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Working with Characters- Assignment 4

I summarized the incidence of hernia, abscess, and peritonitis among patients in the Test\_sample\_5 data set. The frequency of each recorded complication is provided in table 1. I found there were 36 incidents of hernias, 31 incidents of abscesses, and 5 incidents of peritonitis (including 1 case of “peritoneal signs”)(table 2). There were no cases with more than one of these incidents (table 3).

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| --- |
| The SAS System |

The FREQ Procedure

| **complication** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| --- | --- | --- | --- | --- |
| **Abdominal abscess** | 19 | 9.50 | 19 | 9.50 |
| **Adhesions** | 1 | 0.50 | 20 | 10.00 |
| **Aneurysm** | 1 | 0.50 | 21 | 10.50 |
| **Biliary Peritonitis** | 1 | 0.50 | 22 | 11.00 |
| **Biliary obstruction d/t stone** | 1 | 0.50 | 23 | 11.50 |
| **Biliary tube broken below level of skin** | 1 | 0.50 | 24 | 12.00 |
| **Biloma** | 1 | 0.50 | 25 | 12.50 |
| **Bleeding** | 1 | 0.50 | 26 | 13.00 |
| **Bowel perforation** | 1 | 0.50 | 27 | 13.50 |
| **Cellulitis** | 3 | 1.50 | 30 | 15.00 |
| **Check liver blood flow** | 1 | 0.50 | 31 | 15.50 |
| **Cholangitis** | 1 | 0.50 | 32 | 16.00 |
| **Choledochoduodenostomy** | 1 | 0.50 | 33 | 16.50 |
| **Enterocutaneous abd. Fistula** | 1 | 0.50 | 34 | 17.00 |
| **Enterocutaneous fistula** | 3 | 1.50 | 37 | 18.50 |
| **Enterotomy** | 1 | 0.50 | 38 | 19.00 |
| **Epididymitis** | 1 | 0.50 | 39 | 19.50 |
| **Erythema** | 1 | 0.50 | 40 | 20.00 |
| **Evisceration** | 1 | 0.50 | 41 | 20.50 |
| **Fascial dehiscence** | 1 | 0.50 | 42 | 21.00 |
| **Fistula to bowel** | 1 | 0.50 | 43 | 21.50 |
| **Foreign body** | 1 | 0.50 | 44 | 22.00 |
| **Foreign body found on CT** | 1 | 0.50 | 45 | 22.50 |
| **Functional Bowel Obstruction** | 1 | 0.50 | 46 | 23.00 |
| **HCC** | 1 | 0.50 | 47 | 23.50 |
| **HCC in native liver** | 1 | 0.50 | 48 | 24.00 |
| **Hematoma** | 3 | 1.50 | 51 | 25.50 |
| **Hernia** | 5 | 2.50 | 56 | 28.00 |
| **Ileostomy takedown** | 1 | 0.50 | 57 | 28.50 |
| **Ileus** | 1 | 0.50 | 58 | 29.00 |
| **Iliac vein thrombosis** | 1 | 0.50 | 59 | 29.50 |
| **Incarcerated hernia** | 2 | 1.00 | 61 | 30.50 |
| **Incarcerated incisional hernia** | 1 | 0.50 | 62 | 31.00 |
| **Incarcerated umbilical hernia** | 1 | 0.50 | 63 | 31.50 |
| **Incisional dehiscence** | 1 | 0.50 | 64 | 32.00 |
| **Incisional hematoma** | 2 | 1.00 | 66 | 33.00 |
| **Incisional hernia** | 16 | 8.00 | 82 | 41.00 |
| **Infection** | 3 | 1.50 | 85 | 42.50 |
| **Inguinal hernia** | 3 | 1.50 | 88 | 44.00 |
| **Intraabdominal Abcess** | 1 | 0.50 | 89 | 44.50 |
| **LIVER ABSESS** | 1 | 0.50 | 90 | 45.00 |
| **Liver Abscess** | 1 | 0.50 | 91 | 45.50 |
| **Liver abscess** | 5 | 2.50 | 96 | 48.00 |
| **Liver disfunction** | 1 | 0.50 | 97 | 48.50 |
| **Liver failure** | 2 | 1.00 | 99 | 49.50 |
| **Liver wound dehiscence** | 1 | 0.50 | 100 | 50.00 |
| **Liverdisfuncuntion** | 1 | 0.50 | 101 | 50.50 |
| **Lymphocele** | 1 | 0.50 | 102 | 51.00 |
| **Malnutrition** | 1 | 0.50 | 103 | 51.50 |
| **Mild liver graft dysfunction** | 1 | 0.50 | 104 | 52.00 |
| **Ogilvie's syndrome;** | 1 | 0.50 | 105 | 52.50 |
| **Pancreatic fistula** | 1 | 0.50 | 106 | 53.00 |
| **Pancreatic pseudocyst** | 1 | 0.50 | 107 | 53.50 |
| **Pancreatitis** | 2 | 1.00 | 109 | 54.50 |
| **Partial small bowel obstruction** | 1 | 0.50 | 110 | 55.00 |
| **Perforated diverticulosis** | 1 | 0.50 | 111 | 55.50 |
| **Perforated ulcer** | 1 | 0.50 | 112 | 56.00 |
| **Perforation** | 1 | 0.50 | 113 | 56.50 |
| **Perforation of SVC** | 1 | 0.50 | 114 | 57.00 |
| **Peritoneal signs** | 1 | 0.50 | 115 | 57.50 |
| **Peritonitis** | 3 | 1.50 | 118 | 59.00 |
| **Procurement injury** | 1 | 0.50 | 119 | 59.50 |
| **Pseudoaneurysm** | 1 | 0.50 | 120 | 60.00 |
| **Rejection** | 1 | 0.50 | 121 | 60.50 |
| **Relap:abd compartment syndrome** | 1 | 0.50 | 122 | 61.00 |
| **Ruptured hollow viscus** | 1 | 0.50 | 123 | 61.50 |
| **Slow graft function d/t reperfusion injury** | 1 | 0.50 | 124 | 62.00 |
| **Small bowel enterocutaneous fistula** | 1 | 0.50 | 125 | 62.50 |
| **Small bowel obstruction** | 1 | 0.50 | 126 | 63.00 |
| **Small bowel perforation** | 1 | 0.50 | 127 | 63.50 |
| **Small for size syndrome** | 2 | 1.00 | 129 | 64.50 |
| **Soft tissue abscess** | 1 | 0.50 | 130 | 65.00 |
| **Subcapsular hematomas** | 1 | 0.50 | 131 | 65.50 |
| **Subhepatic fluid collection** | 1 | 0.50 | 132 | 66.00 |
| **Teal syndrome** | 1 | 0.50 | 133 | 66.50 |
| **Thrombophlebitis** | 1 | 0.50 | 134 | 67.00 |
| **Typhelitis** | 1 | 0.50 | 135 | 67.50 |
| **Umbilical hernia** | 3 | 1.50 | 138 | 69.00 |
| **Unknown** | 3 | 1.50 | 141 | 70.50 |
| **Ventral hernia** | 3 | 1.50 | 144 | 72.00 |
| **Ventral hernia`** | 1 | 0.50 | 145 | 72.50 |
| **Wound Cellulitis** | 1 | 0.50 | 146 | 73.00 |
| **Wound dehiscence** | 1 | 0.50 | 147 | 73.50 |
| **Wound drainage** | 3 | 1.50 | 150 | 75.00 |
| **Wound infection** | 33 | 16.50 | 183 | 91.50 |
| **abscess** | 1 | 0.50 | 184 | 92.00 |
| **accessory bile duct leak** | 1 | 0.50 | 185 | 92.50 |
| **blisters on left corner of incision** | 1 | 0.50 | 186 | 93.00 |
| **diarrhea, nausea,vomiting** | 1 | 0.50 | 187 | 93.50 |
| **end-stage chronic rejection** | 1 | 0.50 | 188 | 94.00 |
| **evisceration** | 1 | 0.50 | 189 | 94.50 |
| **hep art intimal flap during expl** | 1 | 0.50 | 190 | 95.00 |
| **hepatocyte dysfunction** | 1 | 0.50 | 191 | 95.50 |
| **increasing bili** | 1 | 0.50 | 192 | 96.00 |
| **intimal dissection of hep art** | 1 | 0.50 | 193 | 96.50 |
| **intra-abd fluid collection** | 1 | 0.50 | 194 | 97.00 |
| **laceration of carotid artery** | 1 | 0.50 | 195 | 97.50 |
| **left hepatic lobe abcess** | 1 | 0.50 | 196 | 98.00 |
| **necrotic ischemic cholangitis** | 1 | 0.50 | 197 | 98.50 |
| **recurrent hernia** | 1 | 0.50 | 198 | 99.00 |
| **small for size syndrome** | 1 | 0.50 | 199 | 99.50 |
| **stitch abscess** | 1 | 0.50 | 200 | 100.00 |

Table 1. Frequencies of recorded complications.

| **Hernia** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| --- | --- | --- | --- | --- |
| **1** | 36 | 100.00 | 36 | 100.00 |
| **Frequency Missing = 164** | | | | |

| **Abscess** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| --- | --- | --- | --- | --- |
| **1** | 31 | 100.00 | 31 | 100.00 |
| **Frequency Missing = 169** | | | | |

| **Peritonitis** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| --- | --- | --- | --- | --- |
| **1** | 5 | 100.00 | 5 | 100.00 |
| **Frequency Missing = 195** | | | | |

Table 2. Frequencies of classes of complications.

| **num** | **Frequency** | **Percent** | **Cumulative Frequency** | **Cumulative Percent** |
| --- | --- | --- | --- | --- |
| **1** | 72 | 100.00 | 72 | 100.00 |
| **Frequency Missing = 128** | | | | |

Table 3. Frequency of more than one class of complication

**SAS Code:**

**data** test;

set class.Test\_sample\_5;

run;

**proc** **freq** data=test;

table complication;

**run**;

**data** test;

set test;

comp = lowcase(complication);

if index(comp,"hernia") > **0** then hern = **1**;

if index(comp,"absess") > **0** or index(comp,"abscess") > **0** or index(comp,"abcess") > **0** then ab = **1**;

/\*included one case of "peritoneal signs" not sure if this is peritonitis or not\*/

if index(comp,"perit") > **0** then peri = **1**;

num = sum(of hern--peri);

run;

**proc** **freq** data = test;

table hern ab peri num;

**run**;

**Log File:**

5 data test;

56 set class.Test\_sample\_5;

57 run;

NOTE: There were 200 observations read from the data set CLASS.TEST\_SAMPLE\_5.

NOTE: The data set WORK.TEST has 200 observations and 4 variables.

NOTE: DATA statement used (Total process time):

real time 0.00 seconds

cpu time 0.01 seconds

58

59 proc freq data=test;

60 table complication;

61 run;

NOTE: There were 200 observations read from the data set WORK.TEST.

NOTE: PROCEDURE FREQ used (Total process time):

real time 0.03 seconds

cpu time 0.03 seconds

62

63 data test;

64 set test;

65 comp = lowcase(complication);

66 if index(comp,"hernia") > 0 then hern = 1;

67 if index(comp,"absess") > 0 or index(comp,"abscess") > 0 or index(comp,"abcess") > 0 then ab

67 ! = 1;

68 /\*included one case of "peritoneal signs" not sure if this is peritonitis or not\*/

69 if index(comp,"perit") > 0 then peri = 1;

70 num = sum(of hern--peri);

71 run;

NOTE: Missing values were generated as a result of performing an operation on missing values.

Each place is given by: (Number of times) at (Line):(Column).

128 at 70:7

NOTE: There were 200 observations read from the data set WORK.TEST.

NOTE: The data set WORK.TEST has 200 observations and 9 variables.

NOTE: DATA statement used (Total process time):

real time 0.01 seconds

cpu time 0.01 seconds

72

73 proc freq data = test;

74 table hern ab peri num;

75 run;

NOTE: There were 200 observations read from the data set WORK.TEST.

NOTE: PROCEDURE FREQ used (Total process time):

real time 0.01 seconds

cpu time 0.01 seconds