Supplemental Digital Content 2 (page 1):
Example of "If, Then" code used to categorize surgical procedures into general categories

Example of procedure name and ORMIS numbers

SURGICAL PROCEDURE
(1089) CORONARY ARTERY BYPASS (CAB)
(10098) TALUS FRACTURE OPEN REDUCTION INTERNAL
(1216) SHOULDER REVERSE PROSTHESIS
(2159) LAPAROTOMY EXPLORATORY
(2413) BOWEL RESECTION, SMALL
(2581) THYROIDECTOMY/TOTAL
(3000) BRONCHOSCOPY WITH LAVAGE ONLY
(4029) OVARIAN CYSTECTOMY
(4160) HYSTERECTOMY ABDOMINAL, RADICAL W/LYMP
(4187) SKIN AND SUBCUTANEOUS TISSUE DEBRIDEMEN
(4266) HUMERUS, ORIF
(4294) CYSTOSCOPY, ADULT
(4755) NISSEN FUNDOPLICATION, LAPAROSCOPIC WIT
(4798) PROSTATECTOMY RADICAL RETROPUBIC (RRP)
(4798) PROSTATECTOMY RADICAL RETROPUBIC (RRP)
(4963) SHOULDER, TOTAL REPLACEMENT
(5028) MANDIBLE, ORIF (OPEN REDUCTION INTERNAL F
(5099) FACIAL WOUND DEBRIDEMENT
(6028) COLOSTOMY/ILEOSTOMY TAKEDOWN
(63) COLECTOMY TOTAL
(6416) HYSTERECTOMY TOTAL ABDOMINAL (TAH)
(6578) THIGH MASS EXCISION
(6578) THIGH MASS EXCISION
(6841) LAPAROSCOPY EXPLORATORY (DIAGNOSTIC)
(9004) LOOP ELECTROSURGICAL EXCISION PROCEDUR
(9036) COLECTOMY
(9072) HERNIA REPAIR, INCISIONAL
(9085) THYROIDECTOMY WITH LIMITED NECK DISSECTI
(9093) PARATHYROIDECTOMY
(9093) PARATHYROIDECTOMY

Legend:
CABG – Coronary artery bypass graft
ORIF – Open reduction internal fixation
ORMIS – Operating room information system
Panc – Pancreatic
PROC – Procedure
Lymp – Lymph node dissection

If, Then statements used to categorize procedures using ORMIS numbers

```
If Contains(PROC 1, "(2095)")
   | Contains(PROC 1, "(666)")
   | Contains(PROC 1, "(96)")
   | Contains(PROC 1, "(2520)")
   | Contains(PROC 1, "(2521)")
   | Contains(PROC 1, "(9199)")
   | Contains(PROC 1, "(5521)")
   | Contains(PROC 1, "(9828)")
   ⇒ "whipple panc"
else ⇒ "n"
```

```
If Contains(PROC 1, "(129)")
   | Contains(PROC 1, "(4155)")
   | Contains(PROC 1, "(4160)")
   ⇒ "uterus open"
else ⇒ "n"
```

```
If Contains(PROC 1, "(6470)")
   | Contains(PROC 1, "(9017)")
   | Contains(PROC 1, "(9026)")
   | Contains(PROC 1, "(9028)")
   | Contains(PROC 1, "(9906)")
   | Contains(PROC 1, "(9028)")
   | Contains(PROC 1, "(9906)")
   ⇒ "sternal proc"
else ⇒ "n"
```

```
If Contains(PROC 1, "(1966)")
   | Contains(PROC 1, "(1834)")
   | Contains(PROC 1, "(9913)")
   | Contains(PROC 1, "(4443)")
   | Contains(PROC 1, "(6455)")
   | Contains(PROC 1, "(4601)")
   | Contains(PROC 1, "(4102)")
   | Contains(PROC 1, "(4108)")
   | Contains(PROC 1, "(9686)")
   | Contains(PROC 1, "(8972)")
   | Contains(PROC 1, "(6869)")
   | Contains(PROC 1, "(1968)")
   | Contains(PROC 1, "(1403)")
   | Contains(PROC 1, "(105)")
   | Contains(PROC 1, "(10302)")
   | Contains(PROC 1, "(10178)")
   ⇒ "femur open"
else ⇒ "n"
```

```
If Contains(PROC 1, "(5787)")
   | Contains(PROC 1, "(9805)")
   | Contains(PROC 1, "(5762)")
   ⇒ "CABG/Valve"
else ⇒ "n"
```

Supplemental Digital Content 2 (Page 2):
Steps involved in setting up the algorithm used in Figure 1 of the manuscript to determine the appropriate preoperative blood orders for a given category of surgical procedure

Step 1

If 5 <= *% Transfused* ⇒ "%Tx≥5"
else ⇒ "%Tx less than 5"

If *Units/Patient* >= 0.3 ⇒ "TI greater than = 0.3"
else ⇒ "TI < 0.3"

If *Median EBL* > 50 ⇒ "EBL > 50"
else ⇒ "EBL less than = 50"

Step 2

If *% Tx ≥5%* == "%Tx≥5"
& *TI ≥0.3* == "TI greater than = 0.3" | *Risk of big bleed* == "yes" ⇒ "Def T/C"
& *EBL > 50* == "EBL > 50"
else ⇒ "n"

Step 3

If *% Tx ≥5%* == "%Tx less than 5"
& *TI ≥0.3* == "TI < 0.3"
& *EBL > 50* == "EBL less than = 50"
& *Risk of big bleed* == "n"
⇒ "no blood orders"
else ⇒ "some blood"

Step 4

If *No Blood order (TI 0.3)* == "no blood orders" ⇒ "no sample"
else ⇒ If *No Blood order (TI 0.3)* == "some blood"
& *Def TC (using TI 0.3)* == "n"
⇒ "T/S"
else ⇒ If *% 4+ units* > 10 ⇒ "T/C 4U"
else ⇒ "T/C 2U"

Legend:
Def – Definite
EBL – Estmated blood loss
N - No
T/C – Type and crossmatch
TI = Transfusion index
T/S – Type and screen
Tx - Transfused

Supplemental Digital Content 2 (Page 3):
"If, Then" function in Excel to use the algorithm described in Figure 1 of the manuscript

MS Excel: Nested IF Functions (WS)

It is possible to nest multiple **IF** functions within one Excel formula. You can nest up to 7 **IF functions** to create a complex IF THEN ELSE statement.

The syntax for the nesting the **IF** function is:

IF(condition1, value_if_true1, IF(condition2, value_if_true2, value_if_false2))

This would be equivalent to the following IF THEN ELSE statement:

```
IF condition1 THEN
  value_if_true1
ELSEIF condition2 THEN
  value_if_true2
ELSE
  value_if_false2
END IF
```

This syntax example demonstrates how to nest two **IF** functions. You can nest up to 7 **IF** functions.

condition is the value that you want to test.

value_if_true is the value that is returned if *condition* evaluates to TRUE.

value_if_false is the value that is return if *condition* evaluates to FALSE.