# Potential Solutions to Lab Data Extraction

| | DATA SELECTION STEP | POTENTIAL DIFFICULTIES | POTENTIAL SOLUTIONS |
|---|---|---|---|
| 1 | DOH will send the lab a list of patients, identified by Medical Record Number (MRN) and Patient Control Number (also called Encounter Number), to be included in the study. | The MRN as it appears in SPARCS data may be slightly different from the number in the hospital's data systems. | Let us know how they are different and we will re-send the data with an extra column for the MRN formatted for your system. |
| 2 | DOH will send a list of 30 lab test results of interest. | The Lab Information System (LIS) extracts results for ALL tests for requested patients. | Send all test results for the patients; NYSDOH will delete those not needed for the study. |
| 3 | Hospital or lab staff will feed the list of patients into the Lab Information System (LIS) and request the results of the tests for these patients administered from 30 days before the admission date to no later than the discharge date. | For large hospitals several thousand patients might be on the list and the LIS is simply not set up to receive such a long list of patient identifiers | DOH can provide a number of smaller lists; perhaps just breaking up the lists by year of patient discharge (2008, 2009, 2010) would help. One hospital requested the patient selection parameters (a list of diagnosis and procedure codes) as an alternative. |
| 3 | Hospital or lab staff will feed the list of patients into the Lab Information System (LIS) and request the results of the tests for these patients administered from 30 days before the admission date to no later than the discharge date. | Results for some tests in our list are not stored in the LIS (e.g., inhaled oxygen flow rate with an arterial blood gas may be stored in Respiratory Therapy lab). | If results stored outside the LIS cannot be retrieved, we will still accept the tests that are available. |
| 3 | Hospital or lab staff will feed the list of patients into the Lab Information System (LIS) and request the results of the tests for these patients administered from 30 days before the admission date to no later than the discharge date. | In some systems it is not possible to select results by specimen collection date. | If selection by date is a problem, we will accept ALL results for the patients on the list. |
| 3 | Hospital or lab staff will feed the list of patients into the Lab Information System (LIS) and request the results of the tests for these patients administered from 30 days before the admission date to no later than the discharge date. | In some systems it is not possible to select results for only some lab tests. | If selection by lab test is a problem, we will accept ALL results for the patients on the list. |

| | DATA SELECTION STEP | POTENTIAL DIFFICULTIES | POTENTIAL SOLUTIONS |
|---|---|---|---|
| 3 | Hospital or lab staff will feed the list of patients into the Lab Information System (LIS) and request the results of the tests for these patients administered from 30 days before the admission date to no later than the discharge date. | The study instructions listed some fields to be extracted (like patient address or Social Security Number) that simply were not included in the LIS. | If data may be selected but not all data elements are available, we will ask labs to get the results for a small number of patients and review the extract to determine whether we have enough information to verify that the patient selected for the study is the same patient selected from the LIS. |
| 4 | Extracted data could be sent to us as an Excel file, a pipe-delimited text file, or as HL7 messages. | Excel seems to be the preferred format. | Let us know if the only option is another format -- we can probably work with it. |
| 5 | Lab will provide NYSDOH with LOINC codes for the tests OR provide some information about the tests as performed (specimen, units of measure, method) so that we can translate lab's "local codes" into standard LOINC codes. | We have received very few LOINC worksheets. | It is preferable to receive the LOINC worksheet and obtain the codes early in the process, but we can create a list of lab tests included in the file sent to us by the lab and then request the information we need about these tests--in most cases just specimen and method would be needed to supplement the data elements usually returned (unit of measure and reference range). |