

# Introduction to Laboratory Informatics: Life of a Result

## Manual Entry of Results

Depending on your laboratory, certain tests may not be automated. This could be due to the nature of the test -- for example, some tests require a visual observation -- or because the testing instrument does not have a direct interface with the LIMS.

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For this reason, data entry will need to be manual.

Manual entry is a process that requires laboratory staff to directly enter data and test results into the LIMS. The results entered could have been documented on a printout by the testing instrument or could have been recorded in some other way that is not automatically interfaced with, and stored into, the LIMS. It is important to note that different tests, whether performed manually or run through LIMS interfacing, may require different workflow or set of entry procedures to ensure results are properly entered.

It is important to follow data standards, wherever appropriate, when entering results into the LIMS.

Please note, however, that not every data field within a LIMS will have a data standard that applies to it. In these instances, use your laboratory's standard operating procedures to enter information.

Following appropriate data standards and double-checking the entries in all data fields is crucial because the manual entry of results often leads to increased errors in the laboratory.

A properly, well-structured design of the LIMS application can also help catch manual entry errors, especially the commonly occurring errors. An example is having the system check if the data results fall within test parameters or if entries map appropriately to certain data fields. For instance, a patient's zip code must be 5 digits. Laboratory data standards are relevant for this step, helping to ensure that the system will only accept valid entries for standards-based data fields. It is important to note that a LIMS cannot completely protect against inaccurate manual entries, such as a 5-digit zip code that is entered incorrectly, but these standards can help to minimize errors.