The cumulative susceptibility data report is based on the inclusion of only the first isolate of a given species from an individual patient.

This data is presented with the aim of guiding the clinician in the selection of initial empirical antimicrobial therapy for infection.

**URINE ISOLATES ONLY:** Cefazolin can be used to predict susceptibility to certain oral cephalosporins.

Not recommended for pyelonephritis, even if susceptible

Organisms that are susceptible to tetracycline are also susceptible to doxycycline and minocycline. However, some organisms that are intermediate or resistant to tetracycline may be susceptible to doxycycline, minocycline, or both.

Susceptibility data for coagulase negative Staphylococcus is not for treatment purposes; Vancomycin is the therapy of choice.

GRAY shading indicates drug/bug combination generally not recommended for therapy.

Red shading indicates intrinsic resistance.

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Antibiotic Profile
January - December 2019

Outpatients

The outpatient antibiogram includes all of the outpatient clinics.

### GRAM NEGATIVE

<table>
<thead>
<tr>
<th>ORGANISMS</th>
<th># Isolates</th>
<th>Ampicillin</th>
<th>Augmentin</th>
<th>Ceftaz</th>
<th>Ceftriaxone</th>
<th>Cephal</th>
<th>Piperacillin/Tazobactam</th>
<th>Meropenem</th>
<th>Zosyn</th>
<th>Gentamicin</th>
<th>Tobramycin</th>
<th>Trimeth/SMX</th>
<th>Nitrofurantoin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escherichia Coli</td>
<td>174</td>
<td>41</td>
<td>72</td>
<td>87</td>
<td>94</td>
<td>88</td>
<td>96</td>
<td>91</td>
<td>100</td>
<td>77</td>
<td>76</td>
<td>99</td>
<td>89</td>
</tr>
<tr>
<td>Klebsiella Pneumoniae</td>
<td>39</td>
<td>78</td>
<td>78</td>
<td>91</td>
<td>89</td>
<td>100</td>
<td>92</td>
<td>100</td>
<td>73</td>
<td>71</td>
<td>100</td>
<td>86</td>
<td>89</td>
</tr>
<tr>
<td>Pseudomonas Aeruginosa</td>
<td>54</td>
<td>69</td>
<td>89</td>
<td>94</td>
<td>92</td>
<td>96</td>
<td>94</td>
<td>94</td>
<td>96</td>
<td>83</td>
<td>94</td>
<td></td>
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</tbody>
</table>

#### Cystic Fibrosis Isolates

<table>
<thead>
<tr>
<th>GRP</th>
<th>Organisms</th>
<th># Isolates</th>
<th>Ampicillin</th>
<th>Augmentin</th>
<th>Ceftaz</th>
<th>Ceftriaxone</th>
<th>Cephal</th>
<th>Piperacillin/Tazobactam</th>
<th>Meropenem</th>
<th>Zosyn</th>
<th>Gentamicin</th>
<th>Tobramycin</th>
<th>Trimeth/SMX</th>
<th>Nitrofurantoin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pseudomonas Aeruginosa (CF)</td>
<td>220</td>
<td>84</td>
<td>85</td>
<td>82</td>
<td>90</td>
<td>86</td>
<td>81</td>
<td>66</td>
<td>81</td>
<td>73</td>
<td>100</td>
<td>85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stenotrophomonas Maltophilia (CF)</td>
<td>48</td>
<td>17</td>
<td>73</td>
<td>100</td>
<td>96</td>
<td>94</td>
<td>96</td>
<td>100</td>
<td>96</td>
<td>94</td>
<td>96</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### GRAM POSITIVE

<table>
<thead>
<tr>
<th>ORGANISMS</th>
<th># Isolates</th>
<th>Clindamycin</th>
<th>Linezolid</th>
<th>Oxacillin</th>
<th>Tetrasix</th>
<th>Trimeth/SMX</th>
<th>Vancomycin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staphylococcus Aureus</td>
<td>138</td>
<td>77</td>
<td>100</td>
<td>65</td>
<td>93</td>
<td>96</td>
<td>100</td>
</tr>
<tr>
<td>Staphylococcus Aureus,Methicillin Resistant</td>
<td>48</td>
<td>64</td>
<td>100</td>
<td>0</td>
<td>94</td>
<td>96</td>
<td>100</td>
</tr>
<tr>
<td>Staphylococcus Aureus,Methicillin Sensitive</td>
<td>69</td>
<td>83</td>
<td>100</td>
<td>100</td>
<td>93</td>
<td>96</td>
<td>100</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>GRP</th>
<th>Organisms</th>
<th># Isolates</th>
<th>Clindamycin</th>
<th>Linezolid</th>
<th>Oxacillin</th>
<th>Tetrasix</th>
<th>Trimeth/SMX</th>
<th>Vancomycin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staphylococcus Aureus (CF)</td>
<td>319</td>
<td>74</td>
<td>75</td>
<td>94</td>
<td>96</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staphylococcus Aureus,Methicillin Resistant (CF)</td>
<td>79</td>
<td>49</td>
<td>99</td>
<td>88</td>
<td>94</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staphylococcus Aureus,Methicillin Sensitive (CF)</td>
<td>233</td>
<td>82</td>
<td>100</td>
<td>100</td>
<td>96</td>
<td>97</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The cumulative susceptibility data report is based on the inclusion of only the first isolate of a given species from an individual patient. This data is presented with the aim of guiding the clinician in the selection of initial empirical antimicrobial therapy for infection.

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The EC antibiogram includes Main Campus, West Campus, and The Woodlands campus emergency centers.
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The NICU antibiogram is comprised of patient isolates from the level 2 and level 3 newborn centers as well as the newborn centers at the Pavilion for Women and The Woodlands.

### Antibiotic Profile
January - December 2019

#### GRAM NEGATIVE

<table>
<thead>
<tr>
<th>ORGANISMS</th>
<th># Isolates</th>
<th>Ampicillin</th>
<th>Augmentin</th>
<th>Cefoxitin</th>
<th>Cefotaxime</th>
<th>Ceftriaxone</th>
<th>Meropenem</th>
<th>Piperacillin/Tazobactam</th>
<th>Ciprofloxacin</th>
<th>Levofloxacin</th>
<th>Amikacin</th>
<th>Gentamicin</th>
<th>Tobramycin</th>
<th>Trimethoprim/ Sulphonamide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escherichia Coli</td>
<td></td>
<td>32</td>
<td>34</td>
<td>71</td>
<td>83</td>
<td>94</td>
<td>84</td>
<td>97</td>
<td>100</td>
<td>93</td>
<td>83</td>
<td>94</td>
<td>72</td>
<td>75</td>
</tr>
</tbody>
</table>

#### GRAM POSITIVE

<table>
<thead>
<tr>
<th>ORGANISMS</th>
<th># Isolates</th>
<th>Clindamycin</th>
<th>Gentamicin</th>
<th>Linezolid</th>
<th>Oxacillin</th>
<th>Tetracycline</th>
<th>Trimethoprim/Sulphonamide</th>
<th>Vancomycin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coagulase Negative Staphylococcus</td>
<td></td>
<td>53</td>
<td>78</td>
<td>100</td>
<td>68</td>
<td>88</td>
<td>94</td>
<td>100</td>
</tr>
<tr>
<td>Staphylococcus Aureus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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The Pavilion antibiogram does NOT include the Pavilion NICU patient isolates.
**ANTIBIOTIC PROFILE**

**January - December 2019**

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**ANTIBIOTIC Q&A**

**Q:** What is an antibiogram?

**A:** An antibiogram is a summary of *microbial* susceptibility data for a given patient population *summarized in a manner that can readily* aid physicians in selecting initial empiric antimicrobial therapy.

**Q:** Why is the Antibiogram only available for the prior year?

**A:** Typically 12 months of accumulated data are required to achieve an appropriate level of statistical significance. Hence the presentation of the prior year is common practice.

**Q:** Why are some organisms not represented in the data?

**A:** Not all drug/bug combinations are presented in an antibiogram because a minimum of thirty patient isolates are required to provide reliable indication of susceptibility.

**Q:** If a patient has multiple isolates throughout a year, are all of them included in the antibiogram data?

**A:** No, only the first isolate of a species from an individual patient is included to ensure that the antibiogram most closely represents the likelihood of an organism being susceptible to a given drug on first presentation.

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For questions or additional information, please contact:

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**Paula Revell, Ph.D., D(ABMM)**
Associate Director of Medical Microbiology and Virology
Phone: 832-824-1873
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