tblLAB_RES - Resistance testing

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

Note: This table is tightly linked to tblLAB_RES_LVL_1, tblLAB_RES_LVL_2 and tblLAB_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
PATIENT	character (or numeric if possible)	Code to identify patient (Cohort Patient ID)
SAMP_ID	character (or numeric if possible)	The assigned sample ID
SAMPLE_D	`yyyy-mm-dd`	Date of the actual sample taken (NOT the test date)
SEQ_DT	`yyyy-mm-dd hh:mm`	Date and time when the sequencing was performed
LAB	character	Name of laboratory where the test was performed
LIBRARY	character	Library/algorithm used to identify resistance mutations
REFSEQ	character	Name/identifier of reference HIV strain used to find mutations
KIT	character	Vendor and version/name of the kit used for the test
SOFTWARE	character	Software and version used to determine resistance
TESTTYPE	numeric: • 1 = Genotype • 2 = Phenotype • 9 = Other	Type of test
SUBTYPE	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[1].

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.

[1]: However this raises the issue about several aliquots from the same day will look like duplicates in the tables.

Field name	Format	Description
SAMP_LAB	character (or numeric if possible)	The assigned sample ID at the lab where the resistance test is preformed.
SAMP_INT	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