**Q1. Tabulate the differences between ICD9 and ICD10 - 10 points**

ICD-9 and ICD-10 are both classification systems for medical diagnoses and procedures, but there

are several key differences between the two. Here's a table summarizing some of the differences:

|  |  |  |
| --- | --- | --- |
| Feature | ICD-9 | ICD-10 |
| Number of codes | About 14,000 | About 68,000 |
| Structure of codes | Three to five digits | Three to seven characters (alphanumeric) |
| Laterality coding | Limited (mostly for limbs) | Extensive (for almost all body parts) |
| Use of decimal points | Decimal point not used | Decimal point used to indicate greater specificity |
| Combination codes | Not common | More common, especially for chronic conditions |
| Implementation date | Introduced in 1979 | Implemented in most countries between 2015 and 2018 |

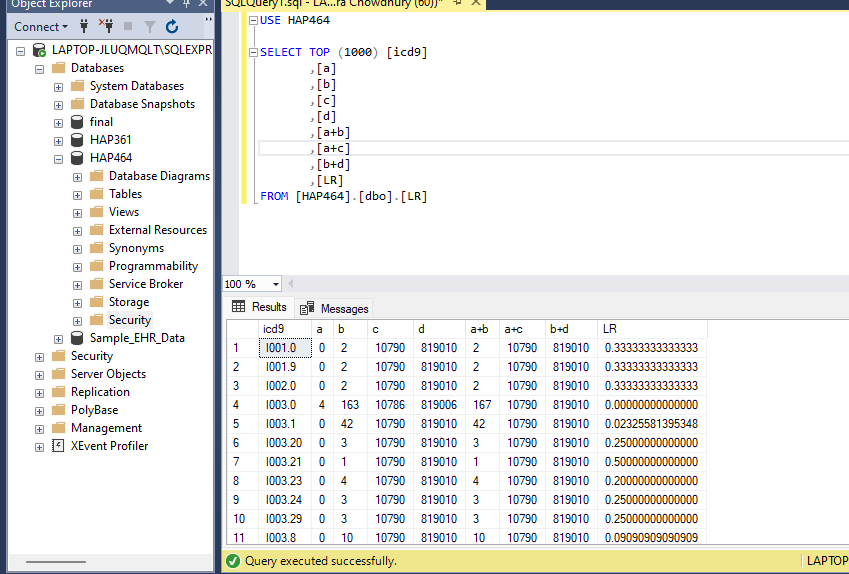
Overall, ICD-10 offers a more detailed and extensive classification system than ICD-9. This allows for more specific and accurate coding of medical diagnoses and procedures. However, the increased complexity of ICD-10 can make it more challenging to use, and some healthcare providers may need to invest in additional training and resources to make the transition from ICD-9.

**Q2. List the coding rules of ICD10 - 10 points**

The coding rules of ICD-10 are specific guidelines for coding medical diagnoses and procedures. Here are some general coding rules for ICD-10:

1. Code to the highest level of specificity possible based on available medical information.
2. Use combination codes when appropriate to capture multiple related diagnoses or procedures.
3. Use placeholder "x" codes when there is not enough information to assign a specific code.
4. Use external cause codes (e.g., codes for injuries or poisoning) in addition to diagnosis codes to provide additional information on the cause of the condition.
5. Use applicable seventh characters to indicate the encounter type (e.g., initial, subsequent, or sequela).
6. Use applicable extension codes to indicate laterality or other additional details.
7. Use only valid ICD-10 codes and ensure that codes are properly sequenced to accurately reflect the patient's condition and treatment.
8. Use additional codes (e.g., Z codes) to provide additional information about the patient's health status, risk factors, or history.

**Q3. Using the attached likelihood ratios**[**file**](https://mymasonportal.gmu.edu/bbcswebdav/pid-17099564-dt-content-rid-274030354_1/xid-274030354_1)**, adjust the likelihood ratios associated with all diagnoses with less than 100 observations by using likelihood ratio associated with a broader concept than the disease - 80 points**

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**Table

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