QuickMed Technologies™ has developed a patented process (NIMBUS™) that permanently attaches a bacterial resistance to silver has also been documented, particularly in the UK. Both antibiotics and silver attack metabolic processes in microbes and corrupt replication after they enter through the cell wall. Various microbes have found ways to resist these processes (and ways to pass this acquired resistance on to other microbes through plasmid transfer). The NIMBUS™ dressings have been prepared on a range of substrates that include calciums (cotton, rayon) as well as more advanced wound dressing substrates such as foams, hydrocolloids and hydrogels, and superabsorbents.

NIMBUS Testing Conclusions

The NIMBUS materials detailed have undergone extensive testing for safety, efficacy, durability and production compatibility. Results are presented based on testing by ATTC method 100-199 unless otherwise noted. The results demonstrate that NIMBUS materials have broad microbial efficacy, are long lasting, and can stand up to the specific challenges of resistant strains of organisms. These tests conclusively show that NIMBUS materials make a safe and effective antimicrobial dressing.

NIMBUS Embodiments

Materials substrates:

• Medical (advanced): Advanced wound dressings based on foams and highly absorbent matrix materials. 
• Consumer textiles: Socks, T-shirts, various cotton and blended apparel items.
• Protease inhibition using NIMBUS™ materials.

Safety Testing

In vivo safety: FDA approved by Toxicology Laboratories, Bedford, MA. NIMBUS materials have passed all standard toxicity tests for prolonged use materials (1-30 days) in direct contact with a wound, www.quickmedtech.com.

References

4. Tests performed by QMT on their own materials.

WWW.QUICKMEDTECH.COM

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NIMBUS Testing

Percentage of bacteria killed within the time indicated.

<table>
<thead>
<tr>
<th>Organism</th>
<th>% Reduction</th>
<th>% Killed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staphylococcus aureus</td>
<td>99.9999%</td>
<td>99.9999%</td>
</tr>
<tr>
<td>Staphylococcus epidermidis</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Enterococcus faecalis</td>
<td>99.9999%</td>
<td>99.9999%</td>
</tr>
<tr>
<td>Pseudomonas aeruginosa</td>
<td>99.9999%</td>
<td>99.9999%</td>
</tr>
<tr>
<td>Enterobacter spp</td>
<td>99.9999%</td>
<td>99.9999%</td>
</tr>
<tr>
<td>Proteus spp</td>
<td>99.9999%</td>
<td>99.9999%</td>
</tr>
<tr>
<td>Klebsiella pneumoniae</td>
<td>99.9999%</td>
<td>99.9999%</td>
</tr>
<tr>
<td>Shigella spp</td>
<td>99.9999%</td>
<td>99.9999%</td>
</tr>
<tr>
<td>Clostridium difficile</td>
<td>99.9999%</td>
<td>99.9999%</td>
</tr>
</tbody>
</table>

Results:

4. Tests performed by QMT on their own materials.