

**T1** Cellular and biochemical results from the analysis of multiple drain fluids

|  | Drain 1             | Drain 2             | Drain 3                     | Reference interval/Interpretation                               | Commentary   |
|--|---------------------|---------------------|-----------------------------|---|--|
|  |                     | ED Visit 2          |                             |   |  |
|  | Subhepatic fluid    | Perihepatic fluid   | Right upper abdominal fluid |   | Peritoneal fluid or drainage with specific anatomic location   |
| <b>Identified source</b>                               | Drain               | Drain               | Drain                       |   |  |
| <b>Identified site</b>                                 | Hepatic compartment | Hepatic compartment | Upper abdomen               |   |  |
| <b>Gross appearance</b>                                | Brown               | Purulent            | Serous                      |   |  |
| <b>Total nucleated cells (cells/<math>\mu</math>L)</b> | 8,602               | 12,650              | 3,490                       | <500 cells/ $\mu$ L   |  |
| <b>Neutrophils</b>                                     | 79%                 | 100%                | 88%                         | <25%  |  |
| <b>Lymphocytes</b>                                     | 16%                 | 0%                  | 0%                          | N/A   |  |
| <b>Monocytes/Macrophages</b>                           | 0%                  | 0%                  | 12%                         | N/A   |  |
| <b>LDH</b>   | 9616 U/L            | 9328 U/L            | 3850 U/L                    | Exudate: Result > 2/3 times the upper limit of normal for serum | Consistent with inflammation and influx of nucleated WBC for resolution of infection. Limited use for evaluation of fluid as an exudate. |
| <b>Aerobic culture</b>                                 | No growth, 24 days  | No growth, 24 days  | No growth, 24 days          | No growth   |  |
| <b>pH</b>  | 7.5                 | 7.1                 | 7.7                         | N/A   | Limited evidence. Usually evaluate in pleural fluids for drainage of parapneumonic effusion.   |
|  |                     |                     |                             |   |  |
| <b>Amylase (BF)</b>                                    | 1406 U/L            | 4712 U/L            | 1465 U/L                    |   | Maximum utility when interpreted as a fluid to serum ratio   |
| <b>Amylase (Blood)</b>                                 | —                   | —                   | —                           |   |  |
| <b>Ratio</b>   | —                   | —                   | —                           | Ratio >3-5 suggests pancreatic                                  |  |
|  |                     |                     |                             |   |  |
| <b>Creatinine (BF)</b>                                 | 1.1 mg/dL           | 1.1 mg/dL           | 0.9 mg/dL                   |   | Ratio indicates repeatedly the body fluid is unlikely originating in the urinary tract   |
| <b>Creatinine (Blood)</b>                              | 1.1 mg/dL           | 1.1 mg/dL           | 0.9 mg/dL                   |   |  |
| <b>Ratio</b>   | 1                   | 1                   | 1                           | Ratio > 1.0 suggests urine present                              |  |
|  |                     |                     |                             |   |  |
| <b>Glucose (BF)</b>                                    | 71 mg/dL            | 43 mg/dL            | 33 mg/dL                    |   | Limited evidence   |
| <b>Glucose (Blood)</b>                                 | 110 mg/dL           | 110 mg/dL           | 114 mg/dL                   |   |  |
| <b>Ratio</b>   | 0.7                 | 0.4                 | 0.3                         | Ratio > ? suggests increased cellular metabolism                |  |
|  |                     |                     |                             |   |  |
| <b>Protein (BF)</b>                                    | 3.7 g/dL            | 4.4 g/dL            | 2.6 g/dL                    |   | Limited evidence; suggest SAAG   |
| <b>Protein (Blood)</b>                                 | 5.4 g/dL            | 5.4 g/dL            | 5.4 g/dL                    |   |  |
| <b>Ratio</b>   | 0.7                 | 0.8                 | 0.8                         | Exudate: Ratio > 0.5  |  |
|  |                     |                     |                             |   |  |
| <b>Cholesterol (BF)</b>                                | not evaluated       | not evaluated       | 45 mg/dL                    | > 32 to 70 suggest malignant ascites                            | Limited evidence   |
| <b>Triglycerides (BF)</b>                              |                     |                     | 30 mg/dL                    | <? pseudochyolous effusion                                      |  |
| <b>Chylomicrons (BF)</b>                               |                     |                     | Absent                      | Absent  |  |

**LDH:** lactate dehydrogenase **BF:** body fluid **WBC:** white blood cell **SAAG:** semi-ascites albumin gradient