Table 1: COLONY COUNTING

|  |  |  |  |
| --- | --- | --- | --- |
| Sample Code | Total heterotrophic Count (x101 CFU) | Coliform count (x101 CFU) | E. coli Count (X100 CFU) |
| 1 | 98 | 228 | 3 |
| 2 | 0 | 105 | 0 |
| 3 | 476 | 131 | 35 |
| 4 | 11 | 1 | 1 |
| 5 | 12 | 11 | 7 |
| 6 | 39 | 0 | 0 |
| 7 | 233 | 4 | 0 |
| 8 | 0 | 118 | 0 |
| 9 | 88 | 102 | 0 |
| 10 | 40 | 108 | 0 |
| 11 | 87 | 93 | 0 |
| 12 | 2 | 0 | 0 |
| 13 | 0 | 27 | 0 |
| 14 | 344 | 438 | 228 |
| 15 | 16 | 9 | 0 |

Table 2: MORPHOLOGICAL CHARACTERISTICS AND BIOCHEMICAL TESTS

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ISOLATE CODE | SIZE | SHAPE | ELEVATION | COLOUR | CONSISTENCY | OPACITY | LACTOSE FERMENTATION | KOH TEST | CATALASE TEST | GRAM REACTION | CELL SHAPE |
| 1.2.1 Mac 1 sub | Medium | Irregular | Raised | Pink | Mucoid | Opaque | LF | + | + | + | Cocci |
| 14.1.1 Na1 sub | Medium | Circular | Raised | Pink | Mucoid | Translucent | LF | + | + | - | Cocci |
| 14.2.1 Mac1 sub | Medium | Circular | Raised | Pink | Mucoid | Opaque | LF | + | + | - | Cocci |
| 14.1.1 Mac1 sub | Medium | Circular | Flat | Pink | Mucoid | Opaque | LF | + | + | - | Cocci |
| 13.2 Mac1 sub | Medium | Circular | Raised | Pink | Mucoid | Opaque | LF | + | + | + | Rod |
| 14.0.2 Emb0 sub | Large | Circular | Flat | Pink | Mucoid | Opaque | LF | + | + | - | Rod |
| 14.0.3 Emb0 sub | Medium | Circular | Flat | Pink | Mucoid | Opaque | LF | + | + | - | Cocci |
| 1.1.1 Mac1sub | Medium | Circular | Flat | Colourless | Mucoid | Translucent | NLF | + | - | - | Cocci |
| 14.4 Mac1 sub | Medium | Circular | Flat | Pink | Mucoid | Translucent | LF | + | + | + | Cocci |
| 14.5 Mac1 sub | Medium | Circular | Flat | Pink | Mucoid | Opaque | LF | + | + | - | Rod |
| 14.1 Na2 sub | Medium | Circular | Flat | Colourless | Mucoid | Translucent | NLF | - | + | - | Rod |
| 15.2 Na1 sub | Medium | Circular | Flat | Colourless | Mucoid | Translucent | NLF | + | - | - | Rod |
| 2.1 Mac1 sub | Medium | Circular | Raised | Colourless | Mucoid | Opaque | NLF | + | + | - | Rod |
| 2.2 Mac1 sub | Medium | Circular | Raised | Colourless | Mucoid | Opaque | NLF | + | + | + | Cocci |
| 14.3 Mac1 sub | Medium | Circular | Raised | Pink | Mucoid | Opaque | LF | + | + | - | Cocci |
| 14.3a Mac1 sub | Medium | Circular | Raised | Pink | Mucoid | Opaque | LF | + | + | - | Cocci |
| 7.1 Na1 sub | Medium | Circular | Raised | Pink | Mucoid | Opaque | LF | - | + | - | Rod |
| 6.2 Na1 sub | Large | Circular | Flat | Colourless | Dry | Transparent | NLF | - | - | + | Cocci |
| 1.1 Na2 sub | Medium | Circular | Flat | Colourless | Dry | Transparent | NLF | + | - | + | Cocci |
| 9.1 Na2 sub | Medium | Circular | Flat | Colourless | Dry | Transparent | NLF | + | + | - | Rod |
| 6.3 Na1 sub | Medium | Circular | Flat | Colourless | Mucoid | Transparent | NLF | + | + | + | Cocci |
| 14.2.1 Na1 sub | Medium | Circular | Flat | Pink | Mucoid | Translucent | NLF | + | + | - | Cocci |
| 13.3 Mac1 sub | Medium | Circular | Flat | Colourless | Mucoid | Translucent | NLF | + | + | + | Cocci |
| 13.1 Mac1 sub | Large | Circular | Flat | Colourless | Mucoid | Translucent | NLF | + | + | + | Cocci |
| 14.3.1 Na1 sub | Medium | Circular | Raised | Pink | Mucoid | Opaque | LF | + | + | - | Cocci |
| 15.1 Na1 sub | Medium | Circular | Flat | Colourless | Mucoid | Transparent | NLF | + | - | + | Rod |
| 11.1 Na2 sub | Medium | Circular | Flat | Colourless | Mucoid | Transparent | NLF | + | - | + | Cocci |
| 9.2 Na2 sub | Medium | Circular | Flat | Colourless | Mucoid | Transparent | NLF | + | + | + | Rod |
| 1.1 Emb0 sub | Medium | Circular | Flat | Colourless | Mucoid | Transparent | NLF | + | + | - | Rod |
| 14.01 Emb0 sub | Medium | Circular | Raised | Pink | Mucoid | Opaque | LF | + | - | - | Rod |

Table 3: ANTIMICROBIAL SUSCEPTIBILITY TESTING

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IMI | CAZ | MRP | CRO | CTX | ESBL | CAB |
| S | S | S | S | S | - | - |
| S | R | R | S | S | + | + |
| S | I | R | R | R | + | + |
| S | S | S | S | S | - | - |
| S | S | S | R | R | + | - |
| I | R | S | R | R | + | + |
| S | S | S | R | R | + | - |
| S | R | R | R | R | + | + |
| S | R | S | I | R | + | - |
| S | S | S | I | S | + | - |
| S | R | S | R | R | + | - |
| S | S | S | S | S | - | - |
| S | S | S | S | S | - | - |
| S | S | S | S | S | - | - |
| S | S | S | S | S | - | - |
| S | S | S | S | S | - | - |
| S | S | S | S | S | - | - |
| R | S | S | S | S | - | + |
| S | S | S | S | S | - | - |
| S | S | S | S | S | - | - |
| S | S | S | S | S | - | - |
| S | S | S | S | S | - | - |
| S | S | S | S | R | + | - |
| S | S | S | R | S | + | - |
| S | S | S | R | S | + | - |
| S | S | S | S | S | - | - |
| S | S | S | S | S | - | - |
| R | R | S | R | S | + | + |
| S | S | S | S | S | - | - |
| S | R | S | S | S | - | + |

|  |  |  |  |
| --- | --- | --- | --- |
|  | S(%) | I(%) | R(%) |
| CAZ | 22(73.33) | 1(3.33) | 7(23.33) |
| CTX | 22(73.33) | 0(0) | 8(26.66) |
| CRO | 19(63.33) | 2(6.66) | 9(30) |
| IMI | 27(90) | 1(3.33) | 2(6.66) |
| MRP | 27(90) | 0(0) | 3(10) |

|  |  |  |  |
| --- | --- | --- | --- |
| According to the CLSI Table | | |  |
|  | S | I | R |
| MRP | >=23 | 20-22 | <=19 |
| IMP | >=23 | 20-22 | <=19 |
| CTX | >=21 | 18-20 | <=17 |
| CRO | >=23 | 20-22 | <=19 |
| CAZ | >=23 | 18-20 | <=17 |

CAZ- Ceftazidime

CTX- Cefotaxime

CRO- Ceftriaxone

IMI- Imipenem

MRP- Meropenem

Figure 1: DIAGRAMMATIC REPRESENTATION OF ISOLATE DISTRIBUTION AND ENZYME PRODUCTION

Table 4: RESULT FOR ESBL AND CARBAPENEMASE SCREENING

|  |  |
| --- | --- |
| ISOLATE CODE | ESBL |
| 14.1.1 Na1 sub | - |
| 14.0.3 Emb0 sub | - |
| 1.1.1 Mac1 sub | - |
| 14.4 Mac1 sub | - |
| 14.5 Mac1 sub | - |
| 14.1 Na2 sub | - |
| 1.1 Na2 sub | - |
| 6.3 Na1 sub | - |
| 14.2.1 Na1 sub | - |
| 13.3 Mac1 sub | - |
| 13.1 Mac1 sub | - |
| 9.2 Na2 sub | - |
| 14.2.1 Mac1 sub | - |
| 13.2 Mac1 sub | - |
| 14.0.2 Emb0 sub | - |
| 14.3.1 Na1 sub | - |

|  |  |
| --- | --- |
| ISOLATE CODE | CAB |
| 14.0.3 Emb0 sub | - |
| 1.1.1 Mac1 sub | - |
| 6.2 Na1 sub | - |
| 1.1 Na2 sub | - |
| 14.2.1 Na2 sub | + |
| 9.2 Na2 sub | - |
| 14.1.1 Na1 sub | - |
| 14.2.1 Mac1 sub | - |
| 14.0.2 Emb0 sub | - |
| 14.0.1 Emb0 sub | - |