MIXING INSTRUCTIONS & SET TIME CHART

Note:

- The veterinary surgeon is responsible for determining antibiotic type and dosage to be used. The radiopaque calcium sulfate beads are absorbed, delivering the full amount of antibiotic. Antibiotic is not included in kit.

- Four mixing techniques are provided for optimal mixing of commonly used powdered and liquid antibiotics:
  
  1. **Standard** - Powder
  2. **Standard** - Liquid
  3. **Non-Standard** - Powder
  4. **Non-Standard** - Liquid

- To ensure proper mixing, prepare required materials and calculate dosage prior to beginning.

- A Set Time Chart is provided to specify recommended mixing technique for commonly used antibiotics. This is not an exhaustive list of antibiotics that can be used.

**Set Time Chart:**

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>Mixing Technique</th>
<th>Approximate Set Time*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amikacin**</td>
<td>Non-Standard - Liquid</td>
<td>45 Minutes**</td>
</tr>
<tr>
<td>Gentamicin</td>
<td>Standard – Liquid</td>
<td>20 Minutes</td>
</tr>
<tr>
<td>Cefazolin</td>
<td>Standard – Powder</td>
<td>25 Minutes</td>
</tr>
<tr>
<td>Vancomycin</td>
<td>Standard – Powder</td>
<td>10 Minutes</td>
</tr>
<tr>
<td>Tobramycin</td>
<td>Non-Standard – Powder</td>
<td>35 Minutes</td>
</tr>
<tr>
<td>Ampicillin</td>
<td>Non-Standard – Powder</td>
<td>25 Minutes</td>
</tr>
<tr>
<td>Imipenem</td>
<td>Non-Standard – Powder</td>
<td>60 Minutes</td>
</tr>
<tr>
<td>Ceftiofur</td>
<td>Non-Standard – Powder</td>
<td>30 Minutes</td>
</tr>
<tr>
<td>Meropenem</td>
<td>Non-Standard – Powder</td>
<td>35 Minutes</td>
</tr>
</tbody>
</table>

* Set times vary based on type and dosage of antibiotic. It is therefore advisable to prepare beads allowing for adequate set time.

** 45 minute set time for Amikacin is based on 2mL of liquid antibiotic and 2mL of mixing solution. If increased amount of liquid antibiotic is used, set time will increase up to 3.5 hours.
MIXING INSTRUCTIONS

STANDARD

Powder

1. Empty KERRIER powder into mixing bowl

2. Add antibiotic powder to mixing bowl and combine

3. Add mixing solution (4ml saline) to mixing bowl

4. Use mixing tool to stir until paste is formed

5. Use mixing tool to spread paste into either 3mm or 5mm cavities of bead mat

6. Allow to set, then flex mold mat to release beads

7. Compress bead between thumb and finger to ensure fully set

Liquid

CAUTION: A total of 4ml of liquid is required to mix KERRIER powder to a paste. Combinations of liquid antibiotics and mixing solution (saline) must equal 4ml.

1. Empty KERRIER powder into mixing bowl

2. Add liquid antibiotic to mixing bowl

3. If needed, add additional mixing solution (saline) to equal a total of 4ml of liquid to mixing bowl

4. Use mixing tool to stir until paste is formed

5. Use mixing tool to spread paste into either 3mm or 5mm cavities of bead mat

6. Allow to set, then flex mold mat to release beads

7. Compress bead between thumb and finger to ensure fully set
**NON-STANDARD MIXING INSTRUCTIONS**

**NOTE:** For slow setting antibiotics (example: Amikacin), a Non-Standard technique should be used to accelerate set time. Mixing KERRIER powder with mixing solution (saline) first without antibiotic, will jump start the setting process – accelerating set time.

**Powder**

1. Empty KERRIER powder into mixing bowl
2. Add mixing solution (4ml saline) to mixing bowl
3. Use mixing tool to stir for 60 seconds
4. Add antibiotic powder to mixing bowl
5. Use mixing tool to stir for 30 seconds until paste formed
6. Use mixing tool to spread paste into either 3mm or 5mm cavities of bead mat
7. Allow to set, then flex mold mat to release beads
8. Compress bead between thumb and finger to ensure fully set

**Liquid**

1. Empty KERRIER powder into mixing bowl
2. Determine volume of liquid antibiotic to be used
3. If needed, calculate amount of mixing solution (saline) needed to equal the required 4ml of total liquid
4. Add calculated amount of mixing solution (saline) to mixing bowl (without antibiotic) and stir thoroughly for 60 seconds
5. Add liquid antibiotic to mixing bowl and stir for 30 seconds until a paste is formed
6. Use mixing tool to spread paste into either 3mm or 5mm cavities of bead mat
7. Allow to set, then flex mold mat to release beads
8. Compress bead between thumb and finger to ensure fully set

**CAUTION:** A total of 4ml of liquid is required to mix KERRIER powder to a paste. Combinations of liquid antibiotics and mixing solution (saline) must equal 4ml.