

CANWARD 2012 Study

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CANWARD 2012

Participating Centres/Investigators

| | | |
|----|-------------------------|------------------------------------------------|
| 1 | Dr. D. Roscoe | Vancouver Hospital, Vancouver |
| 2 | Dr. J. Fuller | University of Alberta Hospital, Edmonton |
| 3 | Dr. J. Blondeau | Royal University Hospital, Saskatoon |
| 4 | Drs. D. Hoban/G. Zhanel | Health Sciences Centre, Winnipeg |
| 5 | Dr. M. John | London Health Sciences Centre, London |
| 6 | Dr. S. Poutanen | Mount Sinai Hospital, Toronto |
| 7 | Dr. L. Matukas | St. Michael's Hospital, Toronto |
| 8 | Dr. F. Chan | Children's Hospital of Eastern Ontario, Ottawa |
| 9 | Dr. M. Laverdière | Hopital Maisonneuve-Rosemont, Montreal |
| 10 | Dr. M. Goyette | CHRTTR Pavilion Ste. Marie, Trois-Rivières |
| 11 | Dr. M. Kuhn | South East Regional Health Authority, Moncton |
| 12 | Dr. R. Davidson | Queen Elizabeth II HSC, Halifax |

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CANWARD 2012 – Methods

- 12 sentinel Canadian hospitals (8/10 provinces) participating
 - Regions: West (BC, AB, SK, MB), Ontario, Quebec, Maritimes
- Isolates from patients attending:
 - hospital clinics, ER, wards (medical, surgical) and ICUs
- Isolates per infection site:
 - blood (100), respiratory (100), urine (25), wound (25)

CANWARD 2012 Study

CANWARD 2012 – Isolate Selection

- Isolates from respiratory tract, blood, urinary tract, wounds/IV sites
- Isolates deemed “clinically significant” by local site criteria
- Consecutive pathogens
- One pathogen per patient per infection site
- Exclusions: eye/ear/nose swabs, genital tract specimens, surveillance swabs, anaerobes, fungi

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Ward Specimen Source

N (%)

| | Clinic | ER | ICU | Med | Surg | Total |
|------------------|------------|------------|------------|------------|-----------|----------------|
| National | 484 (17.2) | 716 (25.5) | 621 (22.1) | 819 (29.2) | 168 (6.0) | 2808 |
| West | 182 (18.4) | 270 (27.2) | 225 (22.7) | 246 (24.8) | 68 (6.9) | 991 (35.3%) |
| Ontario | 90 (9.4) | 200 (20.9) | 268 (28.0) | 340 (35.6) | 58 (6.1) | 956 (34.1%) |
| Quebec | 113 (31.1) | 144 (39.7) | 25 (6.9) | 67 (18.5) | 14 (3.9) | 363 (12.9%) |
| Maritimes | 99 (19.9) | 102 (20.5) | 103 (20.7) | 166 (33.3) | 28 (5.6) | 498 (17.7%) |

CANWARD 2012 Specimen Source

| | Clinic | | ER | | ICU | | Med | | Surg | | Total | |
|--------------|------------|------|------------|------|------------|------|------------|------|------------|------|-------------|------|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| Blood | 79 | 16.3 | 471 | 65.8 | 185 | 29.8 | 382 | 46.6 | 51 | 30.4 | 1168 | 41.6 |
| Resp | 226 | 46.7 | 67 | 9.4 | 406 | 65.4 | 301 | 36.8 | 67 | 39.9 | 1067 | 38.0 |
| Urine | 91 | 18.8 | 112 | 15.6 | 10 | 1.6 | 65 | 7.9 | 20 | 11.9 | 298 | 10.6 |
| Wound | 88 | 18.2 | 66 | 9.2 | 20 | 3.2 | 71 | 8.7 | 30 | 17.9 | 275 | 9.8 |
| Total | 484 | | 716 | | 621 | | 819 | | 168 | | 2808 | |

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Specimen (isolates) / Infection Site

N (%)

| | Blood | Respiratory | Urine | Wound | Total |
|-----------|-------------|-------------|------------|------------|-------|
| National | 1168 (41.6) | 1067 (38.0) | 298 (10.6) | 275 (9.8) | 2808 |
| West | 398 (40.2) | 393 (39.7) | 100 (10.1) | 100 (10.1) | 991 |
| Ontario | 373 (39.0) | 385 (40.3) | 98 (10.3) | 100 (10.5) | 956 |
| Quebec | 198 (54.5) | 90 (24.8) | 50 (13.8) | 25 (6.9) | 363 |
| Maritimes | 199 (40.0) | 199 (40.0) | 50 (10.0) | 50 (10.0) | 498 |

CANWARD 2012

Patient Age Demographics

N (%)

| | ≤17 | 18-64 | ≥65 | Total |
|-----------|------------|-------------|-------------|-------|
| National | 451 (16.1) | 1204 (42.9) | 1153 (41.1) | 2808 |
| West | 162 (16.3) | 464 (46.8) | 365 (36.8) | 991 |
| Ontario | 265 (27.7) | 379 (39.6) | 312 (32.6) | 956 |
| Quebec | 7 (1.9) | 133 (36.6) | 223 (61.4) | 363 |
| Maritimes | 17 (3.4) | 228 (45.8) | 253 (50.8) | 498 |

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Gender of Patient Isolates

N (%)

| | Female | Male | Total |
|-----------|-------------|-------------|-------|
| National | 1251 (44.6) | 1557 (55.4) | 2808 |
| West | 430 (43.4) | 561 (56.6) | 991 |
| Ontario | 417 (43.6) | 539 (56.4) | 956 |
| Quebec | 173 (47.7) | 190 (52.3) | 363 |
| Maritimes | 231 (46.4) | 267 (53.6) | 498 |

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Bacteriology of Top 20 Organisms n=3557

National - Overall

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|-------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 564 | 20.1 |
| 2 | <i>Escherichia coli</i> | 500 | 17.8 |
| 3 | <i>Pseudomonas aeruginosa</i> | 264 | 9.4 |
| 4 | <i>Klebsiella pneumoniae</i> | 169 | 6.0 |
| 5 | <i>Haemophilus influenzae</i> | 150 | 5.3 |
| 6 | <i>Streptococcus pneumoniae</i> | 143 | 5.1 |
| 7 | <i>Staphylococcus aureus, MRSA</i> | 125 | 4.5 |
| 8 | <i>Enterococcus faecalis</i> | 93 | 3.3 |
| 9 | CNS / <i>Staphylococcus epidermidis</i> | 85 | 3.0 |
| 10 | <i>Enterobacter cloacae</i> | 69 | 2.5 |
| 11 | <i>Klebsiella oxytoca</i> | 50 | 1.8 |
| 12 | <i>Streptococcus agalactiae</i> | 44 | 1.6 |
| 13 | <i>Stenotrophomonas maltophilia</i> | 43 | 1.5 |
| 14 | <i>Serratia marcescens</i> | 41 | 1.5 |
| 15 | <i>Proteus mirabilis</i> | 39 | 1.4 |
| 16 | <i>Moraxella catarrhalis</i> | 36 | 1.3 |
| 17 | <i>Streptococcus pyogenes</i> | 36 | 1.3 |
| 18 | <i>Enterococcus faecium</i> | 35 | 1.2 |
| 19 | <i>Haemophilus parainfluenzae</i> | 30 | 1.1 |
| 20 | <i>Staphylococcus hominis</i> | 26 | 0.9 |
| | Other | 266 | 9.5 |
| | | 2808 | |

CANWARD 2012

Bacteriology of Top 20 Organisms n=3557

West

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 190 | 19.2 |
| 2 | <i>Escherichia coli</i> | 163 | 16.4 |
| 3 | <i>Pseudomonas aeruginosa</i> | 69 | 7.0 |
| 4 | <i>Haemophilus influenzae</i> | 65 | 6.6 |
| 5 | <i>Staphylococcus aureus, MRSA</i> | 64 | 6.5 |
| 6 | <i>Streptococcus pneumoniae</i> | 58 | 5.9 |
| 7 | <i>Klebsiella pneumoniae</i> | 47 | 4.7 |
| 8 | <i>Enterococcus faecalis</i> | 35 | 3.5 |
| 9 | <i>Enterobacter cloacae</i> | 33 | 3.3 |
| 10 | CNS / <i>Staphylococcus epidermidis</i> | 30 | 3.0 |
| 11 | <i>Klebsiella oxytoca</i> | 25 | 2.5 |
| 12 | <i>Stenotrophomonas maltophilia</i> | 21 | 2.1 |
| 13 | <i>Streptococcus agalactiae</i> | 17 | 1.7 |
| 14 | <i>Haemophilus parainfluenzae</i> | 17 | 1.7 |
| 15 | <i>Streptococcus pyogenes</i> | 16 | 1.6 |
| 16 | <i>Enterobacter aerogenes</i> | 11 | 1.1 |
| 17 | <i>Proteus mirabilis</i> | 11 | 1.1 |
| 18 | <i>Enterococcus faecium</i> | 11 | 1.1 |
| 19 | <i>Serratia marcescens</i> | 11 | 1.1 |
| 20 | <i>Candida albicans</i> | 9 | 0.9 |
| | Other | 88 | 8.9 |
| | | 991 | |

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Bacteriology of Top 20 Organisms n=3557

Ontario

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 212 | 22.2 |
| 2 | <i>Escherichia coli</i> | 172 | 18.0 |
| 3 | <i>Pseudomonas aeruginosa</i> | 116 | 12.1 |
| 4 | <i>Klebsiella pneumoniae</i> | 60 | 6.3 |
| 5 | <i>Streptococcus pneumoniae</i> | 47 | 4.9 |
| 6 | <i>Staphylococcus aureus, MRSA</i> | 39 | 4.1 |
| 7 | <i>Haemophilus influenzae</i> | 37 | 3.9 |
| 8 | <i>Enterococcus faecalis</i> | 30 | 3.1 |
| 9 | CNS / <i>Staphylococcus epidermidis</i> | 26 | 2.7 |
| 10 | <i>Enterobacter cloacae</i> | 23 | 2.4 |
| 11 | <i>Enterococcus faecium</i> | 17 | 1.8 |
| 12 | <i>Moraxella catarrhalis</i> | 17 | 1.8 |
| 13 | <i>Serratia marcescens</i> | 15 | 1.6 |
| 14 | <i>Proteus mirabilis</i> | 14 | 1.5 |
| 15 | <i>Enterobacter aerogenes</i> | 12 | 1.3 |
| 16 | <i>Streptococcus pyogenes</i> | 12 | 1.3 |
| 17 | <i>Klebsiella oxytoca</i> | 12 | 1.3 |
| 18 | <i>Staphylococcus hominis</i> | 9 | 0.9 |
| 19 | <i>Stenotrophomonas maltophilia</i> | 9 | 0.9 |
| 20 | <i>Candida albicans</i> | 6 | 0.6 |
| | Other | 71 | 7.4 |
| | | 956 | |

CANWARD 2012

Bacteriology of Top 20 Organisms n=3557

Quebec

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 75 | 20.7 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 54 | 14.9 |
| 3 | <i>Klebsiella pneumoniae</i> | 32 | 8.8 |
| 4 | <i>Pseudomonas aeruginosa</i> | 29 | 8.0 |
| 5 | CNS / <i>Staphylococcus epidermidis</i> | 19 | 5.2 |
| 6 | <i>Streptococcus pneumoniae</i> | 16 | 4.4 |
| 7 | <i>Haemophilus influenzae</i> | 14 | 3.9 |
| 8 | <i>Enterococcus faecalis</i> | 13 | 3.6 |
| 9 | <i>Haemophilus parainfluenzae</i> | 11 | 3.0 |
| 10 | <i>Streptococcus agalactiae</i> | 11 | 3.0 |
| 11 | <i>Staphylococcus hominis</i> | 10 | 2.8 |
| 12 | <i>Staphylococcus aureus, MRSA</i> | 7 | 1.9 |
| 13 | <i>Staphylococcus capitis</i> | 5 | 1.4 |
| 14 | <i>Proteus mirabilis</i> | 5 | 1.4 |
| 15 | <i>Enterobacter cloacae</i> | 5 | 1.4 |
| 16 | <i>Klebsiella oxytoca</i> | 5 | 1.4 |
| 17 | <i>Moraxella catarrhalis</i> | 5 | 1.4 |
| 18 | <i>Streptococcus pyogenes</i> | 4 | 1.1 |
| 19 | <i>Streptococcus viridans</i> | 4 | 1.1 |
| 20 | <i>Stenotrophomonas maltophilia</i> | 4 | 1.1 |
| | Other | 35 | 9.6 |
| | | 363 | |

CANWARD 2012

Bacteriology of Top 20 Organisms n=3557

Maritimes

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 108 | 21.7 |
| 2 | <i>Escherichia coli</i> | 90 | 18.1 |
| 3 | <i>Pseudomonas aeruginosa</i> | 50 | 10.0 |
| 4 | <i>Haemophilus influenzae</i> | 34 | 6.8 |
| 5 | <i>Klebsiella pneumoniae</i> | 30 | 6.0 |
| 6 | <i>Streptococcus pneumoniae</i> | 22 | 4.4 |
| 7 | <i>Staphylococcus aureus, MRSA</i> | 15 | 3.0 |
| 8 | <i>Enterococcus faecalis</i> | 15 | 3.0 |
| 9 | <i>Serratia marcescens</i> | 14 | 2.8 |
| 10 | <i>Streptococcus agalactiae</i> | 11 | 2.2 |
| 11 | CNS / <i>Staphylococcus epidermidis</i> | 10 | 2.0 |
| 12 | <i>Stenotrophomonas maltophilia</i> | 9 | 1.8 |
| 13 | <i>Proteus mirabilis</i> | 9 | 1.8 |
| 14 | <i>Moraxella catarrhalis</i> | 8 | 1.6 |
| 15 | <i>Enterobacter cloacae</i> | 8 | 1.6 |
| 16 | <i>Klebsiella oxytoca</i> | 8 | 1.6 |
| 17 | <i>Enterococcus faecium</i> | 5 | 1.0 |
| 18 | <i>Streptococcus, Beta-H, Grp G</i> | 5 | 1.0 |
| 19 | <i>Streptococcus pyogenes</i> | 4 | 0.8 |
| 20 | <i>Streptococcus, Beta-H, Grp C</i> | 4 | 0.8 |
| | Other | 39 | 7.8 |
| | | 498 | |

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Bacteriology of Top 20 Organisms by Specimen Source – Blood/Sterile Sites

| National | | | |
|----------|-----------------------------------------|-------------|------------|
| Rank | Organism | n | % of Total |
| 1 | <i>Escherichia coli</i> | 275 | 23.5 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 189 | 16.2 |
| 3 | <i>Klebsiella pneumoniae</i> | 90 | 7.7 |
| 4 | CNS / <i>Staphylococcus epidermidis</i> | 71 | 6.1 |
| 5 | <i>Pseudomonas aeruginosa</i> | 50 | 4.3 |
| 6 | <i>Streptococcus pneumoniae</i> | 49 | 4.2 |
| 7 | <i>Enterococcus faecalis</i> | 42 | 3.6 |
| 8 | <i>Staphylococcus aureus, MRSA</i> | 37 | 3.2 |
| 9 | <i>Streptococcus agalactiae</i> | 30 | 2.6 |
| 10 | <i>Enterobacter cloacae</i> | 29 | 2.5 |
| 11 | <i>Enterococcus faecium</i> | 28 | 2.4 |
| 12 | <i>Staphylococcus hominis</i> | 26 | 2.2 |
| 13 | <i>Streptococcus pyogenes</i> | 21 | 1.8 |
| 14 | <i>Klebsiella oxytoca</i> | 17 | 1.5 |
| 15 | <i>Proteus mirabilis</i> | 15 | 1.3 |
| 16 | <i>Serratia marcescens</i> | 14 | 1.2 |
| 17 | <i>Candida albicans</i> | 14 | 1.2 |
| 18 | <i>Staphylococcus capitis</i> | 10 | 0.9 |
| 19 | <i>Streptococcus viridans</i> | 10 | 0.9 |
| 20 | <i>Streptococcus, Beta-H, Grp G</i> | 8 | 0.7 |
| | Other | 143 | 12.2 |
| | | 1168 | |

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Bacteriology of Top 20 Organisms by Specimen Source – Blood/Sterile Sites

West

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 89 | 22.4 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 72 | 18.1 |
| 3 | <i>Klebsiella pneumoniae</i> | 23 | 5.8 |
| 4 | <i>CNS / Staphylococcus epidermidis</i> | 20 | 5.0 |
| 5 | <i>Streptococcus pneumoniae</i> | 20 | 5.0 |
| 6 | <i>Enterococcus faecalis</i> | 16 | 4.0 |
| 7 | <i>Staphylococcus aureus, MRSA</i> | 16 | 4.0 |
| 8 | <i>Streptococcus agalactiae</i> | 14 | 3.5 |
| 9 | <i>Pseudomonas aeruginosa</i> | 13 | 3.3 |
| 10 | <i>Enterobacter cloacae</i> | 12 | 3.0 |
| 11 | <i>Streptococcus pyogenes</i> | 11 | 2.8 |
| 12 | <i>Candida albicans</i> | 9 | 2.3 |
| 13 | <i>Enterococcus faecium</i> | 8 | 2.0 |
| 14 | <i>Klebsiella oxytoca</i> | 7 | 1.8 |
| 15 | <i>Serratia marcescens</i> | 6 | 1.5 |
| 16 | <i>Staphylococcus hominis</i> | 5 | 1.3 |
| 17 | <i>Acinetobacter baumannii</i> | 4 | 1.0 |
| 18 | <i>Proteus mirabilis</i> | 4 | 1.0 |
| 19 | <i>Candida glabrata</i> | 3 | 0.8 |
| 20 | <i>Streptococcus viridans</i> | 3 | 0.8 |
| | Other | 43 | 10.8 |
| | | 398 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Specimen Source – Blood/Sterile Sites

Ontario

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 90 | 24.1 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 53 | 14.2 |
| 3 | <i>Klebsiella pneumoniae</i> | 32 | 8.6 |
| 4 | <i>Pseudomonas aeruginosa</i> | 23 | 6.2 |
| 5 | CNS / <i>Staphylococcus epidermidis</i> | 23 | 6.2 |
| 6 | <i>Enterococcus faecalis</i> | 17 | 4.6 |
| 7 | <i>Streptococcus pneumoniae</i> | 15 | 4.0 |
| 8 | <i>Enterococcus faecium</i> | 13 | 3.5 |
| 9 | <i>Enterobacter cloacae</i> | 12 | 3.2 |
| 10 | <i>Staphylococcus aureus, MRSA</i> | 10 | 2.7 |
| 11 | <i>Staphylococcus hominis</i> | 9 | 2.4 |
| 12 | <i>Streptococcus agalactiae</i> | 5 | 1.3 |
| 13 | <i>Candida albicans</i> | 4 | 1.1 |
| 14 | <i>Streptococcus pyogenes</i> | 4 | 1.1 |
| 15 | <i>Bacillus, non-speciated</i> | 4 | 1.1 |
| 16 | <i>Staphylococcus capitis</i> | 4 | 1.1 |
| 17 | <i>Klebsiella oxytoca</i> | 4 | 1.1 |
| 18 | <i>Serratia marcescens</i> | 4 | 1.1 |
| 19 | <i>Citrobacter freundii</i> | 3 | 0.8 |
| 20 | <i>Proteus mirabilis</i> | 3 | 0.8 |
| | Other | 41 | 11.0 |
| | | 373 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Specimen Source – Blood/Sterile Sites

Quebec

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 50 | 25.3 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 25 | 12.6 |
| 3 | CNS / <i>Staphylococcus epidermidis</i> | 19 | 9.6 |
| 4 | <i>Klebsiella pneumoniae</i> | 16 | 8.1 |
| 5 | <i>Streptococcus pneumoniae</i> | 12 | 6.1 |
| 6 | <i>Staphylococcus hominis</i> | 10 | 5.1 |
| 7 | <i>Pseudomonas aeruginosa</i> | 6 | 3.0 |
| 8 | <i>Staphylococcus capitis</i> | 5 | 2.5 |
| 9 | <i>Streptococcus agalactiae</i> | 4 | 2.0 |
| 10 | <i>Streptococcus viridans</i> | 4 | 2.0 |
| 11 | <i>Klebsiella oxytoca</i> | 4 | 2.0 |
| 12 | <i>Streptococcus pyogenes</i> | 4 | 2.0 |
| 13 | <i>Proteus mirabilis</i> | 4 | 2.0 |
| 14 | <i>Enterobacter cloacae</i> | 3 | 1.5 |
| 15 | <i>Haemophilus influenzae</i> | 3 | 1.5 |
| 16 | <i>Staphylococcus aureus, MRSA</i> | 3 | 1.5 |
| 17 | <i>Streptococcus mitis</i> | 2 | 1.0 |
| 18 | <i>Micrococcus, non-speciated</i> | 2 | 1.0 |
| 19 | <i>Streptococcus, Beta-H, Grp C</i> | 2 | 1.0 |
| 20 | <i>Streptococcus, Beta-H, Grp G</i> | 2 | 1.0 |
| | Other | 18 | 9.1 |
| | | 198 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Specimen Source – Blood/Sterile Sites

Maritimes

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 46 | 23.1 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 39 | 19.6 |
| 3 | <i>Klebsiella pneumoniae</i> | 19 | 9.5 |
| 4 | <i>Enterococcus faecalis</i> | 9 | 4.5 |
| 5 | CNS / <i>Staphylococcus epidermidis</i> | 9 | 4.5 |
| 6 | <i>Pseudomonas aeruginosa</i> | 8 | 4.0 |
| 7 | <i>Staphylococcus aureus, MRSA</i> | 8 | 4.0 |
| 8 | <i>Streptococcus agalactiae</i> | 7 | 3.5 |
| 9 | <i>Enterococcus faecium</i> | 5 | 2.5 |
| 10 | <i>Serratia marcescens</i> | 4 | 2.0 |
| 11 | <i>Proteus mirabilis</i> | 4 | 2.0 |
| 12 | <i>Streptococcus, Beta-H, Grp G</i> | 4 | 2.0 |
| 13 | <i>Stenotrophomonas maltophilia</i> | 2 | 1.0 |
| 14 | <i>Staphylococcus hominis</i> | 2 | 1.0 |
| 15 | <i>Streptococcus pyogenes</i> | 2 | 1.0 |
| 16 | <i>Enterobacter cloacae</i> | 2 | 1.0 |
| 17 | <i>Staphylococcus warneri</i> | 2 | 1.0 |
| 18 | <i>Streptococcus pneumoniae</i> | 2 | 1.0 |
| 19 | <i>Streptococcus, Beta-H, Grp C</i> | 2 | 1.0 |
| 20 | <i>Klebsiella oxytoca</i> | 2 | 1.0 |
| | Other | 21 | 10.6 |
| | | 199 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Specimen Source – Respiratory

| National | | | |
|----------|---------------------------------------------|-------------|------------|
| Rank | Organism | n | % of Total |
| 1 | <i>Staphylococcus aureus, MSSA</i> | 242 | 22.7 |
| 2 | <i>Pseudomonas aeruginosa</i> | 185 | 17.3 |
| 3 | <i>Haemophilus influenzae</i> | 142 | 13.3 |
| 4 | <i>Streptococcus pneumoniae</i> | 94 | 8.8 |
| 5 | <i>Staphylococcus aureus, MRSA</i> | 58 | 5.4 |
| 6 | <i>Escherichia coli</i> | 56 | 5.2 |
| 7 | <i>Klebsiella pneumoniae</i> | 48 | 4.5 |
| 8 | <i>Moraxella catarrhalis</i> | 36 | 3.4 |
| 9 | <i>Stenotrophomonas maltophilia</i> | 35 | 3.3 |
| 10 | <i>Enterobacter cloacae</i> | 29 | 2.7 |
| 11 | <i>Haemophilus parainfluenzae</i> | 27 | 2.5 |
| 12 | <i>Serratia marcescens</i> | 24 | 2.2 |
| 13 | <i>Klebsiella oxytoca</i> | 18 | 1.7 |
| 14 | <i>Enterobacter aerogenes</i> | 10 | 0.9 |
| 15 | <i>Streptococcus agalactiae</i> | 9 | 0.8 |
| 16 | <i>Acinetobacter baumannii</i> | 7 | 0.7 |
| 17 | <i>Proteus mirabilis</i> | 6 | 0.6 |
| 18 | <i>Streptococcus pyogenes</i> | 4 | 0.4 |
| 19 | <i>Corynebacterium pseudodiphtheriticum</i> | 3 | 0.3 |
| 20 | <i>Pseudomonas putida</i> | 3 | 0.3 |
| | Other | 31 | 2.9 |
| | | 1067 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Specimen Source – Respiratory

West

| Rank | Organism | n | % of Total |
|------|---------------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 76 | 19.3 |
| 2 | <i>Haemophilus influenzae</i> | 61 | 15.5 |
| 3 | <i>Pseudomonas aeruginosa</i> | 51 | 13.0 |
| 4 | <i>Streptococcus pneumoniae</i> | 38 | 9.7 |
| 5 | <i>Staphylococcus aureus, MRSA</i> | 28 | 7.1 |
| 6 | <i>Escherichia coli</i> | 23 | 5.9 |
| 7 | <i>Stenotrophomonas maltophilia</i> | 19 | 4.8 |
| 8 | <i>Klebsiella pneumoniae</i> | 16 | 4.1 |
| 9 | <i>Enterobacter cloacae</i> | 15 | 3.8 |
| 10 | <i>Haemophilus parainfluenzae</i> | 15 | 3.8 |
| 11 | <i>Klebsiella oxytoca</i> | 11 | 2.8 |
| 12 | <i>Moraxella catarrhalis</i> | 6 | 1.5 |
| 13 | <i>Enterobacter aerogenes</i> | 6 | 1.5 |
| 14 | <i>Serratia marcescens</i> | 4 | 1.0 |
| 15 | <i>Acinetobacter baumannii</i> | 4 | 1.0 |
| 16 | <i>Streptococcus agalactiae</i> | 3 | 0.8 |
| 17 | <i>Corynebacterium pseudodiphtheriticum</i> | 2 | 0.5 |
| 18 | <i>Enterococcus faecalis</i> | 2 | 0.5 |
| 19 | <i>Burkholderia cepacia</i> | 2 | 0.5 |
| 20 | <i>Acinetobacter, non-speciated</i> | 1 | 0.3 |
| | Other | 10 | 2.5 |
| | | 393 | |

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Bacteriology of Top 20 Organisms by Specimen Source – Respiratory

Ontario

| Rank | Organism | n | % of Total |
|------|-------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 114 | 29.6 |
| 2 | <i>Pseudomonas aeruginosa</i> | 84 | 21.8 |
| 3 | <i>Haemophilus influenzae</i> | 37 | 9.6 |
| 4 | <i>Streptococcus pneumoniae</i> | 32 | 8.3 |
| 5 | <i>Staphylococcus aureus, MRSA</i> | 19 | 4.9 |
| 6 | <i>Klebsiella pneumoniae</i> | 19 | 4.9 |
| 7 | <i>Moraxella catarrhalis</i> | 17 | 4.4 |
| 8 | <i>Escherichia coli</i> | 16 | 4.2 |
| 9 | <i>Serratia marcescens</i> | 10 | 2.6 |
| 10 | <i>Stenotrophomonas maltophilia</i> | 7 | 1.8 |
| 11 | <i>Enterobacter cloacae</i> | 7 | 1.8 |
| 12 | <i>Enterobacter aerogenes</i> | 4 | 1.0 |
| 13 | <i>Proteus mirabilis</i> | 3 | 0.8 |
| 14 | <i>Klebsiella oxytoca</i> | 3 | 0.8 |
| 15 | <i>Candida albicans</i> | 2 | 0.5 |
| 16 | <i>Alcaligenes xylosoxidans</i> | 2 | 0.5 |
| 17 | <i>Streptococcus pyogenes</i> | 2 | 0.5 |
| 18 | <i>Acinetobacter baumannii</i> | 1 | 0.3 |
| 19 | <i>Pasteurella multocida</i> | 1 | 0.3 |
| 20 | <i>Achromobacter, non-speciated</i> | 1 | 0.3 |
| | Other | 4 | 1.0 |
| | | 385 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Specimen Source – Respiratory

Quebec

| Rank | Organism | n | % of Total |
|------|-------------------------------------|-----------|------------|
| 1 | <i>Pseudomonas aeruginosa</i> | 17 | 18.9 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 14 | 15.6 |
| 3 | <i>Haemophilus influenzae</i> | 11 | 12.2 |
| 4 | <i>Haemophilus parainfluenzae</i> | 11 | 12.2 |
| 5 | <i>Streptococcus agalactiae</i> | 5 | 5.6 |
| 6 | <i>Escherichia coli</i> | 5 | 5.6 |
| 7 | <i>Moraxella catarrhalis</i> | 5 | 5.6 |
| 8 | <i>Staphylococcus aureus, MRSA</i> | 4 | 4.4 |
| 9 | <i>Klebsiella pneumoniae</i> | 4 | 4.4 |
| 10 | <i>Streptococcus pneumoniae</i> | 4 | 4.4 |
| 11 | <i>Stenotrophomonas maltophilia</i> | 3 | 3.3 |
| 12 | <i>Enterobacter cloacae</i> | 2 | 2.2 |
| 13 | <i>Klebsiella oxytoca</i> | 1 | 1.1 |
| 14 | <i>Acinetobacter calcoaceticus</i> | 1 | 1.1 |
| 15 | <i>Chryseobacterium indologenes</i> | 1 | 1.1 |
| 16 | <i>Enterococcus faecalis</i> | 1 | 1.1 |
| 17 | <i>Alcaligenes xylosoxidans</i> | 1 | 1.1 |
| | | 90 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Specimen Source – Respiratory

Maritimes

| Rank | Organism | n | % of Total |
|------|-------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 38 | 19.1 |
| 2 | <i>Pseudomonas aeruginosa</i> | 33 | 16.6 |
| 3 | <i>Haemophilus influenzae</i> | 33 | 16.6 |
| 4 | <i>Streptococcus pneumoniae</i> | 20 | 10.1 |
| 5 | <i>Escherichia coli</i> | 12 | 6.0 |
| 6 | <i>Serratia marcescens</i> | 10 | 5.0 |
| 7 | <i>Klebsiella pneumoniae</i> | 9 | 4.5 |
| 8 | <i>Moraxella catarrhalis</i> | 8 | 4.0 |
| 9 | <i>Staphylococcus aureus, MRSA</i> | 7 | 3.5 |
| 10 | <i>Stenotrophomonas maltophilia</i> | 6 | 3.0 |
| 11 | <i>Enterobacter cloacae</i> | 5 | 2.5 |
| 12 | <i>Klebsiella oxytoca</i> | 3 | 1.5 |
| 13 | <i>Proteus mirabilis</i> | 2 | 1.0 |
| 14 | <i>Pseudomonas putida</i> | 2 | 1.0 |
| 15 | <i>Acinetobacter baumannii</i> | 2 | 1.0 |
| 16 | <i>Raoultella planticola</i> | 1 | 0.5 |
| 17 | <i>Citrobacter koseri</i> | 1 | 0.5 |
| 18 | <i>Haemophilus parainfluenzae</i> | 1 | 0.5 |
| 19 | <i>Moraxella, non-speciated</i> | 1 | 0.5 |
| 20 | <i>Citrobacter freundii</i> | 1 | 0.5 |
| | Other | 4 | 2.0 |
| | | 199 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Specimen Source – Urine

| National | | | |
|----------|-----------------------------------------|------------|------------|
| Rank | Organism | n | % of Total |
| 1 | <i>Escherichia coli</i> | 154 | 51.7 |
| 2 | <i>Enterococcus faecalis</i> | 36 | 12.1 |
| 3 | <i>Klebsiella pneumoniae</i> | 28 | 9.4 |
| 4 | <i>Proteus mirabilis</i> | 14 | 4.7 |
| 5 | <i>Klebsiella oxytoca</i> | 11 | 3.7 |
| 6 | CNS / <i>Staphylococcus epidermidis</i> | 8 | 2.7 |
| 7 | <i>Enterobacter aerogenes</i> | 8 | 2.7 |
| 8 | <i>Staphylococcus aureus</i> , MSSA | 7 | 2.3 |
| 9 | <i>Pseudomonas aeruginosa</i> | 7 | 2.3 |
| 10 | <i>Enterobacter cloacae</i> | 6 | 2.0 |
| 11 | <i>Citrobacter freundii</i> | 3 | 1.0 |
| 12 | <i>Citrobacter amalonaticus</i> | 2 | 0.7 |
| 13 | <i>Streptococcus agalactiae</i> | 2 | 0.7 |
| 14 | <i>Morganella morganii</i> | 2 | 0.7 |
| 15 | <i>Enterococcus faecium</i> | 2 | 0.7 |
| 16 | <i>Citrobacter braakii</i> | 1 | 0.3 |
| 17 | <i>Enterobacter amnigenus</i> | 1 | 0.3 |
| 18 | <i>Serratia marcescens</i> | 1 | 0.3 |
| 19 | <i>Citrobacter koseri</i> | 1 | 0.3 |
| 20 | <i>Staphylococcus saprophyticus</i> | 1 | 0.3 |
| | Other | 3 | 1.0 |
| | | 298 | |

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Bacteriology of Top 20 Organisms by Specimen Source – Urine

West

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 50 | 50.0 |
| 2 | <i>Enterococcus faecalis</i> | 11 | 11.0 |
| 3 | <i>Klebsiella pneumoniae</i> | 8 | 8.0 |
| 4 | CNS / <i>Staphylococcus epidermidis</i> | 6 | 6.0 |
| 5 | <i>Klebsiella oxytoca</i> | 6 | 6.0 |
| 6 | <i>Proteus mirabilis</i> | 4 | 4.0 |
| 7 | <i>Enterobacter cloacae</i> | 3 | 3.0 |
| 8 | <i>Enterobacter aerogenes</i> | 3 | 3.0 |
| 9 | <i>Citrobacter freundii</i> | 2 | 2.0 |
| 10 | <i>Staphylococcus aureus, MSSA</i> | 2 | 2.0 |
| 11 | <i>Enterococcus faecium</i> | 1 | 1.0 |
| 12 | <i>Pseudomonas aeruginosa</i> | 1 | 1.0 |
| 13 | <i>Citrobacter amalonaticus</i> | 1 | 1.0 |
| 14 | <i>Enterobacter amnigenus</i> | 1 | 1.0 |
| 15 | <i>Staphylococcus saprophyticus</i> | 1 | 1.0 |
| | | 100 | |

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Bacteriology of Top 20 Organisms by Specimen Source – Urine

Ontario

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|-----------|------------|
| 1 | <i>Escherichia coli</i> | 55 | 56.1 |
| 2 | <i>Enterococcus faecalis</i> | 10 | 10.2 |
| 3 | <i>Proteus mirabilis</i> | 6 | 6.1 |
| 4 | <i>Klebsiella pneumoniae</i> | 6 | 6.1 |
| 5 | <i>Enterobacter aerogenes</i> | 5 | 5.1 |
| 6 | <i>Klebsiella oxytoca</i> | 3 | 3.1 |
| 7 | <i>Enterobacter cloacae</i> | 3 | 3.1 |
| 8 | <i>Pseudomonas aeruginosa</i> | 2 | 2.0 |
| 9 | CNS / <i>Staphylococcus epidermidis</i> | 2 | 2.0 |
| 10 | <i>Citrobacter amalonaticus</i> | 1 | 1.0 |
| 11 | <i>Staphylococcus aureus</i> , MSSA | 1 | 1.0 |
| 12 | <i>Serratia fonticola</i> | 1 | 1.0 |
| 13 | <i>Enterococcus faecium</i> | 1 | 1.0 |
| 14 | <i>Hafnia alvei</i> | 1 | 1.0 |
| 15 | <i>Streptococcus pyogenes</i> | 1 | 1.0 |
| | | 98 | |

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Bacteriology of Top 20 Organisms by Specimen Source – Urine

Quebec

| Rank | Organism | n | % of Total |
|------|------------------------------------|-----------|------------|
| 1 | <i>Escherichia coli</i> | 19 | 38.0 |
| 2 | <i>Klebsiella pneumoniae</i> | 12 | 24.0 |
| 3 | Enterococcus faecalis | 10 | 20.0 |
| 4 | <i>Staphylococcus aureus, MSSA</i> | 2 | 4.0 |
| 5 | <i>Proteus mirabilis</i> | 1 | 2.0 |
| 6 | <i>Citrobacter koseri</i> | 1 | 2.0 |
| 7 | <i>Pseudomonas aeruginosa</i> | 1 | 2.0 |
| 8 | <i>Serratia marcescens</i> | 1 | 2.0 |
| 9 | <i>Citrobacter braakii</i> | 1 | 2.0 |
| 10 | <i>Morganella morganii</i> | 1 | 2.0 |
| 11 | <i>Streptococcus agalactiae</i> | 1 | 2.0 |
| | | 50 | |

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Bacteriology of Top 20 Organisms by Specimen Source – Urine

Maritimes

| Rank | Organism | n | % of Total |
|------|------------------------------------|-----------|------------|
| 1 | <i>Escherichia coli</i> | 30 | 60.0 |
| 2 | <i>Enterococcus faecalis</i> | 5 | 10.0 |
| 3 | <i>Proteus mirabilis</i> | 3 | 6.0 |
| 4 | <i>Pseudomonas aeruginosa</i> | 3 | 6.0 |
| 5 | <i>Staphylococcus aureus, MSSA</i> | 2 | 4.0 |
| 6 | <i>Klebsiella oxytoca</i> | 2 | 4.0 |
| 7 | <i>Klebsiella pneumoniae</i> | 2 | 4.0 |
| 8 | <i>Citrobacter freundii</i> | 1 | 2.0 |
| 9 | <i>Morganella morganii</i> | 1 | 2.0 |
| 10 | <i>Streptococcus agalactiae</i> | 1 | 2.0 |
| | | 50 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Specimen Source – Wounds/IV

| National | | | |
|----------|-----------------------------------------|------------|------------|
| Rank | Organism | n | % of Total |
| 1 | <i>Staphylococcus aureus, MSSA</i> | 126 | 45.8 |
| 2 | <i>Staphylococcus aureus, MRSA</i> | 30 | 10.9 |
| 3 | <i>Pseudomonas aeruginosa</i> | 22 | 8.0 |
| 4 | <i>Escherichia coli</i> | 15 | 5.5 |
| 5 | <i>Enterococcus faecalis</i> | 12 | 4.4 |
| 6 | <i>Streptococcus pyogenes</i> | 10 | 3.6 |
| 7 | CNS / <i>Staphylococcus epidermidis</i> | 6 | 2.2 |
| 8 | <i>Streptococcus, Beta-H, Grp G</i> | 6 | 2.2 |
| 9 | <i>Enterobacter cloacae</i> | 5 | 1.8 |
| 10 | <i>Klebsiella oxytoca</i> | 4 | 1.5 |
| 11 | <i>Proteus mirabilis</i> | 4 | 1.5 |
| 12 | <i>Enterococcus faecium</i> | 4 | 1.5 |
| 13 | <i>Streptococcus agalactiae</i> | 3 | 1.1 |
| 14 | <i>Klebsiella pneumoniae</i> | 3 | 1.1 |
| 15 | <i>Streptococcus, Beta-H, Grp C</i> | 3 | 1.1 |
| 16 | <i>Enterobacter aerogenes</i> | 2 | 0.7 |
| 17 | <i>Staphylococcus lugdunensis</i> | 2 | 0.7 |
| 18 | <i>Serratia marcescens</i> | 2 | 0.7 |
| 19 | <i>Haemophilus parainfluenzae</i> | 1 | 0.4 |
| 20 | <i>Pasteurella multocida</i> | 1 | 0.4 |
| | Other | 14 | 5.1 |
| | | 275 | |

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Bacteriology of Top 20 Organisms by Specimen Source – Wounds/IV

West

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 40 | 40.0 |
| 2 | <i>Staphylococcus aureus, MRSA</i> | 20 | 20.0 |
| 3 | <i>Enterococcus faecalis</i> | 6 | 6.0 |
| 4 | <i>Streptococcus pyogenes</i> | 4 | 4.0 |
| 5 | CNS / <i>Staphylococcus epidermidis</i> | 4 | 4.0 |
| 6 | <i>Pseudomonas aeruginosa</i> | 4 | 4.0 |
| 7 | <i>Enterobacter cloacae</i> | 3 | 3.0 |
| 8 | <i>Streptococcus, Beta-H, Grp G</i> | 3 | 3.0 |
| 9 | <i>Proteus mirabilis</i> | 2 | 2.0 |
| 10 | <i>Klebsiella oxytoca</i> | 1 | 1.0 |
| 11 | <i>Serratia marcescens</i> | 1 | 1.0 |
| 12 | <i>Myroides non-speciated</i> | 1 | 1.0 |
| 13 | <i>Enterococcus avium</i> | 1 | 1.0 |
| 14 | <i>Haemophilus parainfluenzae</i> | 1 | 1.0 |
| 15 | <i>Enterococcus casseliflavus</i> | 1 | 1.0 |
| 16 | <i>Morganella morganii</i> | 1 | 1.0 |
| 17 | <i>Enterococcus faecium</i> | 1 | 1.0 |
| 18 | <i>Citrobacter freundii</i> | 1 | 1.0 |
| 19 | <i>Pasteurella multocida</i> | 1 | 1.0 |
| 20 | <i>Escherichia coli</i> | 1 | 1.0 |
| | Other | 3 | 3.0 |
| | | 100 | |

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Bacteriology of Top 20 Organisms by Specimen Source – Wounds/IV

Ontario

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 44 | 44.0 |
| 2 | <i>Escherichia coli</i> | 11 | 11.0 |
| 3 | <i>Staphylococcus aureus, MRSA</i> | 10 | 10.0 |
| 4 | <i>Pseudomonas aeruginosa</i> | 7 | 7.0 |
| 5 | <i>Streptococcus pyogenes</i> | 5 | 5.0 |
| 6 | <i>Enterococcus faecalis</i> | 3 | 3.0 |
| 7 | <i>Klebsiella pneumoniae</i> | 3 | 3.0 |
| 8 | <i>Enterococcus faecium</i> | 3 | 3.0 |
| 9 | <i>Enterobacter aerogenes</i> | 2 | 2.0 |
| 10 | <i>Proteus mirabilis</i> | 2 | 2.0 |
| 11 | <i>Klebsiella oxytoca</i> | 2 | 2.0 |
| 12 | <i>Serratia marcescens</i> | 1 | 1.0 |
| 13 | <i>Citrobacter koseri</i> | 1 | 1.0 |
| 14 | <i>Aeromonas sobria</i> | 1 | 1.0 |
| 15 | <i>Enterobacter cloacae</i> | 1 | 1.0 |
| 16 | <i>CNS / Staphylococcus epidermidis</i> | 1 | 1.0 |
| 17 | <i>Capnocytophaga, non-speciated</i> | 1 | 1.0 |
| 18 | <i>Streptococcus, Beta-H, Grp C</i> | 1 | 1.0 |
| 19 | <i>Streptococcus, Beta-H, Grp G</i> | 1 | 1.0 |
| | | 100 | |

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Bacteriology of Top 20 Organisms by Specimen Source – Wounds/IV

Quebec

| Rank | Organism | n | % of Total |
|------|-------------------------------------|-----------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 13 | 52.0 |
| 2 | <i>Pseudomonas aeruginosa</i> | 5 | 20.0 |
| 3 | <i>Enterococcus faecalis</i> | 2 | 8.0 |
| 4 | <i>Citrobacter youngae</i> | 1 | 4.0 |
| 5 | <i>Acinetobacter calcoaceticus</i> | 1 | 4.0 |
| 6 | <i>Streptococcus agalactiae</i> | 1 | 4.0 |
| 7 | <i>Escherichia coli</i> | 1 | 4.0 |
| 8 | <i>Streptococcus, Beta-H, Grp G</i> | 1 | 4.0 |
| | | 25 | |

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Bacteriology of Top 20 Organisms by Specimen Source – Wounds/IV

Maritimes

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|-----------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 29 | 58.0 |
| 2 | <i>Pseudomonas aeruginosa</i> | 6 | 12.0 |
| 3 | <i>Streptococcus agalactiae</i> | 2 | 4.0 |
| 4 | <i>Escherichia coli</i> | 2 | 4.0 |
| 5 | <i>Streptococcus, Beta-H, Grp C</i> | 1 | 2.0 |
| 6 | <i>Serratia liquefaciens</i> | 1 | 2.0 |
| 7 | <i>Enterococcus faecalis</i> | 1 | 2.0 |
| 8 | <i>Staphylococcus lugdunensis</i> | 1 | 2.0 |
| 9 | <i>CNS / Staphylococcus epidermidis</i> | 1 | 2.0 |
| 10 | <i>Enterobacter cloacae</i> | 1 | 2.0 |
| 11 | <i>Stenotrophomonas maltophilia</i> | 1 | 2.0 |
| 12 | <i>Klebsiella oxytoca</i> | 1 | 2.0 |
| 13 | <i>Streptococcus pyogenes</i> | 1 | 2.0 |
| 14 | <i>Kocuria kristinae</i> | 1 | 2.0 |
| 15 | <i>Streptococcus, Beta-H, Grp G</i> | 1 | 2.0 |
| | | 50 | |

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Bacteriology of Top 20 Organisms by Age ≤17 years

National

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 84 | 18.6 |
| 2 | <i>Escherichia coli</i> | 51 | 11.3 |
| 3 | <i>Haemophilus influenzae</i> | 47 | 10.4 |
| 4 | <i>Pseudomonas aeruginosa</i> | 39 | 8.6 |
| 5 | <i>Streptococcus pneumoniae</i> | 33 | 7.3 |
| 6 | CNS / <i>Staphylococcus epidermidis</i> | 22 | 4.9 |
| 7 | <i>Enterobacter cloacae</i> | 18 | 4.0 |
| 8 | <i>Staphylococcus aureus, MRSA</i> | 17 | 3.8 |
| 9 | <i>Klebsiella pneumoniae</i> | 17 | 3.8 |
| 10 | <i>Streptococcus pyogenes</i> | 15 | 3.3 |
| 11 | <i>Moraxella catarrhalis</i> | 15 | 3.3 |
| 12 | <i>Stenotrophomonas maltophilia</i> | 10 | 2.2 |
| 13 | <i>Enterococcus faecalis</i> | 10 | 2.2 |
| 14 | <i>Klebsiella oxytoca</i> | 8 | 1.8 |
| 15 | <i>Proteus mirabilis</i> | 8 | 1.8 |
| 16 | <i>Serratia marcescens</i> | 7 | 1.6 |
| 17 | <i>Streptococcus agalactiae</i> | 7 | 1.6 |
| 18 | <i>Staphylococcus hominis</i> | 6 | 1.3 |
| 19 | <i>Staphylococcus warneri</i> | 3 | 0.7 |
| 20 | <i>Staphylococcus capitis</i> | 3 | 0.7 |
| | Other | 31 | 6.9 |
| | | 451 | |

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Bacteriology of Top 20 Organisms by Age ≤17 years

West

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 34 | 21.0 |
| 2 | <i>Haemophilus influenzae</i> | 20 | 12.3 |
| 3 | <i>Pseudomonas aeruginosa</i> | 16 | 9.9 |
| 4 | <i>Escherichia coli</i> | 11 | 6.8 |
| 5 | <i>Staphylococcus aureus, MRSA</i> | 9 | 5.6 |
| 6 | <i>Streptococcus pneumoniae</i> | 9 | 5.6 |
| 7 | CNS / <i>Staphylococcus epidermidis</i> | 8 | 4.9 |
| 8 | <i>Enterobacter cloacae</i> | 7 | 4.3 |
| 9 | <i>Stenotrophomonas maltophilia</i> | 6 | 3.7 |
| 10 | <i>Streptococcus agalactiae</i> | 5 | 3.1 |
| 11 | <i>Enterococcus faecalis</i> | 5 | 3.1 |
| 12 | <i>Klebsiella oxytoca</i> | 5 | 3.1 |
| 13 | <i>Klebsiella pneumoniae</i> | 5 | 3.1 |
| 14 | <i>Streptococcus pyogenes</i> | 5 | 3.1 |
| 15 | <i>Serratia marcescens</i> | 4 | 2.5 |
| 16 | <i>Streptococcus mitis</i> | 1 | 0.6 |
| 17 | <i>Staphylococcus hominis</i> | 1 | 0.6 |
| 18 | <i>Enterobacter aerogenes</i> | 1 | 0.6 |
| 19 | <i>Salmonella, non-speciated</i> | 1 | 0.6 |
| 20 | <i>Staphylococcus warneri</i> | 1 | 0.6 |
| | Other | 8 | 4.9 |
| | | 162 | |

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Bacteriology of Top 20 Organisms by Age ≤17 years

| Ontario | | | |
|---------|-----------------------------------------|------------|------------|
| Rank | Organism | n | % of Total |
| 1 | <i>Staphylococcus aureus, MSSA</i> | 45 | 17.0 |
| 2 | <i>Escherichia coli</i> | 39 | 14.7 |
| 3 | <i>Haemophilus influenzae</i> | 25 | 9.4 |
| 4 | <i>Streptococcus pneumoniae</i> | 23 | 8.7 |
| 5 | <i>Pseudomonas aeruginosa</i> | 21 | 7.9 |
| 6 | <i>Moraxella catarrhalis</i> | 14 | 5.3 |
| 7 | CNS / <i>Staphylococcus epidermidis</i> | 13 | 4.9 |
| 8 | <i>Streptococcus pyogenes</i> | 9 | 3.4 |
| 9 | <i>Enterobacter cloacae</i> | 9 | 3.4 |
| 10 | <i>Klebsiella pneumoniae</i> | 9 | 3.4 |
| 11 | <i>Staphylococcus aureus, MRSA</i> | 8 | 3.0 |
| 12 | <i>Proteus mirabilis</i> | 7 | 2.6 |
| 13 | <i>Staphylococcus hominis</i> | 5 | 1.9 |
| 14 | <i>Enterococcus faecalis</i> | 4 | 1.5 |
| 15 | <i>Stenotrophomonas maltophilia</i> | 4 | 1.5 |
| 16 | <i>Klebsiella oxytoca</i> | 3 | 1.1 |
| 17 | <i>Staphylococcus capitis</i> | 3 | 1.1 |
| 18 | <i>Serratia marcescens</i> | 2 | 0.8 |
| 19 | <i>Enterobacter agglomerans</i> | 1 | 0.4 |
| 20 | <i>Staphylococcus lugdunensis</i> | 1 | 0.4 |
| | Other | 20 | 7.5 |
| | | 265 | |

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Bacteriology of Top 20 Organisms by Age ≤17 years

Quebec

| Rank | Organism | n | % of Total |
|------|------------------------------------|----------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 2 | 28.6 |
| 2 | <i>Escherichia coli</i> | 1 | 14.3 |
| 3 | <i>Klebsiella pneumoniae</i> | 1 | 14.3 |
| 4 | <i>Citrobacter koseri</i> | 1 | 14.3 |
| 5 | <i>Enterococcus faecalis</i> | 1 | 14.3 |
| 6 | <i>Streptococcus pneumoniae</i> | 1 | 14.3 |
| | | 7 | |

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Bacteriology of Top 20 Organisms by Age ≤17 years

Maritimes

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|-----------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 3 | 17.6 |
| 2 | <i>Haemophilus influenzae</i> | 2 | 11.8 |
| 3 | <i>Pseudomonas aeruginosa</i> | 2 | 11.8 |
| 4 | <i>Enterobacter cloacae</i> | 2 | 11.8 |
| 5 | <i>Klebsiella pneumoniae</i> | 2 | 11.8 |
| 6 | <i>Serratia marcescens</i> | 1 | 5.9 |
| 7 | <i>Streptococcus agalactiae</i> | 1 | 5.9 |
| 8 | <i>Staphylococcus warneri</i> | 1 | |
| 9 | CNS / <i>Staphylococcus epidermidis</i> | 1 | |
| 10 | <i>Pseudomonas putida</i> | 1 | 5.9 |
| 11 | <i>Streptococcus pyogenes</i> | 1 | 5.9 |
| | | 17 | |

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Bacteriology of Top 20 Organisms by Age 18-64 years

| National | | | |
|----------|-----------------------------------------|-------------|------------|
| Rank | Organism | n | % of Total |
| 1 | <i>Staphylococcus aureus, MSSA</i> | 298 | 24.8 |
| 2 | <i>Escherichia coli</i> | 192 | 15.9 |
| 3 | <i>Pseudomonas aeruginosa</i> | 112 | 9.3 |
| 4 | <i>Streptococcus pneumoniae</i> | 75 | 6.2 |
| 5 | <i>Klebsiella pneumoniae</i> | 63 | 5.2 |
| 6 | <i>Staphylococcus aureus, MRSA</i> | 62 | 5.1 |
| 7 | <i>Haemophilus influenzae</i> | 59 | 4.9 |
| 8 | <i>Enterococcus faecalis</i> | 36 | 3.0 |
| 9 | CNS / <i>Staphylococcus epidermidis</i> | 34 | 2.8 |
| 10 | <i>Enterobacter cloacae</i> | 27 | 2.2 |
| 11 | <i>Streptococcus agalactiae</i> | 20 | 1.7 |
| 12 | <i>Enterococcus faecium</i> | 19 | 1.6 |
| 13 | <i>Haemophilus parainfluenzae</i> | 16 | 1.3 |
| 14 | <i>Serratia marcescens</i> | 15 | 1.2 |
| 15 | <i>Stenotrophomonas maltophilia</i> | 15 | 1.2 |
| 16 | <i>Klebsiella oxytoca</i> | 13 | 1.1 |
| 17 | <i>Streptococcus pyogenes</i> | 12 | 1.0 |
| 18 | <i>Proteus mirabilis</i> | 12 | 1.0 |
| 19 | <i>Acinetobacter baumannii</i> | 10 | 0.8 |
| 20 | <i>Enterobacter aerogenes</i> | 10 | 0.8 |
| | Other | 104 | 8.6 |
| | | 1204 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Age 18-64 years

West

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 117 | 25.2 |
| 2 | <i>Escherichia coli</i> | 69 | 14.9 |
| 3 | <i>Staphylococcus aureus, MRSA</i> | 35 | 7.5 |
| 4 | <i>Streptococcus pneumoniae</i> | 33 | 7.1 |
| 5 | <i>Pseudomonas aeruginosa</i> | 30 | 6.5 |
| 6 | <i>Haemophilus influenzae</i> | 30 | 6.5 |
| 7 | <i>Klebsiella pneumoniae</i> | 16 | 3.4 |
| 8 | <i>Enterobacter cloacae</i> | 14 | 3.0 |
| 9 | CNS / <i>Staphylococcus epidermidis</i> | 14 | 3.0 |
| 10 | <i>Enterococcus faecalis</i> | 14 | 3.0 |
| 11 | <i>Haemophilus parainfluenzae</i> | 10 | 2.2 |
| 12 | <i>Streptococcus agalactiae</i> | 7 | 1.5 |
| 13 | <i>Streptococcus pyogenes</i> | 7 | 1.5 |
| 14 | <i>Klebsiella oxytoca</i> | 6 | 1.3 |
| 15 | <i>Acinetobacter baumannii</i> | 6 | 1.3 |
| 16 | <i>Enterobacter aerogenes</i> | 5 | 1.1 |
| 17 | <i>Enterococcus faecium</i> | 5 | 1.1 |
| 18 | <i>Proteus mirabilis</i> | 4 | 0.9 |
| 19 | <i>Stenotrophomonas maltophilia</i> | 3 | 0.6 |
| 20 | <i>Candida albicans</i> | 3 | 0.6 |
| | Other | 36 | 7.8 |
| | | 464 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Age 18-64 years

Ontario

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 99 | 26.1 |
| 2 | <i>Escherichia coli</i> | 63 | 16.6 |
| 3 | <i>Pseudomonas aeruginosa</i> | 54 | 14.2 |
| 4 | <i>Klebsiella pneumoniae</i> | 25 | 6.6 |
| 5 | <i>Streptococcus pneumoniae</i> | 20 | 5.3 |
| 6 | <i>Staphylococcus aureus, MRSA</i> | 16 | 4.2 |
| 7 | <i>Enterococcus faecalis</i> | 11 | 2.9 |
| 8 | <i>Enterococcus faecium</i> | 11 | 2.9 |
| 9 | <i>Serratia marcescens</i> | 10 | 2.6 |
| 10 | <i>Enterobacter cloacae</i> | 8 | 2.1 |
| 11 | CNS / <i>Staphylococcus epidermidis</i> | 8 | 2.1 |
| 12 | <i>Haemophilus influenzae</i> | 6 | 1.6 |
| 13 | <i>Enterobacter aerogenes</i> | 5 | 1.3 |
| 14 | <i>Klebsiella oxytoca</i> | 4 | 1.1 |
| 15 | <i>Proteus mirabilis</i> | 4 | 1.1 |
| 16 | <i>Citrobacter freundii</i> | 4 | 1.1 |
| 17 | <i>Stenotrophomonas maltophilia</i> | 3 | 0.8 |
| 18 | <i>Streptococcus pyogenes</i> | 2 | 0.5 |
| 19 | <i>Streptococcus agalactiae</i> | 2 | 0.5 |
| 20 | <i>Acinetobacter baumannii</i> | 2 | 0.5 |
| | Other | 22 | 5.8 |
| | | 379 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Age 18-64 years

Quebec

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 24 | 18.0 |
| 2 | <i>Escherichia coli</i> | 23 | 17.3 |
| 3 | <i>Klebsiella pneumoniae</i> | 11 | 8.3 |
| 4 | <i>Streptococcus pneumoniae</i> | 10 | 7.5 |
| 5 | CNS / <i>Staphylococcus epidermidis</i> | 9 | 6.8 |
| 6 | <i>Haemophilus influenzae</i> | 7 | 5.3 |
| 7 | <i>Streptococcus agalactiae</i> | 6 | 4.5 |
| 8 | <i>Pseudomonas aeruginosa</i> | 6 | 4.5 |
| 9 | <i>Haemophilus parainfluenzae</i> | 5 | 3.8 |
| 10 | <i>Enterococcus faecalis</i> | 5 | 3.8 |
| 11 | <i>Staphylococcus hominis</i> | 4 | 3.0 |
| 12 | <i>Stenotrophomonas maltophilia</i> | 2 | 1.5 |
| 13 | <i>Staphylococcus aureus, MRSA</i> | 2 | 1.5 |
| 14 | <i>Enterobacter cloacae</i> | 2 | 1.5 |
| 15 | <i>Streptococcus viridans</i> | 2 | 1.5 |
| 16 | <i>Moraxella catarrhalis</i> | 2 | 1.5 |
| 17 | <i>Morganella morganii</i> | 1 | 0.8 |
| 18 | <i>Streptococcus pyogenes</i> | 1 | 0.8 |
| 19 | <i>Streptococcus mitis</i> | 1 | 0.8 |
| 20 | <i>Acinetobacter baumannii</i> | 1 | 0.8 |
| | Other | 9 | 6.8 |
| | | 133 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Age 18-64 years

Maritimes

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 58 | 25.4 |
| 2 | <i>Escherichia coli</i> | 37 | 16.2 |
| 3 | <i>Pseudomonas aeruginosa</i> | 22 | 9.6 |
| 4 | <i>Haemophilus influenzae</i> | 16 | 7.0 |
| 5 | <i>Streptococcus pneumoniae</i> | 12 | 5.3 |
| 6 | <i>Klebsiella pneumoniae</i> | 11 | 4.8 |
| 7 | <i>Staphylococcus aureus, MRSA</i> | 9 | 3.9 |
| 8 | <i>Stenotrophomonas maltophilia</i> | 7 | 3.1 |
| 9 | <i>Enterococcus faecalis</i> | 6 | 2.6 |
| 10 | <i>Streptococcus agalactiae</i> | 5 | 2.2 |
| 11 | <i>Serratia marcescens</i> | 5 | 2.2 |
| 12 | <i>Moraxella catarrhalis</i> | 4 | 1.8 |
| 13 | <i>Proteus mirabilis</i> | 3 | 1.3 |
| 14 | <i>Enterococcus faecium</i> | 3 | 1.3 |
| 15 | CNS / <i>Staphylococcus epidermidis</i> | 3 | 1.3 |
| 16 | <i>Enterobacter cloacae</i> | 3 | 1.3 |
| 17 | <i>Klebsiella oxytoca</i> | 3 | 1.3 |
| 18 | <i>Streptococcus pyogenes</i> | 2 | 0.9 |
| 19 | <i>Streptococcus, Beta-H, Grp G</i> | 2 | 0.9 |
| 20 | <i>Staphylococcus lugdunensis</i> | 1 | 0.4 |
| | Other | 16 | 7.0 |
| | | 228 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Age ≥ 65 years

| National | | | |
|----------|-----------------------------------------|-------------|------------|
| Rank | Organism | n | % of Total |
| 1 | <i>Escherichia coli</i> | 257 | 22.3 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 182 | 15.8 |
| 3 | <i>Pseudomonas aeruginosa</i> | 113 | 9.8 |
| 4 | <i>Klebsiella pneumoniae</i> | 89 | 7.7 |
| 5 | <i>Enterococcus faecalis</i> | 47 | 4.1 |
| 6 | <i>Staphylococcus aureus, MRSA</i> | 46 | 4.0 |
| 7 | <i>Haemophilus influenzae</i> | 44 | 3.8 |
| 8 | <i>Streptococcus pneumoniae</i> | 35 | 3.0 |
| 9 | CNS / <i>Staphylococcus epidermidis</i> | 29 | 2.5 |
| 10 | <i>Klebsiella oxytoca</i> | 29 | 2.5 |
| 11 | <i>Enterobacter cloacae</i> | 24 | 2.1 |
| 12 | <i>Serratia marcescens</i> | 19 | 1.6 |
| 13 | <i>Proteus mirabilis</i> | 19 | 1.6 |
| 14 | <i>Stenotrophomonas maltophilia</i> | 18 | 1.6 |
| 15 | <i>Streptococcus agalactiae</i> | 17 | 1.5 |
| 16 | <i>Enterococcus faecium</i> | 16 | 1.4 |
| 17 | <i>Haemophilus parainfluenzae</i> | 14 | 1.2 |
| 18 | <i>Enterobacter aerogenes</i> | 12 | 1.0 |
| 19 | <i>Staphylococcus hominis</i> | 12 | 1.0 |
| 20 | <i>Moraxella catarrhalis</i> | 12 | 1.0 |
| | Other | 119 | 10.3 |
| | | 1153 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Age ≥65 years

West

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 83 | 22.7 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 39 | 10.7 |
| 3 | <i>Klebsiella pneumoniae</i> | 26 | 7.1 |
| 4 | <i>Pseudomonas aeruginosa</i> | 23 | 6.3 |
| 5 | <i>Staphylococcus aureus, MRSA</i> | 20 | 5.5 |
| 6 | <i>Enterococcus faecalis</i> | 16 | 4.4 |
| 7 | <i>Streptococcus pneumoniae</i> | 16 | 4.4 |
| 8 | <i>Haemophilus influenzae</i> | 15 | 4.1 |
| 9 | <i>Klebsiella oxytoca</i> | 14 | 3.8 |
| 10 | <i>Enterobacter cloacae</i> | 12 | 3.3 |
| 11 | <i>Stenotrophomonas maltophilia</i> | 12 | 3.3 |
| 12 | CNS / <i>Staphylococcus epidermidis</i> | 8 | 2.2 |
| 13 | <i>Serratia marcescens</i> | 7 | 1.9 |
| 14 | <i>Haemophilus parainfluenzae</i> | 7 | 1.9 |
| 15 | <i>Enterococcus faecium</i> | 6 | 1.6 |
| 16 | <i>Proteus mirabilis</i> | 6 | 1.6 |
| 17 | <i>Candida albicans</i> | 6 | 1.6 |
| 18 | <i>Enterobacter aerogenes</i> | 5 | 1.4 |
| 19 | <i>Streptococcus agalactiae</i> | 5 | 1.4 |
| 20 | <i>Streptococcus pyogenes</i> | 4 | 1.1 |
| | Other | 35 | 9.6 |
| | | 365 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Age ≥65 years

Ontario

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 70 | 22.4 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 68 | 21.8 |
| 3 | <i>Pseudomonas aeruginosa</i> | 41 | 13.1 |
| 4 | <i>Klebsiella pneumoniae</i> | 26 | 8.3 |
| 5 | <i>Staphylococcus aureus, MRSA</i> | 15 | 4.8 |
| 6 | <i>Enterococcus faecalis</i> | 15 | 4.8 |
| 7 | <i>Enterobacter aerogenes</i> | 6 | 1.9 |
| 8 | <i>Enterobacter cloacae</i> | 6 | 1.9 |
| 9 | <i>Enterococcus faecium</i> | 6 | 1.9 |
| 10 | <i>Haemophilus influenzae</i> | 6 | 1.9 |
| 11 | CNS / <i>Staphylococcus epidermidis</i> | 5 | 1.6 |
| 12 | <i>Klebsiella oxytoca</i> | 5 | 1.6 |
| 13 | <i>Streptococcus pneumoniae</i> | 4 | 1.3 |
| 14 | <i>Proteus mirabilis</i> | 3 | 1.0 |
| 15 | <i>Staphylococcus hominis</i> | 3 | 1.0 |
| 16 | <i>Candida albicans</i> | 3 | 1.0 |
| 17 | <i>Serratia marcescens</i> | 3 | 1.0 |
| 18 | <i>Moraxella catarrhalis</i> | 3 | 1.0 |
| 19 | <i>Stenotrophomonas maltophilia</i> | 2 | 0.6 |
| 20 | <i>Bacillus, non-specified</i> | 2 | 0.6 |
| | Other | 20 | 6.4 |
| | | 312 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Age ≥ 65 years

Quebec

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 51 | 22.9 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 28 | 12.6 |
| 3 | <i>Pseudomonas aeruginosa</i> | 23 | 10.3 |
| 4 | <i>Klebsiella pneumoniae</i> | 20 | 9.0 |
| 5 | CNS / <i>Staphylococcus epidermidis</i> | 10 | 4.5 |
| 6 | <i>Enterococcus faecalis</i> | 7 | 3.1 |
| 7 | <i>Haemophilus influenzae</i> | 7 | 3.1 |
| 8 | <i>Staphylococcus hominis</i> | 6 | 2.7 |
| 9 | <i>Haemophilus parainfluenzae</i> | 6 | 2.7 |
| 10 | <i>Staphylococcus aureus, MRSA</i> | 5 | 2.2 |
| 11 | <i>Streptococcus pneumoniae</i> | 5 | 2.2 |
| 12 | <i>Streptococcus agalactiae</i> | 5 | 2.2 |
| 13 | <i>Klebsiella oxytoca</i> | 5 | 2.2 |
| 14 | <i>Staphylococcus capitis</i> | 4 | 1.8 |
| 15 | <i>Proteus mirabilis</i> | 4 | 1.8 |
| 16 | <i>Moraxella catarrhalis</i> | 3 | 1.3 |
| 17 | <i>Streptococcus pyogenes</i> | 3 | 1.3 |
| 18 | <i>Enterobacter cloacae</i> | 3 | 1.3 |
| 19 | <i>Stenotrophomonas maltophilia</i> | 2 | 0.9 |
| 20 | <i>Streptococcus viridans</i> | 2 | 0.9 |
| | Other | 24 | 10.8 |
| | | 223 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Age ≥65 years

Maritimes

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 53 | 20.9 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 47 | 18.6 |
| 3 | <i>Pseudomonas aeruginosa</i> | 26 | 10.3 |
| 4 | <i>Klebsiella pneumoniae</i> | 17 | 6.7 |
| 5 | <i>Haemophilus influenzae</i> | 16 | 6.3 |
| 6 | <i>Streptococcus pneumoniae</i> | 10 | 4.0 |
| 7 | <i>Enterococcus faecalis</i> | 9 | 3.6 |
| 8 | <i>Serratia marcescens</i> | 8 | 3.2 |
| 9 | <i>Staphylococcus aureus, MRSA</i> | 6 | 2.4 |
| 10 | <i>Proteus mirabilis</i> | 6 | 2.4 |
| 11 | CNS / <i>Staphylococcus epidermidis</i> | 6 | 2.4 |
| 12 | <i>Streptococcus agalactiae</i> | 5 | 2.0 |
| 13 | <i>Klebsiella oxytoca</i> | 5 | 2.0 |
| 14 | <i>Moraxella catarrhalis</i> | 4 | 1.6 |
| 15 | <i>Enterobacter cloacae</i> | 3 | 1.2 |
| 16 | Streptococcus, Beta-H, Grp C | 3 | 1.2 |
| 17 | Streptococcus, Beta-H, Grp G | 3 | 1.2 |
| 18 | <i>Acinetobacter baumannii</i> | 2 | 0.8 |
| 19 | <i>Citrobacter koseri</i> | 2 | 0.8 |
| 20 | <i>Stenotrophomonas maltophilia</i> | 2 | 0.8 |
| | Other | 20 | 7.9 |
| | | 253 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Clinic

National

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 122 | 25.2 |
| 2 | <i>Escherichia coli</i> | 77 | 15.9 |
| 3 | <i>Pseudomonas aeruginosa</i> | 60 | 12.4 |
| 4 | <i>Haemophilus influenzae</i> | 32 | 6.6 |
| 5 | <i>Staphylococcus aureus, MRSA</i> | 22 | 4.5 |
| 6 | <i>Haemophilus parainfluenzae</i> | 21 | 4.3 |
| 7 | <i>Streptococcus pneumoniae</i> | 20 | 4.1 |
| 8 | <i>Klebsiella pneumoniae</i> | 19 | 3.9 |
| 9 | <i>Streptococcus agalactiae</i> | 13 | 2.7 |
| 10 | <i>Enterococcus faecalis</i> | 12 | 2.5 |
| 11 | CNS / <i>Staphylococcus epidermidis</i> | 10 | 2.1 |
| 12 | <i>Stenotrophomonas maltophilia</i> | 8 | 1.7 |
| 13 | <i>Moraxella catarrhalis</i> | 8 | 1.7 |
| 14 | <i>Serratia marcescens</i> | 8 | 1.7 |
| 15 | <i>Proteus mirabilis</i> | 6 | 1.2 |
| 16 | <i>Enterobacter cloacae</i> | 6 | 1.2 |
| 17 | <i>Klebsiella oxytoca</i> | 5 | 1.0 |
| 18 | <i>Staphylococcus hominis</i> | 5 | 1.0 |
| 19 | <i>Citrobacter freundii</i> | 3 | 0.6 |
| 20 | <i>Streptococcus, Beta-H, Grp G</i> | 3 | 0.6 |
| | Other | 24 | 5.0 |
| | | 484 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Clinic

West

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 47 | 25.8 |
| 2 | <i>Escherichia coli</i> | 23 | 12.6 |
| 3 | <i>Pseudomonas aeruginosa</i> | 21 | 11.5 |
| 4 | <i>Haemophilus influenzae</i> | 16 | 8.8 |
| 5 | <i>Staphylococcus aureus, MRSA</i> | 15 | 8.2 |
| 6 | <i>Streptococcus pneumoniae</i> | 10 | 5.5 |
| 7 | <i>Haemophilus parainfluenzae</i> | 10 | 5.5 |
| 8 | CNS / <i>Staphylococcus epidermidis</i> | 6 | 3.3 |
| 9 | <i>Enterococcus faecalis</i> | 5 | 2.7 |
| 10 | <i>Stenotrophomonas maltophilia</i> | 4 | 2.2 |
| 11 | <i>Klebsiella oxytoca</i> | 2 | 1.1 |
| 12 | <i>Staphylococcus hominis</i> | 2 | 1.1 |
| 13 | <i>Streptococcus agalactiae</i> | 2 | 1.1 |
| 14 | <i>Enterobacter cloacae</i> | 2 | 1.1 |
| 15 | <i>Citrobacter freundii</i> | 2 | 1.1 |
| 16 | <i>Klebsiella pneumoniae</i> | 2 | 1.1 |
| 17 | <i>Staphylococcus lugdunensis</i> | 1 | 0.5 |
| 18 | <i>Streptococcus mitis</i> | 1 | 0.5 |
| 19 | <i>Streptococcus, Beta-H, Grp C</i> | 1 | 0.5 |
| 20 | <i>Proteus mirabilis</i> | 1 | 0.5 |
| | Other | 9 | 4.9 |
| | | 182 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Clinic

Ontario

| Rank | Organism | n | % of Total |
|------|---------------------------------------|-----------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 34 | 37.8 |
| 2 | <i>Pseudomonas aeruginosa</i> | 15 | 16.7 |
| 3 | <i>Escherichia coli</i> | 7 | 7.8 |
| 4 | <i>Staphylococcus aureus, MRSA</i> | 6 | 6.7 |
| 5 | <i>Haemophilus influenzae</i> | 4 | 4.4 |
| 6 | <i>Moraxella catarrhalis</i> | 3 | 3.3 |
| 7 | <i>Klebsiella pneumoniae</i> | 3 | 3.3 |
| 8 | <i>Streptococcus pneumoniae</i> | 3 | 3.3 |
| 9 | <i>Staphylococcus hominis</i> | 2 | 2.2 |
| 10 | <i>Serratia marcescens</i> | 2 | 2.2 |
| 11 | <i>Candida albicans</i> | 1 | 1.1 |
| 12 | <i>Streptococcus agalactiae</i> | 1 | 1.1 |
| 13 | <i>Enterococcus faecium</i> | 1 | 1.1 |
| 14 | <i>Corynebacterium, non-specified</i> | 1 | 1.1 |
| 15 | <i>Aeromonas sobria</i> | 1 | 1.1 |
| 16 | <i>Proteus mirabilis</i> | 1 | 1.1 |
| 17 | <i>Bacillus, non-specified</i> | 1 | 1.1 |
| 18 | <i>Enterobacter aerogenes</i> | 1 | 1.1 |
| 19 | <i>Stenotrophomonas maltophilia</i> | 1 | 1.1 |
| 20 | <i>Enterobacter cloacae</i> | 1 | 1.1 |
| | Other | 1 | 1.1 |
| | | 90 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Clinic

Quebec

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 24 | 21.2 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 20 | 17.7 |
| 3 | <i>Klebsiella pneumoniae</i> | 10 | 8.8 |
| 4 | <i>Haemophilus parainfluenzae</i> | 10 | 8.8 |
| 5 | <i>Pseudomonas aeruginosa</i> | 9 | 8.0 |
| 6 | <i>Streptococcus agalactiae</i> | 7 | 6.2 |
| 7 | <i>Haemophilus influenzae</i> | 6 | 5.3 |
| 8 | <i>Enterococcus faecalis</i> | 3 | 2.7 |
| 9 | <i>Streptococcus pneumoniae</i> | 3 | 2.7 |
| 10 | CNS / <i>Staphylococcus epidermidis</i> | 3 | 2.7 |
| 11 | <i>Moraxella catarrhalis</i> | 2 | 1.8 |
| 12 | <i>Acinetobacter calcoaceticus</i> | 2 | 1.8 |
| 13 | <i>Proteus mirabilis</i> | 2 | 1.8 |
| 14 | <i>Klebsiella oxytoca</i> | 2 | 1.8 |
| 15 | <i>Streptococcus, Beta-H, Grp G</i> | 2 | 1.8 |
| 16 | <i>Stenotrophomonas maltophilia</i> | 1 | 0.9 |
| 17 | <i>Staphylococcus aureus, MRSA</i> | 1 | 0.9 |
| 18 | <i>Serratia marcescens</i> | 1 | 0.9 |
| 19 | <i>Enterobacter cloacae</i> | 1 | 0.9 |
| 20 | <i>Staphylococcus hominis</i> | 1 | 0.9 |
| | Other | 3 | 2.7 |
| | | 113 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Clinic

Maritimes

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|-----------|------------|
| 1 | <i>Escherichia coli</i> | 23 | 23.2 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 21 | 21.2 |
| 3 | <i>Pseudomonas aeruginosa</i> | 15 | 15.2 |
| 4 | <i>Haemophilus influenzae</i> | 6 | 6.1 |
| 5 | <i>Klebsiella pneumoniae</i> | 4 | 4.0 |
| 6 | <i>Serratia marcescens</i> | 4 | 4.0 |
| 7 | <i>Enterococcus faecalis</i> | 4 | 4.0 |
| 8 | <i>Streptococcus pneumoniae</i> | 4 | 4.0 |
| 9 | <i>Streptococcus agalactiae</i> | 3 | 3.0 |
| 10 | <i>Moraxella catarrhalis</i> | 2 | 2.0 |
| 11 | <i>Proteus mirabilis</i> | 2 | 2.0 |
| 12 | <i>Enterobacter cloacae</i> | 2 | 2.0 |
| 13 | <i>Stenotrophomonas maltophilia</i> | 2 | 2.0 |
| 14 | <i>Raoultella planticola</i> | 1 | 1.0 |
| 15 | <i>Staphylococcus lugdunensis</i> | 1 | 1.0 |
| 16 | CNS / <i>Staphylococcus epidermidis</i> | 1 | 1.0 |
| 17 | <i>Citrobacter freundii</i> | 1 | 1.0 |
| 18 | <i>Haemophilus parainfluenzae</i> | 1 | 1.0 |
| 19 | <i>Klebsiella oxytoca</i> | 1 | 1.0 |
| 20 | <i>Streptococcus pyogenes</i> | 1 | 1.0 |
| | | 99 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Emergency Room

National

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 198 | 27.7 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 132 | 18.4 |
| 3 | <i>Klebsiella pneumoniae</i> | 52 | 7.3 |
| 4 | <i>Streptococcus pneumoniae</i> | 51 | 7.1 |
| 5 | <i>Pseudomonas aeruginosa</i> | 32 | 4.5 |
| 6 | CNS / <i>Staphylococcus epidermidis</i> | 26 | 3.6 |
| 7 | <i>Staphylococcus aureus, MRSA</i> | 25 | 3.5 |
| 8 | <i>Enterococcus faecalis</i> | 17 | 2.4 |
| 9 | <i>Haemophilus influenzae</i> | 16 | 2.2 |
| 10 | <i>Streptococcus pyogenes</i> | 16 | 2.2 |
| 11 | <i>Proteus mirabilis</i> | 14 | 2.0 |
| 12 | <i>Streptococcus agalactiae</i> | 12 | 1.7 |
| 13 | <i>Klebsiella oxytoca</i> | 11 | 1.5 |
| 14 | <i>Staphylococcus hominis</i> | 11 | 1.5 |
| 15 | <i>Enterobacter cloacae</i> | 9 | 1.3 |
| 16 | <i>Streptococcus, Beta-H, Grp G</i> | 8 | 1.1 |
| 17 | <i>Staphylococcus capitis</i> | 7 | 1.0 |
| 18 | <i>Enterococcus faecium</i> | 6 | 0.8 |
| 19 | <i>Streptococcus, Beta-H, Grp C</i> | 5 | 0.7 |
| 20 | <i>Salmonella, non-specified</i> | 4 | 0.6 |
| | Other | 64 | 8.9 |
| | | 716 | |

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Bacteriology of Top 20 Organisms by Location - Emergency Room

West

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 74 | 27.4 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 55 | 20.4 |
| 3 | <i>Streptococcus pneumoniae</i> | 24 | 8.9 |
| 4 | <i>Klebsiella pneumoniae</i> | 16 | 5.9 |
| 5 | <i>Staphylococcus aureus, MRSA</i> | 13 | 4.8 |
| 6 | <i>Haemophilus influenzae</i> | 11 | 4.1 |
| 7 | <i>Streptococcus pyogenes</i> | 10 | 3.7 |
| 8 | <i>Pseudomonas aeruginosa</i> | 7 | 2.6 |
| 9 | <i>Proteus mirabilis</i> | 6 | 2.2 |
| 10 | CNS / <i>Staphylococcus epidermidis</i> | 6 | 2.2 |
| 11 | <i>Klebsiella oxytoca</i> | 6 | 2.2 |
| 12 | <i>Streptococcus agalactiae</i> | 5 | 1.9 |
| 13 | <i>Enterococcus faecalis</i> | 5 | 1.9 |
| 14 | <i>Enterobacter cloacae</i> | 4 | 1.5 |
| 15 | <i>Enterococcus faecium</i> | 3 | 1.1 |
| 16 | <i>Streptococcus, Beta-H, Grp G</i> | 3 | 1.1 |
| 17 | <i>Salmonella, non-speciated</i> | 2 | 0.7 |
| 18 | <i>Stenotrophomonas maltophilia</i> | 2 | 0.7 |
| 19 | <i>Haemophilus parainfluenzae</i> | 2 | 0.7 |
| 20 | <i>Citrobacter farmeri</i> | 1 | 0.4 |
| | Other | 15 | 5.6 |
| | | 270 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Emergency Room

Ontario

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 63 | 31.5 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 35 | 17.5 |
| 3 | <i>Klebsiella pneumoniae</i> | 14 | 7.0 |
| 4 | <i>Streptococcus pneumoniae</i> | 14 | 7.0 |
| 5 | <i>Pseudomonas aeruginosa</i> | 10 | 5.0 |
| 6 | CNS / <i>Staphylococcus epidermidis</i> | 8 | 4.0 |
| 7 | <i>Staphylococcus aureus, MRSA</i> | 7 | 3.5 |
| 8 | <i>Staphylococcus hominis</i> | 6 | 3.0 |
| 9 | <i>Proteus mirabilis</i> | 5 | 2.5 |
| 10 | <i>Enterococcus faecalis</i> | 4 | 2.0 |
| 11 | <i>Streptococcus pyogenes</i> | 4 | 2.0 |
| 12 | <i>Enterobacter aerogenes</i> | 2 | 1.0 |
| 13 | <i>Enterobacter cloacae</i> | 2 | 1.0 |
| 14 | <i>Staphylococcus cohnii</i> | 1 | 0.5 |
| 15 | <i>Granulicatella adiacens</i> | 1 | 0.5 |
| 16 | <i>Stenotrophomonas maltophilia</i> | 1 | 0.5 |
| 17 | <i>Klebsiella oxytoca</i> | 1 | 0.5 |
| 18 | <i>Staphylococcus auricularis</i> | 1 | 0.5 |
| 19 | <i>Citrobacter freundii</i> | 1 | 0.5 |
| 20 | <i>Staphylococcus lugdunensis</i> | 1 | 0.5 |
| | Other | 19 | 9.5 |
| | | 200 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Emergency Room

Quebec

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 34 | 23.6 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 19 | 13.2 |
| 3 | <i>Klebsiella pneumoniae</i> | 15 | 10.4 |
| 4 | <i>Streptococcus pneumoniae</i> | 10 | 6.9 |
| 5 | CNS / <i>Staphylococcus epidermidis</i> | 9 | 6.3 |
| 6 | <i>Pseudomonas aeruginosa</i> | 8 | 5.6 |
| 7 | <i>Enterococcus faecalis</i> | 5 | 3.5 |
| 8 | <i>Staphylococcus capitis</i> | 5 | 3.5 |
| 9 | <i>Staphylococcus hominis</i> | 4 | 2.8 |
| 10 | <i>Enterobacter cloacae</i> | 3 | 2.1 |
| 11 | <i>Haemophilus influenzae</i> | 3 | 2.1 |
| 12 | <i>Proteus mirabilis</i> | 3 | 2.1 |
| 13 | <i>Staphylococcus caprae</i> | 2 | 1.4 |
| 14 | <i>Streptococcus pyogenes</i> | 2 | 1.4 |
| 15 | <i>Streptococcus agalactiae</i> | 2 | 1.4 |
| 16 | <i>Micrococcus, non-specified</i> | 2 | 1.4 |
| 17 | <i>Klebsiella oxytoca</i> | 2 | 1.4 |
| 18 | <i>Streptococcus, Beta-H, Grp C</i> | 2 | 1.4 |
| 19 | <i>Streptococcus anginosus</i> | 1 | 0.7 |
| 20 | <i>Serratia liquefaciens</i> | 1 | 0.7 |
| | Other | 12 | 8.3 |
| | | 144 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Emergency Room

Maritimes

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 27 | 26.5 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 23 | 22.5 |
| 3 | <i>Pseudomonas aeruginosa</i> | 7 | 6.9 |
| 4 | <i>Klebsiella pneumoniae</i> | 7 | 6.9 |
| 5 | <i>Streptococcus agalactiae</i> | 4 | 3.9 |
| 6 | <i>Staphylococcus aureus, MRSA</i> | 4 | 3.9 |
| 7 | <i>Streptococcus pneumoniae</i> | 3 | 2.9 |
| 8 | <i>Enterococcus faecalis</i> | 3 | 2.9 |
| 9 | CNS / <i>Staphylococcus epidermidis</i> | 3 | 2.9 |
| 10 | <i>Streptococcus, Beta-H, Grp G</i> | 3 | 2.9 |
| 11 | <i>Haemophilus influenzae</i> | 2 | 2.0 |
| 12 | <i>Klebsiella oxytoca</i> | 2 | 2.0 |
| 13 | <i>Streptococcus, Beta-H, Grp C</i> | 2 | 2.0 |
| 14 | <i>Streptococcus oralis</i> | 1 | 1.0 |
| 15 | <i>Aerococcus urinae</i> | 1 | 1.0 |
| 16 | <i>Salmonella paratyphi B</i> | 1 | 1.0 |
| 17 | <i>Acinetobacter baumannii</i> | 1 | 1.0 |
| 18 | <i>Staphylococcus warneri</i> | 1 | 1.0 |
| 19 | <i>Enterococcus faecium</i> | 1 | 1.0 |
| 20 | <i>Pseudomonas putida</i> | 1 | 1.0 |
| | Other | 5 | 4.9 |
| | | 102 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - ICU

| National | | | |
|----------|-----------------------------------------|------------|------------|
| Rank | Organism | n | % of Total |
| 1 | <i>Staphylococcus aureus, MSSA</i> | 121 | 19.5 |
| 2 | <i>Pseudomonas aeruginosa</i> | 69 | 11.1 |
| 3 | <i>Escherichia coli</i> | 64 | 10.3 |
| 4 | <i>Haemophilus influenzae</i> | 47 | 7.6 |
| 5 | <i>Klebsiella pneumoniae</i> | 36 | 5.8 |
| 6 | <i>Streptococcus pneumoniae</i> | 33 | 5.3 |
| 7 | <i>Enterobacter cloacae</i> | 31 | 5.0 |
| 8 | <i>Staphylococcus aureus, MRSA</i> | 29 | 4.7 |
| 9 | <i>Stenotrophomonas maltophilia</i> | 18 | 2.9 |
| 10 | CNS / <i>Staphylococcus epidermidis</i> | 16 | 2.6 |
| 11 | <i>Serratia marcescens</i> | 16 | 2.6 |
| 12 | <i>Klebsiella oxytoca</i> | 14 | 2.3 |
| 13 | <i>Enterococcus faecalis</i> | 13 | 2.1 |
| 14 | <i>Enterococcus faecium</i> | 13 | 2.1 |
| 15 | <i>Moraxella catarrhalis</i> | 12 | 1.9 |
| 16 | <i>Enterobacter aerogenes</i> | 10 | 1.6 |
| 17 | <i>Streptococcus agalactiae</i> | 9 | 1.4 |
| 18 | <i>Streptococcus pyogenes</i> | 8 | 1.3 |
| 19 | <i>Acinetobacter baumannii</i> | 6 | 1.0 |
| 20 | <i>Citrobacter koseri</i> | 5 | 0.8 |
| | Other | 51 | 8.2 |
| | | 621 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - ICU

West

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 46 | 20.4 |
| 2 | <i>Escherichia coli</i> | 21 | 9.3 |
| 3 | <i>Haemophilus influenzae</i> | 17 | 7.6 |
| 4 | <i>Pseudomonas aeruginosa</i> | 16 | 7.1 |
| 5 | <i>Enterobacter cloacae</i> | 16 | 7.1 |
| 6 | <i>Klebsiella pneumoniae</i> | 15 | 6.7 |
| 7 | <i>Streptococcus pneumoniae</i> | 14 | 6.2 |
| 8 | <i>Staphylococcus aureus, MRSA</i> | 10 | 4.4 |
| 9 | <i>Klebsiella oxytoca</i> | 8 | 3.6 |
| 10 | <i>Stenotrophomonas maltophilia</i> | 7 | 3.1 |
| 11 | CNS / <i>Staphylococcus epidermidis</i> | 7 | 3.1 |
| 12 | <i>Enterobacter aerogenes</i> | 7 | 3.1 |
| 13 | <i>Streptococcus agalactiae</i> | 6 | 2.7 |
| 14 | <i>Haemophilus parainfluenzae</i> | 4 | 1.8 |
| 15 | <i>Serratia marcescens</i> | 3 | 1.3 |
| 16 | <i>Enterococcus faecalis</i> | 3 | 1.3 |
| 17 | <i>Burkholderia cepacia</i> | 2 | 0.9 |
| 18 | <i>Enterococcus faecium</i> | 2 | 0.9 |
| 19 | <i>Candida dubliniensis</i> | 2 | 0.9 |
| 20 | <i>Acinetobacter baumannii</i> | 2 | 0.9 |
| | Other | 17 | 7.6 |
| | | 225 | |

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Bacteriology of Top 20 Organisms by Location - ICU

Ontario

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 53 | 19.8 |
| 2 | <i>Pseudomonas aeruginosa</i> | 42 | 15.7 |
| 3 | <i>Escherichia coli</i> | 27 | 10.1 |
| 4 | <i>Klebsiella pneumoniae</i> | 15 | 5.6 |
| 5 | <i>Staphylococcus aureus, MRSA</i> | 14 | 5.2 |
| 6 | <i>Haemophilus influenzae</i> | 14 | 5.2 |
| 7 | <i>Streptococcus pneumoniae</i> | 11 | 4.1 |
| 8 | <i>Enterobacter cloacae</i> | 11 | 4.1 |
| 9 | <i>Enterococcus faecium</i> | 9 | 3.4 |
| 10 | <i>Enterococcus faecalis</i> | 8 | 3.0 |
| 11 | CNS / <i>Staphylococcus epidermidis</i> | 7 | 2.6 |
| 12 | <i>Serratia marcescens</i> | 7 | 2.6 |
| 13 | <i>Moraxella catarrhalis</i> | 7 | 2.6 |
| 14 | <i>Stenotrophomonas maltophilia</i> | 5 | 1.9 |
| 15 | <i>Klebsiella oxytoca</i> | 5 | 1.9 |
| 16 | <i>Streptococcus pyogenes</i> | 4 | 1.5 |
| 17 | <i>Proteus mirabilis</i> | 4 | 1.5 |
| 18 | <i>Enterobacter aerogenes</i> | 3 | 1.1 |
| 19 | <i>Candida albicans</i> | 3 | 1.1 |
| 20 | <i>Acinetobacter baumannii</i> | 2 | 0.7 |
| | Other | 17 | 6.3 |
| | | 268 | |

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Bacteriology of Top 20 Organisms by Location - ICU

Quebec

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|-----------|------------|
| 1 | <i>Pseudomonas aeruginosa</i> | 5 | 20.0 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 4 | 16.0 |
| 3 | <i>Haemophilus influenzae</i> | 3 | 12.0 |
| 4 | <i>Escherichia coli</i> | 2 | 8.0 |
| 5 | <i>Moraxella catarrhalis</i> | 2 | 8.0 |
| 6 | <i>Streptococcus pneumoniae</i> | 2 | 8.0 |
| 7 | CNS / <i>Staphylococcus epidermidis</i> | 1 | 4.0 |
| 8 | <i>Staphylococcus hominis</i> | 1 | 4.0 |
| 9 | <i>Acinetobacter baumannii</i> | 1 | 4.0 |
| 10 | <i>Chryseobacterium indologenes</i> | 1 | 4.0 |
| 11 | <i>Streptococcus agalactiae</i> | 1 | 4.0 |
| 12 | <i>Citrobacter braakii</i> | 1 | 4.0 |
| 13 | <i>Streptococcus pyogenes</i> | 1 | 4.0 |
| | | 25 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - ICU

Maritimes

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 18 | 17.5 |
| 2 | <i>Escherichia coli</i> | 14 | 13.6 |
| 3 | <i>Haemophilus influenzae</i> | 13 | 12.6 |
| 4 | <i>Stenotrophomonas maltophilia</i> | 6 | 5.8 |
| 5 | <i>Serratia marcescens</i> | 6 | 5.8 |
| 6 | <i>Pseudomonas aeruginosa</i> | 6 | 5.8 |
| 7 | <i>Klebsiella pneumoniae</i> | 6 | 5.8 |
| 8 | <i>Streptococcus pneumoniae</i> | 6 | 5.8 |
| 9 | <i>Staphylococcus aureus, MRSA</i> | 5 | 4.9 |
| 10 | <i>Enterobacter cloacae</i> | 4 | 3.9 |
| 11 | <i>Citrobacter koseri</i> | 2 | 1.9 |
| 12 | <i>Moraxella catarrhalis</i> | 2 | 1.9 |
| 13 | <i>Enterococcus faecium</i> | 2 | 1.9 |
| 14 | <i>Enterococcus faecalis</i> | 2 | 1.9 |
| 15 | <i>Staphylococcus hominis</i> | 1 | 1.0 |
| 16 | <i>CNS / Staphylococcus epidermidis</i> | 1 | 1.0 |
| 17 | <i>Streptococcus agalactiae</i> | 1 | 1.0 |
| 18 | <i>Streptococcus bovis</i> | 1 | 1.0 |
| 19 | <i>Enterobacter agglomerans</i> | 1 | 1.0 |
| 20 | <i>Candida parapsilosis</i> | 1 | 1.0 |
| | Other | 5 | 4.9 |
| | | 103 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Medical Ward

| National | | | |
|----------|-----------------------------------------|------------|------------|
| Rank | Organism | n | % of Total |
| 1 | <i>Staphylococcus aureus, MSSA</i> | 154 | 18.8 |
| 2 | <i>Escherichia coli</i> | 141 | 17.2 |
| 3 | <i>Pseudomonas aeruginosa</i> | 87 | 10.6 |
| 4 | <i>Klebsiella pneumoniae</i> | 52 | 6.3 |
| 5 | <i>Haemophilus influenzae</i> | 46 | 5.6 |
| 6 | <i>Enterococcus faecalis</i> | 40 | 4.9 |
| 7 | <i>Staphylococcus aureus, MRSA</i> | 39 | 4.8 |
| 8 | <i>Streptococcus pneumoniae</i> | 33 | 4.0 |
| 9 | <i>CNS / Staphylococcus epidermidis</i> | 30 | 3.7 |
| 10 | <i>Enterobacter cloacae</i> | 18 | 2.2 |
| 11 | <i>Klebsiella oxytoca</i> | 16 | 2.0 |
| 12 | <i>Stenotrophomonas maltophilia</i> | 12 | 1.5 |
| 13 | <i>Enterococcus faecium</i> | 12 | 1.5 |
| 14 | <i>Proteus mirabilis</i> | 11 | 1.3 |
| 15 | <i>Moraxella catarrhalis</i> | 11 | 1.3 |
| 16 | <i>Serratia marcescens</i> | 9 | 1.1 |
| 17 | <i>Candida albicans</i> | 9 | 1.1 |
| 18 | <i>Streptococcus pyogenes</i> | 8 | 1.0 |
| 19 | <i>Streptococcus agalactiae</i> | 8 | 1.0 |
| 20 | <i>Enterobacter aerogenes</i> | 8 | 1.0 |
| | Other | 75 | 9.2 |
| | | 819 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Medical Ward

West

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Escherichia coli</i> | 38 | 15.4 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 34 | 13.8 |
| 3 | <i>Staphylococcus aureus, MRSA</i> | 20 | 8.1 |
| 4 | <i>Haemophilus influenzae</i> | 19 | 7.7 |
| 5 | <i>Pseudomonas aeruginosa</i> | 18 | 7.3 |
| 6 | <i>Enterococcus faecalis</i> | 16 | 6.5 |
| 7 | <i>Klebsiella pneumoniae</i> | 10 | 4.1 |
| 8 | CNS / <i>Staphylococcus epidermidis</i> | 9 | 3.7 |
| 9 | <i>Enterobacter cloacae</i> | 8 | 3.3 |
| 10 | <i>Stenotrophomonas maltophilia</i> | 7 | 2.8 |
| 11 | <i>Candida albicans</i> | 7 | 2.8 |
| 12 | <i>Streptococcus pneumoniae</i> | 7 | 2.8 |
| 13 | <i>Klebsiella oxytoca</i> | 5 | 2.0 |
| 14 | <i>Serratia marcescens</i> | 4 | 1.6 |
| 15 | <i>Enterococcus faecium</i> | 4 | 1.6 |
| 16 | <i>Moraxella catarrhalis</i> | 4 | 1.6 |
| 17 | <i>Streptococcus agalactiae</i> | 3 | 1.2 |
| 18 | <i>Acinetobacter baumannii</i> | 3 | 1.2 |
| 19 | <i>Candida glabrata</i> | 3 | 1.2 |
| 20 | <i>Enterobacter aerogenes</i> | 3 | 1.2 |
| | Other | 24 | 9.8 |
| | | 246 | |

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Bacteriology of Top 20 Organisms by Location - Medical Ward

Ontario

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 74 | 21.8 |
| 2 | <i>Escherichia coli</i> | 66 | 19.4 |
| 3 | <i>Pseudomonas aeruginosa</i> | 43 | 12.6 |
| 4 | <i>Klebsiella pneumoniae</i> | 25 | 7.4 |
| 5 | <i>Enterococcus faecalis</i> | 16 | 4.7 |
| 6 | <i>Streptococcus pneumoniae</i> | 16 | 4.7 |
| 7 | <i>Haemophilus influenzae</i> | 15 | 4.4 |
| 8 | CNS / <i>Staphylococcus epidermidis</i> | 11 | 3.2 |
| 9 | <i>Staphylococcus aureus, MRSA</i> | 9 | 2.6 |
| 10 | <i>Enterobacter cloacae</i> | 9 | 2.6 |
| 11 | <i>Klebsiella oxytoca</i> | 6 | 1.8 |
| 12 | <i>Enterococcus faecium</i> | 5 | 1.5 |
| 13 | <i>Serratia marcescens</i> | 4 | 1.2 |
| 14 | <i>Enterobacter aerogenes</i> | 4 | 1.2 |
| 15 | <i>Moraxella catarrhalis</i> | 4 | 1.2 |
| 16 | <i>Streptococcus pyogenes</i> | 3 | 0.9 |
| 17 | <i>Staphylococcus capitis</i> | 2 | 0.6 |
| 18 | <i>Citrobacter freundii</i> | 2 | 0.6 |
| 19 | <i>Candida albicans</i> | 2 | 0.6 |
| 20 | <i>Stenotrophomonas maltophilia</i> | 2 | 0.6 |
| | Other | 22 | 6.5 |
| | | 340 | |

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Bacteriology of Top 20 Organisms by Location - Medical Ward

Quebec

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|-----------|------------|
| 1 | <i>Escherichia coli</i> | 12 | 17.9 |
| 2 | <i>Staphylococcus aureus, MSSA</i> | 7 | 10.4 |
| 3 | <i>Pseudomonas aeruginosa</i> | 6 | 9.0 |
| 4 | <i>Klebsiella pneumoniae</i> | 6 | 9.0 |
| 5 | CNS / <i>Staphylococcus epidermidis</i> | 5 | 7.5 |
| 6 | <i>Staphylococcus aureus, MRSA</i> | 5 | 7.5 |
| 7 | <i>Staphylococcus hominis</i> | 4 | 6.0 |
| 8 | <i>Enterococcus faecalis</i> | 3 | 4.5 |
| 9 | <i>Stenotrophomonas maltophilia</i> | 2 | 3.0 |
| 10 | <i>Haemophilus influenzae</i> | 2 | 3.0 |
| 11 | <i>Streptococcus mitis</i> | 2 | 3.0 |
| 12 | <i>Streptococcus viridans</i> | 2 | 3.0 |
| 13 | <i>Streptococcus pneumoniae</i> | 1 | 1.5 |
| 14 | <i>Klebsiella oxytoca</i> | 1 | 1.5 |
| 15 | <i>Alcaligenes xylosoxidans</i> | 1 | 1.5 |
| 16 | <i>Enterobacter aerogenes</i> | 1 | 1.5 |
| 17 | <i>Streptococcus pyogenes</i> | 1 | 1.5 |
| 18 | <i>Enterobacter cloacae</i> | 1 | 1.5 |
| 19 | <i>Staphylococcus haemolyticus</i> | 1 | 1.5 |
| 20 | <i>Enterococcus faecium</i> | 1 | 1.5 |
| | Other | 3 | 4.5 |
| | | 67 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Medical Ward

Maritimes

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 39 | 23.5 |
| 2 | <i>Escherichia coli</i> | 25 | 15.1 |
| 3 | <i>Pseudomonas aeruginosa</i> | 20 | 12.0 |
| 4 | <i>Klebsiella pneumoniae</i> | 11 | 6.6 |
| 5 | <i>Haemophilus influenzae</i> | 10 | 6.0 |
| 6 | <i>Streptococcus pneumoniae</i> | 9 | 5.4 |
| 7 | <i>Proteus mirabilis</i> | 7 | 4.2 |
| 8 | <i>Enterococcus faecalis</i> | 5 | 3.0 |
| 9 | <i>Staphylococcus aureus, MRSA</i> | 5 | 3.0 |
| 10 | CNS / <i>Staphylococcus epidermidis</i> | 5 | 3.0 |
| 11 | <i>Klebsiella oxytoca</i> | 4 | 2.4 |
| 12 | <i>Streptococcus agalactiae</i> | 3 | 1.8 |
| 13 | <i>Enterococcus faecium</i> | 2 | 1.2 |
| 14 | <i>Streptococcus, Beta-H, Grp C</i> | 2 | 1.2 |
| 15 | <i>Streptococcus pyogenes</i> | 2 | 1.2 |
| 16 | <i>Moraxella catarrhalis</i> | 2 | 1.2 |
| 17 | <i>Streptococcus, Beta-H, Grp G</i> | 2 | 1.2 |
| 18 | <i>Streptococcus viridans</i> | 1 | 0.6 |
| 19 | <i>Staphylococcus hominis</i> | 1 | 0.6 |
| 20 | <i>Salmonella enteritidis</i> | 1 | 0.6 |
| | Other | 10 | 6.0 |
| | | 166 | |

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Bacteriology of Top 20 Organisms by Location - Surgical Ward

National

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|------------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 35 | 20.8 |
| 2 | <i>Escherichia coli</i> | 20 | 11.9 |
| 3 | <i>Pseudomonas aeruginosa</i> | 16 | 9.5 |
| 4 | <i>Enterococcus faecalis</i> | 11 | 6.5 |
| 5 | <i>Staphylococcus aureus, MRSA</i> | 10 | 6.0 |
| 6 | <i>Klebsiella pneumoniae</i> | 10 | 6.0 |
| 7 | <i>Haemophilus influenzae</i> | 9 | 5.4 |
| 8 | <i>Serratia marcescens</i> | 6 | 3.6 |
| 9 | <i>Streptococcus pneumoniae</i> | 6 | 3.6 |
| 10 | <i>Moraxella catarrhalis</i> | 5 | 3.0 |
| 11 | <i>Enterobacter cloacae</i> | 5 | 3.0 |
| 12 | <i>Klebsiella oxytoca</i> | 4 | 2.4 |
| 13 | <i>Acinetobacter baumannii</i> | 4 | 2.4 |
| 14 | <i>Enterococcus faecium</i> | 3 | 1.8 |
| 15 | <i>Proteus mirabilis</i> | 3 | 1.8 |
| 16 | CNS / <i>Staphylococcus epidermidis</i> | 3 | 1.8 |
| 17 | <i>Streptococcus pyogenes</i> | 3 | 1.8 |
| 18 | <i>Enterobacter aerogenes</i> | 2 | 1.2 |
| 19 | <i>Streptococcus agalactiae</i> | 2 | 1.2 |
| 20 | <i>Stenotrophomonas maltophilia</i> | 2 | 1.2 |
| | Other | 9 | 5.4 |
| | | 168 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Surgical Ward

West

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|-----------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 8 | 11.8 |
| 2 | <i>Pseudomonas aeruginosa</i> | 7 | 10.3 |
| 3 | <i>Escherichia coli</i> | 7 | 10.3 |
| 4 | <i>Staphylococcus aureus, MRSA</i> | 6 | 8.8 |
| 5 | <i>Enterococcus faecalis</i> | 6 | 8.8 |
| 6 | <i>Klebsiella pneumoniae</i> | 4 | 5.9 |
| 7 | <i>Klebsiella oxytoca</i> | 4 | 5.9 |
| 8 | <i>Acinetobacter baumannii</i> | 3 | 4.4 |
| 9 | <i>Enterobacter cloacae</i> | 3 | 4.4 |
| 10 | <i>Streptococcus pneumoniae</i> | 3 | 4.4 |
| 11 | <i>Haemophilus influenzae</i> | 2 | 2.9 |
| 12 | <i>Enterococcus faecium</i> | 2 | 2.9 |
| 13 | <i>Serratia marcescens</i> | 2 | 2.9 |
| 14 | CNS / <i>Staphylococcus epidermidis</i> | 2 | 2.9 |
| 15 | <i>Streptococcus pyogenes</i> | 2 | 2.9 |
| 16 | <i>Candida krusei</i> | 1 | 1.5 |
| 17 | <i>Proteus mirabilis</i> | 1 | 1.5 |
| 18 | <i>Morganella morganii</i> | 1 | 1.5 |
| 19 | <i>Citrobacter freundii</i> | 1 | 1.5 |
| 20 | <i>Staphylococcus hominis</i> | 1 | 1.5 |
| | Other | 2 | 2.9 |
| | | 68 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Surgical Ward

Ontario

| Rank | Organism | n | % of Total |
|------|------------------------------------|-----------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 16 | 27.6 |
| 2 | <i>Escherichia coli</i> | 9 | 15.5 |
| 3 | <i>Pseudomonas aeruginosa</i> | 6 | 10.3 |
| 4 | <i>Haemophilus influenzae</i> | 4 | 6.9 |
| 5 | <i>Staphylococcus aureus, MRSA</i> | 3 | 5.2 |
| 6 | <i>Moraxella catarrhalis</i> | 3 | 5.2 |
| 7 | <i>Klebsiella pneumoniae</i> | 3 | 5.2 |
| 8 | <i>Streptococcus pneumoniae</i> | 3 | 5.2 |
| 9 | <i>Enterococcus faecalis</i> | 2 | 3.4 |
| 10 | <i>Proteus mirabilis</i> | 2 | 3.4 |
| 11 | <i>Enterobacter aerogenes</i> | 2 | 3.4 |
| 12 | <i>Candida glabrata</i> | 1 | 1.7 |
| 13 | <i>Enterococcus faecium</i> | 1 | 1.7 |
| 14 | <i>Serratia marcescens</i> | 1 | 1.7 |
| 15 | <i>Bacillus, non-speciated</i> | 1 | 1.7 |
| 16 | <i>Streptococcus pyogenes</i> | 1 | 1.7 |
| | | 58 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Surgical Ward

Quebec

| Rank | Organism | n | % of Total |
|------|-----------------------------------------|-----------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 4 | 28.6 |
| 2 | <i>Escherichia coli</i> | 3 | 21.4 |
| 3 | <i>Enterococcus faecalis</i> | 2 | 14.3 |
| 4 | <i>CNS / Staphylococcus epidermidis</i> | 1 | 7.1 |
| 5 | <i>Stenotrophomonas maltophilia</i> | 1 | 7.1 |
| 6 | <i>Streptococcus agalactiae</i> | 1 | 7.1 |
| 7 | <i>Pseudomonas aeruginosa</i> | 1 | 7.1 |
| 8 | <i>Klebsiella pneumoniae</i> | 1 | 7.1 |
| | | 14 | |

CANWARD 2012

Bacteriology of Top 20 Organisms by Location - Surgical Ward

Maritimes

| Rank | Organism | n | % of Total |
|------|------------------------------------|-----------|------------|
| 1 | <i>Staphylococcus aureus, MSSA</i> | 7 | 25.0 |
| 2 | <i>Serratia marcescens</i> | 3 | 10.7 |
| 3 | <i>Haemophilus influenzae</i> | 3 | 10.7 |
| 4 | <i>Moraxella catarrhalis</i> | 2 | 7.1 |
| 5 | <i>Enterobacter cloacae</i> | 2 | 7.1 |
| 6 | <i>Pseudomonas aeruginosa</i> | 2 | 7.1 |
| 7 | <i>Klebsiella pneumoniae</i> | 2 | 7.1 |
| 8 | <i>Acinetobacter baumannii</i> | 1 | 3.6 |
| 9 | <i>Pseudomonas putida</i> | 1 | 3.6 |
| 10 | <i>Enterococcus faecalis</i> | 1 | 3.6 |
| 11 | <i>Candida albicans</i> | 1 | 3.6 |
| 12 | <i>Staphylococcus aureus, MRSA</i> | 1 | 3.6 |
| 13 | <i>Citrobacter farmeri</i> | 1 | 3.6 |
| 14 | <i>Escherichia coli</i> | 1 | 3.6 |
| | | 28 | |

CANWARD 2012

S. aureus, MSSA Susceptibility - National

***Staphylococcus aureus*, MSSA (563)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 99.5% | 0.2% | 0.4% | 4 | 4 | ≤ 1 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 0.5 | 1 | ≤ 0.06 | 1 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | 0.5 | > 64 |
| Cefazolin | No Breakpoints Defined | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 2 |
| Cefepime | No Breakpoints Defined | | | 2 | 4 | ≤ 0.25 | 4 |
| Cefoxitin | 99.6% | | 0.4% | 4 | 4 | 0.25 | 8 |
| Ceftazidime | No Breakpoints Defined | | | 16 | 16 | 4 | 32 |
| Ceftriaxone | No Breakpoints Defined | | | 4 | 4 | 0.5 | 8 |
| Ciprofloxacin | 87.6% | 2.0% | 10.5% | 0.5 | 4 | ≤ 0.06 | > 16 |
| Clarithromycin | 75.7% | 0.2% | 24.2% | 0.25 | > 32 | ≤ 0.03 | > 32 |
| Clindamycin | 94.8% | 0.2% | 5.0% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | ≤ 0.06 | > 16 |
| Daptomycin | 100.0% | | | 0.25 | 0.5 | ≤ 0.03 | 0.5 |
| Doripenem | No Breakpoints Defined | | | 0.06 | 0.06 | ≤ 0.03 | 0.25 |
| Doxycycline | 98.9% | 0.5% | 0.5% | ≤ 0.12 | 0.25 | ≤ 0.12 | 16 |
| Ertapenem | | | | 0.5 | 0.5 | 0.06 | 1 |
| Gentamicin | 97.9% | 0.4% | 1.8% | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | > 32 |
| Imipenem | No Breakpoints Defined | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Linezolid | 100.0% | | | 2 | 2 | ≤ 0.12 | 4 |
| Meropenem | No Breakpoints Defined | | | 0.12 | 0.25 | ≤ 0.03 | 0.5 |
| Moxifloxacin | 90.8% | 0.5% | 8.7% | ≤ 0.06 | 0.25 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | 2 |
| Tigecycline * | 100.0% | | | 0.12 | 0.25 | 0.06 | 0.5 |
| Tobramycin | 97.3% | 0.5% | 2.1% | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | 98.9% | | 1.1% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 8 |
| Vancomycin | 100.0% | | | 1 | 1 | 0.25 | 1 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. coli Susceptibility - National

Escherichia coli (500)

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 99.6% | 0.4% | | ≤ 1 | 4 | ≤ 1 | 32 |
| Amoxicillin Clavulanic Acid | 77.0% | 16.2% | 6.8% | 4 | 16 | 0.5 | > 32 |
| Aztreonam | 93.4% | 1.6% | 5.0% | ≤ 0.12 | 0.5 | ≤ 0.12 | > 64 |
| Cefazolin | 70.6% | 11.2% | 18.2% | 2 | 32 | ≤ 0.5 | > 128 |
| Cefepime | 96.8% | 2.2% | 1.0% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | > 64 |
| Cefoxitin | 92.6% | 4.0% | 3.4% | 4 | 8 | 1 | > 32 |
| Ceftazidime | 93.0% | 1.0% | 6.0% | ≤ 0.25 | 1 | ≤ 0.25 | > 32 |
| Ceftriaxone | 91.2% | 0.4% | 8.4% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | > 64 |
| Ciprofloxacin | 74.0% | 0.2% | 25.8% | ≤ 0.06 | > 16 | ≤ 0.06 | > 16 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.5 | ≤ 0.06 | > 16 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.25 |
| Doxycycline | 70.8% | 5.0% | 24.2% | 2 | 32 | 0.5 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.5 |
| Gentamicin | 90.8% | 0.4% | 8.8% | ≤ 0.5 | 2 | ≤ 0.5 | > 32 |
| Imipenem | 100.0% | | | 0.12 | 0.25 | 0.06 | 1 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Moxifloxacin * | 74.0% | | 26.0% | ≤ 0.06 | > 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 97.0% | 0.6% | 2.4% | ≤ 1 | 4 | ≤ 1 | > 512 |
| Tigecycline * | 100.0% | | | 0.25 | 0.5 | 0.12 | 2 |
| Tobramycin | 92.0% | 3.6% | 4.4% | ≤ 0.5 | 4 | ≤ 0.5 | 64 |
| Trimethoprim Sulfa | 73.0% | | 27.0% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANWARD 2012

P. aeruginosa Susceptibility - National

Pseudomonas aeruginosa (264)

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 94.7% | 3.0% | 2.3% | 4 | 8 | ≤ 1 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | > 32 | > 32 | 16 | > 32 |
| Aztreonam | 78.4% | 10.2% | 11.4% | 4 | 32 | ≤ 0.12 | > 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | 128 | > 128 |
| Cefepime | 90.2% | 6.8% | 3.0% | 4 | 8 | ≤ 0.25 | 64 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Ceftazidime | 86.0% | 4.9% | 9.1% | 4 | 16 | ≤ 0.25 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | 16 | > 64 | 1 | > 64 |
| Ciprofloxacin | 83.3% | 6.4% | 10.2% | 0.25 | 4 | ≤ 0.06 | > 16 |
| Colistin | 98.5% | 0.4% | 1.1% | 1 | 1 | 0.25 | > 16 |
| Doripenem | 89.4% | 5.7% | 4.9% | 0.5 | 4 | ≤ 0.03 | 32 |
| Doxycycline | No Breakpoints Defined | | | 32 | > 32 | 1 | > 32 |
| Ertapenem | No Breakpoints Defined | | | 8 | > 32 | 0.12 | > 32 |
| Gentamicin | 90.5% | 4.2% | 5.3% | 1 | 4 | ≤ 0.5 | > 32 |
| Imipenem | 72.3% | 9.1% | 18.6% | 2 | 16 | 0.12 | > 32 |
| Meropenem | 81.4% | 9.5% | 9.1% | 0.5 | 4 | ≤ 0.03 | > 32 |
| Moxifloxacin | No Breakpoints Defined | | | 2 | 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 87.5% | 7.6% | 4.9% | 4 | 32 | ≤ 1 | 512 |
| Tigecycline | No Breakpoints Defined | | | 16 | > 16 | 1 | > 16 |
| Tobramycin | 95.1% | 0.4% | 4.5% | ≤ 0.5 | 2 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | 8 | > 8 | 0.5 | > 8 |

CANWARD 2012

K. pneumoniae Susceptibility - National

Klebsiella pneumoniae (169)

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | 2 |
| Amoxicillin Clavulanic Acid | 97.0% | 1.2% | 1.8% | 2 | 8 | 1 | > 32 |
| Aztreonam | 96.4% | 0.6% | 3.0% | ≤ 0.12 | 0.25 | ≤ 0.12 | > 64 |
| Cefazolin | 91.7% | 2.4% | 5.9% | 1 | 2 | ≤ 0.5 | > 128 |
| Cefepime | 98.8% | | 1.2% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 64 |
| Cefoxitin | 95.3% | 1.2% | 3.6% | 2 | 8 | 1 | > 32 |
| Ceftazidime | 97.0% | | 3.0% | ≤ 0.25 | 0.5 | ≤ 0.25 | > 32 |
| Ceftriaxone | 95.3% | 1.2% | 3.6% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | > 64 |
| Ciprofloxacin | 97.6% | | 2.4% | ≤ 0.06 | 0.25 | ≤ 0.06 | > 16 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.5 | ≤ 0.06 | > 16 |
| Doripenem | 99.4% | | 0.6% | ≤ 0.03 | 0.06 | ≤ 0.03 | 4 |
| Doxycycline | 82.8% | 3.0% | 14.2% | 2 | 16 | 1 | > 32 |
| Ertapenem | 98.8% | 0.6% | 0.6% | ≤ 0.03 | 0.06 | ≤ 0.03 | 16 |
| Gentamicin | 98.2% | | 1.8% | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | > 32 |
| Imipenem | 98.8% | 0.6% | 0.6% | 0.25 | 0.5 | 0.12 | 4 |
| Meropenem | 99.4% | | 0.6% | ≤ 0.03 | 0.06 | ≤ 0.03 | 8 |
| Moxifloxacin * | 98.2% | 0.6% | 1.2% | 0.12 | 0.5 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 97.6% | 0.6% | 1.8% | 2 | 8 | ≤ 1 | > 512 |
| Tigecycline * | 95.9% | 3.0% | 1.2% | 0.5 | 1 | 0.25 | 8 |
| Tobramycin | 99.4% | 0.6% | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 8 |
| Trimethoprim Sulfa | 91.7% | | 8.3% | ≤ 0.12 | 1 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANWARD 2012

S. pneumoniae Susceptibility - National

***Streptococcus pneumoniae* (136)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|---------|------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | 96.3% | 1.5% | 2.2% | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | 8 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 1 |
| Cefuroxime | 93.4% | | 6.6% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 8 |
| Chloramphenicol | 98.5% | | 1.5% | 2 | 4 | ≤ 0.12 | 16 |
| Ciprofloxacin | 97.8% | | 2.2% | 1 | 2 | 0.12 | > 16 |
| Clarithromycin | 76.5% | 1.5% | 22.1% | ≤ 0.03 | 4 | ≤ 0.03 | > 32 |
| Clindamycin | 90.4% | | 9.6% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 64 |
| Daptomycin | No Breakpoints Defined | | | 0.12 | 0.12 | ≤ 0.03 | 0.25 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 1 |
| Doxycycline | 86.0% | 1.5% | 12.5% | ≤ 0.25 | 1 | ≤ 0.25 | 16 |
| Ertapenem | 95.6% | 4.4% | | ≤ 0.06 | 0.12 | ≤ 0.06 | 2 |
| Imipenem | 93.4% | 3.7% | 2.9% | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 1 |
| Levofloxacin | 98.5% | | 1.5% | 1 | 1 | ≤ 0.06 | 16 |
| Linezolid | 100.0% | | | 1 | 1 | ≤ 0.12 | 2 |
| Meropenem | 94.1% | 2.2% | 3.7% | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | 1 |
| Moxifloxacin | 98.5% | 0.7% | 0.7% | 0.12 | 0.25 | ≤ 0.06 | 4 |
| Penicillin | 88.9% | 7.1% | 4.0% | ≤ 0.03 | 0.12 | ≤ 0.03 | 4 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | 4 |
| Telithromycin | 100.0% | | | 0.008 | 0.12 | ≤ 0.002 | 0.5 |
| Tigecycline * | 100.0% | | | ≤ 0.015 | 0.03 | ≤ 0.015 | 0.03 |
| Trimethoprim Sulfa | 89.0% | 5.1% | 5.9% | 0.25 | 1 | ≤ 0.12 | 8 |
| Vancomycin | 100.0% | | | 0.25 | 0.25 | ≤ 0.12 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

S. aureus, MRSA Susceptibility - National

***Staphylococcus aureus*, MRSA (125)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 87.2% | 12.0% | 0.8% | 8 | 32 | ≤ 1 | 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 8 | 32 | 2 | 32 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints Defined | | | 32 | 128 | 1 | > 128 |
| Cefepime | No Breakpoints Defined | | | 64 | > 64 | 4 | > 64 |
| Cefoxitin | | | 100.0% | 32 | > 32 | 16 | > 32 |
| Ceftazidime | No Breakpoints Defined | | | > 32 | > 32 | 16 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | > 64 | > 64 | 16 | > 64 |
| Ciprofloxacin | 27.2% | | 72.8% | 16 | > 16 | 0.25 | > 16 |
| Clarithromycin | 21.6% | | 78.4% | > 32 | > 32 | 0.12 | > 32 |
| Clindamycin | 68.8% | | 31.2% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 99.2% | | 0.8% | 0.25 | 0.5 | 0.12 | 2 |
| Doripenem | No Breakpoints Defined | | | 1 | 16 | 0.12 | 32 |
| Doxycycline | 100.0% | | | ≤ 0.12 | 1 | ≤ 0.12 | 4 |
| Ertapenem | No Breakpoints Defined | | | 16 | > 32 | 1 | > 32 |
| Gentamicin | 98.4% | 0.8% | 0.8% | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | > 32 |
| Imipenem | No Breakpoints Defined | | | 1 | 32 | 0.06 | > 32 |
| Linezolid | 100.0% | | | 2 | 2 | 0.5 | 4 |
| Meropenem | No Breakpoints Defined | | | 4 | 16 | 0.25 | > 32 |
| Moxifloxacin | 27.2% | 3.2% | 69.6% | 2 | > 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | 32 | 128 | 4 | 256 |
| Tigecycline * | 97.6% | | | 0.12 | 0.5 | 0.06 | 1 |
| Tobramycin | 64.0% | 0.8% | 35.2% | 1 | > 64 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | 96.0% | | 4.0% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 8 |
| Vancomycin | 100.0% | | | 1 | 1 | 0.5 | 2 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

S. aureus, CA-MRSA Susceptibility - National

***Staphylococcus aureus*, CA-MRSA (48)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 97.9% | 2.1% | | 8 | 16 | 2 | 32 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 8 | 16 | 2 | 32 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints Defined | | | 16 | 64 | 1 | 128 |
| Cefepime | No Breakpoints Defined | | | 32 | > 64 | 4 | > 64 |
| Cefoxitin | | | 100.0% | 32 | > 32 | 16 | > 32 |
| Ceftazidime | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | 64 | > 64 | 16 | > 64 |
| Ciprofloxacin | 39.6% | | 60.4% | 16 | 16 | 0.25 | > 16 |
| Clarithromycin | 35.4% | | 64.6% | > 32 | > 32 | 0.12 | > 32 |
| Clindamycin | 85.4% | | 14.6% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 97.9% | | 2.1% | 0.25 | 0.5 | 0.25 | 2 |
| Doripenem | No Breakpoints Defined | | | 1 | 2 | 0.12 | 8 |
| Doxycycline | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 0.25 |
| Ertapenem | No Breakpoints Defined | | | 2 | 8 | 1 | 8 |
| Gentamicin | 97.9% | 2.1% | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 8 |
| Imipenem | No Breakpoints Defined | | | 0.5 | 2 | 0.06 | 32 |
| Linezolid | 100.0% | | | 2 | 2 | 1 | 4 |
| Meropenem | No Breakpoints Defined | | | 2 | 4 | 0.25 | 32 |
| Moxifloxacin | 39.6% | 6.3% | 54.2% | 2 | 2 | ≤ 0.06 | 8 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | 16 | 64 | 4 | 128 |
| Tigecycline * | 100.0% | | | 0.12 | 0.12 | 0.06 | 0.25 |
| Tobramycin | 97.9% | 2.1% | | ≤ 0.5 | 1 | ≤ 0.5 | 8 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 0.5 |
| Vancomycin | 100.0% | | | 0.5 | 1 | 0.5 | 2 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

S. aureus, HA-MRSA Susceptibility - National

***Staphylococcus aureus*, HA-MRSA (68)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 77.9% | 20.6% | 1.5% | 16 | 32 | ≤ 1 | 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 16 | 32 | 2 | 32 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints Defined | | | 64 | > 128 | 2 | > 128 |
| Cefepime | No Breakpoints Defined | | | > 64 | > 64 | 4 | > 64 |
| Cefoxitin | | | 100.0% | > 32 | > 32 | 16 | > 32 |
| Ceftazidime | No Breakpoints Defined | | | > 32 | > 32 | 16 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | > 64 | > 64 | 16 | > 64 |
| Ciprofloxacin | 11.8% | | 88.2% | > 16 | > 16 | 0.25 | > 16 |
| Clarithromycin | 8.8% | | 91.2% | > 32 | > 32 | 0.12 | > 32 |
| Clindamycin | 54.4% | | 45.6% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Doripenem | No Breakpoints Defined | | | 4 | 32 | 0.25 | 32 |
| Doxycycline | 100.0% | | | ≤ 0.12 | 2 | ≤ 0.12 | 4 |
| Ertapenem | No Breakpoints Defined | | | 16 | > 32 | 2 | > 32 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 4 |
| Imipenem | No Breakpoints Defined | | | 4 | > 32 | 0.12 | > 32 |
| Linezolid | 100.0% | | | 2 | 4 | 0.5 | 4 |
| Meropenem | No Breakpoints Defined | | | 8 | 32 | 0.5 | > 32 |
| Moxifloxacin | 11.8% | 1.5% | 86.8% | 8 | > 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | 64 | 128 | 4 | 256 |
| Tigecycline * | 95.6% | | | 0.12 | 0.5 | 0.12 | 1 |
| Tobramycin | 36.8% | | 63.2% | > 64 | > 64 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | 92.6% | | 7.4% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 8 |
| Vancomycin | 100.0% | | | 1 | 1 | 0.5 | 1 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. faecalis Susceptibility - National

***Enterococcus faecalis* (92)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|----------------|---------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | No Breakpoints | Defined | | > 64 | > 64 | 8 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints | Defined | | 0.5 | 1 | 0.12 | 1 |
| Aztreonam | No Breakpoints | Defined | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints | Defined | | 32 | 32 | 4 | 64 |
| Cefepime | No Breakpoints | Defined | | 32 | > 64 | 2 | > 64 |
| Cefoxitin | No Breakpoints | Defined | | > 32 | > 32 | 16 | > 32 |
| Ceftazidime | No Breakpoints | Defined | | > 32 | > 32 | 4 | > 32 |
| Ceftriaxone | No Breakpoints | Defined | | > 64 | > 64 | 1 | > 64 |
| Ciprofloxacin | 68.5% | 4.3% | 27.2% | 1 | > 16 | 0.25 | > 16 |
| Clarithromycin | No Breakpoints | Defined | | 32 | > 32 | 0.06 | > 32 |
| Clindamycin | No Breakpoints | Defined | | > 8 | > 8 | 1 | > 8 |
| Colistin | No Breakpoints | Defined | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 1 | 2 | 0.12 | 4 |
| Doripenem | No Breakpoints | Defined | | 2 | 4 | 0.5 | 8 |
| Doxycycline | 42.4% | 43.5% | 14.1% | 8 | 16 | ≤ 0.12 | 32 |
| Ertapenem | No Breakpoints | Defined | | 16 | 16 | 2 | 32 |
| Gentamicin | No Breakpoints | Defined | | 16 | > 32 | 1 | > 32 |
| Imipenem | No Breakpoints | Defined | | 1 | 2 | 0.25 | 4 |
| Linezolid | 96.7% | 3.3% | | 2 | 2 | 1 | 4 |
| Meropenem | No Breakpoints | Defined | | 4 | 8 | 1 | 16 |
| Moxifloxacin | No Breakpoints | Defined | | 0.25 | 16 | 0.12 | > 16 |
| Piperacillin Tazobactam | No Breakpoints | Defined | | 4 | 4 | ≤ 1 | 8 |
| Tigecycline * | 100.0% | | | 0.12 | 0.12 | ≤ 0.03 | 0.25 |
| Tobramycin | No Breakpoints | Defined | | 16 | > 64 | 4 | > 64 |
| Trimethoprim Sulfa | No Breakpoints | Defined | | ≤ 0.12 | 0.5 | ≤ 0.12 | > 8 |
| Vancomycin | 100.0% | | | 1 | 2 | 0.5 | 4 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. cloacae Susceptibility – National

Enterobacter cloacae (69)

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 8 |
| Amoxicillin Clavulanic Acid | 2.9% | 2.9% | 94.2% | > 32 | > 32 | 4 | > 32 |
| Aztreonam | 75.4% | | 24.6% | ≤ 0.12 | 64 | ≤ 0.12 | > 64 |
| Cefazolin | 1.4% | 1.4% | 97.1% | > 128 | > 128 | 2 | > 128 |
| Cefepime | 97.1% | 1.4% | 1.4% | ≤ 0.25 | 2 | ≤ 0.25 | 32 |
| Cefoxitin | 4.3% | 2.9% | 92.8% | > 32 | > 32 | 8 | > 32 |
| Ceftazidime | 75.4% | 1.4% | 23.2% | 0.5 | > 32 | ≤ 0.25 | > 32 |
| Ceftriaxone | 72.5% | 1.4% | 26.1% | ≤ 0.25 | > 64 | ≤ 0.25 | > 64 |
| Ciprofloxacin | 94.2% | 1.4% | 4.3% | ≤ 0.06 | 0.12 | ≤ 0.06 | > 16 |
| Colistin | No Breakpoints Defined | | | 0.25 | > 16 | 0.12 | > 16 |
| Doripenem | 98.6% | 1.4% | | 0.06 | 0.12 | ≤ 0.03 | 2 |
| Doxycycline | 91.3% | 4.3% | 4.3% | 2 | 4 | 2 | 32 |
| Ertapenem | 85.5% | 8.7% | 5.8% | 0.06 | 1 | ≤ 0.03 | 32 |
| Gentamicin | 98.6% | | 1.4% | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | > 32 |
| Imipenem | 97.1% | | 2.9% | 0.5 | 0.5 | 0.12 | 4 |
| Meropenem | 98.6% | 1.4% | | 0.06 | 0.12 | ≤ 0.03 | 2 |
| Moxifloxacin * | 92.8% | 4.4% | 2.9% | ≤ 0.06 | 0.25 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 82.6% | 5.8% | 11.6% | 2 | 128 | ≤ 1 | 256 |
| Tigecycline * | 98.6% | | 1.4% | 0.5 | 1 | 0.25 | 8 |
| Tobramycin | 98.6% | | 1.4% | ≤ 0.5 | 1 | ≤ 0.5 | 16 |
| Trimethoprim Sulfa | 89.9% | | 10.1% | ≤ 0.12 | 4 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANWARD 2012

S. epidermidis Susceptibility - National

***Staphylococcus epidermidis* (72)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 16 | ≤ 1 | 16 |
| Amoxicillin Clavulanic Acid | 80.6% | | 19.4% | 1 | 16 | ≤ 0.06 | 16 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | 64 | > 64 |
| Cefazolin | 80.6% | 2.8% | 16.7% | 2 | 128 | ≤ 0.5 | 128 |
| Cefepime | 68.1% | 11.1% | 20.8% | 4 | > 64 | ≤ 0.25 | > 64 |
| Cefoxitin | No Breakpoints Defined | | | 16 | > 32 | 1 | > 32 |
| Ceftazidime | 25.0% | 18.1% | 56.9% | 32 | > 32 | 2 | > 32 |
| Ceftriaxone | 43.1% | 36.1% | 20.8% | 16 | > 64 | 0.5 | > 64 |
| Ciprofloxacin | 44.4% | | 55.6% | 8 | > 16 | ≤ 0.06 | > 16 |
| Clarithromycin | 29.2% | | 70.8% | > 32 | > 32 | ≤ 0.03 | > 32 |
| Clindamycin | 55.6% | 1.4% | 43.1% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | 4 | > 16 |
| Daptomycin | 100.0% | | | 0.25 | 0.25 | ≤ 0.03 | 0.5 |
| Doripenem | No Breakpoints Defined | | | 1 | 16 | ≤ 0.03 | 32 |
| Doxycycline | 97.2% | 2.8% | | 0.5 | 1 | ≤ 0.12 | 8 |
| Ertapenem | 45.1% | 7.8% | 47.1% | 4 | > 32 | 0.25 | > 32 |
| Gentamicin | 55.6% | 6.9% | 37.5% | ≤ 0.5 | > 32 | ≤ 0.5 | > 32 |
| Imipenem | 72.2% | 4.2% | 23.6% | 0.25 | 32 | ≤ 0.03 | > 32 |
| Linezolid | 100.0% | | | 1 | 1 | ≤ 0.12 | 2 |
| Piperacillin Tazobactam | 83.3% | | 16.7% | ≤ 1 | 16 | ≤ 1 | 64 |
| Tigecycline | No Breakpoints Defined | | | 0.12 | 0.25 | 0.06 | 1 |
| Tobramycin | 56.9% | 12.5% | 30.6% | 2 | 64 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | 54.2% | | 45.8% | ≤ 0.12 | 8 | ≤ 0.12 | > 8 |
| Vancomycin | 100.0% | | | 1 | 2 | 0.5 | 2 |

CANWARD 2012

S. marcescens Susceptibility - National

Serratia marcescens (40)

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | 2 | 4 | ≤ 1 | 8 |
| Amoxicillin Clavulanic Acid | 2.5% | 2.5% | 95.0% | > 32 | > 32 | 4 | > 32 |
| Aztreonam | 100.0% | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 2 |
| Cefazolin | | | 100.0% | > 128 | > 128 | 128 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | 27.5% | 55.0% | 17.5% | 16 | 32 | 8 | > 32 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | 0.5 | ≤ 0.25 | 1 |
| Ceftriaxone | 97.5% | | 2.5% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 8 |
| Ciprofloxacin | 92.5% | 2.5% | 5.0% | ≤ 0.06 | 0.5 | ≤ 0.06 | 16 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | 0.5 | > 16 |
| Doripenem | 100.0% | | | 0.12 | 0.25 | 0.06 | 0.25 |
| Doxycycline | 45.0% | 30.0% | 25.0% | 8 | 16 | 2 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.25 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 2 |
| Imipenem | 100.0% | | | 0.5 | 1 | 0.25 | 1 |
| Meropenem | 100.0% | | | 0.06 | 0.06 | ≤ 0.03 | 0.12 |
| Moxifloxacin * | 92.5% | 2.5% | 5.0% | 0.25 | 2 | ≤ 0.06 | 16 |
| Piperacillin Tazobactam | 97.5% | 2.5% | | ≤ 1 | 2 | ≤ 1 | 32 |
| Tigecycline * | 97.5% | | 2.5% | 1 | 2 | 1 | 8 |
| Tobramycin | 95.0% | 2.5% | 2.5% | 1 | 2 | ≤ 0.5 | 16 |
| Trimethoprim Sulfa | 100.0% | | | 0.25 | 0.5 | ≤ 0.12 | 2 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANWARD 2012

K. oxytoca Susceptibility - National

Klebsiella oxytoca (50)

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 4 |
| Amoxicillin Clavulanic Acid | 82.0% | 10.0% | 8.0% | 2 | 16 | 1 | > 32 |
| Aztreonam | 92.0% | 2.0% | 6.0% | ≤ 0.12 | 1 | ≤ 0.12 | 64 |
| Cefazolin | 26.0% | 32.0% | 42.0% | 4 | > 128 | 1 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 0.5 |
| Cefoxitin | 98.0% | | 2.0% | 2 | 4 | 0.5 | 32 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | 0.5 | ≤ 0.25 | 1 |
| Ceftriaxone | 94.0% | 2.0% | 4.0% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 8 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | 1 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.5 | ≤ 0.06 | > 16 |
| Doripenem | 100.0% | | | 0.06 | 0.06 | ≤ 0.03 | 0.12 |
| Doxycycline | 98.0% | 2.0% | | 1 | 2 | 1 | 8 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Moxifloxacin * | 98.0% | 2.0% | | ≤ 0.06 | 0.12 | ≤ 0.06 | 4 |
| Piperacillin Tazobactam | 84.0% | 2.0% | 14.0% | 2 | 128 | ≤ 1 | > 512 |
| Tigecycline * | 100.0% | | | 0.5 | 0.5 | 0.25 | 1 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 2 |
| Trimethoprim Sulfa | 98.0% | | 2.0% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANWARD 2012

S. maltophilia Susceptibility - National

***Stenotrophomonas maltophilia* (43)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | No Breakpoints Defined | | | 32 | > 64 | 4 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | 16 | > 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | 2 | > 128 |
| Cefepime | No Breakpoints Defined | | | 32 | > 64 | ≤ 0.25 | > 64 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | 4 | > 32 |
| Ceftazidime | 16.3% | 7.0% | 76.7% | > 32 | > 32 | 1 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | > 64 | > 64 | 4 | > 64 |
| Ciprofloxacin | No Breakpoints Defined | | | 2 | 8 | 0.5 | > 16 |
| Colistin | No Breakpoints Defined | | | 4 | > 16 | 0.25 | > 16 |
| Doripenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Doxycycline | No Breakpoints Defined | | | 2 | 4 | 0.5 | 16 |
| Ertapenem | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Gentamicin | No Breakpoints Defined | | | 8 | > 32 | 1 | > 32 |
| Imipenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Meropenem | No Breakpoints Defined | | | > 32 | > 32 | 16 | > 32 |
| Moxifloxacin | No Breakpoints Defined | | | 0.5 | 4 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | 256 | > 512 | ≤ 1 | > 512 |
| Tigecycline | No Breakpoints Defined | | | 0.5 | 2 | 0.25 | 4 |
| Tobramycin | No Breakpoints Defined | | | 8 | 64 | 1 | > 64 |
| Trimethoprim Sulfa | 69.0% | | 31.0% | 0.5 | > 8 | ≤ 0.12 | > 8 |

CANWARD 2012

E. faecium Susceptibility - National

***Enterococcus faecium* (35)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|----------------|---------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | No Breakpoints | Defined | | 16 | > 64 | 8 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints | Defined | | > 32 | > 32 | 0.12 | > 32 |
| Aztreonam | No Breakpoints | Defined | | > 64 | > 64 | 64 | > 64 |
| Cefazolin | No Breakpoints | Defined | | > 128 | > 128 | 16 | > 128 |
| Cefepime | No Breakpoints | Defined | | > 64 | > 64 | 4 | > 64 |
| Cefoxitin | No Breakpoints | Defined | | > 32 | > 32 | 16 | > 32 |
| Ceftazidime | No Breakpoints | Defined | | > 32 | > 32 | > 32 | > 32 |
| Ceftriaxone | No Breakpoints | Defined | | > 64 | > 64 | 1 | > 64 |
| Ciprofloxacin | 17.1% | | 82.9% | > 16 | > 16 | 0.5 | > 16 |
| Clarithromycin | No Breakpoints | Defined | | > 32 | > 32 | 0.12 | > 32 |
| Clindamycin | No Breakpoints | Defined | | > 8 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints | Defined | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 1 | 2 | 1 | 2 |
| Doripenem | No Breakpoints | Defined | | > 32 | > 32 | 1 | > 32 |
| Doxycycline | 82.9% | 8.6% | 8.6% | 2 | 8 | ≤ 0.12 | 16 |
| Ertapenem | No Breakpoints | Defined | | > 32 | > 32 | 4 | > 32 |
| Gentamicin | No Breakpoints | Defined | | 8 | 8 | 2 | > 32 |
| Imipenem | No Breakpoints | Defined | | > 32 | > 32 | 0.5 | > 32 |
| Linezolid | 91.4% | 8.6% | | 2 | 2 | 1 | 4 |
| Meropenem | No Breakpoints | Defined | | > 32 | > 32 | 2 | > 32 |
| Moxifloxacin | No Breakpoints | Defined | | > 16 | > 16 | 0.25 | > 16 |
| Piperacillin Tazobactam | No Breakpoints | Defined | | > 512 | > 512 | 4 | > 512 |
| Tigecycline | No Breakpoints | Defined | | 0.06 | 0.12 | 0.06 | 0.12 |
| Tobramycin | No Breakpoints | Defined | | 64 | > 64 | 32 | > 64 |
| Trimethoprim Sulfa | No Breakpoints | Defined | | 0.5 | > 8 | ≤ 0.12 | > 8 |
| Vancomycin | 71.4% | | 28.6% | 1 | > 32 | 0.25 | > 32 |

CANWARD 2012

S. agalactiae Susceptibility - National

***Streptococcus agalactiae* (43)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|---------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefuroxime | No Breakpoints Defined | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Chloramphenicol | 100.0% | | | 4 | 4 | 2 | 4 |
| Ciprofloxacin | No Breakpoints Defined | | | 0.5 | 1 | 0.25 | > 16 |
| Clarithromycin | 74.4% | 4.7% | 20.9% | ≤ 0.03 | 16 | ≤ 0.03 | > 32 |
| Clindamycin | 81.4% | | 18.6% | ≤ 0.12 | > 64 | ≤ 0.12 | > 64 |
| Daptomycin | 100.0% | | | 0.25 | 0.25 | 0.06 | 0.25 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Doxycycline | No Breakpoints Defined | | | 8 | 16 | ≤ 0.25 | 16 |
| Ertapenem | 100.0% | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Imipenem | No Breakpoints Defined | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Levofloxacin | 95.3% | | 4.7% | 1 | 1 | 0.5 | 32 |
| Linezolid | 100.0% | | | 2 | 2 | 1 | 2 |
| Meropenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Moxifloxacin | No Breakpoints Defined | | | 0.12 | 0.25 | ≤ 0.06 | 4 |
| Penicillin | 100.0% | | | 0.06 | 0.06 | ≤ 0.03 | 0.12 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Telithromycin | No Breakpoints Defined | | | 0.015 | 0.12 | 0.008 | 1 |
| Tigecycline * | 100.0% | | | 0.03 | 0.06 | ≤ 0.015 | 0.06 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 1 |
| Vancomycin | 100.0% | | | 0.5 | 0.5 | 0.25 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

P. mirabilis Susceptibility - National

***Proteus mirabilis* (39)**

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | 2 | 4 | ≤ 1 | 8 |
| Amoxicillin Clavulanic Acid | 87.2% | | 12.8% | 1 | > 32 | 0.5 | > 32 |
| Aztreonam | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 0.25 |
| Cefazolin | 2.6% | 66.7% | 30.8% | 4 | > 128 | 2 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | 0.5 | ≤ 0.25 | 1 |
| Cefoxitin | 87.2% | 7.7% | 5.1% | 4 | 16 | 2 | 32 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | 4 | ≤ 0.25 | 4 |
| Ceftriaxone | 92.3% | 7.7% | | ≤ 0.25 | 1 | ≤ 0.25 | 2 |
| Ciprofloxacin | 92.3% | 2.6% | 5.1% | ≤ 0.06 | 1 | ≤ 0.06 | > 16 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | ≤ 0.06 | > 16 |
| Doripenem | 100.0% | | | 0.12 | 0.25 | 0.06 | 0.5 |
| Doxycycline | | 2.6% | 97.4% | 32 | > 32 | 8 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Gentamicin | 89.7% | 2.6% | 7.7% | ≤ 0.5 | 8 | ≤ 0.5 | 16 |
| Imipenem | 30.8% | 48.7% | 20.5% | 2 | 4 | 0.25 | 4 |
| Meropenem | 100.0% | | | 0.06 | 0.12 | ≤ 0.03 | 0.25 |
| Moxifloxacin * | 84.6% | 5.1% | 10.3% | 0.5 | 8 | 0.25 | > 16 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Tigecycline * | 17.9% | 46.2% | 35.9% | 4 | 8 | 1 | 8 |
| Tobramycin | 94.9% | 2.6% | 2.6% | ≤ 0.5 | 2 | ≤ 0.5 | 16 |
| Trimethoprim Sulfa | 84.6% | | 15.4% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANWARD 2012

S. pyogenes Susceptibility - National

***Streptococcus pyogenes* (36)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|---------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | 0.12 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefuroxime | No Breakpoints Defined | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 0.5 |
| Chloramphenicol | 100.0% | | | 2 | 4 | 0.5 | 4 |
| Ciprofloxacin | No Breakpoints Defined | | | 0.5 | 2 | 0.12 | 2 |
| Clarithromycin | 94.4% | | 5.6% | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | > 32 |
| Clindamycin | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 0.25 |
| Daptomycin | 100.0% | | | 0.06 | 0.12 | ≤ 0.03 | 0.12 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Doxycycline | No Breakpoints Defined | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 16 |
| Ertapenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Imipenem | No Breakpoints Defined | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Levofloxacin | 100.0% | | | 0.5 | 2 | 0.25 | 2 |
| Linezolid | 100.0% | | | 1 | 2 | 1 | 2 |
| Meropenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | 0.12 |
| Moxifloxacin | No Breakpoints Defined | | | 0.12 | 0.25 | ≤ 0.06 | 0.5 |
| Penicillin | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Telithromycin | No Breakpoints Defined | | | 0.008 | 0.015 | 0.004 | 0.25 |
| Tigecycline * | 100.0% | | | ≤ 0.015 | 0.06 | ≤ 0.015 | 0.25 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 1 |
| Vancomycin | 100.0% | | | 0.5 | 0.5 | 0.25 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

C. freundii Susceptibility - National

Citrobacter freundii (11)

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 2 |
| Amoxicillin Clavulanic Acid | | 18.2% | 81.8% | > 32 | > 32 | 16 | > 32 |
| Aztreonam | 90.9% | | 9.1% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 32 |
| Cefazolin | | 18.2% | 81.8% | 16 | > 128 | 4 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | 9.1% | | 90.9% | > 32 | > 32 | 8 | > 32 |
| Ceftazidime | 90.9% | | 9.1% | 0.5 | 1 | ≤ 0.25 | 32 |
| Ceftriaxone | 90.9% | | 9.1% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 16 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | 0.12 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.25 | 0.12 | 0.5 |
| Doripenem | 100.0% | | | 0.06 | 0.06 | ≤ 0.03 | 0.12 |
| Doxycycline | 81.8% | | 18.2% | 2 | 32 | 1 | 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.5 |
| Gentamicin | 81.8% | | 18.2% | ≤ 0.5 | 32 | ≤ 0.5 | > 32 |
| Imipenem | 100.0% | | | 0.5 | 0.5 | 0.25 | 1 |
| Meropenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.12 |
| Moxifloxacin * | 100.0% | | | 0.12 | 0.5 | ≤ 0.06 | 0.5 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 4 |
| Tigecycline * | 100.0% | | | 0.5 | 0.5 | 0.25 | 1 |
| Tobramycin | 100.0% | | | ≤ 0.5 | 4 | ≤ 0.5 | 4 |
| Trimethoprim Sulfa | 72.7% | | 27.3% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

A. baumannii Susceptibility - National

***Acinetobacter baumannii* (14)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 2 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 8 | 16 | 8 | 16 |
| Aztreonam | No Breakpoints Defined | | | 32 | > 64 | 4 | > 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | 128 | > 128 |
| Cefepime | 92.9% | | 7.1% | 2 | 8 | 0.5 | 64 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | 8 | > 32 |
| Ceftazidime | 92.9% | | 7.1% | 4 | 8 | 2 | > 32 |
| Ceftriaxone | 35.7% | 57.1% | 7.1% | 16 | 32 | 4 | > 64 |
| Ciprofloxacin | 100.0% | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Colistin | 100.0% | | | 0.5 | 1 | 0.25 | 1 |
| Doripenem | No Breakpoints Defined | | | 0.25 | 0.5 | 0.12 | 1 |
| Doxycycline | 100.0% | | | 0.25 | 0.5 | ≤ 0.12 | 1 |
| Ertapenem | No Breakpoints Defined | | | 8 | 16 | 1 | 32 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Meropenem | 100.0% | | | 0.25 | 1 | 0.25 | 4 |
| Moxifloxacin | No Breakpoints Defined | | | ≤ 0.06 | 0.25 | ≤ 0.06 | 0.25 |
| Piperacillin Tazobactam | 92.9% | | 7.1% | 4 | 16 | ≤ 1 | 256 |
| Tigecycline | No Breakpoints Defined | | | 0.25 | 0.5 | 0.12 | 1 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | 0.5 | ≤ 0.12 | 2 |

CANWARD 2012

S. aureus, MSSA Susceptibility - West

***Staphylococcus aureus* , MSSA (190)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 98.9% | | 1.1% | 2 | 4 | ≤ 1 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 0.5 | 1 | ≤ 0.06 | 1 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | 64 | > 64 |
| Cefazolin | No Breakpoints Defined | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 1 |
| Cefepime | No Breakpoints Defined | | | 2 | 4 | 0.5 | 4 |
| Cefoxitin | 100.0% | | | 4 | 4 | 2 | 4 |
| Ceftazidime | No Breakpoints Defined | | | 16 | 32 | 4 | 32 |
| Ceftriaxone | No Breakpoints Defined | | | 4 | 4 | 1 | 8 |
| Ciprofloxacin | 88.9% | 2.1% | 8.9% | 0.5 | 2 | ≤ 0.06 | > 16 |
| Clarithromycin | 77.9% | | 22.1% | 0.25 | > 32 | 0.06 | > 32 |
| Clindamycin | 93.7% | 0.5% | 5.8% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Doripenem | No Breakpoints Defined | | | 0.06 | 0.06 | ≤ 0.03 | 0.12 |
| Doxycycline | 97.9% | 0.5% | 1.6% | ≤ 0.12 | 0.25 | ≤ 0.12 | 16 |
| Ertapenem | No Breakpoints Defined | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Gentamicin | 96.8% | | 3.2% | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | > 32 |
| Imipenem | No Breakpoints Defined | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Linezolid | 100.0% | | | 2 | 2 | 1 | 4 |
| Meropenem | No Breakpoints Defined | | | 0.12 | 0.25 | 0.06 | 0.25 |
| Moxifloxacin | 91.6% | 1.1% | 7.4% | ≤ 0.06 | 0.25 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | 2 |
| Tigecycline * | 100.0% | | | 0.12 | 0.25 | 0.06 | 0.5 |
| Tobramycin | 96.3% | | 3.7% | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | 98.4% | | 1.6% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 8 |
| Vancomycin | 100.0% | | | 1 | 1 | 0.5 | 1 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. coli Susceptibility - West

Escherichia coli (163)

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 99.4% | 0.6% | | ≤ 1 | 4 | ≤ 1 | 32 |
| Amoxicillin Clavulanic Acid | 76.7% | 14.7% | 8.6% | 8 | 16 | 0.5 | > 32 |
| Aztreonam | 95.1% | 1.8% | 3.1% | ≤ 0.12 | 0.5 | ≤ 0.12 | > 64 |
| Cefazolin | 71.2% | 11.7% | 17.2% | 2 | 32 | ≤ 0.5 | > 128 |
| Cefepime | 98.2% | 1.2% | 0.6% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | > 64 |
| Cefoxitin | 91.4% | 4.3% | 4.3% | 4 | 8 | 1 | > 32 |
| Ceftazidime | 94.5% | 0.6% | 4.9% | ≤ 0.25 | 1 | ≤ 0.25 | > 32 |
| Ceftriaxone | 92.6% | 0.6% | 6.7% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | > 64 |
| Ciprofloxacin | 74.8% | | 25.2% | ≤ 0.06 | > 16 | ≤ 0.06 | > 16 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.25 | ≤ 0.06 | > 16 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Doxycycline | 68.7% | 7.4% | 23.9% | 2 | 32 | 0.5 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.25 |
| Gentamicin | 91.4% | | 8.6% | ≤ 0.5 | 2 | ≤ 0.5 | > 32 |
| Imipenem | 100.0% | | | 0.25 | 0.25 | 0.06 | 1 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Moxifloxacin * | 74.9% | | 25.1% | ≤ 0.06 | 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 96.9% | | 3.1% | ≤ 1 | 4 | ≤ 1 | 512 |
| Tigecycline * | 100.0% | | | 0.25 | 0.5 | 0.12 | 2 |
| Tobramycin | 93.3% | 3.7% | 3.1% | ≤ 0.5 | 4 | ≤ 0.5 | 32 |
| Trimethoprim Sulfa | 72.4% | | 27.6% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
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CANWARD 2012

P. aeruginosa Susceptibility - West

***Pseudomonas aeruginosa* (69)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 87.0% | 8.7% | 4.3% | 4 | 32 | ≤ 1 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Aztreonam | 71.0% | 8.7% | 20.3% | 8 | 32 | 0.25 | > 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | > 128 | > 128 |
| Cefepime | 88.4% | 4.3% | 7.2% | 4 | 16 | 1 | 64 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Ceftazidime | 87.0% | 5.8% | 7.2% | 4 | 16 | 1 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | 16 | > 64 | 2 | > 64 |
| Ciprofloxacin | 78.3% | 8.7% | 13.0% | 0.25 | 4 | ≤ 0.06 | > 16 |
| Colistin | 98.6% | | 1.4% | 1 | 1 | 0.25 | > 16 |
| Doripenem | 89.9% | 1.4% | 8.7% | 0.5 | 4 | ≤ 0.03 | 32 |
| Doxycycline | No Breakpoints Defined | | | 32 | > 32 | 4 | > 32 |
| Ertapenem | No Breakpoints Defined | | | 16 | > 32 | 0.12 | > 32 |
| Gentamicin | 85.5% | 5.8% | 8.7% | 1 | 8 | ≤ 0.5 | > 32 |
| Imipenem | 71.0% | 8.7% | 20.3% | 2 | 16 | 0.25 | 32 |
| Meropenem | 79.7% | 8.7% | 11.6% | 0.5 | 8 | ≤ 0.03 | > 32 |
| Moxifloxacin | No Breakpoints Defined | | | 2 | 16 | 0.25 | > 16 |
| Piperacillin Tazobactam | 85.5% | 8.7% | 5.8% | 4 | 64 | ≤ 1 | 512 |
| Tigecycline | No Breakpoints Defined | | | 16 | > 16 | 2 | > 16 |
| Tobramycin | 94.2% | 1.4% | 4.3% | ≤ 0.5 | 4 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | 8 | > 8 | 0.5 | > 8 |

CANWARD 2012

K. pneumoniae Susceptibility - West

***Klebsiella pneumoniae* (47)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | 2 |
| Amoxicillin Clavulanic Acid | 97.9% | 2.1% | | 2 | 8 | 1 | 16 |
| Aztreonam | 97.9% | | 2.1% | ≤ 0.12 | 0.25 | ≤ 0.12 | > 64 |
| Cefazolin | 91.5% | 2.1% | 6.4% | 1 | 2 | 1 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 4 |
| Cefoxitin | 93.6% | 2.1% | 4.3% | 2 | 8 | 1 | 32 |
| Ceftazidime | 97.9% | | 2.1% | ≤ 0.25 | 0.5 | ≤ 0.25 | > 32 |
| Ceftriaxone | 93.6% | 2.1% | 4.3% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 16 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.5 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.5 | 0.25 | 1 |
| Doripenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.12 |
| Doxycycline | 80.9% | 4.3% | 14.9% | 2 | 16 | 1 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Gentamicin | 95.7% | | 4.3% | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | > 32 |
| Imipenem | 100.0% | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Moxifloxacin * | 100.0% | | | 0.12 | 0.5 | ≤ 0.06 | 1 |
| Piperacillin Tazobactam | 97.9% | | 2.1% | 2 | 8 | ≤ 1 | 128 |
| Tigecycline * | 95.7% | 2.1% | 2.1% | 0.5 | 2 | 0.25 | 8 |
| Tobramycin | 97.9% | 2.1% | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 8 |
| Trimethoprim Sulfa | 89.4% | | 10.6% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
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CANWARD 2012

S. pneumoniae Susceptibility - West

***Streptococcus pneumoniae* (57)**

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|---------|------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | 94.7% | | 5.3% | ≤ 0.06 | 0.12 | ≤ 0.06 | 8 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 1 |
| Cefuroxime | 91.2% | | 8.8% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 8 |
| Chloramphenicol | 100.0% | | | 2 | 4 | ≤ 0.12 | 4 |
| Ciprofloxacin | 100.0% | | | 1 | 2 | 0.5 | 2 |
| Clarithromycin | 75.4% | 1.8% | 22.8% | ≤ 0.03 | > 32 | ≤ 0.03 | > 32 |
| Clindamycin | 89.5% | | 10.5% | ≤ 0.12 | > 64 | ≤ 0.12 | > 64 |
| Daptomycin | No Breakpoints Defined | | | 0.12 | 0.12 | ≤ 0.03 | 0.25 |
| Doripenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 1 |
| Doxycycline | 84.2% | 1.8% | 14.0% | ≤ 0.25 | 2 | ≤ 0.25 | 16 |
| Ertapenem | 94.7% | 5.3% | | ≤ 0.06 | 0.25 | ≤ 0.06 | 2 |
| Imipenem | 91.2% | 3.5% | 5.3% | ≤ 0.03 | 0.06 | ≤ 0.03 | 1 |
| Levofloxacin | 100.0% | | | 1 | 1 | 0.12 | 1 |
| Linezolid | 100.0% | | | 1 | 2 | ≤ 0.12 | 2 |
| Meropenem | 93.0% | 1.8% | 5.3% | ≤ 0.06 | 0.12 | ≤ 0.06 | 1 |
| Moxifloxacin | 100.0% | | | 0.12 | 0.25 | ≤ 0.06 | 0.25 |
| Penicillin | 87.8% | 6.1% | 6.1% | ≤ 0.03 | 0.5 | ≤ 0.03 | 4 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | 4 |
| Telithromycin | 100.0% | | | 0.008 | 0.25 | ≤ 0.002 | 0.5 |
| Tigecycline * | 100.0% | | | ≤ 0.015 | 0.03 | ≤ 0.015 | 0.03 |
| Trimethoprim Sulfa | 86.0% | 5.3% | 8.8% | 0.25 | 2 | ≤ 0.12 | 8 |
| Vancomycin | 100.0% | | | 0.25 | 0.25 | ≤ 0.12 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

S. aureus-MRSA Susceptibility - West

***Staphylococcus aureus*, MRSA (64)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|--------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 82.8% | 15.6% | 1.6% | 8 | 32 | ≤ 1 | 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 8 | 16 | 2 | 32 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints Defined | | | 32 | 128 | 2 | > 128 |
| Cefepime | No Breakpoints Defined | | | 64 | > 64 | 4 | > 64 |
| Cefoxitin | | 100.0% | | 32 | > 32 | 16 | > 32 |
| Ceftazidime | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | > 64 | > 64 | 16 | > 64 |
| Ciprofloxacin | 29.7% | | 70.3% | 16 | > 16 | 0.25 | > 16 |
| Clarithromycin | 21.9% | | 78.1% | > 32 | > 32 | 0.12 | > 32 |
| Clindamycin | 62.5% | | 37.5% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 98.4% | | 1.6% | 0.25 | 0.5 | 0.12 | 2 |
| Doripenem | No Breakpoints Defined | | | 1 | 8 | 0.12 | 32 |
| Doxycycline | 100.0% | | | ≤ 0.12 | 1 | ≤ 0.12 | 4 |
| Ertapenem | No Breakpoints Defined | | | 8 | 32 | 2 | 32 |
| Gentamicin | 98.4% | | 1.6% | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | > 32 |
| Imipenem | No Breakpoints Defined | | | 1 | 8 | 0.06 | > 32 |
| Linezolid | 100.0% | | | 2 | 2 | 0.5 | 4 |
| Meropenem | No Breakpoints Defined | | | 4 | 16 | 0.5 | > 32 |
| Moxifloxacin | 29.7% | 1.6% | 68.8% | 2 | 8 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | 32 | 64 | 4 | 256 |
| Tigecycline * | 96.9% | | 3.1% | 0.12 | 0.5 | 0.06 | 1 |
| Tobramycin | 68.8% | | 31.3% | ≤ 0.5 | > 64 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | 96.9% | | 3.1% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 8 |
| Vancomycin | 100.0% | | | 1 | 1 | 0.5 | 2 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. faecalis Susceptibility - West

***Enterococcus faecalis* (34)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|----------------|---------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | No Breakpoints | Defined | | > 64 | > 64 | 32 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints | Defined | | 0.5 | 1 | 0.25 | 1 |
| Aztreonam | No Breakpoints | Defined | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints | Defined | | 32 | 32 | 8 | 64 |
| Cefepime | No Breakpoints | Defined | | 32 | > 64 | 2 | > 64 |
| Cefoxitin | No Breakpoints | Defined | | > 32 | > 32 | > 32 | > 32 |
| Ceftazidime | No Breakpoints | Defined | | > 32 | > 32 | 4 | > 32 |
| Ceftriaxone | No Breakpoints | Defined | | > 64 | > 64 | 1 | > 64 |
| Ciprofloxacin | 64.7% | 2.9% | 32.4% | 1 | > 16 | 0.5 | > 16 |
| Clarithromycin | No Breakpoints | Defined | | 32 | > 32 | 0.06 | > 32 |
| Clindamycin | No Breakpoints | Defined | | > 8 | > 8 | 2 | > 8 |
| Colistin | No Breakpoints | Defined | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 1 | 2 | 0.5 | 4 |
| Doripenem | No Breakpoints | Defined | | 4 | 4 | 1 | 8 |
| Doxycycline | 44.1% | 41.2% | 14.7% | 8 | 16 | ≤ 0.12 | 16 |
| Ertapenem | No Breakpoints | Defined | | 16 | 32 | 8 | 32 |
| Gentamicin | No Breakpoints | Defined | | 8 | 16 | 4 | > 32 |
| Imipenem | No Breakpoints | Defined | | 1 | 2 | 0.5 | 2 |
| Linezolid | 97.1% | 2.9% | | 2 | 2 | 1 | 4 |
| Meropenem | No Breakpoints | Defined | | 4 | 8 | 1 | 16 |
| Moxifloxacin | No Breakpoints | Defined | | 0.25 | 16 | 0.12 | 16 |
| Piperacillin Tazobactam | No Breakpoints | Defined | | 4 | 8 | ≤ 1 | 8 |
| Tigecycline * | 100.0% | | | 0.12 | 0.12 | 0.06 | 0.25 |
| Tobramycin | No Breakpoints | Defined | | 16 | 16 | 8 | > 64 |
| Trimethoprim Sulfa | No Breakpoints | Defined | | ≤ 0.12 | 0.25 | ≤ 0.12 | 1 |
| Vancomycin | 100.0% | | | 1 | 2 | 0.5 | 4 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. cloacae Susceptibility - West

***Enterobacter cloacae* (33)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 8 |
| Amoxicillin Clavulanic Acid | 3.0% | | 97.0% | > 32 | > 32 | 4 | > 32 |
| Aztreonam | 66.7% | | 33.3% | 0.25 | 64 | ≤ 0.12 | > 64 |
| Cefazolin | | 3.0% | 97.0% | > 128 | > 128 | 4 | > 128 |
| Cefepime | 97.0% | 3.0% | | ≤ 0.25 | 2 | ≤ 0.25 | 16 |
| Cefoxitin | 6.1% | 3.0% | 90.9% | > 32 | > 32 | 8 | > 32 |
| Ceftazidime | 66.7% | 3.0% | 30.3% | 0.5 | > 32 | ≤ 0.25 | > 32 |
| Ceftriaxone | 63.6% | 3.0% | 33.3% | ≤ 0.25 | > 64 | ≤ 0.25 | > 64 |
| Ciprofloxacin | 90.9% | 3.0% | 6.1% | ≤ 0.06 | 1 | ≤ 0.06 | 4 |
| Colistin | No Breakpoints Defined | | | 0.25 | > 16 | 0.12 | > 16 |
| Doripenem | 97.0% | 3.0% | | 0.06 | 0.12 | ≤ 0.03 | 2 |
| Doxycycline | 87.9% | 9.1% | 3.0% | 4 | 8 | 2 | 32 |
| Ertapenem | 75.8% | 12.1% | 12.1% | 0.12 | 2 | ≤ 0.03 | 32 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 1 |
| Imipenem | 93.9% | | 6.1% | 0.5 | 0.5 | 0.25 | 4 |
| Meropenem | 97.0% | 3.0% | | 0.06 | 0.12 | ≤ 0.03 | 2 |
| Moxifloxacin * | 87.9% | 9.1% | 3.0% | ≤ 0.06 | 4 | ≤ 0.06 | 8 |
| Piperacillin Tazobactam | 75.8% | 9.1% | 15.2% | 2 | 128 | ≤ 1 | 256 |
| Tigecycline * | 97.0% | | 3.0% | 0.5 | 1 | 0.25 | 8 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 2 |
| Trimethoprim Sulfa | 87.9% | | 12.1% | ≤ 0.12 | 4 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

S. epidermidis Susceptibility - West

Staphylococcus epidermidis (22)

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 100.0% | | | 2 | 16 | ≤ 1 | 16 |
| Amoxicillin Clavulanic Acid | 72.7% | | 27.3% | 2 | 16 | ≤ 0.06 | 16 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | 64 | > 64 |
| Cefazolin | 68.2% | 9.1% | 22.7% | 4 | 128 | ≤ 0.5 | 128 |
| Cefepime | 59.1% | 13.6% | 27.3% | 8 | > 64 | ≤ 0.25 | > 64 |
| Cefoxitin | No Breakpoints Defined | | | 16 | > 32 | 2 | > 32 |
| Ceftazidime | 9.1% | 13.6% | 77.3% | 32 | > 32 | 4 | > 32 |
| Ceftriaxone | 27.3% | 45.5% | 27.3% | 16 | > 64 | 1 | > 64 |
| Ciprofloxacin | 40.9% | | 59.1% | 16 | > 16 | 0.12 | > 16 |
| Clarithromycin | 18.2% | | 81.8% | > 32 | > 32 | 0.06 | > 32 |
| Clindamycin | 54.5% | | 45.5% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | 4 | > 16 |
| Daptomycin | 100.0% | | | 0.25 | 0.25 | 0.12 | 0.5 |
| Doripenem | No Breakpoints Defined | | | 4 | 16 | ≤ 0.03 | 32 |
| Doxycycline | 90.9% | 9.1% | | 0.5 | 4 | ≤ 0.12 | 8 |
| Ertapenem | 22.2% | | 77.8% | 32 | > 32 | 0.25 | > 32 |
| Gentamicin | 45.5% | 4.5% | 50.0% | 8 | > 32 | ≤ 0.5 | > 32 |
| Imipenem | 63.6% | 4.5% | 31.8% | 1 | > 32 | ≤ 0.03 | > 32 |
| Linezolid | 100.0% | | | 1 | 2 | 0.5 | 2 |
| Meropenem | No Breakpoints Defined | | | 4 | 32 | 0.06 | 32 |
| Moxifloxacin | 40.9% | 4.5% | 54.5% | 2 | > 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 72.7% | | 27.3% | 2 | 32 | ≤ 1 | 32 |
| Tigecycline | No Breakpoints Defined | | | 0.25 | 0.25 | 0.12 | 0.5 |
| Tobramycin | 36.4% | 13.6% | 50.0% | 8 | > 64 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | 40.9% | | 59.1% | 4 | 8 | ≤ 0.12 | > 8 |
| Vancomycin | 100.0% | | | 1 | 2 | 1 | 2 |

CANWARD 2012

S. marcescens Susceptibility - West

***Serratia marcescens* (10)**

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 4 |
| Amoxicillin Clavulanic Acid | | | 100.0% | > 32 | > 32 | 32 | > 32 |
| Aztreonam | 100.0% | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 1 |
| Cefazolin | | | 100.0% | > 128 | > 128 | > 128 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | 30.0% | 50.0% | 20.0% | 16 | > 32 | 8 | > 32 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 0.5 |
| Ceftriaxone | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 1 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | 0.5 | > 16 |
| Doripenem | 100.0% | | | 0.06 | 0.12 | 0.06 | 0.12 |
| Doxycycline | 40.0% | 40.0% | 20.0% | 8 | 16 | 2 | 16 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.12 | ≤ 0.03 | 0.12 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.5 | 0.5 | 0.25 | 0.5 |
| Meropenem | 100.0% | | | 0.06 | 0.06 | ≤ 0.03 | 0.06 |
| Moxifloxacin * | 100.0% | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | 8 |
| Tigecycline * | 100.0% | | | 1 | 2 | 1 | 2 |
| Tobramycin | 100.0% | | | 1 | 2 | ≤ 0.5 | 2 |
| Trimethoprim Sulfa | 100.0% | | | 0.25 | 0.5 | ≤ 0.12 | 0.5 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

K. oxytoca Susceptibility - West

Klebsiella oxytoca (25)

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 4 |
| Amoxicillin Clavulanic Acid | 80.0% | 12.0% | 8.0% | 2 | 16 | 1 | > 32 |
| Aztreonam | 96.0% | 4.0% | | ≤ 0.12 | 1 | ≤ 0.12 | 8 |
| Cefazolin | 24.0% | 28.0% | 48.0% | 4 | > 128 | 1 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | 96.0% | | 4.0% | 2 | 4 | 1 | 32 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | 0.5 | ≤ 0.25 | 1 |
| Ceftriaxone | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 1 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | 0.25 | ≤ 0.06 | 1 |
| Colistin | No Breakpoints Defined | | | 0.25 | 2 | 0.25 | > 16 |
| Doripenem | 100.0% | | | 0.06 | 0.06 | ≤ 0.03 | 0.12 |
| Doxycycline | 96.0% | 4.0% | | 1 | 2 | 1 | 8 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Moxifloxacin * | 96.0% | 4.0% | | 0.12 | 0.5 | ≤ 0.06 | 4 |
| Piperacillin Tazobactam | 84.0% | | 16.0% | 2 | 128 | ≤ 1 | > 512 |
| Tigecycline * | 100.0% | | | 0.5 | 1 | 0.25 | 1 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 0.25 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

S. maltophilia Susceptibility - West

***Stenotrophomonas maltophilia* (20)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | No Breakpoints Defined | | | 32 | > 64 | 4 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Aztreonam | | | | > 64 | > 64 | 32 | > 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | 2 | > 128 |
| Cefepime | No Breakpoints Defined | | | 32 | > 64 | ≤ 0.25 | > 64 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | 4 | > 32 |
| Ceftazidime | 19.0% | | 81.0% | > 32 | > 32 | 1 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | > 64 | > 64 | 4 | > 64 |
| Ciprofloxacin | No Breakpoints Defined | | | 1 | 4 | 0.5 | > 16 |
| Colistin | No Breakpoints Defined | | | 4 | 16 | 0.25 | > 16 |
| Doripenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Doxycycline | No Breakpoints Defined | | | 2 | 4 | 1 | 4 |
| Ertapenem | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Gentamicin | No Breakpoints Defined | | | 8 | > 32 | 1 | > 32 |
| Imipenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Meropenem | No Breakpoints Defined | | | > 32 | > 32 | 16 | > 32 |
| Moxifloxacin | No Breakpoints Defined | | | 0.25 | 1 | ≤ 0.06 | 8 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | 128 | > 512 | ≤ 1 | > 512 |
| Tigecycline | No Breakpoints Defined | | | 0.5 | 1 | 0.25 | 4 |
| Tobramycin | No Breakpoints Defined | | | 8 | 64 | 2 | > 64 |
| Trimethoprim Sulfa | 75.0% | | 25.0% | 0.25 | > 8 | ≤ 0.12 | > 8 |

CANWARD 2012

E. faecium Susceptibility - West

***Enterococcus faecium* (11)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | No Breakpoints Defined | | | 16 | 32 | 8 | 32 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | > 32 | > 32 | 0.25 | > 32 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | 64 | > 128 |
| Cefepime | No Breakpoints Defined | | | > 64 | > 64 | 4 | > 64 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Ceftazidime | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | > 64 | > 64 | 2 | > 64 |
| Ciprofloxacin | 18.2% | | 81.8% | > 16 | > 16 | 0.5 | > 16 |
| Clarithromycin | No Breakpoints Defined | | | > 32 | > 32 | 1 | > 32 |
| Clindamycin | No Breakpoints Defined | | | > 8 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 1 | 2 | 1 | 2 |
| Doripenem | No Breakpoints Defined | | | > 32 | > 32 | 8 | > 32 |
| Doxycycline | 90.9% | 9.1% | | ≤ 0.12 | 4 | ≤ 0.12 | 8 |
| Ertapenem | No Breakpoints Defined | | | > 32 | > 32 | 16 | > 32 |
| Gentamicin | No Breakpoints Defined | | | 4 | > 32 | 2 | > 32 |
| Imipenem | No Breakpoints Defined | | | > 32 | > 32 | 2 | > 32 |
| Linezolid | 90.9% | 9.1% | | 2 | 2 | 1 | 4 |
| Meropenem | No Breakpoints Defined | | | > 32 | > 32 | 8 | > 32 |
| Moxifloxacin | No Breakpoints Defined | | | 16 | > 16 | 0.25 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | > 512 | > 512 | 8 | > 512 |
| Tigecycline | No Breakpoints Defined | | | 0.06 | 0.12 | 0.06 | 0.12 |
| Tobramycin | No Breakpoints Defined | | | 64 | > 64 | 32 | > 64 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | 0.25 | > 8 | ≤ 0.12 | > 8 |
| Vancomycin | 72.7% | | 27.3% | 0.5 | > 32 | 0.25 | > 32 |

CANWARD 2012

S. agalactiae Susceptibility - West

***Streptococcus agalactiae* (17)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|---------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefuroxime | No Breakpoints Defined | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Chloramphenicol | 100.0% | | | 4 | 4 | 2 | 4 |
| Ciprofloxacin | No Breakpoints Defined | | | 0.5 | 1 | 0.25 | 2 |
| Clarithromycin | 70.6% | 5.9% | 23.5% | ≤ 0.03 | 16 | ≤ 0.03 | > 32 |
| Clindamycin | 76.5% | | 23.5% | ≤ 0.12 | > 64 | ≤ 0.12 | > 64 |
| Daptomycin | 100.0% | | | 0.25 | 0.25 | 0.06 | 0.25 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Doxycycline | No Breakpoints Defined | | | 8 | 16 | ≤ 0.25 | 16 |
| Ertapenem | 100.0% | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Imipenem | No Breakpoints Defined | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Levofloxacin | 100.0% | | | 1 | 1 | 0.5 | 2 |
| Linezolid | 100.0% | | | 2 | 2 | 1 | 2 |
| Meropenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Moxifloxacin | No Breakpoints Defined | | | 0.12 | 0.25 | ≤ 0.06 | 0.5 |
| Penicillin | 100.0% | | | 0.06 | 0.06 | ≤ 0.03 | 0.12 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Telithromycin | No Breakpoints Defined | | | 0.015 | 0.12 | 0.008 | 0.12 |
| Tigecycline * | 100.0% | | | 0.03 | 0.06 | ≤ 0.015 | 0.06 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 0.25 |
| Vancomycin | 100.0% | | | 0.5 | 0.5 | 0.25 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

P. mirabilis Susceptibility - West

Proteus mirabilis (11)

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | 2 | 4 | ≤ 1 | 4 |
| Amoxicillin Clavulanic Acid | 72.7% | | 27.3% | 1 | > 32 | 0.5 | > 32 |
| Aztreonam | 100.0% | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 0.25 |
| Cefazolin | | 63.6% | 36.4% | 4 | > 128 | 4 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | 0.5 | ≤ 0.25 | 1 |
| Cefoxitin | 81.8% | 9.1% | 9.1% | 4 | 16 | 2 | 32 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | 4 | ≤ 0.25 | 4 |
| Ceftriaxone | 90.9% | 9.1% | | ≤ 0.25 | 1 | ≤ 0.25 | 2 |
| Ciprofloxacin | 90.9% | | 9.1% | ≤ 0.06 | 1 | ≤ 0.06 | 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Doripenem | 100.0% | | | 0.25 | 0.25 | 0.06 | 0.5 |
| Doxycycline | | | 100.0% | 32 | > 32 | 32 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Gentamicin | 90.9% | | 9.1% | ≤ 0.5 | 1 | ≤ 0.5 | 16 |
| Imipenem | 27.3% | 45.5% | 27.3% | 2 | 4 | 0.5 | 4 |
| Meropenem | 100.0% | | | 0.06 | 0.12 | ≤ 0.03 | 0.25 |
| Moxifloxacin * | 72.7% | 9.1% | 18.2% | 0.5 | 8 | 0.25 | > 16 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Tigecycline * | 18.2% | 54.5% | 27.3% | 4 | 8 | 2 | 8 |
| Tobramycin | 100.0% | | | ≤ 0.5 | 1 | ≤ 0.5 | 2 |
| Trimethoprim Sulfa | 72.7% | | 27.3% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
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CANWARD 2012

S. pyogenes Susceptibility - West

***Streptococcus pyogenes* (16)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|---------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | 0.12 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefuroxime | | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 0.5 |
| Chloramphenicol | 100.0% | | | 2 | 4 | 0.5 | 4 |
| Ciprofloxacin | No Breakpoints Defined | | | 0.5 | 0.5 | 0.12 | 2 |
| Clarithromycin | 93.8% | | 6.3% | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 8 |
| Clindamycin | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 0.25 |
| Daptomycin | 100.0% | | | 0.06 | 0.12 | 0.06 | 0.12 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Doxycycline | No Breakpoints Defined | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 8 |
| Ertapenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Imipenem | No Breakpoints Defined | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Levofloxacin | 100.0% | | | 0.5 | 1 | 0.25 | 2 |
| Linezolid | 100.0% | | | 1 | 2 | 1 | 2 |
| Meropenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Moxifloxacin | No Breakpoints Defined | | | 0.12 | 0.25 | ≤ 0.06 | 0.25 |
| Penicillin | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Telithromycin | No Breakpoints Defined | | | 0.008 | 0.015 | 0.004 | 0.25 |
| Tigecycline * | 100.0% | | | 0.03 | 0.03 | ≤ 0.015 | 0.25 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 0.25 |
| Vancomycin | 100.0% | | | 0.5 | 0.5 | 0.25 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

C. freundii Susceptibility - West

***Citrobacter freundii* (4)**

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|----------------|-------|--------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Amoxicillin Clavulanic Acid | | | 100.0% | > 32 | > 32 | > 32 | > 32 |
| Aztreonam | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefazolin | | | 100.0% | 16 | 128 | 8 | 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | | | 100.0% | > 32 | > 32 | > 32 | > 32 |
| Ceftazidime | 100.0% | | | 0.5 | 0.5 | ≤ 0.25 | 0.5 |
| Ceftriaxone | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Colistin | | | | 0.25 | 0.25 | 0.25 | 0.25 |
| Doripenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.06 |
| Doxycycline | 100.0% | | | 2 | 2 | 2 | 2 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.5 | 0.5 | 0.25 | 0.5 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Moxifloxacin * | 100.0% | | | ≤ 0.06 | 0.5 | ≤ 0.06 | 0.5 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 2 |
| Tigecycline * | 100.0% | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Tobramycin | 100.0% | | | ≤ 0.5 | 1 | ≤ 0.5 | 1 |
| Trimethoprim Sulfa | 75.0% | | 25.0% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
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CANWARD 2012

A. baumannii Susceptibility - West

***Acinetobacter baumannii* (8)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 2 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 8 | 16 | 8 | 16 |
| Aztreonam | No Breakpoints Defined | | | 32 | > 64 | 16 | > 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | 128 | > 128 |
| Cefepime | 87.5% | | 12.5% | 2 | 64 | 1 | 64 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Ceftazidime | 87.5% | | 12.5% | 8 | > 32 | 2 | > 32 |
| Ceftriaxone | 25.0% | 62.5% | 12.5% | 16 | > 64 | 8 | > 64 |
| Ciprofloxacin | 100.0% | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Colistin | 100.0% | | | 0.5 | 1 | 0.25 | 1 |
| Doripenem | No Breakpoints Defined | | | 0.25 | 1 | 0.12 | 1 |
| Doxycycline | 100.0% | | | 0.25 | 1 | ≤ 0.12 | 1 |
| Ertapenem | No Breakpoints Defined | | | 8 | 32 | 2 | 32 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Meropenem | 100.0% | | | 0.25 | 4 | 0.25 | 4 |
| Moxifloxacin | No Breakpoints Defined | | | ≤ 0.06 | 0.25 | ≤ 0.06 | 0.25 |
| Piperacillin Tazobactam | 87.5% | | 12.5% | 4 | 256 | ≤ 1 | 256 |
| Tigecycline | No Breakpoints Defined | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | 2 | ≤ 0.12 | 2 |

CANWARD 2012

S. aureus Susceptibility - Ontario

***Staphylococcus aureus*, MSSA (211)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 99.5% | 0.5% | | 4 | 4 | ≤ 1 | 32 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 0.5 | 1 | ≤ 0.06 | 1 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | 64 | > 64 |
| Cefazolin | No Breakpoints Defined | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 2 |
| Cefepime | No Breakpoints Defined | | | 2 | 4 | 1 | 4 |
| Cefoxitin | 99.1% | | 0.9% | 4 | 4 | 0.25 | 8 |
| Ceftazidime | No Breakpoints Defined | | | 16 | 16 | 4 | 32 |
| Ceftriaxone | No Breakpoints Defined | | | 4 | 4 | 1 | 8 |
| Ciprofloxacin | 87.2% | 2.4% | 10.4% | 0.5 | 4 | ≤ 0.06 | > 16 |
| Clarithromycin | 72.5% | 0.5% | 27.0% | 0.25 | > 32 | ≤ 0.03 | > 32 |
| Clindamycin | 96.2% | | 3.8% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 0.25 | 0.5 | ≤ 0.03 | 0.5 |
| Doripenem | No Breakpoints Defined | | | 0.06 | 0.06 | ≤ 0.03 | 0.25 |
| Doxycycline | 99.5% | 0.5% | | ≤ 0.12 | 0.25 | ≤ 0.12 | 8 |
| Ertapenem | No Breakpoints Defined | | | 0.25 | 0.5 | 0.12 | 1 |
| Gentamicin | 97.2% | 0.9% | 1.9% | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | > 32 |
| Imipenem | No Breakpoints Defined | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Linezolid | 100.0% | | | 2 | 2 | ≤ 0.12 | 4 |
| Meropenem | No Breakpoints Defined | | | 0.12 | 0.25 | 0.06 | 0.5 |
| Moxifloxacin | 91.5% | 0.5% | 8.1% | ≤ 0.06 | 0.25 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | 2 |
| Tigecycline * | 100.0% | | | 0.12 | 0.25 | 0.06 | 0.25 |
| Tobramycin | 96.2% | 1.4% | 2.4% | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | 99.5% | | 0.5% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 8 |
| Vancomycin | 100.0% | | | 1 | 1 | 0.25 | 1 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. coli Susceptibility - Ontario

Escherichia coli (172)

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 4 | ≤ 1 | 8 |
| Amoxicillin Clavulanic Acid | 73.3% | 19.8% | 7.0% | 4 | 16 | 1 | > 32 |
| Aztreonam | 90.7% | 2.9% | 6.4% | ≤ 0.12 | 4 | ≤ 0.12 | > 64 |
| Cefazolin | 69.2% | 8.7% | 22.1% | 2 | > 128 | ≤ 0.5 | > 128 |
| Cefepime | 95.9% | 2.3% | 1.7% | ≤ 0.25 | 1 | ≤ 0.25 | > 64 |
| Cefoxitin | 94.8% | 2.9% | 2.3% | 4 | 8 | 1 | > 32 |
| Ceftazidime | 90.1% | 2.3% | 7.6% | ≤ 0.25 | 4 | ≤ 0.25 | > 32 |
| Ceftriaxone | 87.2% | 0.6% | 12.2% | ≤ 0.25 | 32 | ≤ 0.25 | > 64 |
| Ciprofloxacin | 72.1% | | 27.9% | ≤ 0.06 | > 16 | ≤ 0.06 | > 16 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.5 | ≤ 0.06 | 8 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Doxycycline | 68.6% | 5.2% | 26.2% | 2 | 32 | 0.5 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.5 |
| Gentamicin | 87.8% | 0.6% | 11.6% | ≤ 0.5 | 32 | ≤ 0.5 | > 32 |
| Imipenem | 100.0% | | | 0.12 | 0.25 | 0.06 | 0.5 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Moxifloxacin * | 72.1% | | 27.9% | ≤ 0.06 | > 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 96.5% | 0.6% | 2.9% | 2 | 4 | ≤ 1 | 256 |
| Tigecycline * | 100.0% | | | 0.25 | 0.5 | 0.12 | 1 |
| Tobramycin | 89.0% | 3.5% | 7.6% | ≤ 0.5 | 8 | ≤ 0.5 | 64 |
| Trimethoprim Sulfa | 68.6% | | 31.4% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

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CANWARD 2012

P. aeruginosa Susceptibility - Ontario

Pseudomonas aeruginosa (116)

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 96.6% | 1.7% | 1.7% | 2 | 8 | ≤ 1 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Aztreonam | 77.6% | 14.7% | 7.8% | 4 | 16 | ≤ 0.12 | 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | > 128 | > 128 |
| Cefepime | 89.7% | 9.5% | 0.9% | 4 | 16 | ≤ 0.25 | 32 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Ceftazidime | 87.9% | 4.3% | 7.8% | 4 | 16 | ≤ 0.25 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | 16 | > 64 | 1 | > 64 |
| Ciprofloxacin | 82.8% | 6.0% | 11.2% | 0.25 | 4 | ≤ 0.06 | > 16 |
| Colistin | 99.1% | | 0.9% | 1 | 2 | 0.25 | 8 |
| Doripenem | 86.2% | 10.3% | 3.4% | 0.5 | 4 | 0.06 | 16 |
| Doxycycline | No Breakpoints Defined | | | 32 | > 32 | 4 | > 32 |
| Ertapenem | No Breakpoints Defined | | | 16 | > 32 | 0.5 | > 32 |
| Gentamicin | 93.1% | 0.9% | 6.0% | 1 | 4 | ≤ 0.5 | > 32 |
| Imipenem | 70.7% | 7.8% | 21.6% | 2 | 16 | 0.12 | > 32 |
| Meropenem | 77.6% | 11.2% | 11.2% | 0.5 | 8 | 0.06 | 32 |
| Moxifloxacin | No Breakpoints Defined | | | 2 | > 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 87.9% | 8.6% | 3.4% | 4 | 32 | ≤ 1 | 256 |
| Tigecycline | No Breakpoints Defined | | | 16 | > 16 | 2 | > 16 |
| Tobramycin | 93.1% | | 6.9% | ≤ 0.5 | 1 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | 8 | > 8 | 0.5 | > 8 |

CANWARD 2012

K. pneumoniae Susceptibility - Ontario

***Klebsiella pneumoniae* (60)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 2 |
| Amoxicillin Clavulanic Acid | 93.3% | 1.7% | 5.0% | 2 | 8 | 1 | > 32 |
| Aztreonam | 93.3% | 1.7% | 5.0% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 64 |
| Cefazolin | 90.0% | 1.7% | 8.3% | 1 | 2 | ≤ 0.5 | > 128 |
| Cefepime | 96.7% | | 3.3% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 64 |
| Cefoxitin | 96.7% | | 3.3% | 4 | 8 | 1 | > 32 |
| Ceftazidime | 95.0% | | 5.0% | ≤ 0.25 | 0.5 | ≤ 0.25 | > 32 |
| Ceftriaxone | 93.3% | 1.7% | 5.0% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | > 64 |
| Ciprofloxacin | 95.0% | | 5.0% | ≤ 0.06 | 0.25 | ≤ 0.06 | > 16 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.5 | 0.25 | > 16 |
| Doripenem | 98.3% | | 1.7% | 0.06 | 0.06 | ≤ 0.03 | 4 |
| Doxycycline | 86.7% | 1.7% | 11.7% | 2 | 16 | 1 | > 32 |
| Ertapenem | 96.7% | 1.7% | 1.7% | ≤ 0.03 | 0.06 | ≤ 0.03 | 16 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 1 |
| Imipenem | 98.3% | | 1.7% | 0.25 | 0.5 | 0.12 | 4 |
| Meropenem | 98.3% | | 1.7% | ≤ 0.03 | 0.06 | ≤ 0.03 | 8 |
| Moxifloxacin * | 95.0% | 1.7% | 3.3% | 0.12 | 0.5 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 95.0% | 1.7% | 3.3% | 2 | 4 | ≤ 1 | > 512 |
| Tigecycline * | 96.7% | 3.3% | | 0.5 | 1 | 0.25 | 4 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 4 |
| Trimethoprim Sulfa | 90.0% | | 10.0% | ≤ 0.12 | 1 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

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CANWARD 2012

S. pneumoniae Susceptibility - Ontario

***Streptococcus pneumoniae* (44)**

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|---------|------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | 95.5% | 4.5% | | ≤ 0.06 | 0.25 | ≤ 0.06 | 4 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 1 |
| Cefuroxime | 90.9% | | 9.1% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 8 |
| Chloramphenicol | 95.5% | | 4.5% | 2 | 4 | ≤ 0.12 | 16 |
| Ciprofloxacin | 97.7% | | 2.3% | 1 | 1 | 0.25 | > 16 |
| Clarithromycin | 70.5% | | 29.5% | ≤ 0.03 | 16 | ≤ 0.03 | > 32 |
| Clindamycin | 86.4% | | 13.6% | ≤ 0.12 | 32 | ≤ 0.12 | > 64 |
| Daptomycin | No Breakpoints Defined | | | 0.12 | 0.12 | ≤ 0.03 | 0.25 |
| Doripenem | 100.0% | | | ≤ 0.03 | 0.12 | ≤ 0.03 | 1 |
| Doxycycline | 79.5% | 2.3% | 18.2% | ≤ 0.25 | 4 | ≤ 0.25 | 8 |
| Ertapenem | 93.2% | 6.8% | | ≤ 0.06 | 0.25 | ≤ 0.06 | 2 |
| Imipenem | 90.9% | 6.8% | 2.3% | ≤ 0.03 | 0.06 | ≤ 0.03 | 1 |
| Levofloxacin | 97.7% | | 2.3% | 1 | 1 | 0.25 | 16 |
| Linezolid | 100.0% | | | 1 | 1 | ≤ 0.12 | 2 |
| Meropenem | 90.9% | 4.5% | 4.5% | ≤ 0.06 | 0.12 | ≤ 0.06 | 1 |
| Moxifloxacin | 97.7% | | 2.3% | 0.12 | 0.25 | ≤ 0.06 | 4 |
| Penicillin | 85.0% | 10.0% | 5.0% | ≤ 0.03 | 0.12 | ≤ 0.03 | 2 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | 4 |
| Telithromycin | 100.0% | | | 0.008 | 0.06 | ≤ 0.002 | 0.25 |
| Tigecycline * | 100.0% | | | ≤ 0.015 | 0.03 | ≤ 0.015 | 0.03 |
| Trimethoprim Sulfa | 90.9% | 2.3% | 6.8% | 0.25 | 0.5 | ≤ 0.12 | 8 |
| Vancomycin | 100.0% | | | 0.25 | 0.5 | ≤ 0.12 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

S. aureus-MRSA Susceptibility - Ontario

***Staphylococcus aureus*, MRSA (39)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 92.3% | 7.7% | | 4 | 16 | 2 | 32 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 8 | 32 | 2 | 32 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints Defined | | | 16 | > 128 | 1 | > 128 |
| Cefepime | No Breakpoints Defined | | | 64 | > 64 | 4 | > 64 |
| Cefoxitin | | | 100.0% | 32 | > 32 | 16 | > 32 |
| Ceftazidime | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | > 64 | > 64 | 16 | > 64 |
| Ciprofloxacin | 35.9% | | 64.1% | 16 | > 16 | 0.25 | > 16 |
| Clarithromycin | 25.6% | | 74.4% | > 32 | > 32 | 0.12 | > 32 |
| Clindamycin | 76.9% | | 23.1% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Doripenem | No Breakpoints Defined | | | 1 | 32 | 0.12 | 32 |
| Doxycycline | 100.0% | | | ≤ 0.12 | 1 | ≤ 0.12 | 4 |
| Ertapenem | No Breakpoints Defined | | | 2 | > 32 | 1 | > 32 |
| Gentamicin | 97.4% | 2.6% | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 8 |
| Imipenem | No Breakpoints Defined | | | 1 | > 32 | 0.06 | > 32 |
| Linezolid | 100.0% | | | 2 | 4 | 1 | 4 |
| Meropenem | No Breakpoints Defined | | | 2 | 32 | 0.25 | > 32 |
| Moxifloxacin | 35.9% | 2.6% | 61.5% | 2 | > 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | 16 | 128 | 4 | 128 |
| Tigecycline * | 97.4% | | 2.6% | 0.12 | 0.25 | 0.12 | 1 |
| Tobramycin | 66.7% | 2.6% | 30.8% | 1 | > 64 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | 97.4% | | 2.6% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 4 |
| Vancomycin | 100.0% | | | 1 | 1 | 0.5 | 1 |

*Interpretive breakpoints defined by FDA (tigecycline)

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CANWARD 2012

E. faecalis Susceptibility - Ontario

***Enterococcus faecalis* (30)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|----------------|---------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | No Breakpoints | Defined | | > 64 | > 64 | 32 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints | Defined | | 0.5 | 1 | 0.12 | 1 |
| Aztreonam | No Breakpoints | Defined | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints | Defined | | 32 | 32 | 8 | 64 |
| Cefepime | No Breakpoints | Defined | | 32 | > 64 | 2 | > 64 |
| Cefoxitin | No Breakpoints | Defined | | > 32 | > 32 | 16 | > 32 |
| Ceftazidime | No Breakpoints | Defined | | > 32 | > 32 | 32 | > 32 |
| Ceftriaxone | No Breakpoints | Defined | | > 64 | > 64 | 2 | > 64 |
| Ciprofloxacin | 76.7% | 3.3% | 20.0% | 1 | > 16 | 0.5 | > 16 |
| Clarithromycin | No Breakpoints | Defined | | 2 | > 32 | 0.06 | > 32 |
| Clindamycin | No Breakpoints | Defined | | > 8 | > 8 | 1 | > 8 |
| Colistin | No Breakpoints | Defined | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 1 | 2 | 0.12 | 4 |
| Doripenem | No Breakpoints | Defined | | 2 | 4 | 0.5 | 8 |
| Doxycycline | 46.7% | 40.0% | 13.3% | 8 | 16 | ≤ 0.12 | 16 |
| Ertapenem | No Breakpoints | Defined | | 16 | 16 | 2 | 32 |
| Gentamicin | No Breakpoints | Defined | | 16 | > 32 | 8 | > 32 |
| Imipenem | No Breakpoints | Defined | | 1 | 2 | 0.25 | 2 |
| Linezolid | 93.3% | 6.7% | | 2 | 2 | 1 | 4 |
| Meropenem | No Breakpoints | Defined | | 4 | 8 | 1 | 16 |
| Moxifloxacin | No Breakpoints | Defined | | 0.25 | 16 | 0.12 | 16 |
| Piperacillin Tazobactam | No Breakpoints | Defined | | 2 | 4 | ≤ 1 | 4 |
| Tigecycline * | 100.0% | | | 0.12 | 0.12 | 0.06 | 0.25 |
| Tobramycin | No Breakpoints | Defined | | 16 | > 64 | 8 | > 64 |
| Trimethoprim Sulfa | No Breakpoints | Defined | | ≤ 0.12 | 8 | ≤ 0.12 | > 8 |
| Vancomycin | 100.0% | | | 1 | 2 | 0.5 | 2 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. cloacae Susceptibility - Ontario

***Enterobacter cloacae* (23)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 4 |
| Amoxicillin Clavulanic Acid | 4.3% | 4.3% | 91.3% | > 32 | > 32 | 4 | > 32 |
| Aztreonam | 91.3% | | 8.7% | ≤ 0.12 | 2 | ≤ 0.12 | 64 |
| Cefazolin | 4.3% | | 95.7% | > 128 | > 128 | 2 | > 128 |
| Cefepime | 95.7% | | 4.3% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 32 |
| Cefoxitin | 4.3% | 4.3% | 91.3% | > 32 | > 32 | 8 | > 32 |
| Ceftazidime | 91.3% | | 8.7% | 0.5 | 4 | ≤ 0.25 | > 32 |
| Ceftriaxone | 87.0% | | 13.0% | ≤ 0.25 | 16 | ≤ 0.25 | > 64 |
| Ciprofloxacin | 95.7% | | 4.3% | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | > 16 |
| Colistin | No Breakpoints Defined | | | 0.25 | > 16 | 0.25 | > 16 |
| Doripenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.12 |
| Doxycycline | 91.3% | | 8.7% | 4 | 4 | 2 | 32 |
| Ertapenem | 95.7% | 4.3% | | 0.06 | 0.25 | ≤ 0.03 | 1 |
| Gentamicin | 95.7% | | 4.3% | ≤ 0.5 | 1 | ≤ 0.5 | > 32 |
| Imipenem | 100.0% | | | 0.5 | 0.5 | 0.12 | 1 |
| Meropenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.25 |
| Moxifloxacin * | 95.7% | | 4.3% | ≤ 0.06 | 0.25 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 95.7% | | 4.3% | 2 | 8 | ≤ 1 | 128 |
| Tigecycline * | 100.0% | | | 0.5 | 1 | 0.25 | 1 |
| Tobramycin | 95.7% | | 4.3% | ≤ 0.5 | 1 | ≤ 0.5 | 16 |
| Trimethoprim Sulfa | 91.3% | | 8.7% | ≤ 0.12 | 0.5 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

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CANWARD 2012

S. epidermidis Susceptibility - Ontario

***Staphylococcus epidermidis* (22)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 4 | ≤ 1 | 16 |
| Amoxicillin Clavulanic Acid | 86.4% | | 13.6% | 1 | 8 | 0.12 | 16 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | 81.8% | | 18.2% | 1 | 64 | ≤ 0.5 | 128 |
| Cefepime | 72.7% | 13.6% | 13.6% | 4 | 64 | ≤ 0.25 | > 64 |
| Cefoxitin | No Breakpoints Defined | | | 8 | 32 | 1 | > 32 |
| Ceftazidime | 22.7% | 22.7% | 54.5% | 32 | > 32 | 4 | > 32 |
| Ceftriaxone | 50.0% | 36.4% | 13.6% | 8 | > 64 | 0.5 | > 64 |
| Ciprofloxacin | 54.5% | | 45.5% | 0.25 | > 16 | ≤ 0.06 | > 16 |
| Clarithromycin | 22.7% | | 77.3% | > 32 | > 32 | ≤ 0.03 | > 32 |
| Clindamycin | 40.9% | 4.5% | 54.5% | > 8 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 0.25 | 0.25 | 0.12 | 0.25 |
| Doripenem | No Breakpoints Defined | | | 1 | 16 | ≤ 0.03 | 16 |
| Doxycycline | 100.0% | | | 0.25 | 1 | ≤ 0.12 | 1 |
| Ertapenem | 52.9% | 17.6% | 29.4% | 2 | > 32 | 0.25 | > 32 |
| Gentamicin | 50.0% | 4.5% | 45.5% | 4 | 32 | ≤ 0.5 | > 32 |
| Imipenem | 77.3% | 4.5% | 18.2% | 0.12 | 16 | ≤ 0.03 | 32 |
| Linezolid | 100.0% | | | 0.5 | 1 | 0.25 | 1 |
| Meropenem | No Breakpoints Defined | | | 2 | 16 | 0.06 | 32 |
| Moxifloxacin | 54.5% | | 45.5% | ≤ 0.06 | > 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 90.9% | | 9.1% | ≤ 1 | 4 | ≤ 1 | 64 |
| Tigecycline | No Breakpoints Defined | | | 0.12 | 0.25 | 0.06 | 1 |
| Tobramycin | 50.0% | 18.2% | 31.8% | 2 | 16 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | 63.6% | | 36.4% | ≤ 0.12 | 4 | ≤ 0.12 | 8 |
| Vancomycin | 100.0% | | | 1 | 2 | 1 | 2 |

CANWARD 2012

S. marcescens Susceptibility - Ontario

Serratia marcescens (15)

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | 2 | 4 | ≤ 1 | 8 |
| Amoxicillin Clavulanic Acid | | 6.7% | 93.3% | > 32 | > 32 | 16 | > 32 |
| Aztreonam | 100.0% | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 2 |
| Cefazolin | | | 100.0% | > 128 | > 128 | 128 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | 26.7% | 46.7% | 26.7% | 16 | 32 | 8 | > 32 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | 1 | ≤ 0.25 | 1 |
| Ceftriaxone | 93.3% | | 6.7% | ≤ 0.25 | 0.5 | ≤ 0.25 | 8 |
| Ciprofloxacin | 80.0% | 6.7% | 13.3% | ≤ 0.06 | 4 | ≤ 0.06 | 16 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Doripenem | 100.0% | | | 0.12 | 0.25 | 0.06 | 0.25 |
| Doxycycline | 33.3% | 33.3% | 33.3% | 8 | 16 | 4 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.25 |
| Gentamicin | 100.0% | | | ≤ 0.5 | 1 | ≤ 0.5 | 1 |
| Imipenem | 100.0% | | | 0.5 | 1 | 0.25 | 1 |
| Meropenem | 100.0% | | | 0.06 | 0.06 | ≤ 0.03 | 0.12 |
| Moxifloxacin * | 80.0% | 6.7% | 13.3% | 0.25 | 16 | ≤ 0.06 | 16 |
| Piperacillin Tazobactam | 93.3% | 6.7% | | ≤ 1 | 2 | ≤ 1 | 32 |
| Tigecycline * | 93.3% | | 6.7% | 1 | 2 | 1 | 8 |
| Tobramycin | 86.7% | 6.7% | 6.7% | 2 | 8 | ≤ 0.5 | 16 |
| Trimethoprim Sulfa | 100.0% | | | 0.25 | 1 | ≤ 0.12 | 1 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

K. oxytoca Susceptibility - Ontario

***Klebsiella oxytoca* (12)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 4 |
| Amoxicillin Clavulanic Acid | 83.3% | 8.3% | 8.3% | 2 | 16 | 2 | 32 |
| Aztreonam | 91.7% | | 8.3% | ≤ 0.12 | 1 | ≤ 0.12 | 32 |
| Cefazolin | | 58.3% | 41.7% | 4 | 64 | 4 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 0.5 |
| Cefoxitin | 100.0% | | | 2 | 4 | 0.5 | 8 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | 0.5 | ≤ 0.25 | 0.5 |
| Ceftriaxone | 91.7% | | 8.3% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 8 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.5 | ≤ 0.06 | 1 |
| Doripenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.06 |
| Doxycycline | 100.0% | | | 1 | 2 | 1 | 2 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Moxifloxacin * | 100.0% | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Piperacillin Tazobactam | 83.3% | 8.3% | 8.3% | 2 | 64 | ≤ 1 | 512 |
| Tigecycline * | 100.0% | | | 0.5 | 0.5 | 0.25 | 1 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Trimethoprim Sulfa | 91.7% | | 8.3% | ≤ 0.12 | 1 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

S. maltophilia Susceptibility - Ontario

***Stenotrophomonas maltophilia* (9)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | No Breakpoints Defined | | | 32 | > 64 | 4 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | 16 | > 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | > 128 | > 128 |
| Cefepime | No Breakpoints Defined | | | 32 | 64 | 4 | 64 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Ceftazidime | 22.2% | | 77.8% | > 32 | > 32 | 2 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | > 64 | > 64 | 64 | > 64 |
| Ciprofloxacin | No Breakpoints Defined | | | 2 | 8 | 0.5 | 8 |
| Colistin | No Breakpoints Defined | | | 1 | > 16 | 0.5 | > 16 |
| Doripenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Doxycycline | No Breakpoints Defined | | | 2 | 4 | 0.5 | 4 |
| Ertapenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Gentamicin | No Breakpoints Defined | | | 8 | 16 | 1 | 16 |
| Imipenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Meropenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Moxifloxacin | No Breakpoints Defined | | | 0.5 | 4 | 0.12 | 4 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | 256 | > 512 | 16 | > 512 |
| Tigecycline | No Breakpoints Defined | | | 0.5 | 2 | 0.25 | 2 |
| Tobramycin | No Breakpoints Defined | | | 4 | 64 | 1 | 64 |
| Trimethoprim Sulfa | 66.7% | | 33.3% | 0.5 | > 8 | ≤ 0.12 | > 8 |

CANWARD 2012

E. faecium Susceptibility - Ontario

***Enterococcus faecium* (17)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|----------------|---------|--------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | No Breakpoints | Defined | | 64 | > 64 | 16 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints | Defined | | > 32 | > 32 | 4 | > 32 |
| Aztreonam | No Breakpoints | Defined | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints | Defined | | > 128 | > 128 | > 128 | > 128 |
| Cefepime | No Breakpoints | Defined | | > 64 | > 64 | > 64 | > 64 |
| Cefoxitin | No Breakpoints | Defined | | > 32 | > 32 | > 32 | > 32 |
| Ceftazidime | No Breakpoints | Defined | | > 32 | > 32 | > 32 | > 32 |
| Ceftriaxone | No Breakpoints | Defined | | > 64 | > 64 | > 64 | > 64 |
| Ciprofloxacin | | | 100.0% | > 16 | > 16 | 16 | > 16 |
| Clarithromycin | No Breakpoints | Defined | | > 32 | > 32 | 0.5 | > 32 |
| Clindamycin | No Breakpoints | Defined | | > 8 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints | Defined | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 1 | 2 | 1 | 2 |
| Doripenem | No Breakpoints | Defined | | > 32 | > 32 | > 32 | > 32 |
| Doxycycline | 76.5% | 5.9% | 17.6% | 4 | 16 | ≤ 0.12 | 16 |
| Ertapenem | No Breakpoints | Defined | | > 32 | > 32 | > 32 | > 32 |
| Gentamicin | No Breakpoints | Defined | | 8 | 8 | 4 | 8 |
| Imipenem | No Breakpoints | Defined | | > 32 | > 32 | > 32 | > 32 |
| Linezolid | 94.1% | 5.9% | | 2 | 2 | 1 | 4 |
| Meropenem | No Breakpoints | Defined | | > 32 | > 32 | > 32 | > 32 |
| Moxifloxacin | No Breakpoints | Defined | | > 16 | > 16 | 16 | > 16 |
| Piperacillin Tazobactam | No Breakpoints | Defined | | > 512 | > 512 | 64 | > 512 |
| Tigecycline | No Breakpoints | Defined | | 0.12 | 0.12 | 0.06 | 0.12 |
| Tobramycin | No Breakpoints | Defined | | 64 | > 64 | 64 | > 64 |
| Trimethoprim Sulfa | No Breakpoints | Defined | | 1 | > 8 | ≤ 0.12 | > 8 |
| Vancomycin | 58.8% | | 41.2% | 1 | > 32 | 0.5 | > 32 |

CANWARD 2012

S. agalactiae Susceptibility - Ontario

***Streptococcus agalactiae* (5)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefuroxime | No Breakpoints Defined | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Chloramphenicol | 100.0% | | | 2 | 4 | 2 | 4 |
| Ciprofloxacin | No Breakpoints Defined | | | 1 | 1 | 0.25 | 1 |
| Clarithromycin | 60.0% | | 40.0% | 0.06 | 2 | ≤ 0.03 | 2 |
| Clindamycin | 60.0% | | 40.0% | ≤ 0.12 | > 64 | ≤ 0.12 | > 64 |
| Daptomycin | 100.0% | | | 0.12 | 0.25 | 0.06 | 0.25 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Doxycycline | No Breakpoints Defined | | | 8 | 8 | 8 | 8 |
| Ertapenem | 100.0% | | | 0.12 | 0.12 | ≤ 0.06 | 0.12 |
| Imipenem | No Breakpoints Defined | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Levofloxacin | 100.0% | | | 1 | 1 | 0.5 | 1 |
| Linezolid | 100.0% | | | 1 | 1 | 1 | 1 |
| Meropenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Moxifloxacin | No Breakpoints Defined | | | 0.12 | 0.25 | ≤ 0.06 | 0.25 |
| Penicillin | 100.0% | | | 0.06 | 0.06 | ≤ 0.03 | 0.06 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Telithromycin | No Breakpoints Defined | | | 0.015 | 0.015 | 0.008 | 0.015 |
| Tigecycline * | 100.0% | | | 0.03 | 0.03 | 0.03 | 0.03 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Vancomycin | 100.0% | | | 0.5 | 0.5 | 0.25 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

P. mirabilis Susceptibility - Ontario

***Proteus mirabilis* (14)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | 2 | 4 | ≤ 1 | 4 |
| Amoxicillin Clavulanic Acid | 92.9% | | 7.1% | 1 | 2 | 0.5 | > 32 |
| Aztreonam | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefazolin | 7.1% | 57.1% | 35.7% | 4 | 8 | 2 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | 92.9% | | 7.1% | 4 | 8 | 2 | 32 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 4 |
| Ceftriaxone | 92.9% | 7.1% | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 2 |
| Ciprofloxacin | 85.7% | 7.1% | 7.1% | ≤ 0.06 | 2 | ≤ 0.06 | > 16 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Doripenem | 100.0% | | | 0.12 | 0.25 | 0.06 | 0.25 |
| Doxycycline | | | 92.9% | 32 | > 32 | 8 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Gentamicin | 92.9% | | 7.1% | ≤ 0.5 | 1 | ≤ 0.5 | 16 |
| Imipenem | 28.6% | 50.0% | 21.4% | 2 | 4 | 0.25 | 4 |
| Meropenem | 100.0% | | | 0.06 | 0.12 | ≤ 0.03 | 0.12 |
| Moxifloxacin * | 78.6% | 7.1% | 14.3% | 0.5 | > 16 | 0.25 | > 16 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Tigecycline * | 7.1% | 42.9% | 50.0% | 4 | 8 | 1 | 8 |
| Tobramycin | 92.9% | 7.1% | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 8 |
| Trimethoprim Sulfa | 92.9% | | 7.1% | ≤ 0.12 | 2 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
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CANWARD 2012

S. pyogenes Susceptibility - Ontario

Streptococcus pyogenes (12)

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|---------|--------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefuroxime | No Breakpoints Defined | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Chloramphenicol | 100.0% | | | 2 | 4 | 2 | 4 |
| Ciprofloxacin | No Breakpoints Defined | | | 0.5 | 2 | 0.25 | 2 |
| Clarithromycin | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Clindamycin | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Daptomycin | 100.0% | | | 0.06 | 0.12 | ≤ 0.03 | 0.12 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Doxycycline | No Breakpoints Defined | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Ertapenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Imipenem | No Breakpoints Defined | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Levofloxacin | 100.0% | | | 1 | 2 | 0.25 | 2 |
| Linezolid | 100.0% | | | 1 | 2 | 1 | 2 |
| Meropenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Moxifloxacin | No Breakpoints Defined | | | 0.25 | 0.5 | ≤ 0.06 | 0.5 |
| Penicillin | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Telithromycin | No Breakpoints Defined | | | 0.008 | 0.008 | 0.004 | 0.015 |
| Tigecycline * | 100.0% | | | ≤ 0.015 | 0.03 | ≤ 0.015 | 0.06 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | ≤ 0.12 | 0.5 | ≤ 0.12 | 1 |
| Vancomycin | 100.0% | | | 0.5 | 0.5 | 0.25 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

C. freundii Susceptibility - Ontario

Citrobacter freundii (4)

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 2 |
| Amoxicillin Clavulanic Acid | | 25.0% | 75.0% | 32 | > 32 | 16 | > 32 |
| Aztreonam | | | 25.0% | ≤ 0.12 | 32 | ≤ 0.12 | 32 |
| Cefazolin | | 25.0% | 75.0% | 16 | > 128 | 4 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | 25.0% | | 75.0% | > 32 | > 32 | 8 | > 32 |
| Ceftazidime | 75.0% | | 25.0% | 0.5 | 32 | 0.5 | 32 |
| Ceftriaxone | 75.0% | | 25.0% | ≤ 0.25 | 16 | ≤ 0.25 | 16 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Doripenem | 100.0% | | | ≤ 0.03 | 0.12 | ≤ 0.03 | 0.12 |
| Doxycycline | 50.0% | | 50.0% | 4 | 32 | 1 | 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.5 | ≤ 0.03 | 0.5 |
| Gentamicin | 50.0% | | 50.0% | ≤ 0.5 | > 32 | ≤ 0.5 | > 32 |
| Imipenem | 100.0% | | | 0.25 | 1 | 0.25 | 1 |
| Meropenem | 100.0% | | | ≤ 0.03 | 0.12 | ≤ 0.03 | 0.12 |
| Moxifloxacin * | 100.0% | | | 0.12 | 0.5 | 0.12 | 0.5 |
| Piperacillin Tazobactam | 100.0% | | | 2 | 4 | ≤ 1 | 4 |
| Tigecycline * | 100.0% | | | 0.5 | 1 | 0.25 | 1 |
| Tobramycin | 100.0% | | | ≤ 0.5 | 4 | ≤ 0.5 | 4 |
| Trimethoprim Sulfa | 50.0% | | 50.0% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

A. baumannii Susceptibility - Ontario

***Acinetobacter baumannii* (7)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 85.7% | | 14.3% | 2 | > 64 | ≤ 1 | > 64 |
| Amoxicillin Clavulanic Acid | No breakpoints defined | | | 8 | > 32 | 8 | > 32 |
| Cefazolin | No breakpoints defined | | | > 128 | > 128 | 128 | > 128 |
| Cefepime | 85.7% | | 14.3% | 8 | 32 | 2 | 32 |
| Cefoxitin | No breakpoints defined | | | > 32 | > 32 | > 32 | > 32 |
| Ceftazidime | 71.4% | 14.3% | 14.3% | 4 | > 32 | 2 | > 32 |
| Ceftriaxone | 42.9% | 42.9% | 14.3% | 16 | > 64 | 8 | > 64 |
| Ciprofloxacin | 85.7% | | 14.3% | 0.25 | > 16 | 0.12 | > 16 |
| Colistin | 100.0% | | | 0.5 | 1 | 0.25 | 1 |
| Doripenem | No breakpoints defined | | | 0.25 | 32 | 0.12 | 32 |
| Doxycycline | 100.0% | | | ≤ 0.12 | 1 | ≤ 0.12 | 1 |
| Ertapenem | No breakpoints defined | | | 8 | > 32 | 2 | > 32 |
| Gentamicin | 71.4% | 14.3% | 14.3% | 1 | > 32 | ≤ 0.5 | > 32 |
| Imipenem | 85.7% | | 14.3% | 0.12 | > 32 | 0.12 | > 32 |
| Meropenem | 85.7% | | 14.3% | 0.25 | > 32 | 0.12 | > 32 |
| Moxifloxacin | No breakpoints defined | | | 0.12 | 16 | ≤ 0.06 | 16 |
| Piperacillin Tazobactam | 71.4% | 14.3% | 14.3% | 16 | 512 | ≤ 1 | 512 |
| Tigecycline | No breakpoints defined | | | 0.25 | 2 | 0.12 | 2 |
| Tobramycin | 85.7% | | 14.3% | 1 | > 64 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | 85.7% | | 14.3% | 0.25 | > 8 | ≤ 0.12 | > 8 |

CANWARD 2012

A. baumannii Susceptibility - Ontario

***Acinetobacter baumannii* (2)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 8 | 16 | 8 | 16 |
| Aztreonam | | | | 8 | 16 | 8 | 16 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | > 128 | > 128 |
| Cefepime | 100.0% | | | 2 | 4 | 2 | 4 |
| Cefoxitin | No Breakpoints Defined | | | 32 | > 32 | 32 | > 32 |
| Ceftazidime | 100.0% | | | 4 | 4 | 4 | 4 |
| Ceftriaxone | 100.0% | | | 8 | 8 | 8 | 8 |
| Ciprofloxacin | 100.0% | | | 0.12 | 0.25 | 0.12 | 0.25 |
| Colistin | 100.0% | | | 0.5 | 1 | 0.5 | 1 |
| Doripenem | No Breakpoints Defined | | | 0.25 | 0.25 | 0.25 | 0.25 |
| Doxycycline | 100.0% | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 0.25 |
| Ertapenem | No Breakpoints Defined | | | 4 | 8 | 4 | 8 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Meropenem | 100.0% | | | 0.5 | 0.5 | 0.5 | 0.5 |
| Moxifloxacin | No Breakpoints Defined | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | 8 | ≤ 1 | 8 |
| Tigecycline | No Breakpoints Defined | | | 0.12 | 0.25 | 0.12 | 0.25 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 0.25 |

CANWARD 2012

S. aureus, MSSA Susceptibility - Quebec

***Staphylococcus aureus* , MSSA (54)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 100.0% | | | 2 | 4 | ≤ 1 | 8 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 0.5 | 1 | 0.12 | 1 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | 0.5 | > 64 |
| Cefazolin | No Breakpoints Defined | | | ≤ 0.5 | 1 | ≤ 0.5 | 1 |
| Cefepime | No Breakpoints Defined | | | 4 | 4 | ≤ 0.25 | 4 |
| Cefoxitin | 100.0% | | | 4 | 4 | 0.5 | 4 |
| Ceftazidime | No Breakpoints Defined | | | 16 | 32 | 8 | 32 |
| Ceftriaxone | No Breakpoints Defined | | | 4 | 4 | 0.5 | 8 |
| Ciprofloxacin | 75.9% | 1.9% | 22.2% | 0.5 | > 16 | ≤ 0.06 | > 16 |
| Clarithromycin | 72.2% | | 27.8% | 0.25 | > 32 | 0.12 | > 32 |
| Clindamycin | 92.6% | | 7.4% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | ≤ 0.06 | > 16 |
| Daptomycin | 100.0% | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Doripenem | No Breakpoints Defined | | | 0.06 | 0.06 | ≤ 0.03 | 0.12 |
| Doxycycline | 100.0% | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 4 |
| Ertapenem | No Breakpoints Defined | | | 0.5 | 0.5 | 0.06 | 0.5 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 1 |
| Imipenem | No Breakpoints Defined | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Linezolid | 100.0% | | | 2 | 4 | 1 | 4 |
| Meropenem | No Breakpoints Defined | | | 0.12 | 0.25 | ≤ 0.03 | 0.25 |
| Moxifloxacin | 77.8% | | 22.2% | ≤ 0.06 | 8 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | 2 |
| Tigecycline * | 100.0% | | | 0.12 | 0.25 | 0.06 | 0.25 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 1 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 0.5 |
| Vancomycin | 100.0% | | | 0.5 | 1 | 0.25 | 1 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. coli Susceptibility - Quebec

Escherichia coli (75)

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 4 | ≤ 1 | 8 |
| Amoxicillin Clavulanic Acid | 82.7% | 14.7% | 2.7% | 4 | 16 | 1 | > 32 |
| Aztreonam | 93.3% | | 6.7% | ≤ 0.12 | 0.25 | ≤ 0.12 | > 64 |
| Cefazolin | 77.3% | 8.0% | 14.7% | 1 | 16 | ≤ 0.5 | > 128 |
| Cefepime | 96.0% | 2.7% | 1.3% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 32 |
| Cefoxitin | 93.3% | 4.0% | 2.7% | 4 | 8 | 2 | > 32 |
| Ceftazidime | 93.3% | | 6.7% | ≤ 0.25 | 1 | ≤ 0.25 | > 32 |
| Ceftriaxone | 93.3% | | 6.7% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | > 64 |
| Ciprofloxacin | 72.0% | | 28.0% | ≤ 0.06 | > 16 | ≤ 0.06 | > 16 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.5 | 0.12 | 2 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.25 |
| Doxycycline | 72.0% | 1.3% | 26.7% | 2 | 32 | 0.5 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.25 |
| Gentamicin | 96.0% | | 4.0% | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | > 32 |
| Imipenem | 100.0% | | | 0.12 | 0.25 | 0.06 | 1 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Moxifloxacin * | 7.0% | | 28.0% | ≤ 0.06 | > 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 98.7% | | 1.3% | 2 | 4 | ≤ 1 | 128 |
| Tigecycline * | 100.0% | | | 0.25 | 0.5 | 0.12 | 1 |
| Tobramycin | 94.7% | 2.7% | 2.7% | ≤ 0.5 | 1 | ≤ 0.5 | 32 |
| Trimethoprim Sulfa | 85.3% | | 14.7% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
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CANWARD 2012

P. aeruginosa Susceptibility - Quebec

***Pseudomonas aeruginosa* (29)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | 2 | 8 | ≤ 1 | 16 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | > 32 | > 32 | 16 | > 32 |
| Aztreonam | 82.8% | 6.9% | 10.3% | 4 | 32 | 0.25 | 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | > 128 | > 128 |
| Cefepime | 89.7% | 10.3% | | 2 | 16 | 0.5 | 16 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Ceftazidime | 79.3% | 6.9% | 13.8% | 2 | 32 | 1 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | 16 | > 64 | 4 | > 64 |
| Ciprofloxacin | 89.7% | 6.9% | 3.4% | 0.12 | 2 | ≤ 0.06 | 8 |
| Colistin | 96.6% | | 3.4% | 1 | 2 | 0.25 | > 16 |
| Doripenem | 96.6% | | 3.4% | 0.25 | 1 | 0.06 | 16 |
| Doxycycline | No Breakpoints Defined | | | 16 | > 32 | 1 | > 32 |
| Ertapenem | No Breakpoints Defined | | | 8 | 32 | 1 | > 32 |
| Gentamicin | 93.1% | 6.9% | | 1 | 4 | ≤ 0.5 | 8 |
| Imipenem | 75.9% | 6.9% | 17.2% | 1 | 8 | 0.5 | 32 |
| Meropenem | 93.1% | 3.4% | 3.4% | 0.5 | 2 | 0.06 | 16 |
| Moxifloxacin | No Breakpoints Defined | | | 2 | 8 | 0.5 | > 16 |
| Piperacillin Tazobactam | 89.7% | 3.4% | 6.9% | 4 | 32 | ≤ 1 | 256 |
| Tigecycline | No Breakpoints Defined | | | 8 | > 16 | 1 | > 16 |
| Tobramycin | 100.0% | | | ≤ 0.5 | 1 | ≤ 0.5 | 2 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | 8 | > 8 | 0.5 | > 8 |

CANWARD 2012

K. pneumoniae Susceptibility - Quebec

***Klebsiella pneumoniae* (32)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | 2 |
| Amoxicillin Clavulanic Acid | 100.0% | | | 2 | 4 | 1 | 8 |
| Aztreonam | 96.9% | | 3.1% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 32 |
| Cefazolin | 96.9% | | 3.1% | 1 | 2 | ≤ 0.5 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 8 |
| Cefoxitin | 100.0% | | | 2 | 4 | 2 | 8 |
| Ceftazidime | 96.9% | | 3.1% | ≤ 0.25 | 0.5 | ≤ 0.25 | 32 |
| Ceftriaxone | 96.9% | | 3.1% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 32 |
| Ciprofloxacin | 96.9% | | 3.1% | ≤ 0.06 | 0.25 | ≤ 0.06 | 4 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.5 | ≤ 0.06 | 0.5 |
| Doripenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.06 |
| Doxycycline | 84.4% | 3.1% | 12.5% | 2 | 16 | 1 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.06 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Moxifloxacin * | 100.0% | | | 0.12 | 1 | ≤ 0.06 | 2 |
| Piperacillin Tazobactam | 100.0% | | | 2 | 4 | ≤ 1 | 8 |
| Tigecycline * | 100.0% | | | 0.5 | 1 | 0.25 | 2 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Trimethoprim Sulfa | 93.8% | | 6.3% | ≤ 0.12 | 1 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
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CANWARD 2012

S. pneumoniae Susceptibility - Quebec

***Streptococcus pneumoniae* (15)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|---------|---------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefuroxime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Chloramphenicol | 100.0% | | | 2 | 2 | 0.25 | 4 |
| Ciprofloxacin | 93.3% | | 6.7% | 1 | 2 | 0.12 | 8 |
| Clarithromycin | 93.3% | | 6.7% | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 8 |
| Clindamycin | 93.3% | | 6.7% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 16 |
| Daptomycin | No Breakpoints Defined | | | 0.12 | 0.12 | 0.06 | 0.12 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Doxycycline | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Ertapenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Imipenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Levofloxacin | 93.3% | | 6.7% | 1 | 1 | 0.12 | 8 |
| Linezolid | 100.0% | | | 0.5 | 1 | ≤ 0.12 | 1 |
| Meropenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Moxifloxacin | 93.3% | 6.7% | | 0.12 | 0.25 | ≤ 0.06 | 2 |
| Penicillin | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Telithromycin | 100.0% | | | 0.008 | 0.008 | ≤ 0.002 | 0.008 |
| Tigecycline * | 100.0% | | | ≤ 0.015 | ≤ 0.015 | ≤ 0.015 | ≤ 0.015 |
| Trimethoprim Sulfa | 93.3% | 6.7% | | 0.25 | 0.25 | ≤ 0.12 | 1 |
| Vancomycin | 100.0% | | | 0.25 | 0.25 | ≤ 0.12 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

S. aureus-MRSA Susceptibility - Quebec

***Staphylococcus aureus*, MRSA (7)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 85.7% | 14.3% | | 16 | 32 | 2 | 32 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 16 | 16 | 2 | 16 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints Defined | | | 16 | 128 | 2 | 128 |
| Cefepime | No Breakpoints Defined | | | 16 | > 64 | 4 | > 64 |
| Cefoxitin | | | 100.0% | > 32 | > 32 | 16 | > 32 |
| Ceftazidime | No Breakpoints Defined | | | > 32 | > 32 | 16 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | 64 | > 64 | 16 | > 64 |
| Ciprofloxacin | | | 100.0% | > 16 | > 16 | > 16 | > 16 |
| Clarithromycin | | | 100.0% | > 32 | > 32 | > 32 | > 32 |
| Clindamycin | 57.1% | | 42.9% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 0.25 | 0.25 | 0.25 | 0.25 |
| Doripenem | No Breakpoints Defined | | | 2 | 8 | 0.25 | 8 |
| Doxycycline | 100.0% | | | ≤ 0.12 | 0.5 | ≤ 0.12 | 0.5 |
| Ertapenem | No Breakpoints Defined | | | 16 | > 32 | 2 | > 32 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | No Breakpoints Defined | | | 1 | 8 | 0.12 | 8 |
| Linezolid | 100.0% | | | 2 | 2 | 1 | 2 |
| Meropenem | No Breakpoints Defined | | | 4 | 16 | 0.5 | 16 |
| Moxifloxacin | | | 100.0% | 8 | > 16 | 8 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | 32 | 64 | 4 | 64 |
| Tigecycline * | 100.0% | | | 0.12 | 0.25 | 0.12 | 0.25 |
| Tobramycin | 42.9% | | 57.1% | > 64 | > 64 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Vancomycin | 100.0% | | | 1 | 1 | 0.5 | 1 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. faecalis Susceptibility - Quebec

***Enterococcus faecalis* (13)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|----------------|---------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | No Breakpoints | Defined | | > 64 | > 64 | 8 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints | Defined | | 0.5 | 1 | 0.25 | 1 |
| Aztreonam | No Breakpoints | Defined | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints | Defined | | 32 | 32 | 16 | 64 |
| Cefepime | No Breakpoints | Defined | | 32 | > 64 | 16 | > 64 |
| Cefoxitin | No Breakpoints | Defined | | > 32 | > 32 | > 32 | > 32 |
| Ceftazidime | No Breakpoints | Defined | | > 32 | > 32 | > 32 | > 32 |
| Ceftriaxone | No Breakpoints | Defined | | > 64 | > 64 | 32 | > 64 |
| Ciprofloxacin | 76.9% | 7.7% | 15.4% | 1 | > 16 | 0.25 | > 16 |
| Clarithromycin | No Breakpoints | Defined | | > 32 | > 32 | 0.06 | > 32 |
| Clindamycin | No Breakpoints | Defined | | > 8 | > 8 | 8 | > 8 |
| Colistin | No Breakpoints | Defined | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 1 | 2 | 0.25 | 2 |
| Doripenem | No Breakpoints | Defined | | 2 | 4 | 2 | 8 |
| Doxycycline | 23.1% | 46.2% | 30.8% | 8 | 16 | ≤ 0.12 | 32 |
| Ertapenem | No Breakpoints | Defined | | 8 | 16 | 4 | 32 |
| Gentamicin | No Breakpoints | Defined | | 16 | > 32 | 1 | > 32 |
| Imipenem | No Breakpoints | Defined | | 1 | 2 | 1 | 4 |
| Linezolid | 100.0% | | | 2 | 2 | 1 | 2 |
| Meropenem | No Breakpoints | Defined | | 4 | 8 | 4 | 16 |
| Moxifloxacin | No Breakpoints | Defined | | 0.25 | 8 | 0.12 | 16 |
| Piperacillin Tazobactam | No Breakpoints | Defined | | 4 | 4 | 2 | 4 |
| Tigecycline * | 100.0% | | | 0.12 | 0.12 | ≤ 0.03 | 0.12 |
| Tobramycin | No Breakpoints | Defined | | 16 | > 64 | 4 | > 64 |
| Trimethoprim Sulfa | No Breakpoints | Defined | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 0.5 |
| Vancomycin | 100.0% | | | 1 | 2 | 1 | 2 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. cloacae Susceptibility - Quebec

***Enterobacter cloacae* (5)**

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Amoxicillin Clavulanic Acid | | 20.0% | 80.0% | 32 | > 32 | 16 | > 32 |
| Aztreonam | 80.0% | | 20.0% | ≤ 0.12 | 64 | ≤ 0.12 | 64 |
| Cefazolin | | | 100.0% | 128 | > 128 | 8 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | 2 | ≤ 0.25 | 2 |
| Cefoxitin | | | 100.0% | > 32 | > 32 | > 32 | > 32 |
| Ceftazidime | 80.0% | | 20.0% | ≤ 0.25 | > 32 | ≤ 0.25 | > 32 |
| Ceftriaxone | 80.0% | | 20.0% | ≤ 0.25 | > 64 | ≤ 0.25 | > 64 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Colistin | No Breakpoints Defined | | | 0.5 | > 16 | 0.25 | > 16 |
| Doripenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.06 |
| Doxycycline | 100.0% | | | 2 | 4 | 2 | 4 |
| Ertapenem | 80.0% | 20.0% | | ≤ 0.03 | 1 | ≤ 0.03 | 1 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Meropenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.06 |
| Moxifloxacin * | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Piperacillin Tazobactam | 80.0% | | 20.0% | 2 | 128 | ≤ 1 | 128 |
| Tigecycline * | 100.0% | | | 0.5 | 1 | 0.5 | 1 |
| Tobramycin | 100.0% | | | ≤ 0.5 | 1 | ≤ 0.5 | 1 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | 1 | ≤ 0.12 | 1 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline) CANADIAN ANTIMICROBIAL RESISTANCE ALLIANCE



CANWARD 2012

S. epidermidis Susceptibility - Quebec

***Staphylococcus epidermidis* (18)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 8 | ≤ 1 | 16 |
| Amoxicillin Clavulanic Acid | 72.2% | | 27.8% | 0.5 | 16 | ≤ 0.06 | 16 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | 83.3% | | 16.7% | ≤ 0.5 | 128 | ≤ 0.5 | 128 |
| Cefepime | 66.7% | | 33.3% | 2 | > 64 | ≤ 0.25 | > 64 |
| Cefoxitin | No Breakpoints Defined | | | 8 | > 32 | 1 | > 32 |
| Ceftazidime | 44.4% | 16.7% | 38.9% | 16 | > 32 | 2 | > 32 |
| Ceftriaxone | 55.6% | 16.7% | 27.8% | 4 | > 64 | 0.5 | > 64 |
| Ciprofloxacin | 38.9% | | 61.1% | 16 | > 16 | ≤ 0.06 | > 16 |
| Clarithromycin | 44.4% | | 55.6% | > 32 | > 32 | 0.06 | > 32 |
| Clindamycin | 61.1% | | 38.9% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | 8 | > 16 |
| Daptomycin | 100.0% | | | 0.12 | 0.25 | ≤ 0.03 | 0.5 |
| Doripenem | No Breakpoints Defined | | | 0.25 | 32 | ≤ 0.03 | 32 |
| Doxycycline | 100.0% | | | 0.25 | 1 | ≤ 0.12 | 2 |
| Ertapenem | 53.3% | 6.7% | 40.0% | 1 | > 32 | 0.25 | > 32 |
| Gentamicin | 61.1% | 11.1% | 27.8% | ≤ 0.5 | > 32 | ≤ 0.5 | > 32 |
| Imipenem | 66.7% | 5.6% | 27.8% | ≤ 0.03 | 32 | ≤ 0.03 | > 32 |
| Linezolid | 100.0% | | | 1 | 1 | ≤ 0.12 | 1 |
| Meropenem | No Breakpoints Defined | | | 0.5 | 32 | 0.06 | 32 |
| Moxifloxacin | 38.9% | | 61.1% | 2 | > 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 77.8% | | 22.2% | ≤ 1 | 16 | ≤ 1 | 32 |
| Tigecycline | No Breakpoints Defined | | | 0.12 | 0.25 | 0.12 | 1 |
| Tobramycin | 72.2% | 5.6% | 22.2% | ≤ 0.5 | 64 | ≤ 0.5 | 64 |
| Trimethoprim Sulfa | 50.0% | | 50.0% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |
| Vancomycin | 100.0% | | | 1 | 2 | 0.5 | 2 |

CANWARD 2012

S. marcescens Susceptibility - Quebec

Serratia marcescens (1)

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|--------|--------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | 2 | 2 | 2 | 2 |
| Amoxicillin Clavulanic Acid | | | 100.0% | > 32 | > 32 | > 32 | > 32 |
| Aztreonam | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefazolin | | | 100.0% | > 128 | > 128 | > 128 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | | 100.0% | | 16 | 16 | 16 | 16 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Ceftriaxone | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Doripenem | 100.0% | | | 0.12 | 0.12 | 0.12 | 0.12 |
| Doxycycline | | 100.0% | | 8 | 8 | 8 | 8 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 1 | 1 | 1 | 1 |
| Meropenem | 100.0% | | | 0.06 | 0.06 | 0.06 | 0.06 |
| Moxifloxacin * | 100.0% | | | 0.25 | 0.25 | 0.25 | 0.25 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Tigecycline * | 100.0% | | | 1 | 1 | 1 | 1 |
| Tobramycin | 100.0% | | | 2 | 2 | 2 | 2 |
| Trimethoprim Sulfa | 100.0% | | | 0.25 | 0.25 | 0.25 | 0.25 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

K. oxytoca Susceptibility - Quebec

***Klebsiella oxytoca* (5)**

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 2 |
| Amoxicillin Clavulanic Acid | 100.0% | | | 2 | 4 | 1 | 4 |
| Aztreonam | 100.0% | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 0.25 |
| Cefazolin | 80.0% | | 20.0% | 1 | 8 | 1 | 8 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | 100.0% | | | 2 | 4 | 1 | 4 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | 0.5 | ≤ 0.25 | 0.5 |
| Ceftriaxone | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Doripenem | 100.0% | | | 0.06 | 0.06 | ≤ 0.03 | 0.06 |
| Doxycycline | 100.0% | | | 1 | 1 | 1 | 1 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.25 | 0.25 | 0.25 | 0.25 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Moxifloxacin * | 100.0% | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 2 |
| Tigecycline * | 100.0% | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Tobramycin | 100.0% | | | ≤ 0.5 | 2 | ≤ 0.5 | 2 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

S. maltophilia Susceptibility - Quebec

***Stenotrophomonas maltophilia* (4)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | | | | 32 | > 64 | 32 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | > 128 | > 128 |
| Cefepime | No Breakpoints Defined | | | 32 | 64 | 32 | 64 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Ceftazidime | 25.0% | | 75.0% | 32 | > 32 | 8 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Ciprofloxacin | No Breakpoints Defined | | | 1 | 8 | 1 | 8 |
| Colistin | No Breakpoints Defined | | | 1 | 8 | 0.5 | 8 |
| Doripenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Doxycycline | No Breakpoints Defined | | | 1 | 4 | 0.5 | 4 |
| Ertapenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Gentamicin | No Breakpoints Defined | | | 16 | 32 | 16 | 32 |
| Imipenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Meropenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Moxifloxacin | No Breakpoints Defined | | | 0.25 | 2 | 0.12 | 2 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | 128 | 512 | 64 | 512 |
| Tigecycline | No Breakpoints Defined | | | 0.5 | 2 | 0.25 | 2 |
| Tobramycin | No Breakpoints Defined | | | 16 | > 64 | 8 | > 64 |
| Trimethoprim Sulfa | 75.0% | | 25.0% | 0.5 | > 8 | ≤ 0.12 | > 8 |

CANWARD 2012

E. faecium Susceptibility - Quebec

***Enterococcus faecium* (2)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|----------------|---------|-------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | No Breakpoints | Defined | | 32 | 32 | 32 | 32 |
| Amoxicillin Clavulanic Acid | No Breakpoints | Defined | | 0.25 | 1 | 0.25 | 1 |
| Aztreonam | No Breakpoints | Defined | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints | Defined | | 32 | 128 | 32 | 128 |
| Cefepime | No Breakpoints | Defined | | 16 | > 64 | 16 | > 64 |
| Cefoxitin | No Breakpoints | Defined | | 16 | 32 | 16 | 32 |
| Ceftazidime | No Breakpoints | Defined | | > 32 | > 32 | > 32 | > 32 |
| Ceftriaxone | No Breakpoints | Defined | | 1 | > 64 | 1 | > 64 |
| Ciprofloxacin | 100.0% | | | 0.5 | 1 | 0.5 | 1 |
| Clarithromycin | No Breakpoints | Defined | | 0.12 | 2 | 0.12 | 2 |
| Clindamycin | No Breakpoints | Defined | | 1 | > 8 | 1 | > 8 |
| Colistin | No Breakpoints | Defined | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 2 | 2 | 2 | 2 |
| Doripenem | No Breakpoints | Defined | | 2 | 8 | 2 | 8 |
| Doxycycline | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Ertapenem | No Breakpoints | Defined | | 4 | > 32 | 4 | > 32 |
| Gentamicin | No Breakpoints | Defined | | 8 | 8 | 8 | 8 |
| Imipenem | No Breakpoints | Defined | | 1 | 4 | 1 | 4 |
| Linezolid | 100.0% | | | 2 | 2 | 2 | 2 |
| Meropenem | No Breakpoints | Defined | | 2 | 16 | 2 | 16 |
| Moxifloxacin | No Breakpoints | Defined | | 0.5 | 0.5 | 0.5 | 0.5 |
| Piperacillin Tazobactam | No Breakpoints | Defined | | 4 | 16 | 4 | 16 |
| Tigecycline | No Breakpoints | Defined | | 0.06 | 0.12 | 0.06 | 0.12 |
| Tobramycin | No Breakpoints | Defined | | > 64 | > 64 | > 64 | > 64 |
| Trimethoprim Sulfa | No Breakpoints | Defined | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Vancomycin | 100.0% | | | 0.5 | 1 | 0.5 | 1 |

CANWARD 2012

S. agalactiae Susceptibility - Quebec

***Streptococcus agalactiae* (11)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | 0.12 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefuroxime | No Breakpoints Defined | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Chloramphenicol | 100.0% | | | 4 | 4 | 2 | 4 |
| Ciprofloxacin | No Breakpoints Defined | | | 1 | 1 | 0.5 | 1 |
| Clarithromycin | 81.8% | 9.1% | 9.1% | ≤ 0.03 | 0.5 | ≤ 0.03 | 32 |
| Clindamycin | 90.9% | | 9.1% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 64 |
| Daptomycin | 100.0% | | | 0.25 | 0.25 | 0.12 | 0.25 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Doxycycline | No Breakpoints Defined | | | 8 | 16 | ≤ 0.25 | 16 |
| Ertapenem | 100.0% | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Imipenem | No Breakpoints Defined | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Levofloxacin | 100.0% | | | 1 | 1 | 0.5 | 1 |
| Linezolid | 100.0% | | | 2 | 2 | 1 | 2 |
| Meropenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Moxifloxacin | No Breakpoints Defined | | | 0.12 | 0.25 | 0.12 | 0.25 |
| Penicillin | 100.0% | | | 0.06 | 0.06 | 0.06 | 0.06 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Telithromycin | No Breakpoints Defined | | | 0.015 | 0.12 | 0.015 | 0.12 |
| Tigecycline * | 100.0% | | | 0.03 | 0.06 | 0.03 | 0.06 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 0.25 |
| Vancomycin | 100.0% | | | 0.5 | 0.5 | 0.25 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

P. mirabilis Susceptibility - Maritimes

***Proteus mirabilis* (5)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | 2 | 4 | ≤ 1 | 4 |
| Amoxicillin Clavulanic Acid | 100.0% | | | 1 | 8 | 1 | 8 |
| Aztreonam | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefazolin | | 80.0% | 20.0% | 4 | 16 | 4 | 16 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | 100.0% | | | 4 | 4 | 4 | 4 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Ceftriaxone | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | 0.25 | ≤ 0.06 | 0.25 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | ≤ 0.06 | > 16 |
| Doripenem | 100.0% | | | 0.25 | 0.25 | 0.12 | 0.25 |
| Doxycycline | | | 100.0% | 32 | > 32 | 16 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Gentamicin | 100.0% | | | ≤ 0.5 | 1 | ≤ 0.5 | 1 |
| Imipenem | 40.0% | 60.0% | | 2 | 2 | 0.25 | 2 |
| Meropenem | 100.0% | | | 0.06 | 0.06 | 0.06 | 0.06 |
| Moxifloxacin * | 100.0% | | | 0.5 | 2 | 0.25 | 2 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Tigecycline * | 40.0% | 60.0% | | 4 | 4 | 1 | 4 |
| Tobramycin | 100.0% | | | ≤ 0.5 | 1 | ≤ 0.5 | 1 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | 1 | ≤ 0.12 | 1 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
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CANWARD 2012

S. pyogenes Susceptibility - Quebec

***Streptococcus pyogenes* (4)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|----------------|---------|-------|-------------------|-------------------|---------|---------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | No Breakpoints | Defined | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefuroxime | No Breakpoints | Defined | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Chloramphenicol | 100.0% | | | 2 | 4 | 1 | 4 |
| Ciprofloxacin | No Breakpoints | Defined | | 0.5 | 0.5 | 0.12 | 0.5 |
| Clarithromycin | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Clindamycin | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Daptomycin | 100.0% | | | 0.06 | 0.12 | 0.06 | 0.12 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Doxycycline | No Breakpoints | Defined | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Ertapenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Imipenem | No Breakpoints | Defined | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Levofloxacin | 100.0% | | | 0.5 | 0.5 | 0.25 | 0.5 |
| Linezolid | 100.0% | | | 1 | 2 | 1 | 2 |
| Meropenem | 100.0% | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Moxifloxacin | No Breakpoints | Defined | | 0.12 | 0.12 | ≤ 0.06 | 0.12 |
| Penicillin | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Piperacillin Tazobactam | No Breakpoints | Defined | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Telithromycin | No Breakpoints | Defined | | 0.008 | 0.008 | 0.004 | 0.008 |
| Tigecycline * | 100.0% | | | ≤ 0.015 | ≤ 0.015 | ≤ 0.015 | ≤ 0.015 |
| Trimethoprim Sulfa | No Breakpoints | Defined | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Vancomycin | 100.0% | | | 0.25 | 0.5 | 0.25 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

C. freundii Susceptibility - Quebec

***Citrobacter freundii* (1)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|--------|--------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Amoxicillin Clavulanic Acid | | 100.0% | | 16 | 16 | 16 | 16 |
| Aztreonam | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefazolin | | 100.0% | | 4 | 4 | 4 | 4 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | | | 100.0% | 32 | 32 | 32 | 32 |
| Ceftazidime | 100.0% | | | 0.5 | 0.5 | 0.5 | 0.5 |
| Ceftriaxone | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.25 | 0.25 | 0.25 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Doxycycline | 100.0% | | | 2 | 2 | 2 | 2 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.5 | 0.5 | 0.5 | 0.5 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Moxifloxacin * | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Piperacillin Tazobactam | 100.0% | | | 2 | 2 | 2 | 2 |
| Tigecycline * | 100.0% | | | 0.5 | 0.5 | 0.5 | 0.5 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANWARD 2012

A. baumannii Susceptibility - Quebec

***Acinetobacter baumannii* (1)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|--------|-------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 16 | 16 | 16 | 16 |
| Aztreonam | No Breakpoints Defined | | | 32 | 32 | 32 | 32 |
| Cefazolin | | | | > 128 | > 128 | > 128 | > 128 |
| Cefepime | 100.0% | | | 2 | 2 | 2 | 2 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Ceftazidime | 100.0% | | | 8 | 8 | 8 | 8 |
| Ceftriaxone | | 100.0% | | 16 | 16 | 16 | 16 |
| Ciprofloxacin | 100.0% | | | 0.12 | 0.12 | 0.12 | 0.12 |
| Colistin | 100.0% | | | 1 | 1 | 1 | 1 |
| Doripenem | No Breakpoints Defined | | | 0.12 | 0.12 | 0.12 | 0.12 |
| Doxycycline | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Ertapenem | No Breakpoints Defined | | | 4 | 4 | 4 | 4 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.12 | 0.12 | 0.12 | 0.12 |
| Meropenem | 100.0% | | | 0.25 | 0.25 | 0.25 | 0.25 |
| Moxifloxacin | No Breakpoints Defined | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Piperacillin Tazobactam | 100.0% | | | 4 | 4 | 4 | 4 |
| Tigecycline | No Breakpoints Defined | | | 0.12 | 0.12 | 0.12 | 0.12 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |

CANWARD 2012

S. aureus, MSSA Susceptibility - Maritimes

***Staphylococcus aureus* , MSSA (108)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|----------------|---------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 100.0% | | | 4 | 4 | ≤ 1 | 8 |
| Amoxicillin Clavulanic Acid | No Breakpoints | Defined | | 0.5 | 1 | 0.12 | 1 |
| Aztreonam | No Breakpoints | Defined | | > 64 | > 64 | 64 | > 64 |
| Cefazolin | No Breakpoints | Defined | | ≤ 0.5 | 1 | ≤ 0.5 | 1 |
| Cefepime | No Breakpoints | Defined | | 2 | 4 | 1 | 4 |
| Cefoxitin | 100.0% | | | 4 | 4 | 1 | 4 |
| Ceftazidime | No Breakpoints | Defined | | 16 | 32 | 8 | 32 |
| Ceftriaxone | No Breakpoints | Defined | | 4 | 4 | 2 | 8 |
| Ciprofloxacin | 91.7% | 0.9% | 7.4% | 0.5 | 1 | 0.12 | > 16 |
| Clarithromycin | 79.6% | | 20.4% | 0.25 | > 32 | 0.12 | > 32 |
| Clindamycin | 95.4% | | 4.6% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints | Defined | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Doripenem | No Breakpoints | Defined | | 0.06 | 0.06 | ≤ 0.03 | 0.25 |
| Doxycycline | 99.1% | 0.9% | | ≤ 0.12 | 0.25 | ≤ 0.12 | 8 |
| Ertapenem | No Breakpoints | Defined | | 0.5 | 0.5 | 0.25 | 0.5 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 1 |
| Imipenem | No Breakpoints | Defined | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Linezolid | 100.0% | | | 2 | 4 | 1 | 4 |
| Meropenem | No Breakpoints | Defined | | 0.12 | 0.25 | ≤ 0.03 | 0.5 |
| Moxifloxacin | 94.4% | | 5.6% | ≤ 0.06 | 0.12 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | No Breakpoints | Defined | | ≤ 1 | ≤ 1 | ≤ 1 | 2 |
| Tigecycline * | 100.0% | | | 0.12 | 0.25 | 0.12 | 0.5 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 1 |
| Trimethoprim Sulfa | 98.1% | | 1.9% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 8 |
| Vancomycin | 100.0% | | | 1 | 1 | 0.5 | 1 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. coli Susceptibility - Maritimes

Escherichia coli (90)

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 98.9% | 1.1% | | 2 | 4 | ≤ 1 | 32 |
| Amoxicillin Clavulanic Acid | 80.0% | 13.3% | 6.7% | 4 | 16 | 1 | > 32 |
| Aztreonam | 95.6% | | 4.4% | ≤ 0.12 | 0.25 | ≤ 0.12 | 64 |
| Cefazolin | 66.7% | 17.8% | 15.6% | 2 | 8 | 1 | > 128 |
| Cefepime | 96.7% | 3.3% | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 16 |
| Cefoxitin | 90.0% | 5.6% | 4.4% | 4 | 8 | 1 | > 32 |
| Ceftazidime | 95.6% | | 4.4% | ≤ 0.25 | 1 | ≤ 0.25 | > 32 |
| Ceftriaxone | 94.4% | | 5.6% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | > 64 |
| Ciprofloxacin | 77.8% | 1.1% | 21.1% | ≤ 0.06 | > 16 | ≤ 0.06 | > 16 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.25 | ≤ 0.06 | > 16 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Doxycycline | 77.8% | 3.3% | 18.9% | 2 | 32 | 0.5 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.5 |
| Gentamicin | 91.1% | 1.1% | 7.8% | ≤ 0.5 | 2 | ≤ 0.5 | > 32 |
| Imipenem | 100.0% | | | 0.12 | 0.25 | 0.06 | 1 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Moxifloxacin * | 77.8% | | 22.2% | ≤ 0.06 | 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 96.7% | 2.2% | 1.1% | ≤ 1 | 4 | ≤ 1 | > 512 |
| Tigecycline * | 100.0% | | | 0.25 | 0.25 | 0.12 | 1 |
| Tobramycin | 93.3% | 4.4% | 2.2% | ≤ 0.5 | 1 | ≤ 0.5 | 32 |
| Trimethoprim Sulfa | 72.2% | | 27.8% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
RESISTANCE ALLIANCE



CANWARD 2012

P. aeruginosa Susceptibility - Maritimes

***Pseudomonas aeruginosa* (50)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 98.0% | | 2.0% | 4 | 16 | ≤ 1 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | > 32 | > 32 | 16 | > 32 |
| Aztreonam | 88.0% | 4.0% | 8.0% | 4 | 16 | ≤ 0.12 | > 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | 128 | > 128 |
| Cefepime | 94.0% | 2.0% | 4.0% | 2 | 8 | ≤ 0.25 | 32 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Ceftazidime | 84.0% | 4.0% | 12.0% | 4 | 32 | ≤ 0.25 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | 16 | > 64 | 1 | > 64 |
| Ciprofloxacin | 88.0% | 4.0% | 8.0% | 0.12 | 2 | ≤ 0.06 | 16 |
| Colistin | 98.0% | 2.0% | | 1 | 1 | 0.25 | 4 |
| Doripenem | 92.0% | 4.0% | 4.0% | 0.25 | 2 | ≤ 0.03 | 8 |
| Doxycycline | No Breakpoints Defined | | | 16 | 32 | 1 | > 32 |
| Ertapenem | No Breakpoints Defined | | | 8 | > 32 | 0.12 | > 32 |
| Gentamicin | 90.0% | 8.0% | 2.0% | 2 | 4 | ≤ 0.5 | > 32 |
| Imipenem | 76.0% | 14.0% | 10.0% | 2 | 4 | 0.5 | 32 |
| Meropenem | 86.0% | 10.0% | 4.0% | 0.5 | 4 | ≤ 0.03 | 8 |
| Moxifloxacin | No Breakpoints Defined | | | 2 | 8 | 0.12 | > 16 |
| Piperacillin Tazobactam | 88.0% | 6.0% | 6.0% | 4 | 32 | ≤ 1 | 512 |
| Tigecycline | No Breakpoints Defined | | | 16 | 16 | 1 | > 16 |
| Tobramycin | 98.0% | | 2.0% | ≤ 0.5 | 2 | ≤ 0.5 | 32 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | 8 | > 8 | 0.5 | > 8 |

CANWARD 2012

K. pneumoniae Susceptibility - Maritimes

***Klebsiella pneumoniae* (30)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | 2 |
| Amoxicillin Clavulanic Acid | 100.0% | | | 2 | 8 | 2 | 8 |
| Aztreonam | 100.0% | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 0.5 |
| Cefazolin | 90.0% | 6.7% | 3.3% | 1 | 2 | 1 | 8 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 0.5 |
| Cefoxitin | 90.0% | 3.3% | 6.7% | 4 | 8 | 2 | > 32 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | 1 | ≤ 0.25 | 4 |
| Ceftriaxone | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 0.5 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | 0.25 | ≤ 0.06 | 0.5 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.5 | 0.12 | > 16 |
| Doripenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.12 |
| Doxycycline | 76.7% | 3.3% | 20.0% | 2 | 32 | 1 | 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.12 |
| Gentamicin | 96.7% | | 3.3% | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 16 |
| Imipenem | 96.7% | 3.3% | | 0.25 | 0.25 | 0.12 | 2 |
| Meropenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.06 |
| Moxifloxacin * | 100.0% | | | 0.12 | 1 | ≤ 0.06 | 1 |
| Piperacillin Tazobactam | 100.0% | | | 2 | 8 | ≤ 1 | 16 |
| Tigecycline * | 90.0% | 6.7% | 3.3% | 0.5 | 2 | 0.25 | 8 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | 4 |
| Trimethoprim Sulfa | 96.7% | | 3.3% | ≤ 0.12 | 0.5 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
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CANWARD 2012

S. pneumoniae Susceptibility - Maritimes

***Streptococcus pneumoniae* (20)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|---------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | 0.25 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 0.25 |
| Cefuroxime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Chloramphenicol | 100.0% | | | 2 | 4 | 0.5 | 4 |
| Ciprofloxacin | 95.0% | | 5.0% | 1 | 2 | 0.12 | 4 |
| Clarithromycin | 80.0% | 5.0% | 15.0% | ≤ 0.03 | 2 | ≤ 0.03 | 4 |
| Clindamycin | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Daptomycin | No Breakpoints Defined | | | 0.12 | 0.12 | ≤ 0.03 | 0.25 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.12 |
| Doxycycline | 95.0% | | 5.0% | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | 2 |
| Ertapenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | 0.12 |
| Imipenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | 0.06 |
| Levofloxacin | 100.0% | | | 1 | 1 | ≤ 0.06 | 2 |
| Linezolid | 100.0% | | | 1 | 1 | ≤ 0.12 | 2 |
| Meropenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | 0.12 |
| Moxifloxacin | 100.0% | | | 0.12 | 0.25 | ≤ 0.06 | 0.25 |
| Penicillin | 89.5% | 10.5% | | ≤ 0.03 | 0.25 | ≤ 0.03 | 0.25 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Telithromycin | 100.0% | | | 0.008 | 0.06 | ≤ 0.002 | 0.25 |
| Tigecycline | 100.0% | | | ≤ 0.015 | 0.03 | ≤ 0.015 | 0.03 |
| Trimethoprim Sulfa | 90.0% | 10.0% | | ≤ 0.12 | 0.5 | ≤ 0.12 | 2 |
| Vancomycin | 100.0% | | | 0.25 | 0.25 | ≤ 0.12 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

S. aureus, MRSA Susceptibility - Maritimes

***Staphylococcus aureus*, MRSA (15)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 93.3% | 6.7% | | 16 | 16 | 2 | 32 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 16 | 32 | 8 | 32 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints Defined | | | 64 | > 128 | 2 | > 128 |
| Cefepime | No Breakpoints Defined | | | > 64 | > 64 | 16 | > 64 |
| Cefoxitin | | | 100.0% | > 32 | > 32 | 32 | > 32 |
| Ceftazidime | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | > 64 | > 64 | 32 | > 64 |
| Ciprofloxacin | 6.7% | | 93.3% | > 16 | > 16 | 0.25 | > 16 |
| Clarithromycin | 20.0% | | 80.0% | > 32 | > 32 | 0.12 | > 32 |
| Clindamycin | 80.0% | | 20.0% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Doripenem | No Breakpoints Defined | | | 2 | 16 | 0.12 | 32 |
| Doxycycline | 100.0% | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 0.25 |
| Ertapenem | No Breakpoints Defined | | | 16 | > 32 | 1 | > 32 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | No Breakpoints Defined | | | 1 | 32 | 0.12 | > 32 |
| Linezolid | 100.0% | | | 2 | 2 | 1 | 2 |
| Meropenem | No Breakpoints Defined | | | 4 | 16 | 0.5 | > 32 |
| Moxifloxacin | 6.7% | 13.3% | 80.0% | 8 | > 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | 32 | 128 | 4 | 128 |
| Tigecycline * | 100.0% | | | 0.12 | 0.12 | 0.12 | 0.25 |
| Tobramycin | 46.7% | | 53.3% | > 64 | > 64 | ≤ 0.5 | > 64 |
| Trimethoprim Sulfa | 86.7% | | 13.3% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |
| Vancomycin | 100.0% | | | 1 | 1 | 0.5 | 1 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. faecalis Susceptibility - Maritimes

***Enterococcus faecalis* (15)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|----------------|---------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | No Breakpoints | Defined | | > 64 | > 64 | 64 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints | Defined | | 0.5 | 1 | 0.25 | 1 |
| Aztreonam | No Breakpoints | Defined | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints | Defined | | 32 | 32 | 4 | 64 |
| Cefepime | No Breakpoints | Defined | | 64 | > 64 | 8 | > 64 |
| Cefoxitin | No Breakpoints | Defined | | > 32 | > 32 | > 32 | > 32 |
| Ceftazidime | No Breakpoints | Defined | | > 32 | > 32 | > 32 | > 32 |
| Ceftriaxone | No Breakpoints | Defined | | > 64 | > 64 | 4 | > 64 |
| Ciprofloxacin | 53.3% | 6.7% | 40.0% | 1 | > 16 | 0.5 | > 16 |
| Clarithromycin | No Breakpoints | Defined | | > 32 | > 32 | 0.12 | > 32 |
| Clindamycin | No Breakpoints | Defined | | > 8 | > 8 | 1 | > 8 |
| Colistin | No Breakpoints | Defined | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 1 | 1 | 0.25 | 2 |
| Doripenem | No Breakpoints | Defined | | 4 | 4 | 2 | 4 |
| Doxycycline | 46.7% | 53.3% | | 8 | 8 | ≤ 0.12 | 8 |
| Ertapenem | No Breakpoints | Defined | | 16 | 16 | 4 | 32 |
| Gentamicin | No Breakpoints | Defined | | 16 | > 32 | 4 | > 32 |
| Imipenem | No Breakpoints | Defined | | 1 | 2 | 1 | 2 |
| Linezolid | 100.0% | | | 2 | 2 | 1 | 2 |
| Meropenem | No Breakpoints | Defined | | 4 | 8 | 2 | 8 |
| Moxifloxacin | No Breakpoints | Defined | | 0.25 | 16 | 0.12 | > 16 |
| Piperacillin Tazobactam | No Breakpoints | Defined | | 4 | 4 | ≤ 1 | 8 |
| Tigecycline * | 100.0% | | | 0.12 | 0.12 | 0.06 | 0.12 |
| Tobramycin | No Breakpoints | Defined | | 16 | > 64 | 8 | > 64 |
| Trimethoprim Sulfa | No Breakpoints | Defined | | ≤ 0.12 | 0.5 | ≤ 0.12 | 2 |
| Vancomycin | 100.0% | | | 1 | 2 | 1 | 2 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

E. cloacae Susceptibility - Maritimes

***Enterobacter cloacae* (8)**

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 2 |
| Amoxicillin Clavulanic Acid | | | 100.0% | > 32 | > 32 | 32 | > 32 |
| Aztreonam | 62.5% | | 37.5% | ≤ 0.12 | 32 | ≤ 0.12 | 32 |
| Cefazolin | | | 100.0% | > 128 | > 128 | 64 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | 2 | ≤ 0.25 | 2 |
| Cefoxitin | | | 100.0% | > 32 | > 32 | 32 | > 32 |
| Ceftazidime | 62.5% | | 37.5% | 0.5 | > 32 | ≤ 0.25 | > 32 |
| Ceftriaxone | 62.5% | | 37.5% | ≤ 0.25 | > 64 | ≤ 0.25 | > 64 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Colistin | No Breakpoints Defined | | | 0.25 | > 16 | 0.12 | > 16 |
| Doripenem | 100.0% | | | 0.06 | 0.12 | 0.06 | 0.12 |
| Doxycycline | 100.0% | | | 2 | 4 | 2 | 4 |
| Ertapenem | 100.0% | | | 0.12 | 0.5 | ≤ 0.03 | 0.5 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.5 | 1 | 0.25 | 1 |
| Meropenem | 100.0% | | | 0.06 | 0.25 | ≤ 0.03 | 0.25 |
| Moxifloxacin * | 100.0% | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Piperacillin Tazobactam | 75.0% | 12.5% | 12.5% | 2 | 128 | ≤ 1 | 128 |
| Tigecycline * | 100.0% | | | 0.5 | 0.5 | 0.25 | 0.5 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Trimethoprim Sulfa | 87.5% | | 12.5% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANADIAN ANTIMICROBIAL
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CANWARD 2012

S. epidermidis Susceptibility - Maritimes

***Staphylococcus epidermidis* (10)**

| Drug | Susceptibility | | | MIC ₅₀ | MIC ₉₀ | Range | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|------|
| | % Sus | % Int | % Res | | | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Amoxicillin Clavulanic Acid | 100.0% | | | 1 | 2 | ≤ 0.06 | 4 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | 64 | > 64 |
| Cefazolin | 100.0% | | | 2 | 2 | ≤ 0.5 | 4 |
| Cefepime | 80.0% | 20.0% | | 4 | 16 | 0.5 | 16 |
| Cefoxitin | No Breakpoints Defined | | | 8 | 16 | 1 | 16 |
| Ceftazidime | 30.0% | 20.0% | 50.0% | 16 | > 32 | 4 | > 32 |
| Ceftriaxone | 40.0% | 50.0% | 10.0% | 16 | 32 | 1 | 64 |
| Ciprofloxacin | 40.0% | | 60.0% | 4 | > 16 | 0.12 | > 16 |
| Clarithromycin | 40.0% | | 60.0% | > 32 | > 32 | ≤ 0.03 | > 32 |
| Clindamycin | 80.0% | | 20.0% | ≤ 0.12 | > 8 | ≤ 0.12 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | 16 | > 16 |
| Daptomycin | 100.0% | | | 0.25 | 0.25 | ≤ 0.03 | 0.5 |
| Doripenem | No Breakpoints Defined | | | 1 | 4 | ≤ 0.03 | 8 |
| Doxycycline | 100.0% | | | 0.25 | 1 | ≤ 0.12 | 1 |
| Ertapenem | 40.0% | | 60.0% | 8 | 16 | 0.5 | > 32 |
| Gentamicin | 80.0% | 10.0% | 10.0% | ≤ 0.5 | 8 | ≤ 0.5 | 32 |
| Imipenem | 90.0% | | 10.0% | 0.25 | 1 | ≤ 0.03 | 16 |
| Linezolid | 100.0% | | | 1 | 1 | 0.25 | 1 |
| Meropenem | No Breakpoints Defined | | | 2 | 4 | 0.06 | 8 |
| Moxifloxacin | 50.0% | 10.0% | 40.0% | 0.5 | > 16 | ≤ 0.06 | > 16 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 2 |
| Tigecycline | No Breakpoints Defined | | | 0.12 | 0.25 | 0.06 | 0.25 |
| Tobramycin | 90.0% | 10.0% | | ≤ 0.5 | 2 | ≤ 0.5 | 8 |
| Trimethoprim Sulfa | 70.0% | | 30.0% | ≤ 0.12 | 8 | ≤ 0.12 | 8 |
| Vancomycin | 100.0% | | | 1 | 2 | 1 | 2 |

CANWARD 2012

S. marcescens Susceptibility - Maritimes

Serratia marcescens (14)

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | 2 | 4 | ≤ 1 | 8 |
| Amoxicillin Clavulanic Acid | | | 92.9% | > 32 | > 32 | 4 | > 32 |
| Aztreonam | | | | ≤ 0.12 | 0.25 | ≤ 0.12 | 0.25 |
| Cefazolin | | | 100.0% | > 128 | > 128 | > 128 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | | 64.3% | 7.1% | 16 | 16 | 8 | 32 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | 0.5 | ≤ 0.25 | 1 |
| Ceftriaxone | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | 0.25 | ≤ 0.06 | 0.5 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | 0.5 | > 16 |
| Doripenem | 100.0% | | | 0.12 | 0.25 | 0.06 | 0.25 |
| Doxycycline | 64.3% | 14.3% | 21.4% | 4 | 16 | 2 | 16 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.12 |
| Gentamicin | 100.0% | | | ≤ 0.5 | 1 | ≤ 0.5 | 2 |
| Imipenem | 100.0% | | | 0.5 | 1 | 0.5 | 1 |
| Meropenem | 100.0% | | | 0.06 | 0.06 | ≤ 0.03 | 0.06 |
| Moxifloxacin * | 100.0% | | | 0.25 | 1 | ≤ 0.06 | 2 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | 4 | ≤ 1 | 4 |
| Tigecycline * | 100.0% | | | 1 | 2 | 1 | 2 |
| Tobramycin | 100.0% | | | 1 | 4 | ≤ 0.5 | 4 |
| Trimethoprim Sulfa | 100.0% | | | 0.25 | 0.5 | 0.25 | 2 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANWARD 2012

K. oxytoca Susceptibility - Maritimes

***Klebsiella oxytoca* (8)**

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 2 |
| Amoxicillin Clavulanic Acid | 75.0% | 12.5% | 12.5% | 4 | 32 | 2 | 32 |
| Aztreonam | 75.0% | | 25.0% | ≤ 0.12 | 64 | ≤ 0.12 | 64 |
| Cefazolin | 37.5% | 25.0% | 37.5% | 4 | > 128 | 2 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | 0.5 | ≤ 0.25 | 0.5 |
| Cefoxitin | 100.0% | | | 2 | 8 | 1 | 8 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | 1 | ≤ 0.25 | 1 |
| Ceftriaxone | 75.0% | 12.5% | 12.5% | ≤ 0.25 | 4 | ≤ 0.25 | 4 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.25 | 0.25 | 0.25 |
| Doripenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.06 |
| Doxycycline | 100.0% | | | 2 | 4 | 1 | 4 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.06 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Meropenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Moxifloxacin * | 100.0% | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Piperacillin Tazobactam | 75.0% | | 25.0% | 2 | 512 | ≤ 1 | 512 |
| Tigecycline * | 100.0% | | | 0.25 | 1 | 0.25 | 1 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANWARD 2012

S. maltophilia Susceptibility - Maritimes

***Stenotrophomonas maltophilia* (9)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | | | | 32 | > 64 | 8 | > 64 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | > 32 | > 32 | 32 | > 32 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | > 128 | > 128 |
| Cefepime | No Breakpoints Defined | | | 32 | > 64 | 16 | > 64 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Ceftazidime | | 33.3% | 66.7% | > 32 | > 32 | 16 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Ciprofloxacin | No Breakpoints Defined | | | 8 | > 16 | 1 | > 16 |
| Colistin | No Breakpoints Defined | | | 8 | > 16 | 1 | > 16 |
| Doripenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Doxycycline | No Breakpoints Defined | | | 2 | 16 | 2 | 16 |
| Ertapenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Gentamicin | No Breakpoints Defined | | | 8 | > 32 | 2 | > 32 |
| Imipenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Meropenem | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Moxifloxacin | No Breakpoints Defined | | | 1 | > 16 | 0.12 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | 256 | > 512 | 64 | > 512 |
| Tigecycline | No Breakpoints Defined | | | 0.5 | 4 | 0.25 | 4 |
| Tobramycin | No Breakpoints Defined | | | 8 | > 64 | 2 | > 64 |
| Trimethoprim Sulfa | 55.6% | | 44.4% | 1 | > 8 | ≤ 0.12 | > 8 |

CANWARD 2012

E. faecium Susceptibility - Maritimes

***Enterococcus faecium* (5)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | No Breakpoints Defined | | | 16 | 16 | 16 | 16 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | > 32 | > 32 | 0.12 | > 32 |
| Aztreonam | No Breakpoints Defined | | | > 64 | > 64 | 64 | > 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | 16 | > 128 |
| Cefepime | No Breakpoints Defined | | | > 64 | > 64 | 4 | > 64 |
| Cefoxitin | No Breakpoints Defined | | | > 32 | > 32 | 16 | > 32 |
| Ceftazidime | No Breakpoints Defined | | | > 32 | > 32 | > 32 | > 32 |
| Ceftriaxone | No Breakpoints Defined | | | > 64 | > 64 | 4 | > 64 |
| Ciprofloxacin | 40.0% | | 60.0% | > 16 | > 16 | 0.5 | > 16 |
| Clarithromycin | No Breakpoints Defined | | | > 32 | > 32 | 2 | > 32 |
| Clindamycin | No Breakpoints Defined | | | > 8 | > 8 | 8 | > 8 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | > 16 | > 16 |
| Daptomycin | 100.0% | | | 2 | 2 | 1 | 2 |
| Doripenem | No Breakpoints Defined | | | > 32 | > 32 | 1 | > 32 |
| Doxycycline | 80.0% | 20.0% | | ≤ 0.12 | 8 | ≤ 0.12 | 8 |
| Ertapenem | No Breakpoints Defined | | | > 32 | > 32 | 4 | > 32 |
| Gentamicin | No Breakpoints Defined | | | 8 | 8 | 8 | 8 |
| Imipenem | No Breakpoints Defined | | | > 32 | > 32 | 0.5 | > 32 |
| Linezolid | 80.0% | 20.0% | | 2 | 4 | 1 | 4 |
| Meropenem | No Breakpoints Defined | | | > 32 | > 32 | 2 | > 32 |
| Moxifloxacin | No Breakpoints Defined | | | 16 | > 16 | 0.25 | > 16 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | > 512 | > 512 | 4 | > 512 |
| Tigecycline | No Breakpoints Defined | | | 0.06 | 0.06 | 0.06 | 0.06 |
| Tobramycin | No Breakpoints Defined | | | > 64 | > 64 | > 64 | > 64 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | 0.5 | > 8 | ≤ 0.12 | > 8 |
| Vancomycin | 100.0% | | | 0.5 | 1 | 0.5 | 1 |

CANWARD 2012

S. agalactiae Susceptibility - Maritimes

***Streptococcus agalactiae* (10)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefuroxime | No Breakpoints Defined | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Chloramphenicol | 100.0% | | | 4 | 4 | 2 | 4 |
| Ciprofloxacin | No Breakpoints Defined | | | 0.5 | > 16 | 0.5 | > 16 |
| Clarithromycin | 80.0% | | 20.0% | ≤ 0.03 | > 32 | ≤ 0.03 | > 32 |
| Clindamycin | 90.0% | | 10.0% | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | > 64 |
| Daptomycin | 100.0% | | | 0.12 | 0.25 | 0.12 | 0.25 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Doxycycline | No Breakpoints Defined | | | 8 | 16 | ≤ 0.25 | 16 |
| Ertapenem | 100.0% | | | ≤ 0.06 | 0.12 | ≤ 0.06 | 0.12 |
| Imipenem | No Breakpoints Defined | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Levofloxacin | 80.0% | | 20.0% | 1 | 32 | 0.5 | 32 |
| Linezolid | 100.0% | | | 2 | 2 | 1 | 2 |
| Meropenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Moxifloxacin | No Breakpoints Defined | | | 0.12 | 4 | 0.12 | 4 |
| Penicillin | 100.0% | | | 0.06 | 0.06 | ≤ 0.03 | 0.06 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Telithromycin | No Breakpoints Defined | | | 0.015 | 0.015 | 0.015 | 1 |
| Tigecycline * | 100.0% | | | 0.06 | 0.06 | 0.03 | 0.06 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | 1 |
| Vancomycin | 100.0% | | | 0.5 | 0.5 | 0.5 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

P. mirabilis Susceptibility - Maritimes

Proteus mirabilis (9)

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | 2 | 8 | ≤ 1 | 8 |
| Amoxicillin Clavulanic Acid | 88.9% | | | 1 | > 32 | 0.5 | > 32 |
| Aztreonam | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefazolin | | 77.8% | 22.2% | 4 | > 128 | 4 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | 0.5 | ≤ 0.25 | 0.5 |
| Cefoxitin | 77.8% | 22.2% | | 4 | 16 | 4 | 16 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | 4 | ≤ 0.25 | 4 |
| Ceftriaxone | 88.9% | 11.1% | | ≤ 0.25 | 2 | ≤ 0.25 | 2 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | 0.25 | ≤ 0.06 | 0.25 |
| Colistin | No Breakpoints Defined | | | > 16 | > 16 | 16 | > 16 |
| Doripenem | 100.0% | | | 0.12 | 0.25 | 0.06 | 0.25 |
| Doxycycline | | | 100.0% | > 32 | > 32 | 16 | > 32 |
| Ertapenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Gentamicin | 77.8% | 11.1% | 11.1% | 1 | 16 | ≤ 0.5 | 16 |
| Imipenem | 33.3% | 44.4% | 22.2% | 2 | 4 | 0.25 | 4 |
| Meropenem | 100.0% | | | 0.06 | 0.12 | ≤ 0.03 | 0.12 |
| Moxifloxacin * | 100.0% | | | 0.5 | 1 | 0.25 | 1 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Tigecycline * | 22.2% | 33.3% | 44.4% | 4 | 8 | 2 | 8 |
| Tobramycin | 88.9% | | 11.1% | 1 | 16 | ≤ 0.5 | 16 |
| Trimethoprim Sulfa | 77.8% | | 22.2% | 0.25 | > 8 | ≤ 0.12 | > 8 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANWARD 2012

S. pyogenes Susceptibility - Maritimes

***Streptococcus pyogenes* (4)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|---------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Ceftriaxone | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefuroxime | No Breakpoints Defined | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Chloramphenicol | 100.0% | | | 2 | 4 | 2 | 4 |
| Ciprofloxacin | No Breakpoints Defined | | | 0.5 | 1 | 0.5 | 1 |
| Clarithromycin | 75.0% | | 25.0% | ≤ 0.03 | > 32 | ≤ 0.03 | > 32 |
| Clindamycin | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Daptomycin | 100.0% | | | 0.06 | 0.12 | 0.06 | 0.12 |
| Doripenem | 100.0% | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Doxycycline | No Breakpoints Defined | | | ≤ 0.25 | 16 | ≤ 0.25 | 16 |
| Ertapenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Imipenem | No Breakpoints Defined | | | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 | ≤ 0.03 |
| Levofloxacin | 100.0% | | | 0.5 | 1 | 0.5 | 1 |
| Linezolid | 100.0% | | | 1 | 2 | 1 | 2 |
| Meropenem | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Moxifloxacin | No Breakpoints Defined | | | 0.12 | 0.25 | 0.12 | 0.25 |
| Penicillin | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.06 |
| Piperacillin Tazobactam | No Breakpoints Defined | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Telithromycin | No Breakpoints Defined | | | 0.008 | 0.015 | 0.004 | 0.015 |
| Tigecycline * | 100.0% | | | 0.03 | 0.06 | ≤ 0.015 | 0.06 |
| Trimethoprim Sulfa | No Breakpoints Defined | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Vancomycin | 100.0% | | | 0.5 | 0.5 | 0.25 | 0.5 |

*Interpretive breakpoints defined by FDA (tigecycline)

CANWARD 2012

C. freundii Susceptibility - Maritimes

Citrobacter freundii (2)

| Drug | Susceptibility | | | | Range | | |
|-----------------------------|------------------------|-------|--------|-------------------|-------------------|--------|--------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Amoxicillin Clavulanic Acid | | | 100.0% | 32 | > 32 | 32 | > 32 |
| Aztreonam | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |
| Cefazolin | | | 100.0% | 32 | > 128 | 32 | > 128 |
| Cefepime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Cefoxitin | | | 100.0% | > 32 | > 32 | > 32 | > 32 |
| Ceftazidime | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Ceftriaxone | 100.0% | | | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 | ≤ 0.25 |
| Ciprofloxacin | 100.0% | | | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 | ≤ 0.06 |
| Colistin | No Breakpoints Defined | | | 0.25 | 0.25 | 0.25 | 0.25 |
| Doripenem | 100.0% | | | 0.06 | 0.06 | 0.06 | 0.06 |
| Doxycycline | 100.0% | | | 2 | 2 | 2 | 2 |
| Ertapenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.06 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Meropenem | 100.0% | | | ≤ 0.03 | 0.06 | ≤ 0.03 | 0.06 |
| Moxifloxacin * | 100.0% | | | ≤ 0.06 | 0.25 | ≤ 0.06 | 0.25 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | ≤ 1 | ≤ 1 | ≤ 1 |
| Tigecycline * | 100.0% | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Tobramycin | 100.0% | | | ≤ 0.5 | 1 | ≤ 0.5 | 1 |
| Trimethoprim Sulfa | 100.0% | | | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 | ≤ 0.12 |

*Interpretive breakpoints defined by FDA (moxifloxacin, tigecycline)

CANWARD 2012

A. baumannii Susceptibility - Maritimes

***Acinetobacter baumannii* (3)**

| Drug | Susceptibility | | | Range | | | |
|-----------------------------|------------------------|-------|-------|-------------------|-------------------|--------|-------|
| | % Sus | % Int | % Res | MIC ₅₀ | MIC ₉₀ | Min | Max |
| Amikacin | 100.0% | | | ≤ 1 | 2 | ≤ 1 | 2 |
| Amoxicillin Clavulanic Acid | No Breakpoints Defined | | | 8 | 16 | 8 | 16 |
| Aztreonam | No Breakpoints Defined | | | 16 | > 64 | 4 | > 64 |
| Cefazolin | No Breakpoints Defined | | | > 128 | > 128 | 128 | > 128 |
| Cefepime | 100.0% | | | 2 | 8 | 0.5 | 8 |
| Cefoxitin | No Breakpoints Defined | | | 16 | > 32 | 8 | > 32 |
| Ceftazidime | 100.0% | | | 2 | 8 | 2 | 8 |
| Ceftriaxone | 33.3% | 66.7% | | 16 | 16 | 4 | 16 |
| Ciprofloxacin | 100.0% | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Colistin | 100.0% | | | 0.5 | 1 | 0.5 | 1 |
| Doripenem | No Breakpoints Defined | | | 0.25 | 0.5 | 0.12 | 0.5 |
| Doxycycline | 100.0% | | | 0.25 | 0.5 | 0.25 | 0.5 |
| Ertapenem | No Breakpoints Defined | | | 2 | 16 | 1 | 16 |
| Gentamicin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Imipenem | 100.0% | | | 0.25 | 0.25 | 0.12 | 0.25 |
| Meropenem | 100.0% | | | 0.25 | 1 | 0.25 | 1 |
| Moxifloxacin | No Breakpoints Defined | | | 0.12 | 0.25 | 0.12 | 0.25 |
| Piperacillin Tazobactam | 100.0% | | | ≤ 1 | 16 | ≤ 1 | 16 |
| Tigecycline | No Breakpoints Defined | | | 0.25 | 1 | 0.12 | 1 |
| Tobramycin | 100.0% | | | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 | ≤ 0.5 |
| Trimethoprim Sulfa | 100.0% | | | 0.25 | 0.5 | ≤ 0.12 | 0.5 |

CANWARD 2012 Prevalence of MRSA by Region

| | West | Ontario | Quebec | Maritimes | National |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|
| # MRSA | 64 | 39 | 7 | 15 | 125 |
| Total # <i>S. aureus</i> | 254 | 251 | 61 | 123 | 689 |
| % Prevalence | 25.2 | 15.5 | 11.5 | 12.2 | 18.1 |

CANWARD 2012

Prevalence of CA/HA-MRSA by Region

| MRSA | West | Ontario | Quebec | Maritimes | National |
|----------------------|-------------|-------------|--------------|-------------|-------------|
| CA-MRSA (n) | 30 | 16 | 0 | 2 | 48 |
| HA-MRSA (n) | 29 | 21 | 7 | 11 | 68 |
| Unique (n) | 5 | 2 | 0 | 2 | 9 |
| % CA-MRSA/ region | 46.9 | 41.0 | 0.0 | 13.3 | 38.4 |
| % HA-MRSA/ region | 45.3 | 53.8 | 100.0 | 73.3 | 54.4 |

CANWARD 2012 Prevalence of VRE by Region

| | West | Ontario | Quebec | Maritimes | National |
|------------------------------------------------|------------|-------------|------------|------------|------------|
| # VRE/region | 3 | 7 | 0 | 0 | 10 |
| Total # <i>Enterococcus sp.</i> / region | 46 | 47 | 15 | 20 | 128 |
| % Prevalence | 6.5 | 14.9 | 0.0 | 0.0 | 708 |

9 *vanA*, 1 *vanB*

CANWARD 2012

Prevalence of ESBL producing *E. coli* by Region

| | West | Ontario | Quebec | Maritimes | National |
|------------------------|------------|-------------|------------|------------|------------|
| # ESBL <i>E. coli</i> | 8 | 20 | 5 | 5 | 38 |
| Total # <i>E. coli</i> | 163 | 172 | 75 | 90 | 500 |
| % Prevalence | 4.9 | 11.6 | 6.7 | 5.6 | 7.6 |

CANWARD 2012

Prevalence of ESBL producing *K. pneumoniae* by Region

| | West | Ontario | Quebec | Maritimes | National |
|---------------------------------|------------|------------|------------|------------|------------|
| # ESBL <i>K. Pneumoniae</i> | 3 | 2 | 1 | 0 | 6 |
| Total # <i>K. pneumoniae</i> | 47 | 60 | 32 | 30 | 169 |
| % Prevalence | 6.4 | 3.3 | 3.1 | 0.0 | 3.6 |