MIXING INSTRUCTIONS & SET TIME CHART

Note:

- The veterinary surgeon is responsible for determining antibiotic type and dosage to be used. Antibiotic is not included in kit.
- Four mixing techniques are provided for optimal mixing of powdered and liquid antibiotics:
  1. **Standard** - Powder
  2. **Standard** - Liquid
  3. **Non-Standard** - Powder
  4. **Non-Standard** - Liquid
- A Set Time Chart is provided to approximate set time for commonly used antibiotics. Set times vary based on antibiotic type and dosage. It is advisable to prepare beads within a sterile field prior to the start of a surgical case.

Set Time Chart:

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>Mixing Technique</th>
<th>Approximate Set Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gentamicin (160mg-400mg)</td>
<td>Standard – Liquid</td>
<td>20 Minutes</td>
</tr>
<tr>
<td>Amikacin (500mg)*</td>
<td>Non-Standard - Liquid*</td>
<td>50 Minutes*</td>
</tr>
<tr>
<td>Amikacin (1g)</td>
<td>Standard – Liquid</td>
<td>4 Hours</td>
</tr>
<tr>
<td>Cefazolin (500mg-1g)</td>
<td>Non-Standard – Powder</td>
<td>15 Minutes</td>
</tr>
<tr>
<td>Vancomycin (500mg-1g)</td>
<td>Standard – Powder</td>
<td>10 Minutes</td>
</tr>
<tr>
<td>Gentamicin (160-400mg) / Cefazolin (500mg-1g)**</td>
<td>Standard – Liquid**</td>
<td>15 Minutes**</td>
</tr>
<tr>
<td>Gentamicin (160-400mg) / Vancomycin (500mg-1g)**</td>
<td>Standard – Liquid**</td>
<td>15 Minutes**</td>
</tr>
<tr>
<td>Meropenem (500mg-1g)</td>
<td>Non-Standard – Powder</td>
<td>25 Minutes</td>
</tr>
<tr>
<td>Ceftazidime (500mg-1g)</td>
<td>Non-Standard – Powder</td>
<td>25 Minutes</td>
</tr>
<tr>
<td>Ampicillin/Sublactam (750mg)</td>
<td>Non-Standard – Powder</td>
<td>30 Minutes</td>
</tr>
<tr>
<td>Florfenicol (600mg)*</td>
<td>Non-Standard – Liquid*</td>
<td>90 Minutes*</td>
</tr>
<tr>
<td>Amphotericin B (50mg)</td>
<td>Non-Standard – Powder</td>
<td>95 Minutes</td>
</tr>
<tr>
<td>Gentamicin (500mg)</td>
<td>Non-Standard - Liquid</td>
<td>50 Minutes*</td>
</tr>
<tr>
<td>Imipenem - Powder</td>
<td>DNS (Does Not Set)</td>
<td></td>
</tr>
<tr>
<td>Enrofloxacin - Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clindamycin - Liquid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Set time is based on 2ml of mixing solution and 2ml of liquid antibiotic using the Non-Standard - Liquid mixing technique.

** Combine KERRIER powder with antibiotic powder, then add 4ml of liquid antibiotic (no mixing solution required).
MIXING INSTRUCTIONS

STANDARD

Powder

1. Empty KERRIER Powder into mixing bowl

2. Using sterile technique, 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 mold 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. Using sterile technique, 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 slower setting antibiotics (example: Amikacin), a Non-Standard technique should be used to reduce set time. Mixing KERRIER powder with mixing solution (saline) first, without antibiotic, will accelerate the setting process. It is advisable to prepare beads within a sterile field prior to the start of a surgical case.

<table>
<thead>
<tr>
<th>Powder</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Empty KERRIER powder into mixing bowl</td>
<td><strong>1</strong> Empty KERRIER powder into mixing bowl</td>
</tr>
<tr>
<td><strong>2</strong> Add mixing solution (4ml saline) to mixing bowl</td>
<td><strong>2</strong> Determine volume of liquid antibiotic to be used</td>
</tr>
<tr>
<td><strong>3</strong> Use mixing tool to stir for 60 seconds</td>
<td><strong>3</strong> If needed, calculate amount of mixing solution (saline) needed to equal the required 4ml of total liquid</td>
</tr>
<tr>
<td><strong>4</strong> Using sterile technique, add antibiotic powder to mixing bowl</td>
<td><strong>4</strong> Add calculated amount of mixing solution (saline) to mixing bowl (without antibiotic) and stir thoroughly for 60 seconds. Mix will be dry.</td>
</tr>
<tr>
<td><strong>5</strong> Use mixing tool to stir for 30 seconds until paste formed</td>
<td><strong>5</strong> Using sterile technique, add liquid antibiotic to mixing bowl and stir for 30 seconds until a paste is formed</td>
</tr>
<tr>
<td><strong>6</strong> Use mixing tool to spread paste into either 3mm or 5mm cavities of bead mat</td>
<td><strong>6</strong> Use mixing tool to spread paste into either 3mm or 5mm cavities of bead mat</td>
</tr>
<tr>
<td><strong>7</strong> Allow to set, then flex mold mat to release beads</td>
<td><strong>7</strong> Allow to set, then flex mold mat to release beads</td>
</tr>
<tr>
<td><strong>8</strong> Compress bead between thumb and finger to ensure fully set</td>
<td><strong>8</strong> Compress bead between thumb and finger to ensure fully set</td>
</tr>
</tbody>
</table>

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**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.

**NOTE:** For slower setting antibiotics (example: Amikacin), a Non-Standard technique should be used to reduce set time. Mixing KERRIER powder with mixing solution (saline) first, without antibiotic, will accelerate the setting process. It is advisable to prepare beads within a sterile field prior to the start of a surgical case.

**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. Using sterile technique, 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. Mix will be dry.
5. Using sterile technique, 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

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**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. Using sterile technique, 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. Mix will be dry.
5. Using sterile technique, 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

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**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.

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