eHealth
Saskatchewan

PANORAMA

Guidelines

GENERAL

Duplicate Client Management Using
Client Merge

Revision History

Date	Version	Author	Changes / Comments
May 25, 2015	V1	Kyle Schembri	Approved version for training. Updating Bulletin reference to Bulletin 0037.
July 27, 2015	V2	Kyle Schembri	Updates to Section B 5.0 to include steps found in Bulletin 0042. The additional steps provide information on saving all Additional IDs during a Client Merge process.

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A. Introduction and Background

1.0   Purpose

The purpose of this document is to provide guidelines for identifying and resolving duplicate client records in Panorama. Registering a client once in Panorama ensures that all their personal and health information is stored under one Client ID, giving staff and clinicians access to essential information when providing services and promoting the safety of clients and staff. Client data will be kept synchronized with the Saskatchewan Shared Client Index (SCI) and will be available with the provincial health record Viewer.

2.0   Health Authority Applicability

Regina Qu'Appelle, Saskatoon, Heartland, Prince Albert Parkland, Prairie North, Sunrise, Sun Country, NITHA, Kelsey Trail, Five Hills, Cypress, Keewatin Yatthé, Mamawetan Churchill, AHA have Trustee responsibility for client record management within their jurisdictions. For potential matches that cross HAs or borders (Alberta & Manitoba), the current address determines which HA will perform the merge.

In the case where the addresses are not accurate or missing and the client's HA cannot be determined, the last known jurisdiction associated with Client will be responsible for the merge.

You must notify the eHealth Service Desk in the case where both Clients being merged came from the Saskatchewan Client Index (SCI). This is to ensure eHealth Saskatchewan is able to resolve the duplicate from within SCI while you resolve the duplicate within Panorama.

3.0   Practice Level

Data remediation including client merge is typically a Health Records responsibility. Since there is no Health Records Department in Public Health, each RHA is responsible for developing the organizational structures to resolve duplicate client records, including non-residents of SK in border communities.

All users should notify their local Designated Immunization Administrator (DIA) if a duplicate Client has been identified in Panorama. DIA Users for each jurisdiction are responsible for completing the identification process and merging potential client matches in their health authorities (HA).

Additionally, DIA Users have access to the Resolved Client Matches screen to search for known duplicates in order to see the status of the merge resolution process: Tagged, In Process or Completed.

DIA Users must be identified and assigned the role by the RHA Public Health Approver. Additional qualifications for DIA Users include:

- Confident Panorama user, familiar with the functions of each module;
- Job capacity to perform client merge in a timely manner; and,
- Complies with privacy standards and policies to only access and/or use information to complete the client merge process.

The access audit log clearly identifies the merge activities by user and the Client IDs involved.

4.0   Policy Statement

Staff must follow established Panorama Client Search procedures each time they register new clients or access client data from the Panorama system.

Assigned staff must remediate duplicate client records as soon as practical. DIA Users should be prepared to complete each client merge and clean-up in a single session to maximize the availability of the client record to other users.

5.0   Need to Know

Adoptions

Adopted client's original record remains in Panorama and will become "inactive" as the HSN information is updated from SCI. If the merging of a SCI inactivated client record is required, the DIA User should contact the Provincial Coordinator.

Merging Known Duplicates (Flagged During Interim)

In February 2015, Immunization functionality was deployed. At that time, the client merge functionality in Panorama was not available so interim duplicate client management guidelines were developed and implemented. The duplicate records that were flagged during the interim process will be remediated by each regions DIA User.

6.0   Risks

Several risks are associated with merging duplicate client records, including:

- DIA user can choose an incorrect Destination Client;
- A subset of the demographics could be overlooked and missed when selecting which data to keep in the merge; or,
- Clients are left inactive after the merge process.

B. Identifying/Remediating Duplicate Records

The identification and resolution of duplicate client records is an important step in maintaining the integrity, accuracy, and completeness of a client's information under one client identifier. The client merge functionality will be used to manage duplicate client records in Panorama caused by human error or data migration.

1.0   Identify Potential Duplicate Records

Duplicate client records may be identified in one of the following ways:

1. Panorama tags potential duplicate client records based on the Person Matching Algorithm (PMA) automatically. When a Client is added or updated in Panorama, the system runs the PMA to identify any potential or exact matches for the Client being created/updated. All potential matches and exact matches of a Client will be shown on the Client Merge screen, with the corresponding Match Score.

2. DIA Users can manually tag potential duplicate client records, including duplicates created by data migrations or SCI Batch.

3. DIA Users can check for potential duplicate Client records by performing an Advanced Search using the Potential Duplicates functionality.

1.1.1. Manually Tag Potential Duplicate Client Records

PRE-REQUISITES:

✓ User is assigned the DIA Role

✓ Identify the Panorama IDs that likely belong to the same person

✓ One of the two potential matching clients is in context

1. Click **Left Hand Navigation (LHN) > Client Merge**. *Client Merge* screen displays.

2. Click **Search & Tag**. Search for the potential duplicate client.

3. Click **Select & Return**. The selected Client is shown in the *Potential Match(es)* section, with core demographic data.

4. Click **Confirm**. The Client is added to the list of potential/exact matches identified by PMA.

📄 **NOTE:** If the potential matches belong to JORGs from different HAs where the addresses are not accurate or missing, the last known HA where the Client resided will be responsible to perform the merge.

1.1.2. Check for Potential Duplicate Client Records

PRE-REQUISITES:

✓ User is assigned the DIA Role

1. Click **LHN > Search > Search Clients**. *Search Clients* screen displays.

2. Click the **Advanced Search** hyperlink. Check **Potential Duplicates**. Enter Identification Date range. If the search results exceed 150 results, narrow the search criteria (e.g. search two weeks at a time).

3. Click **Search**. Search Results display in the Search Results table.

4. Select a Client's and click **Set in Context** to put one of the clients in context.

2.0 Determine Whether to Resolve Potential Matches (DIA User)

When duplicate Client records are identified, the DIA User must then determine whether the duplicates must be resolved in Panorama.

PRE-REQUISITES:

✓ User is logged in with the DIA role
✓ One of the two potential matching clients is in context

1. From **LHN > Client Merge**

2. Select the potential duplicate from the Potential Match(es) section and indicate to **Compare Demographics**. The *Compare Matching Client Demographics* screen displays. Compare the demographic data between the two Clients and, if appropriate, <u>optionally</u> perform one of the following:

    a. Select **Ignore**. The two Clients would no longer be tagged as Potential Matches until key demographic attributes that PMA compares are updated on any of the two records. At that time, PMA would run again and the two Clients may be tagged as a potential match to each other.

    b. Select **Never Match**. This tag informs the PMA to never run again between these two Clients. Once marked as Never Match, the two Clients would no longer end up as potential matches of each other (unless manually tagged!), regardless of how the demographic data changes on their record. Both Ignore and Never Match restrictions could be reverted, in the odd case they've been used in error.

3. Proceed with the following steps to merge the client records.

📄 **NOTE:** There is a known issue with certain Health Card Number types that prevent the Compare Demographics screen from appearing. This will occur for

any non-valid HCN type, including RCMP and Canadian Armed Forces Numbers. If either the Destination or Duplicate Client has one of these HCNs in the primary HCN field, it will need to be removed prior to the merge process. For more information, please see Bulletin #0037.

3.0   Determine Destination Client

The Destination or Target Client, aka 'Master' record, is the client record that remains active and receives the selected data from the Merged Client. The Merged Client, aka 'Duplicate' record, is the client record that becomes idle and is no longer accessible after the merge is completed.

<u>PRE-REQUISITES:</u>

✓ DIA User is on Compare Matching Client Demographics screen

✓ One of the two potential matching clients is in context

1. To determine which client record will be the Destination Client (aka Master) and which will be the Merged Client (aka Duplicate), review both client records and determine the Destination Client.

    Destination Client Guidelines:

    – If only one Client was migrated from SIMS, the migrated record should be the Destination Client.

    – If both Clients were migrated from SIMS, the oldest SIMS Internal Id should be the Destination Client.

    – If none of the Clients were migrated from SIMS, the Destination Client should be the Client with the "Jurisdictional Registry" flag on the Personal Information screen.

    – If both have the Jurisdictional Registry Flag, the Destination Client should be the Client with the most of the following (in order):

    Consent Block Directions, Client Warning Records, Imms History Interpretation Records, Most Complete Imms History, Special Considerations, AEFIs, TB Skin Tests, Consent for Service for TB Skin Test, Consent for Service for Imms, Client Details or Immigration Information.

2. Ensure the Destination Client appears in the Destination Client column. If the other Client of the pair should be the Destination Client, then the Client in context must be changed.

4.0　Enter Off-Line Comments

PRE-REQUISITES:

✓　DIA user is on Compare Matching Client Demographics screen

✓　Destination Client appears in the Destination Client column

1.　Enter **Off-line Comments**, which would be shown to users trying to access any of the two Clients undergoing the merge.

2.　Standard for Off-line Comments: Include the DIA User's name, phone number, and the estimated time for merge completion.

Example: *Merge estimated to be completed by June 9, 2015 at 3:00pm. To access the record for urgent clinical care, please contact Sally at 306.123.4567.*

3.　Select **Start Merge**. Both clients are taken off-line and the *Merge Client Attributes* screen displays.

5.0　Merge Records

PRE-REQUISITES:

✓　DIA is on Merge Client Attributes screen

Select demographic attributes to be applied to the final Destination Client.

1.　Scroll down to the Additional IDs row. If different Additional IDs exist on both the Destination Client (left column) and Merged Client record (right column), all must be kept during the merge process.

Birth City, Province	-		-	
Multiple Birth	No		No	
Alternate Names	-		-	
Additional IDs	Include ☐ CIMS Internal ID / 060040		Include ☐ CIMS Internal ID / 070445	
Phone Numbers	Pref. ○　Include ☐	(000) 000-0000 (Primary home) ✓ **Effective:** 2015 Jan 29 **to** - **Created On:** 2015 Jan 29	Pref. ○　Include ☐	(000) 000-0000 (Primary home) ✓ **Effective:** 2015 Jan 29 **to** - **Created On:** 2015 Jan 29
	○　☐	(000) 000-0000 (Primary home) **Effective:** 2015 Jan 29 **to** - **Created On:** 2015 Jan 29		

a.　Select the checkbox next to each Additional ID. This will tell Panorama to keep all Additional IDs during the merge process.

| Alternate Names | - | | - | |
| Additional IDs | Include ☑ CIMS Internal ID / 060040 | | Include ☑ CIMS Internal ID / 070445 | |

2.　Update any other demographic attributes on the screen as required:

a. **Single fields**: data for single fields (e.g. Gender) can be selected through radio-buttons. The data element on the Destination Client will be selected by default.

  – If values on the Destination and Merged Clients are different, select the value on either Client.

  – If the value appears on one Client and not the other, field appears as a read-only radio button with the non-blank value selected.

  – If values on the Destination and Merged Clients are identical, both fields appear as display text.

b. **Factory tables:** data for factory tables (e.g. Alternate Names) can be selected through checkboxes. The value currently marked as Preferred appears at the top of the list with a check mark immediately to the right.

  – Select which data to keep or to move over to the Destination Client

  – Indicate the Preferred if applicable

  – If Gender, Date of Birth, or (Last) Names are different between the two Clients, select the entry with the most recent Effective Phone/Address date.

  – If the First and/or Last Name of the post-merge Destination Client are different from the pre-merge names of the Destination Client and/or of the Merged Client, the names are automatically added as Alternate Names (with a Type of 'Alias').

c. **Pre-Merge Report**: The Pre-Merge Report is currently not in use and both dropdown fields can be left blank.

2. Select the **Preview Merge** button. The *Preview Destination Client* page shows the demographic records as they will appear after the merge.

3. If no edits are required, select **Submit Merge**. The System updates the demographic records of the Destination Client and moves the Merged Client's clinical data onto it. The submitted merge will now appear on the Client Merge screen under the Merge History section with a status of Submitted.

If updates are required to the Preview Destination Client screen, select **Back to Merge Attributes** to return to the previous screen.

a. On Preview Merge and then on Submit Merge, the system will validate the rules for Client data integrity are met.

a. When a merge is submitted, the following data is moved from the Merged Client to the Destination Client:

- Client Level: Allergies, References to the Client in Cohorts, Immunization History Interpretations, Risk Factors, Relationships with Indexed Clients, Travel History;

- Immunization: Immunizations, Adverse Events Following an Immunization, Special Considerations, Deferrals, Communication related to Mass Immunizations;

- TB Skin Tests; and,

- Other: Client Notes, Notifications (includes Client Warnings), Consent, Documents stored in Document Management (excluding documents associated with Merge records).

📄 **NOTE:** Submitted and Completed merges <u>cannot</u> be reversed! The attributes selected on the Merged Client will be <u>moved</u> to the Destination Client. Before Submit, users can select **Abort Merge** from the Merge Client Attributes screen or **Back to Merge Attributes** from the Preview Destination Client screen to stop a merge that has been started.

6.0   Review & Update Destination Client

PRE-REQUISITES:

✓   Destination Client is in context

The following check list can be used to manually review and update the Destination Client's clinical record after the merge has been submitted.

Client Level

	Personal Information: Check to ensure the Date of Birth does not fall after the Date of Death.
	Relationships: Check to ensure the Client does not have a relationship with itself. Delete any duplicate Relationships.
	Allergies and Risk Factors: Delete any duplicates.
	Notes: Notes cannot be deleted, and instead update the note to indicate if it is a duplicate. If an update is required, prefix the subject line with "Duplicate".
	Client Warnings: Delete any duplicates. Delete any Client Warnings added by users when manually tagging the duplicate record.

Immunizations

	Immunization History Interpretation: Delete any duplicates. Keep the entry with the most information or the original SIMS migration record.

	Adverse Events Following an Immunization: Delete any duplicates. Keep the entry with the most information.
	Special Considerations and Deferrals: Delete any duplicates.
	Consent: Expire any duplicates.
	Notes: Notes cannot be deleted. If necessary, update the note to indicate if it is a duplicate note. If an update is required, prefix the subject line with "Duplicate".
	Document management (excluding documents associated with the Merge process): Delete any duplicates.
	TB Skin Tests: Delete any duplicates.

7.0   Complete Merge

PRE-REQUISITES:

✓ DIA is on Client Merge screen.

1.   Select **Complete Merge** from the Merge History section.

   a. The Destination Client is placed back on-line and returns to its original status (either Active or Inactive), while the status of the Merged Client is changed from 'Off-line' to 'Idle'. The Merged Client is no longer accessible in the system.

   b. The System will:

   - Delete all Potential Duplicate records on both the Destination and Merged Client except those that were manually tagged.
   - Transfer all manually tagged Potential Duplicate records from the Merged to the Destination Client and then invoke the PMA to recalculate the Potential Duplicates on the Destination Client.
   - Schedule the Immunization Forecast for the Destination Client.

C. Reviewing Resolved Client Matches

The Resolved Client Matches screen displays all resolved client matches, and clients tagged with Ignore or Never Match.

1. From **LHN** > **Resolved Client Matches**. *Resolved Client Matches* screen displays showing all resolved client matches, clients tagged or marked as Ignore or Never Match.

   a. When accessed with no Client in context, the screen displays all Resolved Client Matches, to a maximum of 100.

2. Select a set of criteria (e.g. Resolution Type, Resolution Date) to filter the search results and click **Display**.

3. For Resolved Client Matches records with a Resolution of Ignore Match or Never Match, the user is able to remove the resolution**.** Select the **Resolved Client Match**.

4. Click **Remove Resolution.** The System identifies the Clients as potential duplicates again and the PMA would re-run.

D. Regular Quality Assurance Procedures

Two checks can be done regularly (e.g. bi-weekly) to ensure duplicate records are identified and resolved in a timely manner.

1.0   Regularly Check for Potential Duplicates

PRE-REQUISITES:

✓   User is assigned the DIA Role

1. Click **LHN > Search > Search Clients**. *Search Clients* screen displays.

2. Click the **Advanced Search** hyperlink. Check **Potential Duplicates**. Enter Identification Date range.

3. Click **Search**. Search Results display in the Search Results table.

2.0   Ensure Clients Have Not Been Left Off-Line

PRE-REQUISITES:

✓   User is assigned the DIA Role

4. Click **LHN > Search > Search Clients**. *Search Clients* screen displays.

5. Click the **Advanced Search** hyperlink. Check **Off-line Clients**.

6. Click **Search**. Search Results display in the Search Results table.

E. Frequently Asked Questions

How would the DIA know if there are any potential duplicates in their JORG?

Users can perform a regular Advanced Search by navigating to Search Clients > Advanced Search > Client Merge and entering a date range next to Potential Duplicates. This User Guide recommends that the DIA User checks for potential duplicates on a regular basis (i.e. bi-weekly).

In the Advanced Search, Client Merge section, what does the Identification Date Range mean?

The Identification Date is the date the clients were tagged manually by a user OR by the system using the Person Matching Algorithm (PMA).

Are there recommendations on which parameters to use when using the "Advanced Search" – Potential Duplicates?

Select your JOrg or HA and then search by month (e.g. February 1, 2015 – March 31, 2015). If there are more than 150 clients in the result, search two weeks at a time (e.g. March 1, 2015 – March 15, 2015).

The search results can be further defined by entering in additional search criteria (e.g. DOB date range).

How would the end-user know if they are creating a potential duplicate?

When creating a client, Panorama will provide a warning if last name, first name, DOB and Gender match.

On the Merge Client Attributes screen, when one Health Region is selected over the other, is the other lost?

Health Region history will show all health regions associated to the client record.

Risk Factors and Special Considerations cannot overlap in dates. How will this work when one is brought over with overlapping dates?

They both appear in the summary table.

Can the client demographics be viewed while the client is off-line?

While the client is off-line, users will only be able to view what is displayed on the Search Results table with the exception of the DIAs. DIAs would be able to view/update the off-line clients.