**Q1. List out the steps in calculating final LR post ontological adjustment - 20 points**

Following ontological adjustment, the likelihood ratio (LR) is calculated as follows:

1. Get the first LR for the desired diagnosis from an appropriate research or other reliable source.

2. Examine the sample size used to make the diagnosis. Use the more inclusive concept LR if the sample size is under 100.

3. Utilize an ontology to find conditions or ideas that the target diagnostic has in common with.

4. Get the LR from a pertinent study or source for each connected diagnostic or idea.

5. Determine the adjusted LR by multiplying the initial LR by the LR for each associated diagnosis or idea that was discovered in step 3 and then dividing the result by 100.

6. Based on pre-test probability or other clinical considerations, further adjust the LR as needed. Interpret the final adjusted LR in the context of the specific clinical scenario to assess the strength of evidence for or against the diagnosis of interest.

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It's important to note that the specific ontological adjustment method and related concepts used may vary depending on the context and available resources. Additionally, the final LR is just one piece of information to consider in the overall diagnostic process and should be interpreted in conjunction with other clinical findings and factors.

**Q2. Using the attached likelihood ratios**[**file**](https://mymasonportal.gmu.edu/bbcswebdav/pid-17127297-dt-content-rid-274794877_1/xid-274794877_1)**, calculate the odds of mortality using the worst failure/disease within the various body systems - 80 points**

Graphical user interface

Description automatically generated

Graphical user interface, text, application, email

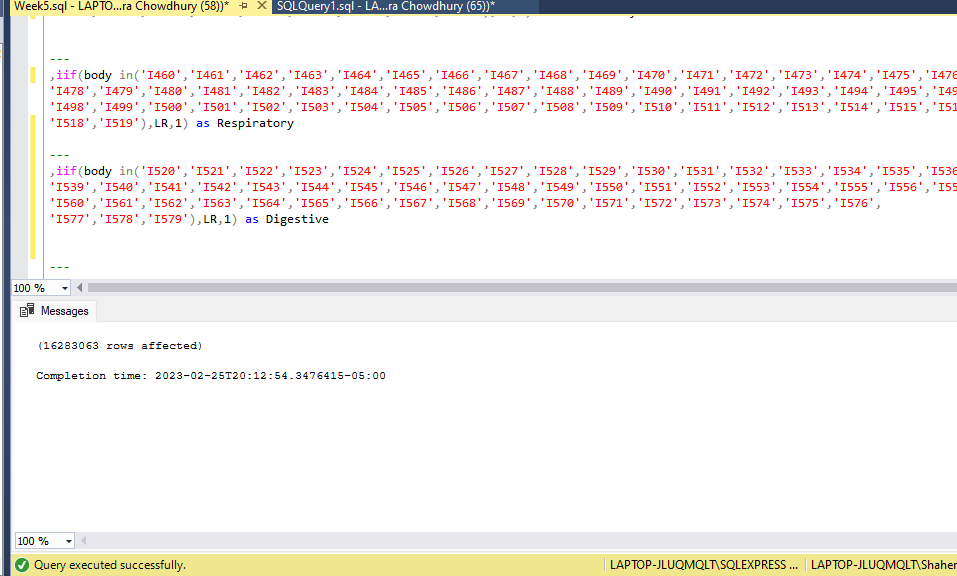
Description automatically generated

Scatter chart

Description automatically generated with medium confidence

Scatter chart

Description automatically generated



Graphical user interface, text, application

Description automatically generated

Graphical user interface, application, Word

Description automatically generated