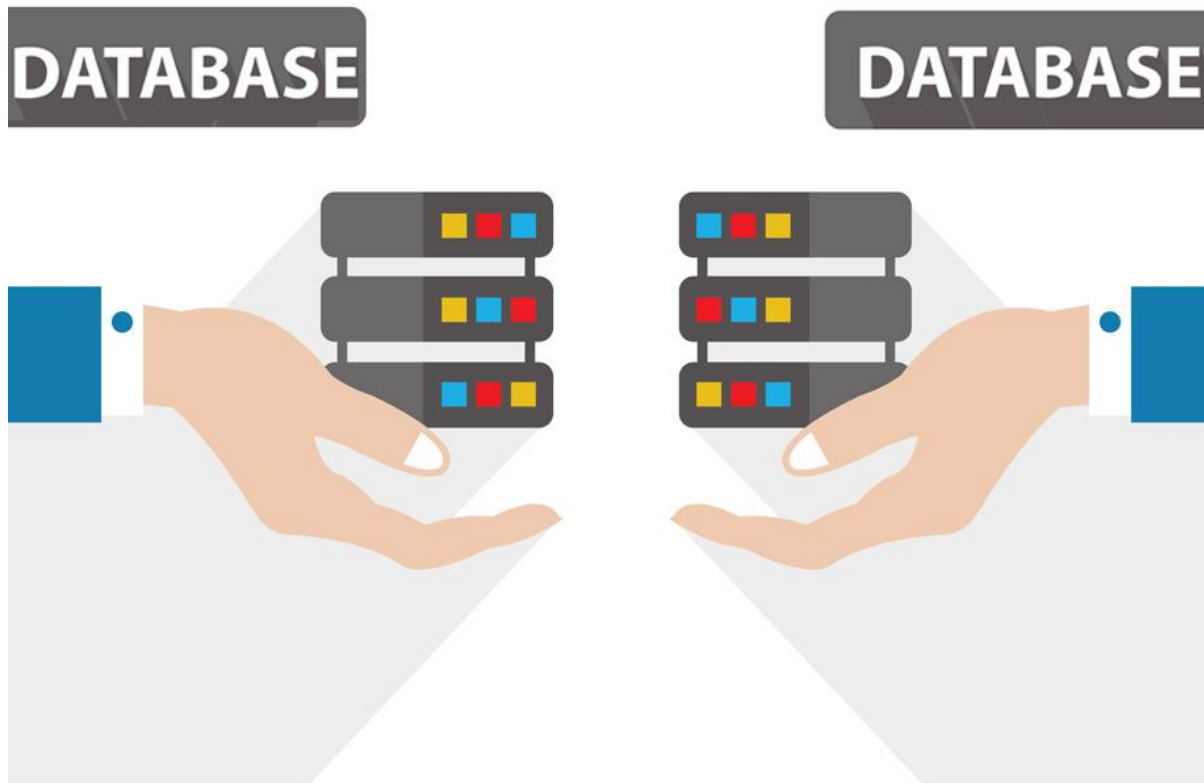# WHY QUERY MANAGEMENT IN CLINICAL TRIALS IS USEFUL?

A successful and efficient clinical study is defined by its results. But before investigators can reach to any final conclusions, the whole research undergoes many different process – from hiring appropriate staff, through additional training and preparation, to preparing study protocols, finding volunteers, collecting data, sending that data to the Food and Drug Administration (FDA) for approval and so on and so on. The process can sometimes really seem to be without an end. Still, one of the key responsibilities of researchers is to make sure that the captured trial information is of a sufficient quality and it answers the Good Clinical Practice (GCP) regulations and requirements. Only this way a complete integrity of database and, respectively, results can be achieved. All of this indicates that if the clinical trial information which is stored in the database is incorrect, the outcomes based on that information may be incorrect as well. How can this be resolved and, even, avoided then? By implementing an effective query management.

What does query mean?

In essence, a query refers to mechanisms used for retrieving data from a primary database. Usually, any queries are comprised of questions. These questions are sent to the database in a specific format which is designed and defined in advance. However, it is really important to

establish a certain criteria which will help you to narrow down the data. Because trials are accompanied by volumes of documentation that carries information, surely you will need to be selective in what exactly you want to be returned. So choose carefully how much information you want to retrieve and make sure you don't select everything but just specifically required sections.

But let's give you an example so that the whole explanation becomes clearer. Imagine that you are in a situation where you need to classify the registered trialists. Instead of covering all of the information, you can use the method of specification. So check how many trial participants are female and how many of them are male. Or you see how many volunteers in your database live in a particular city area, town, or country. That separation will make the whole query management process much easier.

How many database query types are there?

There are two types of database query. One of them is an *action query* and the other one is a *select query*. The formal one represents a methodology that enables the user to require extra operations regarding the data. Such additional operations may vary from inserting new information, through updating already existing information, to removing of information.

What languages are used when interacting with databases?

Many database management systems apply the so called Structured Query Language (SQL). It represents a programming language which is both interactive and standardly formatted. The SQL is used for not only extracting an information from a database, but also for keeping that database up-to-date.

To sum up, clinical trials results depend on accurate, consistent and quality data. In this sense, if the stored data suffers from inconsistencies, incompleteness or any other sort of incompliance with given regulations, this can have a negative impact on the whole trial. In order to guarantee compliant data, researchers implement plenty of operations, procedures and systems. One of them is the so called query management which represents a way of retrieving information from a database with precision and accuracy.

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