Calculate dosing weight (see Table 1)

Is CrCl > 60mL/min?

Yes

No

Use TRADITIONAL DOsing

If patient fails ONCE DAILY AMIKACIN NOMOGRAM

Use ONCE DAILY AMIKACIN (ODAmik) NOMOGRAM (see dosing nomogram below)

Choose target peak (see Table 4)

Loading Dose = (target peak x dosing weight x 0.3)1

Select dosing interval (see Table 2)

Maintenance Dose = Loading Dose – 50 mg1

Table 1: Dosing Weight

Is patient obese? If NO, dosing weight = total body weight. If YES, calculate dosing weight below.

Dosing weight calculation:
1. Calculate lean body weight (LBW):
   
   \[
   LBW = 2.3 \text{ (inches over 5 feet tall)} + \begin{cases} 
   45 & \text{ (female) } \\
   50 & \text{ (male) }
   \end{cases}
   \]
2. If total body weight (TBW) is > 40% above lean body weight (LBW), dosing weight = LBW + 0.4(TBW-LBW)

Table 2: Dosing Interval

<table>
<thead>
<tr>
<th>CrCl (mL/min)</th>
<th>Dosing Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 90</td>
<td>Every 8 hours</td>
</tr>
<tr>
<td>60-89</td>
<td>Every 12 hours</td>
</tr>
<tr>
<td>25-59</td>
<td>Every 24 hours</td>
</tr>
<tr>
<td>10-24</td>
<td>Every 48 hours</td>
</tr>
<tr>
<td>&lt; 10</td>
<td>Per levels</td>
</tr>
<tr>
<td>CRRT</td>
<td>Per levels</td>
</tr>
<tr>
<td>Hemodialysis</td>
<td>After HD</td>
</tr>
</tbody>
</table>

Table 3: Monitoring

Key Points About Obtaining Levels

- If using TRADITIONAL DOSING, peak and trough concentrations should be obtained around the 4th dose (to ensure steady state). Adjust dose to reflect target peak & trough.
  
  ⇒ Peak concentrations should be obtained at least 30 minutes after a 1 hour infusion.
  
  ⇒ Trough concentrations should be obtained just before the next scheduled dose.
- Peaks and troughs are not necessary if dosing by ONCE DAILY method (use nomogram)

Table 4: Target Concentrations (mcg/mL)

<table>
<thead>
<tr>
<th>Indication</th>
<th>Target Peak</th>
<th>Target Trough</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTI</td>
<td>15-20</td>
<td>≤2-4</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>27-30</td>
<td>≤4</td>
</tr>
<tr>
<td>Bacteremia</td>
<td>25-30</td>
<td>≤4</td>
</tr>
<tr>
<td>Abdominal</td>
<td>25-30</td>
<td>≤4</td>
</tr>
<tr>
<td>Cellulitis</td>
<td>25-30</td>
<td>≤2-4</td>
</tr>
<tr>
<td>Urosepsis</td>
<td>20-25</td>
<td>≤2-4</td>
</tr>
</tbody>
</table>

Once Daily Amikacin Nomogram (ODAmik) - Adults

Dose Confirmation on Nomogram

- Confirmation should occur after first dose
- In place of peak & trough concentrations, follow the sequence below:
  
  1. Obtain random serum concentration 6-14 hours after dose
  2. Plot concentration on nomogram
  3. If below line for respective dose, continue dose
  4. If above line, use flow chart of Traditional Dosing shown above
  5. Repeat dose confirmation every 7 days and/or in the event of changes in renal function

1 Round dose to nearest 50 mg
2 Consultation with a clinical pharmacist for amikacin dosing is recommended