

## **Wikiprint Book**

**Title:** tbLAB\_RES - Resistance testing

**Subject:** HICDEP - Hicdep\_1.50/TableLabRes

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## tbILAB\_RES - Resistance testing

holds background information on the resistance test, laboratory, library, kit, software and type of test

Note: This table is tightly linked to [tbILAB\\_RES\\_LVL\\_1](#), [tbILAB\\_RES\\_LVL\\_2](#) and [tbILAB\\_RES\\_LVL\\_3](#).

**Resistance should be reported at lowest level of interpretation possible ? so if the nucleotide sequence is available this should be reported rather than the list of mutations or resistance scores. However, the resistance test results should be captured if they have been part of the physician's treatment decisions for the patient.**

These four tables are designed to capture several possible formats the clinics and cohorts might have recorded resistance test data in. Once this data is gathered it should like all other tables be quality assessed.

### Core fields

Note: Fields marked **bold** form the unique identifier for a record of the table.

| Field name               | Format  | Description  |
|--------------------------|---|--|
| <a href="#">PATIENT</a>  | character (or numeric if possible)  | Code to identify patient (Cohort Patient ID)                   |
| <a href="#">SAMP_ID</a>  | character (or numeric if possible)  | The assigned sample ID   |
| <a href="#">SAMPLE_D</a> | yyyy-mm-dd  | Date of the actual sample taken (NOT the test date)            |
| <a href="#">SEQ_DT</a>   | yyyy-mm-dd hh:mm  | Date and time when the sequencing was performed                |
| <a href="#">LAB</a>      | character   | Name of laboratory where the test was performed                |
| <a href="#">LIBRARY</a>  | character   | Library/algorithm used to identify resistance mutations        |
| <a href="#">REFSEQ</a>   | character   | Name/identifier of reference HIV strain used to find mutations |
| <a href="#">KIT</a>      | character   | Vendor and version/name of the kit used for the test           |
| <a href="#">SOFTWARE</a> | character   | Software and version used to determine resistance              |
| <a href="#">TESTTYPE</a> | numeric: <ul style="list-style-type: none"> <li>1 = Genotype</li> <li>2 = Phenotype</li> <li>9 = Other</li> </ul> | Type of test   |
| <a href="#">SUBTYPE</a>  | character   | Subtype of HIV-RNA   |

### Additional fields

As shown with the core fields, the *SAMP\_ID* is the link between the 3 levels of data and the test background information table. The sample identifier, however, must be unique for the format to work. This might not always be the case. If needed *SAMPLE\_D* could be used as an additional part of the key, or just *SAMPLE\_D* along with the *PATIENT* key<sup>1</sup>.

Some prior assessment of the assigned sample identifiers has to be done in order to avoid duplicates.

In a running database the duplicate issues are easily resolved by adding a unique auto-generated key as the identifier between 3 levels of data and the test background information table *SAMP\_ID*.

Along with the *SAMP\_ID* it might be necessary to store the ID assigned to the sample at both the testing laboratory but also the centres laboratory in order to track the sample. Each of these could also be used as the *SAMP\_ID* value.

<sup>1</sup>: However this raises the issue about several aliquots from the same day will look like duplicates in the tables.

| Field name               | Format                             | Description   |
|--------------------------|------------------------------------|---|
| <a href="#">SAMP_LAB</a> | character (or numeric if possible) | The assigned sample ID at the lab where the resistance test is performed. |
| <a href="#">SAMP_INT</a> | character (or numeric if possible) | The assigned sample ID from the centre.                                   |

### QA Checks

| Table      | Crosstable  | Error Code | Description  | Study specific | HICDEP? |
|------------|-------------|------------|--|----------------|---------|
| AllTables  | CrossTable  | ATC001     | any date in database after DEATH_D in tblLTFU            |                | YES     |
| AllTables  | CrossTable  | ATC002     | any date in database after DROP_D in tblLTFU             |                | YES     |
| AllTables  | CrossTable  | ATC003     | any date in database before BIRTH_D in tblBAS            |                | YES     |
| AllTables  | CrossTable  | ATC004     | any date in database in the future                       |                | YES     |
| AllTables  | CrossTable  | ATC005     | patients submitted previously who have been missed out   |                | YES     |
| AllTables  | CrossTable  | ATC006     | Any fields not coded as coding lists on table definition |                | YES     |
| tblLAB_RES | WithinTable | LRW001     | Duplicate records for same patient on same date          |                | YES     |
| tblLAB_RES | WithinTable | LRW002     | Missing PATIENT  |                | YES     |
| tblLAB_RES | WithinTable | LRW003     | Missing SAMP_ID  |                | YES     |
| tblLAB_RES | WithinTable | LRW004     | Missing SAMPLE_D   |                | YES     |
| tblLAB_RES | WithinTable | LRW005     | Missing SEQ_DT   |                | YES     |
| tblLAB_RES | WithinTable | LRW006     | Missing LAB  |                | YES     |
| tblLAB_RES | WithinTable | LRW007     | Missing LIBRARY  |                | YES     |
| tblLAB_RES | WithinTable | LRW008     | Missing REFSEQ   |                | YES     |
| tblLAB_RES | WithinTable | LRW009     | Missing KIT  |                | YES     |
| tblLAB_RES | WithinTable | LRW010     | Missing SOFTWARE   |                | YES     |
| tblLAB_RES | WithinTable | LRW011     | Missing TESTTYPE   |                | YES     |
| tblLAB_RES | WithinTable | LRW012     | Missing SUBTYPE  |                | YES     |
| tblLAB_RES | WithinTable | LRW013     | SEQ_DT has no time part                                  |                | YES     |
| tblLAB_RES | CrossTable  | LRC001     | PATIENT has no record in tblBAS                          |                | YES     |
| tblLAB_RES | CrossTable  | LRC002     | This SAMP_ID has both LVL_1 and LVL_2 records            |                | YES     |