

## Choice of Antimicrobial Therapy

### A. Empiric Therapy:

Prior to receiving specific susceptibility results, drugs to which organisms are greater than 80% susceptible are generally considered good choices, although patient history, site of infection, and specific pharmacologic properties as they apply to the particular patient must be taken into account.

### B. Therapeutic Therapy:

The drug of choice for treatment of an infection is usually the most active drug against the pathogenic organism or the organism most likely to cause infection. Choice of drugs should be modified by site of infection and patient's clinical status regarding allergy, renal function, immune status or pregnancy.

Visit us on the Web  
[www.laboratoryalliance.com](http://www.laboratoryalliance.com)

| Organism                   | Number of Isolates* | Ampicillin | Amoxicillin/clavulanate** | Piperacillin/tazobactam | Cephalothin | Cefazolin | Cefoxitin | Cefuroxime | Cefpodoxime | Cefepime | Ceftazidime | Ceftioxcime | Ertapenem | Imipenem | Meropenem | Ciprofloxacin | Levofloxacin | Moxifloxacin | Norfloxacin | Gentamicin# | Tobramycin | Amikacin | Tetracycline (Doxycycline) | Trimethoprim/sulfamethoxazole (Bactrim) | Nitrofurantoin | Clindamycin | Erythromycin | Azithromycin | Oxacillin*** | Penicillin | Vancomycin | Rifampin# | Gentamicin-Synergy |  |
|----------------------------|---------------------|------------|---------------------------|-------------------------|-------------|-----------|-----------|------------|-------------|----------|-------------|-------------|-----------|----------|-----------|---------------|--------------|--------------|-------------|-------------|------------|----------|----------------------------|---|----------------|-------------|--------------|--------------|--------------|------------|------------|-----------|--------------------|--|
| ESCHERICHIA COLI           | 5572                | 60         | 82                        | 96                      | 61          | 92        | 92        | 86         | 98          | 99       | 99          | 99          | 100       | 100      | 100       | 81            | 80           | 88           | 80          | 92          | 94         | 100      | 82                         | 83                                      | 95             |             |              |              |              |            |            |           |                    |  |
| KLEBSIELLA PNEUMONIAE      | 1067                | 0          | 96                        | 97                      | 93          | 97        | 94        | 91         | 98          | 99       | 99          | 99          | 99        | 94       | 93        | 97            | 97           | 98           | 98          | 99          | 99         | 95       | 88                         | 92                                      | 32             |             |              |              |              |            |            |           |                    |  |
| PROTEUS MIRABILIS          | 616                 | 84         | 100                       | 100                     | 90          | 96        | 97        | 96         | 98          | 99       | 99          | 99          | 100       | 100      | 100       | 78            | 78           | 93           | 79          | 97          | 98         | 99       | 0                          | 81                                      | 0              |             |              |              |              |            |            |           |                    |  |
| ENTEROBACTER CLOACAE       | 286                 | 0          | 0                         | 88                      | 0           | 0         | 1         | 0          | 2           | 98       | 88          | 89          | 100       | 100      | 100       | 95            | 94           | 98           | 95          | 96          | 97         | 100      | 82                         | 84                                      | 30             |             |              |              |              |            |            |           |                    |  |
| CITROBACTER FREUNDII       | 177                 | 0          | 0                         | 93                      | 0           | 0         | 3         | 71         | 3           | 100      | 94          | 94          | 100       | 100      | 100       | 91            | 90           | 100          | 94          | 95          | 98         | 100      | 83                         | 85                                      | 91             |             |              |              |              |            |            |           |                    |  |
| KLEBSIELLA OXYTOCA         | 157                 | 0          | 90                        | 92                      | 85          | 73        | 97        | 88         | 98          | 100      | 100         | 100         | 100       | 100      | 100       | 99            | 98           | 100          | 100         | 99          | 99         | 100      | 97                         | 97                                      | 73             |             |              |              |              |            |            |           |                    |  |
| SERRATIA MARCESCENS        | 117                 | 0          | 0                         | 100                     | 0           | 0         | 23        | 0          | 0           | 100      | 100         | 100         | 100       | 100      | 100       | 98            | 100          | NI           | 100         | 100         | 98         | 100      | 28                         | 98                                      | 0              |             |              |              |              |            |            |           |                    |  |
| CITROBACTER KOSERI         | 95                  | 0          | 0                         | 95                      | 90          | 100       | 95        | 68         | 99          | 100      | 100         | 100         | 100       | 100      | 100       | 98            | 97           | NI           | 100         | 100         | 100        | 100      | 99                         | 100                                     | 69             |             |              |              |              |            |            |           |                    |  |
| MORGANELLA MORGANII        | 78                  | 0          | 0                         | 76                      | 0           | 0         | 37        | 0          | 0           | 96       | 87          | 96          | 100       | 100      | 100       | 76            | 76           | NI           | 79          | 96          | 100        | 100      | 0                          | 77                                      | 0              |             |              |              |              |            |            |           |                    |  |
| ENTEROBACTER AEROGENES     | 77                  | 0          | 0                         | 93                      | 0           | 0         | 0         | 75         | 0           | 100      | 94          | 96          | 100       | 100      | 100       | 96            | 95           | NI           | 95          | 100         | 100        | 100      | 97                         | 99                                      | 13             |             |              |              |              |            |            |           |                    |  |
| PSEUDOMONAS AERUGINOSA     | 864                 |            |                           | 94                      |             |           |           |            |             | 92       | 94          | NI          |           | 90       | 92        | 77            | 64           | NI           |             | 82          | 96         | 97       | 100                        |   |                |             |              |              |              |            |            |           |                    |  |
| ENTEROCOCCUS SP., VSE      | 1109                | 98         |                           |                         |             |           |           |            |             |          |             |             |           |          |           | 69            | 70           |              |             |             |            |          | 19                         | 97                                      |                |             |              |              |              |            | 100        |           | 72                 |  |
| ENTEROCOCCUS SP., VRE      | 53                  | 21         |                           |                         |             |           |           |            |             |          |             |             |           |          |           | 0             | 0            |              |             |             |            | 20       | 27                         |   |                |             |              |              |              | 0          |            |           | 75                 |  |
| STAPH. AUREUS, MSSA        | 2003                |            |                           |                         |             |           |           |            |             |          |             |             |           |          |           | 92            | 93           | 96           |             | 100         |            |          | 96                         | 99                                      | 98             | 75          | 65           | 100          | 0            | 100        | 100        |           |                    |  |
| STAPH. AUREUS, MRSA        | 1098                |            |                           |                         |             |           |           |            |             |          |             |             |           |          |           | 43            | 43           | 0            |             | 100         |            |          | 97                         | 99                                      | 99             | 75          | 13           | 0            | 0            | 100        | 100        |           |                    |  |
| STAPH. SPECIES, COAG.NEG   | 799                 |            |                           |                         |             |           |           |            |             |          |             |             |           |          |           | 51            | 52           | 70           |             | 93          |            |          | 81                         | 69                                      | 98             | 61          | 42           | 48           | 0            | 99         | 99         |           |                    |  |
| HAEM INFLUENZAE COMM WIDE  | 170                 | 66         |                           |                         |             |           |           | 90         |             |          |             |             |           | 100      |           | 91            | 91           | 99           |             |             |            |          | 99                         | 68                                      |                |             |              | 96           |              |            |            |           |                    |  |
| STREP PNEUMONIAE COMM WIDE | 177                 |            |                           |                         |             |           |           |            |             |          |             |             |           |          | 86        |               | 98           | 99           |             |             |            |          | 83                         | 83                                      |                | 88          | 66           | 66           | 83/86##      | 100        |            |           |                    |  |

(Data are % Susceptible)

\* Note: isolates are from all sources; urine, blood, respiratory, wound, etc.

\*\* AMOX/CLAV PREDICTS AMP/SULBAC

\*\*\* Oxacillin susceptible Staph are also susceptible to other penicillinase resistant penicillins, beta-lactam/beta-lactamase inhibitor combinations, cepheims, and carbapenems FDA approved to treat Staph infections.

# Gentamicin and Rifampin may be used in combination with other drugs against Staph isolates.

## 88% were in the intermediate or susceptible range indicating those could be treated for pneumonia with appropriate dosing of an IV penicillin.

\$ NI= drug not active

The percentage in red are greater than or equal to 80% susceptibility, potentially useful for empiric therapy.



## Contact Us

**Customer Service:**  
**(315) 461-3008**

**RRL at Community General:**  
**(315) 492-5531**

**RRL at Crouse Hospital:**  
**(315) 470-7391**

**RRL at St. Joseph's Hospital:**  
**(315) 448-5400**

**[www.laboratoryalliance.com](http://www.laboratoryalliance.com)**

**Visit us on the Web**  
[www.laboratoryalliance.com](http://www.laboratoryalliance.com)



**LABORATORY ALLIANCE**

of Central New York, LLC

Operations Center  
113 Innovation Lane • Liverpool, New York 13088  
Ph: (315) 410-7000 • Fax (315) 410-7007

## 2011 OUT-PATIENT ANTIBIOGRAM

**Data are Percent Susceptible**  
**Jan. 2010 – Dec. 2010**

Michael R. O'Leary, MD, Medical Director  
Paul A. Granato, PhD, Director, Microbiology  
Russell A. Rawling, MS, Microbiology Manager