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’.

   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

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

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.
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

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.

a) **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.

b) **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**

- **Complete Merge**
- **Back**
- **Defer**
- **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

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Date of Birth</th>
<th>Jurisdiction</th>
<th>Date Received</th>
<th>Ordered Test Name</th>
<th>View</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Statewide</td>
<td>12/21/2009</td>
<td>BACTERIA IDENTIFIED</td>
<td>View</td>
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</tbody>
</table>

**Choose the appropriate disease(s) from the list**
To select more than one condition, hold down the ‘Ctrl’ key while clicking on each condition.

### Laboratory Report Screen

**View the Laboratory Report**

### Lab Report Screen with Two Conditions

**Assign**
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.

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.
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) For incoming ELR messages, MDSS will automatically de-duplicate patients for whom there is a 100% match for an existing patient record, following a standardized algorithm. A banner message will appear for patients for whom automatic patient record de-duplication has occurred.

4) Some conditions may generate multiple labs. If cases have the same serotype of an organism and only a certain amount of time has passed, cases may be merged (refer to disease specific instructions for additional information). If you can’t see the serotype information during the deduplication process, you may need to create a new case and then view the new lab result -- you can always go back and reduplicate the case manually or mark the case superceded.

5) 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.

6) 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.

7) 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.

8) 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 30 days from a previous report, CREATE NEW
   b) Similarly if it is less than 30 days, click MATCHES EXISTING

“Case Deduplication – CASE RECORD” Screen: Matches Existing

“Case Deduplication – CASE RECORD” Screen: Create New
2) **Syphilis**

   a) Always merge the person

   b) If the new case/lab report is greater than 5 days from the previous report, **CREATE NEW**

   ![Create New based on the dates of the reports]

   c) If the new case is 4 or fewer days from the previous case, you can either **DEFER** or **MATCH EXISTING** (merge)

   ![Matches Existing based on the dates of the reports]

   d) If you are unsure, you can **DEFER** or **CREATE NEW**

   e) Note: You may have to **ASSIGN** the condition for syphilis. Always assign “Syphilis-To be determined”

   f) Do not close new investigations, MDHHS Syphilis staff will merge, re-assign, investigate, and completed, as appropriate

3) **Hepatitis B**

   a) If the case is not a female of childbearing age look at the previous report date and disease.

      i) If the case was previously reported with Acute infection within the last 6 months chose to **MATCH EXISTING** (merge)

      ii) If the case was previously reported with Acute infection and a reasonable time period has passed since this new report (≥ 6 months) **CREATE NEW**

      iii) 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)

   b) 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

   c) 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 within the last 6 months merge the patient and the case to the existing PROBABLE or CONFIRMED Hepatitis C, Acute case (**MATCH EXISTING**)

ii) If the case was previously reported with *Acute* infection and it has been 6 months or greater since the past report, choose **CREATE NEW**. This should be changed to *Chronic* Hepatitis C case, as *Acute* Hepatitis C cases cannot have any previous history of Hepatitis C infection in MDSS

iii) If the case was previously closed out as NOT A CASE choose **CREATE NEW**

iv) If the case was previously reported with a PROBABLE or CONFIRMED *Chronic* Hepatitis C infection, new *Chronic* cases should be merged with the previous case (i.e. choose **MATCHES EXISTING**). New *Acute* cases should also be merged with the previously reported *Chronic* case, when the message box warning of different diseases pops up, click ‘OK’ to merge the case (screenshot below)

![Case Record Merge](image)

v) If the case was previously reported with *Perinatal* Hepatitis C infection and the patient is now over 36 months of age, choose **CREATE NEW**. This should be changed to *Chronic* Hepatitis C case. If the patient is 36 months of age or younger, merge (**MATCH EXISTING**) to the previous case.

vi) If the case was previously reported as SUPERCEDED or NOT A CASE or UNKNOWN, or reported with the condition, “Hepatitis C, 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) Nontuberculous Mycobacterium:
      
      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 or more months have passed, choose **CREATE NEW**
      
      iii) If the case was ever previously reported with a different Mycobacterium species, choose **CREATE NEW**

   b) Tuberculosis:
      
      i) If the case was previously reported with active Tuberculosis within the past 12 months, choose **MATCHES EXISTING**
      
      ii) If the case was previously reported with active Tuberculosis with the investigation status **COMPLETED** and 12 or more months have passed, choose **CREATE NEW**

6) **CP-CRE**

   a) If the case was previously reported with the same organism and resistance mechanism and less than 12 months have passed, choose **MATCHES EXISTING**
   
   b) If the case was reported with the same organism and resistance mechanism and 12 or more months have passed, choose **CREATE NEW**
   
   c) If the case was ever previously reported with a different organism or resistance mechanism, choose **CREATE NEW**

7) **Gastrointestinal Illnesses** - criteria to distinguish a new case from an existing case:

   a) Campylobacteriosis: A case should not be counted as a new case if laboratory results were reported within 30 days of a previously reported infection in the same individual
   
   b) Salmonellosis:
      
      i) A case should not be counted as a new case if laboratory results were reported within 365 days of a previously reported infection in the same individual
      
      ii) When two or more different serotypes are identified from one or more specimens from the same individual, each should be reported as a separate case

   c) Shiga toxin-producing *E coli*:
      
      i) A new case should be created when a positive laboratory result is received more than 180 days after the most recent positive laboratory result associated with a previously reported case in the same individual
ii) When two or more different serogroups/serotypes are identified in one or more specimens from the same individual, each serogroup/serotype should be reported as a separate case

d) Shigellosis:

i) A case should not be counted as a new case if laboratory results were reported within 90 days of a previously reported infection in the same individual

ii) When two or more different serotypes are identified in one or more specimens from the same individual, each should be reported as a separate case

e) Vibriosis-non cholera:

i) A case should not be counted as a new case if laboratory results were reported within 30 days of a previously reported infection in the same individual

ii) When two or more different species of the family *Vibrionaceae* are identified in one or more specimens from the same individual, each should be reported as a