RESIST-Q algorithm

Specific version – cells coded in. Just copy and paste into excel.

=IF($E2="No", "No SSI", IF(IF(SUM(IF(SUM(IF(ISNUMBER(SEARCH("gaped", $I2)), 1, 0), IF($N2="Yes", 1, 0))>=1, 1, 0), IF(IF(ISNUMBER(SEARCH("pus", $G2)), 1, 0)+IF(SUM(IF(ISNUMBER(SEARCH("redness", $I2)), 1, 0), IF(ISNUMBER(SEARCH("pain", $I2)), 1, 0), IF(ISNUMBER(SEARCH("swelling", $I2)), 1, 0), IF(ISNUMBER(SEARCH("heat", $I2)), 1, 0), IF($F2="Yes", 1, 0))>=2, 1, 0)>=1, 1, 0))>=2, "SSI", "No SSI")="SSI", "SSI", "Inconclusive"))

Generic version – cells listed as eg: “QUESTION4CELL” in red for replacement with correct cell reference if a different format is used.

=IF($QUESTION4CELL="No", "No SSI", IF(IF(SUM(IF(SUM(IF(ISNUMBER(SEARCH("gaped", $QUESTION8CELL)), 1, 0), IF($QUESTION13CELL="Yes", 1, 0))>=1, 1, 0), IF(IF(ISNUMBER(SEARCH("pus", $QUESTION6CELL)), 1, 0)+IF(SUM(IF(ISNUMBER(SEARCH("redness", $QUESTION8CELL)), 1, 0), IF(ISNUMBER(SEARCH("pain", $QUESTION8CELL)), 1, 0), IF(ISNUMBER(SEARCH("swelling", $QUESTION8CELL)), 1, 0), IF(ISNUMBER(SEARCH("heat", $QUESTION8CELL)), 1, 0), IF($QUESTION5CELL="Yes", 1, 0))>=2, 1, 0)>=1, 1, 0))>=2, "SSI", "No SSI")="SSI", "SSI", "Inconclusive"))

# Colour coding algorithm answers

* Select algorithm column > Conditional formatting > new rule > Format only cells that contain > Specific text > Beginning with > type “SSI” > format > choose font colour and cell colour (suggest red text, light red fill)
* Repeat for “No SSI” – suggest green text, light green fill
* Repeat for “Inconclusive” – suggest yellow text, light yellow fill

# Reference:

Glenn, O. J., Faux, I., Pratschke, K. M. & Blacklock, K. L. B. Evaluation of a client questionnaire at diagnosing surgical site infections in an active surveillance system. *Vet. Surg.* **53**, 184–193 (2024).

Note:

This algorithm is “Algorithm 3” detailed in this paper.