formulation was modified to include charcoal which had been shown to increase the survival of gonococci in a transport medium.5

**PRINCIPLE**
This medium contains sodium chloride in a concentration of 0.3% for optimal preservation of Neisseria gonorrhoeae. Potassium, calcium, and magnesium salts serve to maintain osmotic equilibrium by controlling the permeability of bacterial cells. Phosphate buffer maintains the pH of the medium. Sodium thioglycollate and agar provide a reduced environment favorable to a variety of bacteria.5 Charcoal neutralizes metabolic products toxic to gonococci and removes the need for using charcoal impregnated swabs.

**REAGENTS (CLASSICAL FORMULA)*

<table>
<thead>
<tr>
<th>Sodium Chloride</th>
<th>Disodium Phosphate</th>
<th>Sodium Thioglycollate</th>
<th>Monopotassium Phosphate</th>
<th>Potassium Chloride</th>
<th>Calcium Chloride</th>
<th>Magnesium Chloride</th>
<th>Agar</th>
<th>Demineralized Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0 g</td>
<td>1.15 g</td>
<td>1.0 g</td>
<td>0.2 g</td>
<td>0.2 g</td>
<td>0.1 g</td>
<td>0.1 g</td>
<td>4.0 g</td>
<td>1000.0 ml</td>
</tr>
</tbody>
</table>

pH 7.3 ± 0.2 @ 25°C

The following optional ingredient is available per liter of medium:
Charcoal……………………………………………………………………10.0 g

*Adjusted as required to meet performance standards.

**PROCEDURE**
1. Place each swab specimen in transport medium and cut off the protruding portion of the swab.
2. Replace the cap and tighten completely.
3. Send specimens to the laboratory as soon as possible.
4. Upon arrival at the laboratory, remove the swab from the transport medium with forceps.
5. Apply the swab in accordance with accepted microbiological technique to plates containing appropriate media for culture. Apply the material from the swab itself, and not just the adhering transport medium.
6. Incubate plated media using proper microbiological procedures for cultivation of the suspected organisms.
7. Observe for acceptable growth and colonial morphology within 48-72 hours.

**QUALITY CONTROL**
All lot numbers of Amies Transport Medium w/ and w/o Charcoal have been tested using the following quality control organisms and have been found to be acceptable. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, patient results should not be reported.

**CONTROL**

**Amies Transport Medium w/ Charcoal:**

- *Bacteroides fragilis* ATCC® 25285
  - Incubation: Aerobic, 24 h @ 25-30°C
  - Result: Good recovery on subculture

- *Haemophilus influenzae* ATCC® 10211
  - Incubation: Aerobic, 24 h @ 25-30°C
  - Result: Good recovery on subculture

- *Neisseria gonorrhoeae* ATCC® 43069
  - Incubation: Aerobic, 24 h @ 25-30°C
  - Result: Good recovery on subculture

- *Streptococcus pyogenes* ATCC® 19615
  - Incubation: Aerobic, 24 h @ 25-30°C
  - Result: Good recovery on subculture

**Amies Transport Medium w/o Charcoal:**

- *Bacteroides fragilis* ATCC® 25285
  - Incubation: Aerobic, 24 h @ 25-30°C
  - Result: Good recovery on subculture

- *Streptococcus pyogenes* ATCC® 19615
  - Incubation: Aerobic, 24 h @ 25-30°C
  - Result: Good recovery on subculture

**LIMITATIONS**
1. Gonococci survive well in Amies Transport Medium w/ Charcoal for at least 6 to 12 hours provided they are not exposed to temperature extremes. By 24 hours, the numbers of gonococci decrease to an extent that may prevent their recovery if small numbers were present initially in the specimen.7
2. All specimens should be transported to the laboratory promptly and maintained at room temperature until processed. Refrigeration may be detrimental to some organisms.7

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BIBLIOGRAPHY


Refer to the front of Remel Technical Manual of Microbiological Media for General Information regarding precautions, product storage and deterioration, specimen collection, storage and transportation, materials required, quality control, and limitations.

ATCC® is a registered trademark of American Type Culture Collection.

IFU 60080, Revised February 11, 2008

Printed in U.S.A.