



INSTRUCTIONS FOR DEDUPLICATION IN MDSS

RESOLVING PATIENT/CASE DEDUPLICATIONS

- 1) There are two ways to resolve deduplications – from the Case Reporting tab or the Administration menu.
 - a) From the **Case Reporting Tab**, select the ‘Dedup’ button. The case should have already gone through deduplication when it was entered so sometimes this method is referred to as ‘reduplication’.

The screenshot shows the MDSS Case Reporting interface for a patient named PERSON, FAKE. The interface includes several tabs: Case Reporting, Address History, Demographics, Referrer, Lab Reports, Notes, Map, Audit, and Person History. The patient's name is "Patient PERSON, FAKE Locked by REIMINKB (BETHANY G REIMINK)".

Reportable Condition*: Salmonellosis (with a "Detail" button). Case Status*: Suspect. Investigation Status*: New.

Patient Information section includes: Patient Status*: OutPatient, Patient Status Date* (mm/dd/yyyy): 04/24/2013, First*: FAKE, Last*: PERSON, Middle: (empty), Onset Date (mm/dd/yyyy): (empty), MMWR: 17-2013, Patient Id: 7691427, and Diagnosis Date (mm/dd/yyyy): (empty). A "Dedup" button is circled in red.

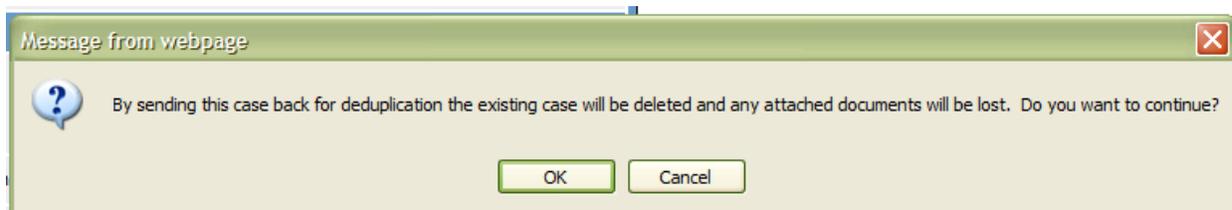
Investigation Address section includes: Street: 123 ANY STREET, Geocode Source: MDSS Zip Code, City: KALAMAZOO, County: Kalamazoo, State: Michigan, Zip: 49048, and Jurisdiction: Kalamazoo County.

Investigation Information section includes: Outbreak Y/N: Unknown, Outbreak Name: (empty), Referral Date (mm/dd/yyyy): 04/24/2013, Case Entry Date (mm/dd/yyyy): 04/24/2013, Investigation ID: 7676359, NETSS ID: 4110, Assigned to: WILSON, NICOLE / Kalamazoo County, and a "Re-assign" button.

*indicates required items

Buttons at the bottom: Reset, Submit Changes, Cancel, Help.

- i) A warning box will appear stating that if the case is sent back to deduplication, the case and attached documents will be deleted. Review the case details and notes tab for attachments and save anything that you need to keep with the case. Select ‘OK’.



- b) From the **Administration** menu, click the **Pending Work Queue** option from the SideBar. The "Pending Work Queue" list screen appears.

Note: The pending work queue should be the default page that comes up when you click on **Administration** so you probably do not have to click on the **Pending Work Queue**.

Pending Work Screen

Case Investigation Administration Messages Reports Logout

Users
User Audit Search
Admin Searches
Pending Work Queue
Review Replaced Patients
Administrative Reports
Field Record Report
Interview Record Report
Completeness Report

Displaying results 1-10 of 18 found
[< First] 1 2 [Next >>] [Last >]

Pending Work Queue Date [v] Sort Help

Date Added	Type	Current Owner	Jurisdiction	Added By	
01/07/2011	CASE DEDUP - ERIN ALDEN		Ingham County	TEST MDSSTES	Resolve
01/13/2011	PATIENT DEDUP - ERIN ALDENS		Ingham County	TEST MDSSTES	Resolve
01/13/2011	PATIENT DEDUP - ERIN ALDENC		Ingham County	TEST MDSSTES	Resolve
01/19/2011	CASE DEDUP - SOO DOE		Kent County	DIANA E BROWN	Resolve
04/12/2011	CASE DEDUP - HEIDI SCHAUB		Grand Traverse County	MICHELLE KLEIN	Resolve
04/12/2011	CASE DEDUP - JANE DOE		Wayne County	THEA SIMMONS	Resolve
06/15/2011	PATIENT DEDUP - JOHN SMITH		Kent County	BRIAN HARTL	Resolve
09/20/2011	PATIENT DEDUP - KERRY BERTHUME		Midland County	KERRY A BERTHUME	Resolve
10/24/2011	CASE DEDUP - NICOLAUS COPERNICUS		Statewide	AMANDA J ECHLER	Resolve
02/03/2012	PATIENT DEDUP - SALLY BELLSKY		Tuscola County	SALLY M BELLSKY	Resolve

[< First] 1 2 [Next >>] [Last >]

- 2) Locate the patient whose record you want to resolve and click the **RESOLVE** button (located to the far right of the patient record).

Patient Deduplication

Please select the records to merge with the data entered.

Merge	Score	First Name	Middle Name	Last Name	Date of Birth	Gender
<input checked="" type="checkbox"/>	100.0%	FAKE		PERSON	11/18/1982	MALE
<input type="checkbox"/>	78.55394%	FAKE		PERSON		FEMALE
	Probable	New	Campylobacter	02/15/2013	PATRICK, ROSEMARIE	Kalamazoo County

Cancel Continue No Merge Help

- 3) Refer to the **MERGE** column. It contains a radio button for each record. Review the newly entered case record with the existing record(s) and determine whether the records are for the same patient. Select the radio button of the case you would like to merge.

- a) In some cases you may see multiple entries for the same person. By default the first case should be the most recently modified so choose the first matching entry.

Patient Deduplication

Please select the records to merge with the data entered.

Merge	Score	First Name	Middle Name	Last Name	Date of Birth	Gender
	Case Status	Investigation Status	Disease	Referral Date	Investigator	Jurisdiction
<input checked="" type="checkbox"/>	100.0%	FAKE		PERSON	11/18/1982	MALE
<input type="checkbox"/>	100.0%	FAKE		PERSON	11/18/1982	MALE
	Suspect	New	Salmonellosis	04/24/2013	WILSON, NICOLE	Kalamazoo County
<input type="checkbox"/>	100.0%	FAKE		PERSON	11/18/1982	FEMALE
	Probable	New	Campylobacter	02/15/2013	PATRICK, ROSEMARIE	Kalamazoo County

Chose first entry



- 4) A decision must be made as to what to do with the duplicate records by clicking on one of the available buttons:
- a) **CANCEL** – returns you to the previous window without making a decision.
 - b) **NO MERGE** – indicates the new record and the existing record(s) are NOT the same person. Pressing this button creates a new record; hence, no merging.
 - c) **CONTINUE** – indicates the new record DOES pertain to an existing record. Look at name, date of birth, and gender to see if they match.
 - i) Click the existing patient's radio button under the **MERGE** column. The "Patient Record Merge" screen appears.
 - ii) The "Patient Record Merge" screen displays the detailed field values for the records that you have elected to merge.
 - (1) The **left column** displays the newly entered record with the **right column** displaying the existing record.

"Patient Record Merge" Screen

Patient Record Merge			
Source	New Data		Existing
Patient Record ID			7676357
Created Date	04/24/2013		04/24/2013
Last Modified Date	04/24/2013		04/24/2013
First Name	<input type="radio"/>	FAKE	<input checked="" type="radio"/> FAKE
Middle Name	<input type="radio"/>		<input checked="" type="radio"/>
Last Name	<input type="radio"/>	PERSON	<input checked="" type="radio"/> PERSON
Date of Birth	<input type="radio"/>	11/18/1982	<input checked="" type="radio"/> 11/18/1982
Gender	<input checked="" type="radio"/>	MALE	<input type="radio"/> UNKNOWN
Race	<input checked="" type="radio"/>	[CAUCASIAN]	<input type="radio"/> [UNKNOWN]
Ethnicity	<input type="radio"/>	UNKNOWN	<input checked="" type="radio"/> UNKNOWN
Arab Ethnicity	<input type="radio"/>	UNKNOWN	<input checked="" type="radio"/> UNKNOWN
Home Phone	<input type="radio"/>		<input checked="" type="radio"/>
Other Phone	<input type="radio"/>		<input checked="" type="radio"/>
Parent/Guardian First Name	<input type="radio"/>		<input checked="" type="radio"/>
Parent/Guardian Middle Name	<input type="radio"/>		<input checked="" type="radio"/>
Parent/Guardian Last Name	<input type="radio"/>		<input checked="" type="radio"/>
Patient Status	<input type="radio"/>	OUTPATIENT	<input checked="" type="radio"/> OUTPATIENT
Patient Addresses			
Addresses	<input type="checkbox"/>	MAKE CURRENT ADDRESS 123 ANY STREET KALAMAZOO, MI 49048 KALAMAZOO COUNTY	123 ANY STREET KALAMAZOO, MI 49048 KALAMAZOO COUNTY
Patient Case Information			
Case Status			Suspect
Investigation Status			New
Disease			Salmonellosis
Referral Date			04/24/2013
Investigator			WILSON, NICOLE
Jurisdiction			Kalamazoo County
<input type="button" value="Continue"/> <input type="button" value="Back"/> <input type="button" value="Defer"/> <input type="button" value="Help"/>			

- 5) Click the radio button to select the appropriate field value that you want to keep for your merged record. MDSS will automatically select completed fields over blank or unknown fields.
- Patient Status** – Check the patient status to see if they match. You may have to select the radio button for existing data. Most laboratory results come in as **Outpatient** and you may have to keep existing data if the patient status was **Inpatient**. If the patient is listed as inpatient in the existing record, leave it as inpatient and update the status, if needed, as information is gathered during the investigation.
 - Name Fields** – You may have to choose some of the existing data, such as choosing the middle name.

- c) **Demographic Information** – Be sure to look at race and ethnicity. You likely have to keep existing data because many new reports come in with those variables marked unknown.
 - d) **Phone, address, and guardian** – If there is a home phone in both new and existing data, MDSS will keep both phone numbers and drop the unselected number to the other in the following screen. If the address is already in MDSS in the existing data, uncheck the box that is labeled “Make Current Address”. Ensure the most recent guardian name is checked.
- 6) Another decision must be made as to what to do with the duplicate records by clicking on one of the available buttons:
- a) **BACK** – returns you to the previous window without making a decision. Click BACK if the wrong case was selected to be merged.
 - b) **DEFER** – indicates you are not able to determine whether the new record pertains to the existing record. Pressing this button sends the record to back to the Pending Work Queue for resolution.
 - c) **CONTINUE** – indicates the new record DOES pertain to an existing record and you have selected all the correct data.
- 7) When you click **CONTINUE** the "Patient Record Merge Confirmation" screen appears and you have one more opportunity to review the data and make the final determination to merge the records.

Patient Record Merge Confirmation Screen

Patient Record Merge Confirmation	
Patient Record #7676357 will be replaced with the merged Patient Record. A new patient record will be created with the following merged patient data.	
Merged Record Details	
Status	OUTPATIENT
First Name	FAKE
Middle Name	
Last Name	PERSON
Date of Birth	11/18/1982
Gender	MALE
Race	[CAUCASIAN]
Ethnicity	UNKNOWN
Arab Ethnicity	UNKNOWN
Home Phone	
Other Phone	
Parent/Guardian First Name	
Parent/Guardian Middle Name	
Parent/Guardian Last Name	
Address(es)	123 ANY STREET KALAMAZOO, MI 49048 KALAMAZOO COUNTY
<input type="button" value="Complete Merge"/> <input type="button" value="Back"/> <input type="button" value="Defer"/> <input type="button" value="Help"/>	

- 8) When you are finished verifying that each field contains the correct value, click one of the available buttons:

- a) **BACK** – indicates you noticed that something on the confirmation screen does not match to what you had indicated on the Patient Record Merge screen. This option returns you to the previous window (the “Patient Record Merge” screen) without making a decision.
 - i) If the information is not what you expected, click **BACK** on the “Patient Record Merge” screen.
 - ii) Correct any mistakes that can be corrected in the ‘Patient Record Merge’ screen and then click continue to return to the ‘Patient Record Merge Confirmation’ screen.
 - iii) If you are unable to make a determination at this point then click **DEFER** on the “Patient Record Merge” screen.
- b) **DEFER** – indicates you are not able to determine whether the new record pertains to the existing record. Pressing this button sends the record back to the Pending Work Queue for resolution.
- c) **COMPLETE MERGE** – indicates the new record DOES pertain to an existing record, you have selected all the correct data and the cases should be merged.
 - i) Pressing this button performs the actual merge and displays the "Case Deduplication – CASE RECORD" screen.
 - ii) This screen appears so that you can determine if the case matches any existing public health disease events.
- 9) In some instances after this step, a screen will appear for you to assign the reportable condition.
 - i) Click **VIEW** to look at laboratory result to assist with determining the condition (Note: Reagin AB and Treponema Pallidum AB are both laboratory tests for Syphilis).
 - ii) Occasionally one patient will have positive test results for multiple conditions, such as both Chlamydia and Gonorrhea or multiple foodborne illnesses. To assign multiple conditions, select the first condition then **while holding down the ‘Ctrl’ key**, select the additional condition.
 - iii) Choose the appropriate condition and click **ASSIGN**.
 - iv) Please note that there are some diseases (such as Syphilis, Hepatitis B and Hepatitis C) that have several options. If you are unsure of a choice, select **CANCEL** and the case will be placed in the deduplication queue for further review.

Reportable Condition Assignment Screen

Lab Reports						
First Name	Last Name	Date of Birth	Jurisdiction	Date Received	Ordered Test Name	
			Statewide	12/21/2009	BACTERIA IDENTIFIED	View
			Statewide	12/21/2009	BACTERIA IDENTIFIED	View
			Statewide	12/21/2009	BACTERIA IDENTIFIED	View
			Statewide	12/21/2009	BACTERIA IDENTIFIED	View

View the Laboratory Report

Reportable Conditions

- AIDS, Adult
- AIDS, Pediatric
- Amebiasis
- Animal Bite
- Anthrax
- Blastomycosis
- Botulism - Foodborne
- Botulism - Infant
- Botulism - Other
- Brucellosis

Choose the appropriate disease(s) from the list

To select more than one condition, hold down the 'Ctrl' key while clicking on each condition

Assign **Cancel** **Help**

Assign

Laboratory Report Screen

Affiliation: HURLEY MEDICAL CENTER Street: ONE HURLEY PLZ

City: FLINT County: Genesee State: Michigan Zip: 48503

Phone number: 810-257-9429 Ext:

Laboratory Information

Name*: HURLEY HOSPITAL LABORATORY

Street: One Hurley Plaza Geocode Source:

City: Flint County: Genesee State: Michigan Zip: 48503

Phone number: 810-257-9137

Specimen Information

Specimen Collection Date (mm/dd/yyyy): 12/15/2009

Specimen Source:

Specimen Site:

Specimen Site Text:

Specimen ID:

Results

Reported Test Name: BACTERIA IDENTIFIED/CULTURE RESULT

Coded Result: STREPTOCOCCUS PNEUMONIAE

Alternate Coded Result: STREPTOCOCCUS PNEUMONIAE

Comments: STREPTOCOCCUS PNEUMONIAE
****POSITIVE BLOOD CULTURE****
POSITIVE
BLOOD CULTURE GRAM STAIN RESULTS CALLED TO AND REREAD BY: LAURA AT 2225

[Back](#) [Help](#)

Lab Report Screen with Two Conditions

Comments :	
Reported Test Name :	Chlamydia trachomatis rRNA/Chlamydia trachomatis RNA
Coded Result :	Detected
Alternate Coded Result :	Detected
Numeric Result :	
Reference Range :	
Abnormal Flags/Susceptibility Results:	A
Comments :	
Reported Test Name :	Neisseria gonorrhoeae rRNA/Neisseria gonorrhoeae RNA
Coded Result :	Detected
Alternate Coded Result :	Detected
Numeric Result :	
Reference Range :	
Abnormal Flags/Susceptibility Results:	A
Comments :	

10) Review the existing cases and click one of the available buttons.

a) **CREATE** – indicates that the case does not refer to an existing case.

i) A new case, with the merged patient information, will be created and the "Case Listing" screen reappears.

b) **MATCHES EXISTING** – indicates that the case does match an existing case and was previously reported for this disease.

i) The existing case will be changed to reflect the new information that was entered for the case, and the "Case Detail" screen reappears with the new information.

ii) You can click **VIEW** to look at a laboratory result to assist with determining if this should be a new case.

c) **PLACE IN QUEUE** – sends case back to pending queue without merging.

Case Deduplication for FAKE PERSON							
Select an existing FAKE PERSON case as a match or choose to create a new case from the entered data.							
Investigation Status	Case Status	Disease	Referral Date	Onset Date	Investigator	Jurisdiction	
New		Salmonellosis	04/24/2013		TBD	TBD	<input type="button" value="Create"/>
New	Suspect	Salmonellosis	04/24/2013		WILSON, NICOLE	Kalamazoo County	<input type="button" value="Matches Existing"/>
							<input type="button" value="Place in Queue"/> <input type="button" value="Help"/>

11) Review the detailed forms for the 'New Data' and the 'Existing' cases by selecting 'View PDF' and select the radio button of the case details form you would like to keep.

a) **MERGE** – completes the case merging process and saves the details form that was selected. All data from the form that was not chosen will be lost.

b) **BACK** – sends you back to the previous screen to choose whether to create a new case or match to the existing case.

c) **DEFER** – indicates you are not able to determine whether the new record pertains to the existing record. Pressing this button sends the record to back to the Pending Work Queue for resolution.

Case Record Merge		
Case	New Data	Existing
Investigation Status	New	New
Case Status		Suspect
Condition	Salmonellosis	Salmonellosis
Referral Date	04/24/2013	04/24/2013
Onset Date		
Investigator	TBD	NICOLE, WILSON
Jurisdiction	TBD	Kalamazoo County
Case Details	<input type="button" value="View PDF"/>	<input type="button" value="View PDF"/>
Case to Keep	<input type="radio"/>	<input checked="" type="radio"/>
<input type="button" value="Merge"/> <input type="button" value="Back"/> <input type="button" value="Defer"/> <input type="button" value="Help"/>		

Review case detail forms (pointing to View PDF buttons)

Select the form you need to keep (pointing to Existing radio button)

Notes:

- 1) When in doubt about whether a case should be merged, create a new case – you can always go back and reduplicate the case manually (refer to step 1a, page 1).
- 2) Only information, as selected in the patient deduplication portion of the process will be merged into the form you select. Only information in the detail form that you select will be saved. Information from one form will NOT be merged into the other during a merge.
- 3) The final screen which allows you to view each detailed form (from step 12 above) will not be available when merging an Electronic Lab Record to an existing case in MDSS. This is because Electronic Lab Reports only include lab data and nothing else.
- 4) The notes that are editable in a Case Detail Form stay only with that individual form. When a case is merged, the notes from the Case Detail Form that was chosen are the only ones that will remain. Starting with the MDSS 4.0 release, the Case Detail Forms would also show a read-only copy of the time-stamped Case Notes. These Case Notes can only be added to the Notes tab and are separate from the Case Detail Form. The read-only Case Notes will not be affected by any deduplication selection.
- 5) When sending an existing case back into the deduplication queue, or reduplication, please note that any attachments on that case will be lost. Those attachments should be saved locally and then uploaded after the redup.
- 6) If a case has a 6-digit number as part of their first name, the case was initially reported as part of the Michigan Department of Corrections (MDOC) Prisoner system. This 6-digit prisoner ID should be kept with the first name when a de-duplication is completed so that MDOC can locate the case and to alert the LHD that the case is to be managed by MDOC. A tip sheet for MDOC cases is available from your Regional Epidemiologist.

DEDUPLICATION INSTRUCTIONS FOR SPECIFIC DISEASES

1) Gonorrhea and Chlamydia

- a) If the new case/lab report is greater than 28 days from a previous report click **CREATE NEW**
- b) Similarly if it is less than 28 days click **MATCHES EXISTING**

“Case Deduplication – CASE RECORD” Screen: Matches Existing

Lab Reports			
Date Received	Ordered Test Name	Assigned Condition	
12/21/2009	Chlamydia/GC Amplification	Gonorrhea	<input type="button" value="View"/>

Patient Information		
ID	First Name	Last Name
2064378620		

Existing Investigations					
Report Status	Disease	Referral Date	Investigator	Jurisdiction	
Completed	Chlamydia (Genital)	02/26/2008	BESSER, TERRI	Genesee County	<input type="button" value="Matches Existing"/>
Completed	Chlamydia (Genital)	07/08/2009	BESSER, TERRI	Genesee County	<input type="button" value="Matches Existing"/>
New	Gonorrhea	12/18/2009	HUDDLESTON, TERRI M	Genesee County	<input type="button" value="Matches Existing"/>

“Match Existing” based on the dates of the reports

“Case Deduplication – CASE RECORD” Screen: Create New

Lab Reports			
Date Received	Ordered Test Name	Assigned Condition	
12/21/2009	CHLAMYDIA TRACHOMATIS DNA	Chlamydia (Genital)	<input type="button" value="View"/>

Patient Information		
ID	First Name	Last Name
2064598475		

Existing Investigations					
Report Status	Disease	Referral Date	Investigator	Jurisdiction	
Completed	Chlamydia (Genital)	04/03/2009	WILLIAMS, JACQUEITA L	Genesee County	<input type="button" value="Matches Existing"/>
Completed	Gonorrhea	09/25/2009	BESSER, TERRI	Genesee County	<input type="button" value="Matches Existing"/>
Completed	Chlamydia (Genital)	09/25/2009	BESSER, TERRI	Genesee County	<input type="button" value="Matches Existing"/>

“Create New” based on the dates of the reports

2) Syphilis

- a) Always **DEFER**. MDCH staff will close out these cases as appropriate.
- b) Note: You may have to **ASSIGN** the condition for syphilis. Always assign “Syphilis-Latent, Unknown Duration”.

3) Hepatitis B

- a) Look at the previous report date and disease. If the case was previously reported with *Acute* infection and a reasonable time period has passed since this new report (≥ 6 months) **CREATE NEW**.
- b) Note: you may have change the Disease to Hepatitis B *Chronic* if it was reported as Acute (this would be done by opening up the Case Investigation).
- c) If the case is a female of childbearing age (10 to 60 years of age) **CREATE NEW**.
 - i) Open the Case Investigation and indicate in the notes that the new case was created to assess for pregnancy status.
 - ii) Refer to [Entering and De-duplicating Chronic Hepatitis Reports in the MDSS](#) or the [Hepatitis B Reporting Flowchart](#) for more details.
- d) Refer to the [Hepatitis B Serology Interpretation for MDSS Entry/Closure of Cases](#) for more information about lab results.

4) Hepatitis C

- a) Look at the previous report date and disease.
 - i) If the case was previously reported with *Acute* infection and a reasonable time period has passed since this new report (≥ 6 months) choose **CREATE NEW**. This should be changed to *Chronic* Hepatitis C cases, as Acute Hepatitis C cases cannot have any previous history of Hepatitis C infection.
 - ii) If the case was previously closed out as NOT A CASE choose **CREATE NEW**.
 - iii) If the case was previously reported with a PROBABLE or CONFIRMED *Chronic* Hepatitis C infection, new *Chronic* cases should be deduplicated with the previous case. New *Acute* cases should also be deduplicated with the previously reported *Chronic* case, when the message box warning of different diseases pops up, click ‘OK’ to merge the case.
 - iv) If the case was previously reported as SUPERCEDED or NOT A CASE or UNKNOWN, create a new case and determine whether the new case is *Acute* or *Chronic* Hepatitis C.
- b) You may have to change the Disease to Hepatitis C *Chronic* if it was reported as Acute (this would be done by opening up the Case Investigation and changing the reportable condition).
- c) Refer to the [Hepatitis C Case Reporting Flowchart](#) for more details.

5) Mycobacterium

a) Mycobacterium – Other:

- i) If the case was previously reported with the same Mycobacterium species and less than 12 months have passed, choose **MATCHES EXISTING**.
- ii) If the case was previously reported with the same Mycobacterium species and 12 months has passed, choose **CREATE NEW**.

b) Tuberculosis:

- i) If the case was previously reported with active Tuberculosis and the case is receiving treatment or has received treatment within the past 12 months, choose **MATCHES EXISTING**.
- ii) If the case was previously reported with active Tuberculosis and the case has not received any treatment in 12 months, choose **CREATE NEW**.