HLA Typing

B. Import of HLA Typing results

HLA typing results are sent by email as Excel spreadsheet attachments. The results are imported into the Roche Import database, checked, and then transferred into the appropriate data tables.

Email

The attached spreadsheet with HLA typing results are saved to L:\de\roche with a file name the same as the set number. A hard copy is printed out and put in the Roche Typing Results binder. Any notes included with the email are also printed and, if appropriate, stapled with the results and filed in the binder. Any problems or issues with sample ID's or missing samples, etc that were mentioned in the email should be looked into and resolved prior to importing data.

Import & Notification of Results

The Excel spreadsheet is imported into the front-end Roche Import database located at l:\daisy\RocheImport.mdb. This database opens to the main switchboard which includes instructions for importing Roche data.

Import Results

1. Import Excel spreadsheet – Use the import function on the menu bar to import the Excel spreadsheet to a new table named setxxx.
2. Delete un-needed rows at the beginning and end of the spreadsheet – these are typing results for control subjects that Roche laboratory uses for each batch.
3. Records currently in the NewSet table are removed and an append query is written to append the records just received by email into the NewSet table. Records are moved to the NewSet table because a number of other queries have already been written which reference this table.
4. The DAISY ID is found in the *SAMPLE* field of the emailed results and generally does not include the "-0" extension for study subjects. In order to link these records with those in tblNecScreenInterview and in tblSubject it is necessary to add this extension. Pressing the button 'Add "-0" to ID' will add the "-0" to these records.
5. Pressing the 'Calculate type' button will invoke *mcrProbe.Ourtype* which runs a whole series of queries that determine a genetic type based on the probe patterns. This serves as a double check of the type sent by Roche. If the type they assigned matches the type that our program assigns then we can assume it is right. If there are discrepancies, then the assignment of type should be checked by referring to the Probe Reactivity Patterns and/or checking with Roche. This macro also runs a query that references tblDaisyStripMaster to determine what risk level is associated with the calculated gene type.
6. Pressing the 'Problems' button invokes *mcrProbe.Problems* which will produce 2 lists. One lists all records where the type assigned by Roche doesn't match the type assigned by our program. The other lists records where due to ambiguous DR4 we can't determine the risk level. Roche is notified that we would like further testing to be done on these samples in order to determine which DR4 is present. Because this additional testing takes some time to complete, families of these children will be sent a letter stating that additional testing is being done.

7. Pressing the 'Import/Letters' button runs *mcrProbe.Import.* This macro runs a series of queries that update records in *tblNecScreenInterview*, *tblSubject*, and *tblRocheQcData* with the new genetic type and set number. It then generates results letters, including those that say that more testing is needed. If a genetic type already exists in any of the tables then the new type will not import (will not write over it). Any results that do not import into the appropriate tables should be double-checked to determine why there is already a type listed. Possible reasons are: 1) typo in the ID field, 2) sample was resent because genetic type didn't match up with rest of the family or 3) sample resent for some other reason.

Notification of results

Roche Letters: The hard copy of the Excel spreadsheet is used to check off each result for which a letter was printed and each result that was moved into *tblSubject* and *tblRocheQcData*. For any results that are not checked off, the reason why is investigated. Letters are not printed for family members, for children in the sibling/offsprint cohort, or for QC results. They are also not printed if no type could be determined. When the genetic type includes an ambiguous DR4 that cannot be classified as low, moderate, or high risk then a letter is sent to parents notifying them that additional testing will need to be done and they can expect a results letter at a later date. These letters are not sent for samples that need to be repeated because these problems are generally resolved fairly quickly.

Copies are made of all letters and the copies are filed by set number. Letters for low risk children are mailed immediately and those for moderate and high risk children are given to Michelle. These letters are sent out during the first half of the week so that parents are unlikely to receive them on a weekend when Michelle in not available to answer their questions.

Examples of the letters sent and the queries that generate them are included in the appendix.

Roche Labels: Letters for the low risk children and for the moderate and high risk children are generated separately because they are being mailed at different times. Within each set they are printed in ID order. The labels are compared to the letters to make sure that there is a label for each letter and a letter for each label.

NEC, NOC and 3/4-sibling Recruitment Reports

These are reports generated for children who are eligible to be enrolled in the follow-up protocol. The NEC Recruitment report identifies children in a given set of results who have a moderate or high risk gene type and the NOC Recruitment report identifies children who have a first-degree relative with IDDM. The 3/4-sibling Recruitment report identifies siblings of NECs/NOCs/SOCs who have the 3/4 gene type. These reports are given to Michelle along with the matching letters and labels and she uses them to contact these eligible families.

Roche Subject Results

This query lists all new results added to *tblSubject* from this Roche set. This list should be used to check off results on the Excel spreadsheet.

Roche Results New
This query lists HLA results for all family members of anyone typed in this Roche set. This list should be reviewed to determine if any of the genetic typing does not appear to match what we know about the relationship between individuals in the family (for example, it doesn't look like this child is the biologic offspring of mom or dad). Problems of this sort should be noted and new samples should be sent to Roche to verify the type obtained.

Roche QC Results
This query lists the original HLA typing results and the HLA type for the QC sample. This list should be reviewed to determine if any of the QC results differ from the original sample. Discrepant results should be further investigated.

Returned Letters

Results letters are sometimes returned to us because they are undeliverable. The following steps should be taken:

1. Check the label for completeness
2. Check the database to see if the address has been updated
3. Contact the family by phone to update the address
4. Contact Kaiser if the family has Kaiser insurance to get an updated address

If all of these measures fail then the letter is not deliverable and is stored in case the family contacts us at a later time.