### Table 1. Percentages of Susceptible Strains to Antibiotics Among 3600 Gram-Positive Bacteria - AUBMC 1/7/12 - 30/6/13

<table>
<thead>
<tr>
<th>Bacteria</th>
<th>Amoxicillin</th>
<th>AmoxClav</th>
<th>Ceftazolin</th>
<th>Ceftriaxone</th>
<th>Erythromycin</th>
<th>Gentamicin</th>
<th>Levofloxacin</th>
<th>Cefoxitin</th>
<th>Timentin Sulf</th>
<th>Minocycline</th>
<th>Vancomycin</th>
<th>Teicoplanin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bacillus spp&lt;sup&gt;a&lt;/sup&gt;</td>
<td>36</td>
<td>36</td>
<td>53</td>
<td>90</td>
<td>70</td>
<td>93</td>
<td>93</td>
<td>93</td>
<td>93</td>
<td>93</td>
<td>93</td>
<td>93</td>
</tr>
<tr>
<td>Enterococcus spp&lt;sup&gt;*&lt;/sup&gt;</td>
<td>82</td>
<td>15</td>
<td>49</td>
<td>93</td>
<td>97.5</td>
<td>97.5</td>
<td>93</td>
<td>93</td>
<td>97.5</td>
<td>97.5</td>
<td>97.5</td>
<td>97.5</td>
</tr>
<tr>
<td>Staphylococcus aureus&lt;sup&gt;†&lt;/sup&gt;</td>
<td>75&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>75</td>
<td>75&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>77</td>
<td>80</td>
<td>85</td>
<td>94</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Coag. Neg. Staph</td>
<td>50&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>50</td>
<td>50&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>28</td>
<td>55</td>
<td>50</td>
<td>64</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Streptococcus agalactiae</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>70</td>
<td>75</td>
<td>100</td>
<td>64</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Streptococcus pneumoniae</td>
<td>20&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>20</td>
<td>20&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>73</td>
<td>100</td>
<td>45</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Streptococcus pyogenes</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>98</td>
<td>99</td>
<td>93</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Streptococcus viridans grp</td>
<td>73</td>
<td>82</td>
<td>93</td>
<td>95</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Ciprofloxacin = 88%, Chloramphenicol = 94%, Imipenem = 90%.  
<sup>*</sup> Vancomycin resistant enterococci (VRE) = 2.5%, Norfloxacin = 62%, Telithromycin = 99%.  
<sup>†</sup> MRSA = 25%, GISA = 0%, Cipro-HVRO = 84%, Gentamicin = 94%, Tetracycline = 81%.  
<sup>‡</sup> CNS: Ciprofloxacin = 50%, Gentamicin = 73%, Telithromycin = 82%.  
<sup>§</sup> For all Staph, Clindamycin is also extrapolated based on D-test.  
<sup>△</sup> Ceftriaxone = 95%.  
<sup>ø</sup> Extrapolated based on 1ug oxacillin disc, and also the cefoxitin disc for staph  
<sup>θ</sup> Highly Susceptible by MIC testing  
<sup>Ω</sup> Telithromycin = 99%

### Table 2. Percentages of Susceptible Strains to Antibiotics Among 8000 Gram-Negative Bacteria - AUBMC 1/7/12 - 30/6/13

<table>
<thead>
<tr>
<th>Bacteria</th>
<th>Amoxicillin</th>
<th>AmoxClav</th>
<th>Ceftazolin</th>
<th>Ceftriaxone</th>
<th>Erythromycin</th>
<th>Gentamicin</th>
<th>Levofloxacin</th>
<th>Cefoxitin</th>
<th>Timentin Sulf</th>
<th>Minocycline</th>
<th>Vancomycin</th>
<th>Teicoplanin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acinetobacter spp</td>
<td>5</td>
<td>9</td>
<td>9</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td>7</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Citrobacter spp</td>
<td>0</td>
<td>59</td>
<td>90</td>
<td>94</td>
<td>95</td>
<td>56</td>
<td>76</td>
<td>89</td>
<td>89</td>
<td>96</td>
<td>99.8</td>
<td>90</td>
</tr>
<tr>
<td>Enterobacter spp</td>
<td>0</td>
<td>0</td>
<td>85</td>
<td>25</td>
<td>94</td>
<td>62</td>
<td>0</td>
<td>25</td>
<td>80</td>
<td>84</td>
<td>89</td>
<td>99.3</td>
</tr>
<tr>
<td>Escherichia coli&lt;sup&gt;†&lt;/sup&gt;</td>
<td>24</td>
<td>75</td>
<td>66</td>
<td>50</td>
<td>81</td>
<td>65</td>
<td>91</td>
<td>50</td>
<td>61</td>
<td>72</td>
<td>93</td>
<td>99</td>
</tr>
<tr>
<td>Haemophilus influenzae&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>81</td>
<td>98</td>
<td>100</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Klebsiella spp&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>0</td>
<td>76</td>
<td>63</td>
<td>54</td>
<td>84</td>
<td>65</td>
<td>90</td>
<td>54</td>
<td>62</td>
<td>66</td>
<td>90</td>
<td>96</td>
</tr>
<tr>
<td>Morganella spp&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>0</td>
<td>0</td>
<td>98</td>
<td>0</td>
<td>100</td>
<td>69</td>
<td>75</td>
<td>0</td>
<td>94</td>
<td>97</td>
<td>100</td>
<td>97</td>
</tr>
<tr>
<td>Moraxella catarrhalis&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proteus spp</td>
<td>46</td>
<td>90</td>
<td>99</td>
<td>84</td>
<td>99</td>
<td>92</td>
<td>98</td>
<td>84</td>
<td>96</td>
<td>99</td>
<td>100</td>
<td>99.5</td>
</tr>
<tr>
<td>Pseudo aeruginosa</td>
<td>83</td>
<td>88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salmonella typhi&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>100</td>
<td></td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salmonella spp&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>85</td>
<td></td>
<td>99</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shigella spp&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>67</td>
<td></td>
<td>83</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serratia spp</td>
<td>1</td>
<td>1</td>
<td>99</td>
<td>2</td>
<td>100</td>
<td>79</td>
<td>2</td>
<td>98</td>
<td>100</td>
<td>99</td>
<td>100</td>
<td>88</td>
</tr>
</tbody>
</table>

<sup>a</sup> Extended Spectrum β-Lactamases (ESBLs):  
<sup>‡</sup> H. influenzae: β-Lactamase Pos = 19%, Levofloxacin = 92%, Ceftriaxone = 100%, Telithromycin = 100%.  
<sup>‡</sup> Escherichia coli: β-Lactamase Pos = 28%, Klebsiella pneumoniae = 27%.  
<sup>‡</sup> Moraxella: β-Lactamase Pos = 93%, Levofoxacin = 100%.  
<sup>‡</sup> Citrobacter: S. typhi = 100%, Salmonella spp = 99%, Shigella spp = 83%.  
<sup>‡</sup> Ampicillin & Trimeth/Quinolone susceptibilities vary with geographic source of isolates.
FURTHER RELATED INFORMATION

### S. aureus & Coagulase – Negative Staph (CNS):
- MRSA = 23%; CNS Meth-R = 50%; S. lugdunensis = 0%; GISA = 0%.

### S. pneumoniae:
- Penicillin: MIC$_{50}$ = 0.25; MIC$_{90}$ = 1; Range (0.016 - 1.5).
- Ceftriaxone: MIC$_{50}$ = 0.125; MIC$_{90}$ = 0.5; Range (0.016 - 1).
- Levofloxacin = 100%.
- Haemophilus:
  - H. influenzae = 73%.
  - H. parainfluenzae = 27%.

### Influenza:
- Serotypes: b = 90%, not b = 10%.
- Eight Fluoroquinolone (FQ) R strains detected vs seven last year.

### Enterococcus spp.:
- VRE: eleven strains detected vs four last year.
- Eight Fluoroquinolone (FQ) R strains detected vs seven last year.

### β-haemolytic streptococci groups A, B, C, G:
- All are uniformly susceptible to Penicillin.
- Prevalence: A = 44%, B = 52%, C = 3%, G = 4%.
- Prevalence of recovered species among:
  - Prevalence: A = 44%, B = 52%, C = 3%, G = 4%.

### Klebsiella & Acinetobacter

### Salmonella & Shigella spp Serotypes:
- S. enterica (grp D)

### Other spp.
- E. coli: 0.9%

### Escherichia coli
- 70%, E. aerogenes 28%,
- Shigella spp.

### Proteus spp.
- K. pneumoniae 94%,
- K. oxytoca 6%.

### Other spp.
- 17%

### Candida spp.: Candida albicans: 58% Non albicans: 42%
- [C. glabrata 23%, C. tropicalis 28%, C. krusei 6%; C. kafy 6%.
- C. parapsilosis 8%, C. pellucida 2%. Non specialized 27%
- No C. dubliniensis detected.

### Infection Control Aspects During This Report Period

### Routine Surveillance
- Fosfomycin and other antimicrobials against uropathogens
- For the LIPSP.
- Specific studies on device-related infections.
- For the LIPSP.

### SURGICAL SITE INFECTIONS VS OPERATION
- Clean 0.4%; Clean/Contaminated 1.0%; Contaminated/Dirty 1.6%.

### CLINICAL PREDICTORS AND OUTCOMES OF BACTERAEMIA CAUSED BY ESBL-PRODUCING PATHOGENS
- Infection Control Staff

### Acknowledgements to Bacteriology Staff
- Excellent Technical Assistance

Lina Inani, Hanan Beyh, Sihair Salib, Rania Hammoud, Aline Avedissian, Rima Asmar, Maggy Malik, Nadia Ayyash.
Thanks to Hiba Halabi for clerical assistance and Mohammad Nazzal for IT assistance.

### RELATED ARTICLES


2. Araj GF and Jaber FA. In vitro activity of fosfomycin and other antimicrobials against uropathogenic E. coli and K. pneumoniae at a tertiary care center in Lebanon. Lebanese Medical Journal 2012; 60: 142-147.


