

**Supplementary Table S1.** Criteria used to define potential antibiotic adjustments

Potential antimicrobial therapy modification based on BioFire PN Panel Result	Description
Appropriate antimicrobial escalation	<p>On-panel organism(s) or resistance mechanism(s) were identified by <b>both</b> SOC and PN Panel, i.e. positive agreement</p> <ul style="list-style-type: none"> <li>• The PN Panel would enable more rapid <b>initiation</b> of appropriate antimicrobials               <ul style="list-style-type: none"> <li>➤ e.g. <i>P. aeruginosa</i> identified by the PN Panel and SOC in a patient receiving ceftriaxone and azithromycin. Patient could be escalated to anti-pseudomonal agent based on the PN Panel result.</li> </ul> </li> </ul>
Appropriate antimicrobial de-escalation/ discontinuation	<p>No on-panel organism(s) or resistance mechanism(s) identified by either SOC or PN Panel. i.e. negative agreement</p> <ul style="list-style-type: none"> <li>• The PN Panel would enable more rapid <b>discontinuation</b> of one or more antimicrobial agents               <ul style="list-style-type: none"> <li>➤ e.g. <i>K. pneumoniae</i> detected by the PN Panel and SOC in a patient receiving cefepime and vancomycin. Vancomycin could be discontinued sooner based on the PN Panel result negative for <i>S. aureus</i>.</li> </ul> </li> <li>• The PN Panel would enable more rapid <b>de-escalation</b> of one or more antimicrobial agents               <ul style="list-style-type: none"> <li>➤ e.g. Methicillin-susceptible <i>S. aureus</i> detected by the PN Panel and SOC in a patient receiving vancomycin. Vancomycin could be de-escalated sooner to cefazolin based on FA result.</li> </ul> </li> </ul>
Inappropriate antimicrobial escalation/continuation	<p>On-panel organism(s) or resistance mechanism(s) were identified by the PN Panel but not SOC, i.e. PN Panel false-positive</p> <ul style="list-style-type: none"> <li>• The PN Panel may result in inappropriate <b>initiation or escalation</b> of one or more antimicrobial agents               <ul style="list-style-type: none"> <li>➤ e.g. <i>S. aureus</i> and <i>mecA/MREJ</i> detected by the PN Panel but not SOC in a patient receiving ceftriaxone. Vancomycin may be initiated/continued despite eventual negative culture result.</li> </ul> </li> </ul>
Inappropriate antimicrobial de-escalation/ discontinuation	<p>On-panel organism(s) were identified by SOC but not the PN Panel, i.e. PN Panel false-negative</p> <ul style="list-style-type: none"> <li>• The PN Panel may result in inappropriate <b>discontinuation or de-escalation</b> of one or more antimicrobial agents               <ul style="list-style-type: none"> <li>➤ e.g. <i>S. aureus</i> identified in SOC but not by the PN Panel in a patient receiving vancomycin. Vancomycin may be discontinued based on negative the PN Panel result until SOC results become available.</li> </ul> </li> </ul>
No therapy change	<p>Concordant SOC and the PN Panel results, i.e. positive or negative agreement</p> <ul style="list-style-type: none"> <li>• Empirical antibiotics appropriate for identified organism(s), <b>no escalation or de-escalation</b> possible based on the PN Panel result</li> </ul>