SHR HL7 processing issues

(to be filled in by Mark Tucker and Suranga Nath Kasthurirathne).

Issue no. 01:

Ability to assign identifiers to encounters and observations.

Currently, the only unique identifiers for encounters are their uuid and their id, which are assigned by the system. We require an additional set of identifiers to be able to identify individual encounters and observations externally.

- 1) Adding a new column to these tables is not a good solution, as the obs table is already quite large. Furthermore, adding a new column would also require indexing etc.
- 2) Alternatively, the identifier for an encounter may be persisted as an obs created under that encounter. However, this doesn't necessarily make it easy to search for
- 3) The accession number can be considered as an external identifier used to identify grouped observations. This could probably be used to build some kind of a hack, but it couldnt be considered as a concrete solution.
- 4) Encounter Attributes and Obs Attributes may be the most suitable option, we have talked of implementing this for OpenMRS previously, but never really got around to doing it.

Issue no. 02:

Support for unstructured data.

As discussed previously on the mailing list, we need to develop an approach to persist unstructured data such as CDA documents as observations. This requires improvements to the existing OpenMRS Notes stub to allow it to persist provider notes.

Issue no. 3:

Supporting laboratory data.

In certain cases, a single lab result may be persisted as multiple observations grouped together because of the lack of a proper data type to store structured numeric lab results.

This topic has been discussed previously (see here), while some preliminary work has also been attempted (see here).

As per the discussion on the wiki page (link above) AMPATH may also benefit from this feature.

Indirectly related issues -

We need to consider any potential methods to improve performance around our Obs table, which can become very massive and cumbersome to use as time passes.