



NCIS Guide

Merge Functionality

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Background

In the administration of patient information, duplicate healthcare records can occur. Where a duplicate record for a patient is identified, a merge process is required to consolidate the patient's information into a single record. This process can be required for paper records (the patient chart), PAS records and where relevant, for the patient record held within NCIS.

For a patient with a duplicate record in NCIS, the user carrying out the merge will need to review the NCIS case(s) and identify the appropriate merge scenario. This guide explains the different merge scenarios and step-by-step instructions to manage and/or perform merges in NCIS.

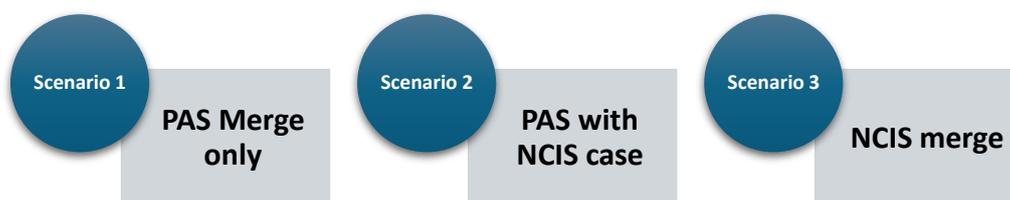
Merge Scenarios

Merging patient records must be done carefully and systematically. Once merged in NCIS, the process cannot be undone. Records must be assigned as:

- Major Record: The surviving record after the merge
- Minor Record: The record that will be removed

Before merging in NCIS, ensure all necessary merges in PAS are complete.

The steps required for each merge generally fall into one of the following scenarios:



Scenario 1: PAS Merge Only

Patient Merge in PAS without NCIS Record.

Records are merged within PAS and an update is sent to the NCIS Master Patient Index (MPI).

Scenario 2: PAS with NCIS Case

Patient Merge in PAS with NCIS Record:

- **Scenario 2.1:** Major PAS ID linked to case in NCIS
- **Scenario 2.2:** Minor PAS ID linked to case in NCIS
- **Scenario 2.3:** Both the Major and Minor Records are associated with cases in NCIS. Where PAS records have been delivered to the MPI and NCIS cases have been created using one or more of these PAS IDs.

Scenario 3: NCIS Clipboard Merge

Single PAS record, multiple NCIS cases - Patient Merge Process in NCIS. Where multiple NCIS cases have been created using a single PAS record, or where the PAS record has been merged and now the NCIS cases require a subsequent merge process.

Some relevant considerations for merging NCIS cases:

- Do the cases both have the same diagnosis recorded? If no, this may need to be clarified with the clinical team.
- Are the cases to be merged, linked to the MPI? If no, the case may also require HIS matching.
- Are the cases to be merged at the same hospital in NCIS.Chart? If no, you may need to seek assistance from a local administrator at the other hospital and/or the NCIS office to complete the merge.

Worklist Entries

Merge messages from PAS to NCIS can result in an automatic worklist notification, this will appear in the worklist menu and in the patient record screen in the banner.

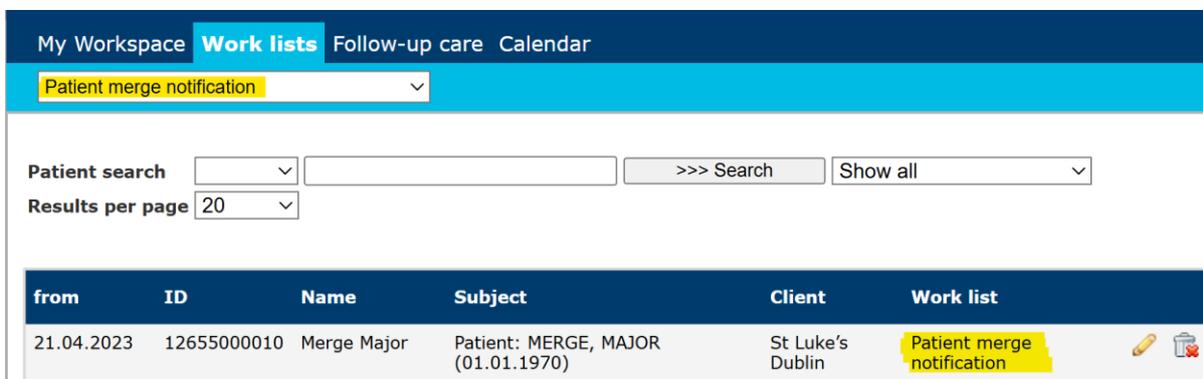


Figure 1: Worklist merge notification (in Worklist menu)

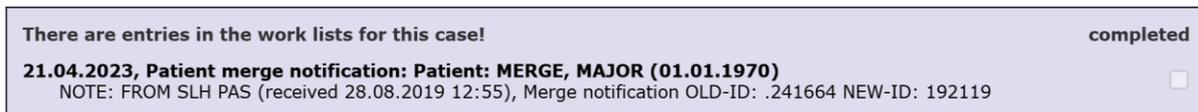


Figure 2: Worklist merge notification (in patient's tumour case banner)

Merge Process Overview (Step by Step)

Scenario 1: PAS Merge (with or without NCIS Case)

Two or more records exist in PAS for the same person. Each PAS record will have a different PAS Identifier.

Step 1: A search in NCIS will display what records are in the MPI based on their PAS Identifier (MRN/Local ID). Before a PAS merge takes place, you will see both records in the MPI search in NCIS.

| | NCIS ID Hospital ID | Name | Date of birth gender | Address | Hospital |
|-----------------|------------------------|-------------------------------|-------------------------|------------------------------------------------------|----------|
| PAS Record #1 → | 212080 | Mr Scenario1, NCISMergeMajor1 | 01.01.1970 (m) | 26 Merge Street Merge City Dublin XJY123 | MPI |
| PAS Record #2 → | 212081 | Mr Scenario1, NCISMergeMinor1 | 01.01.1970 (m) | 26 Merge Street Merge City Dublin | MPI |

Figure 3: MPI Search Return

Step 2: Determine which record in PAS will become the Major (surviving) Record and which will be the Minor (non-surviving) Record.

Step 3: Perform a PAS merge (Following the merge of the Major and Minor PAS records, a Merge message will be delivered to the NCIS Master Patient Index (MPI) from PAS).

Step 4: Once this has occurred, an MPI search will result in only the Major record being shown. The Minor record will no longer be seen in the MPI search result in NCIS.

Scenario 2: PAS Merge with NCIS Case(s)

Two or more records exist in PAS for the same individual person. At least one of the PAS records was used to register a case in NCIS.

A search in NCIS will display what records are in the MPI based on their PAS Identifier (MRN). Check which record to be merged is associated with an NCIS case. You will need to plan your NCIS merge depending on the relationship between the case in NCIS and the PAS identifier. The record that has an NCIS case will display both a PAS identifier and an NCIS ID.

Scenario 2.1: Merge where the Major PAS Identifier is associated with the NCIS Case
Two or more PAS records, and a single NCIS record

Step 1: Establish that the Major (surviving) Record is associated with the NCIS case.

Step 2: Perform a PAS merge (Following the merge of the Major and Minor PAS records, a Merge message will be delivered to the NCIS Master Patient Index (MPI) from PAS).

Step 3: Once this has occurred, an MPI search will result in only the Major record being shown.

Step 4: No further action is required in NCIS.

Scenario 2.2: Merge where the Minor PAS Identifier is associated with the NCIS Case

Step 1: Two or more PAS records, and a single NCIS record

Step 2: The Minor (non-surviving) record is associated with a case in NCIS.

Step 3: Perform a PAS merge (Following the merge of the Major and Minor PAS records, a Merge message will be delivered to the NCIS Master Patient Index (MPI) from PAS).

Step 4: Once this has occurred, it will result in an update to NCIS.Chart, the MPI and NCIS.MED.

Step 5: The Minor PAS identifier will be deactivated.

In some situations, a HIS match is also required to be completed if demographic fields in NCIS need to be updated.

Scenario 2.3: Merge where both the Major and Minor PAS Identifiers are associated with a Case

Step 1: Two or more PAS records, each with an associated NCIS record

Step 2: Identify the Major PAS identifier and the Major NCIS Case and plan your required merge steps accordingly.

Step 3: Perform a PAS merge (Following the merge of the Major and Minor PAS records, a Merge message will be delivered to the NCIS Master Patient Index (MPI) from PAS).

Step 4: Once this has occurred, it will result in an update to NCIS.Chart, the MPI and NCIS.MED.

Step 5: The Minor PAS identifier will be deactivated and the associated case will become unlinked.

Follow the process for an NCIS merge (see Scenario 3) to align the NCIS records to the Major (surviving) patient identifier.

Scenario 3: NCIS Merge

Two or more records exist in NCIS for the same individual person.

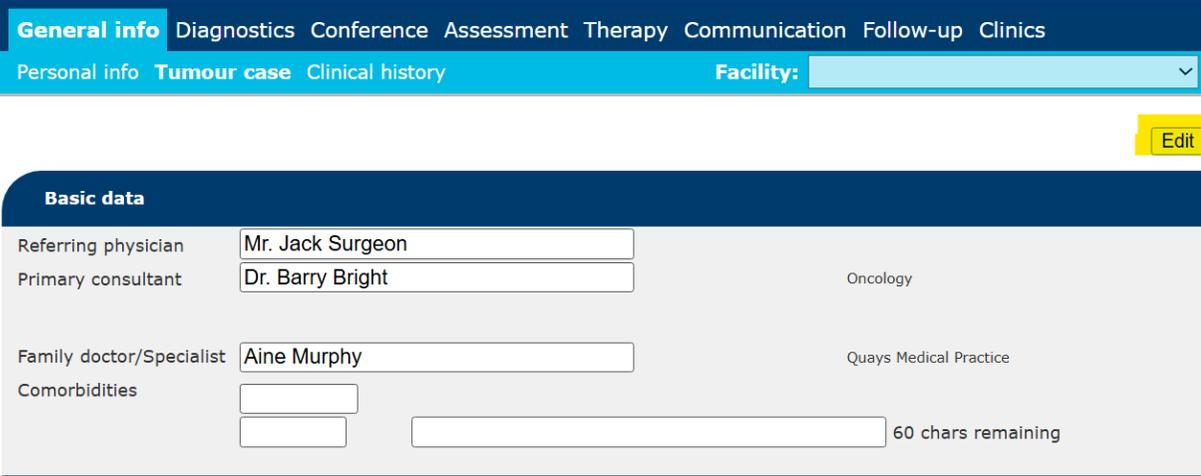
Scenario 3.1: Merge where both cases have the same diagnosis recorded

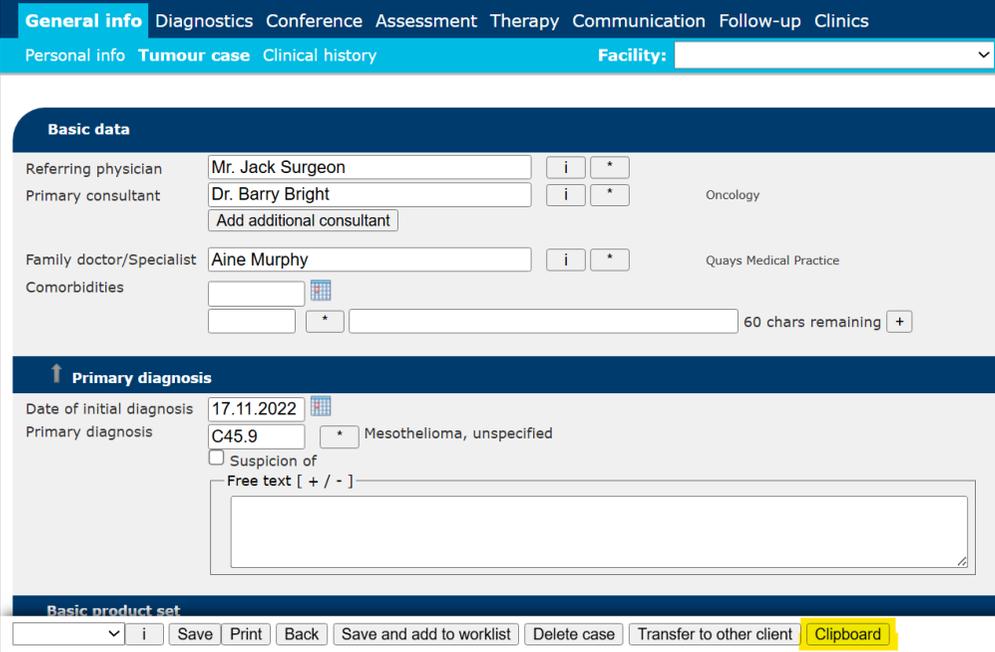
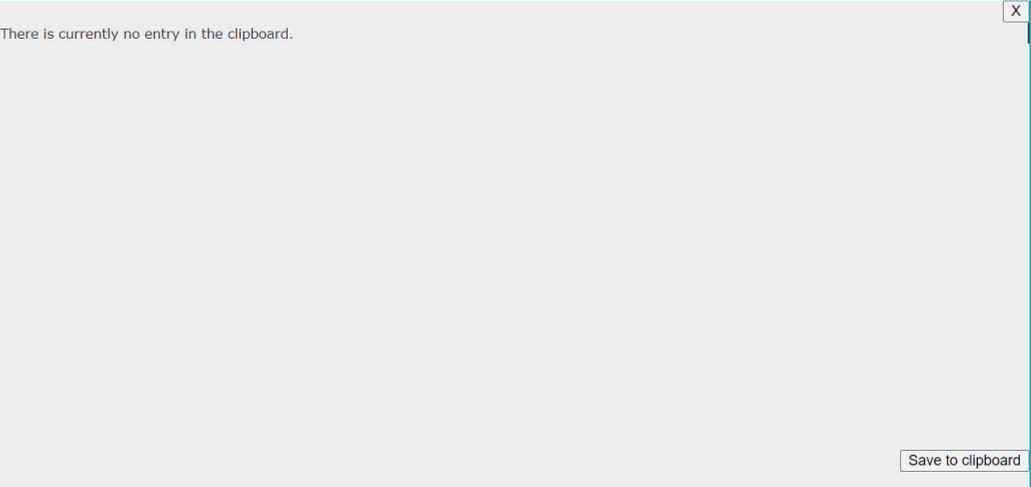
Before completing the merge steps, it is important to review both NCIS Chart and NCIS Med and work through the anticipated merged record contents.

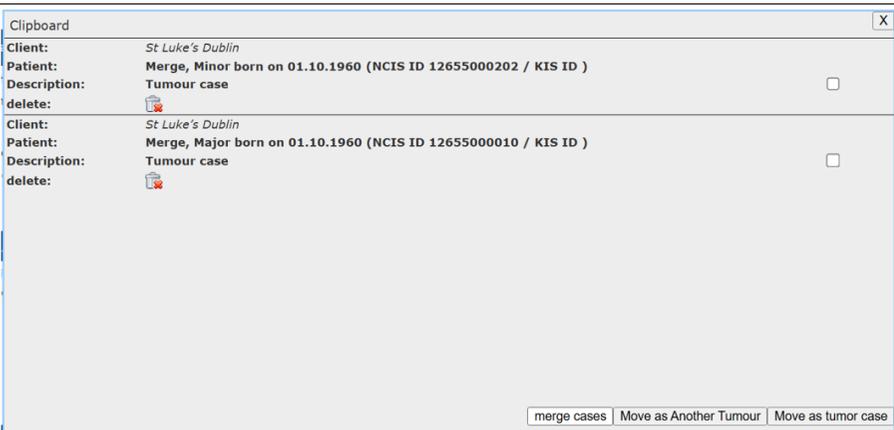
Following the merge of the Major and Minor PAS records, a merge message will be delivered to the NCIS Master Patient Index (MPI) from PAS. This will update the MPI and the Local ID/MRN will become unlinked (for case with minor ID) or a worklist entry will appear (for case with major ID). It is important to refer to NCIS MED and to establish which NCIS ID appears for the patient there, this should be used as the Major NCIS ID in the NCIS merge process.

Process for an NCIS Chart Merge

Where there are two or more cases for the same patient in NCIS, the clipboard can be used to merge the cases together in NCIS Chart. The Clipboard is visible to Local Administrator users. **Please note: the clipboard should only be used from the patient’s tumour case screen.**

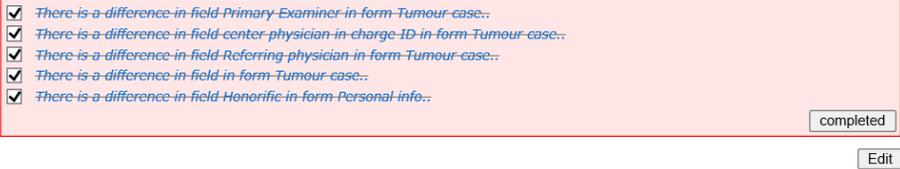
| <p>Step 1</p> | <p>Identify the major case and the minor record(s) to be merged.</p> | <p>Include a review of forms in each case and therapy plans in NCIS MED to identify what should be seen in the merged record.</p> <table border="1" data-bbox="577 472 2007 756"> <thead> <tr> <th></th> <th>NCIS ID Hospital ID</th> <th>Name</th> <th>Date of birth gender</th> <th>Address</th> <th>Hospital</th> </tr> </thead> <tbody> <tr> <td>MAJOR RECORD</td> <td>12655000010 192119 (SLH)</td> <td>Merge, Major</td> <td>01.10.1960 (m)</td> <td>Minor Hill Major Road Minor Town Major City</td> <td>St Luke’s Dublin</td> </tr> <tr> <td>MINOR RECORD</td> <td>12655000202</td> <td>Merge, Minor</td> <td>01.10.1960 (m)</td> <td>Minor Hill Major Road Minor Town Major City Dublin</td> <td>St Luke’s Dublin</td> </tr> </tbody> </table> | | NCIS ID Hospital ID | Name | Date of birth gender | Address | Hospital | MAJOR RECORD | 12655000010 192119 (SLH) | Merge, Major | 01.10.1960 (m) | Minor Hill Major Road Minor Town Major City | St Luke’s Dublin | MINOR RECORD | 12655000202 | Merge, Minor | 01.10.1960 (m) | Minor Hill Major Road Minor Town Major City Dublin | St Luke’s Dublin |
|----------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------------------------------------------------|------------------|-------------------------|---------|----------|---------------------|-----------------------------|--------------|----------------|------------------------------------------------------|------------------|---------------------|-------------|--------------|----------------|----------------------------------------------------------------|------------------|
| | NCIS ID Hospital ID | Name | Date of birth gender | Address | Hospital | | | | | | | | | | | | | | | |
| MAJOR RECORD | 12655000010 192119 (SLH) | Merge, Major | 01.10.1960 (m) | Minor Hill Major Road Minor Town Major City | St Luke’s Dublin | | | | | | | | | | | | | | | |
| MINOR RECORD | 12655000202 | Merge, Minor | 01.10.1960 (m) | Minor Hill Major Road Minor Town Major City Dublin | St Luke’s Dublin | | | | | | | | | | | | | | | |
| <p>Step 2</p> | <p>Open the Major case.</p> | | | | | | | | | | | | | | | | | | | |
| <p>Step 3</p> | <p>In the tumour case form click edit</p> |  <p>General info Diagnostics Conference Assessment Therapy Communication Follow-up Clinics</p> <p>Personal info Tumour case Clinical history Facility: <input type="text"/></p> <p><input type="button" value="Edit"/></p> <p>Basic data</p> <p>Referring physician <input type="text" value="Mr. Jack Surgeon"/></p> <p>Primary consultant <input type="text" value="Dr. Barry Bright"/> Oncology</p> <p>Family doctor/Specialist <input type="text" value="Aine Murphy"/> Quays Medical Practice</p> <p>Comorbidities <input type="text"/> <input type="text"/> <input type="text"/> 60 chars remaining</p> | | | | | | | | | | | | | | | | | | |

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| <p>Step 4</p> | <p>Find the clipboard button at the bottom of the screen (this is only available to users with administrator access)</p> |  | |
| <p>Step 5</p> | <p>Open the clipboard</p> |  | |

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| <p>Step 6</p> | <p>Add the case to the clipboard by clicking on the “save to clipboard” button.</p> |  <p>There is currently no entry in the clipboard.</p> <p>Save to clipboard</p> |
| <p>Step 7</p> | <p>Open the minor case</p> | |
| <p>Step 8</p> | <p>Follow steps 4 to 6 again to add the minor case to the clipboard</p> |  <p>Clipboard</p> <p>Client: <i>St Luke's Dublin</i></p> <p>Patient: Merge, Minor born on 01.10.1960 (NCIS ID 12655000202 / KIS ID)</p> <p>Description: Tumour case <input type="checkbox"/></p> <p>delete: </p> <hr/> <p>Client: <i>St Luke's Dublin</i></p> <p>Patient: Merge, Major born on 01.10.1960 (NCIS ID 12655000010 / KIS ID)</p> <p>Description: Tumour case <input type="checkbox"/></p> <p>delete: </p> <p>merge cases Move as Another Tumour Move as tumor case</p> |

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| <p>Optional step</p> | <p>You can use the title field in NCIS Chart to add information to assist in identifying cases in the clipboard view. The Title field can then be cleared after the merge.</p> | <p>The screenshot shows the patient record for 'c37.CancerCenter St Luke's Dublin'. The patient information includes: Patient: *Title Field Entry* Merge..., D.O.B.: 01.10.1960 (64), NCIS ID: 12655000010, Hospital ID: 192119 (SLH). The 'Personal information' section contains fields for Title (*Title Field Entry*), Prefix, Surname (Merge), First name (Major), Surname at birth, Postal address (Minor Hill, Major Road, Minor Town, Major City), Eircode, and County (Dublin North City & County). An 'Edit' button is present. A 'Clipboard' window is open, showing two patient entries. The second entry, '*Title Field Entry* Merge, Major born on 01.10.1960 (NCIS ID 12655000010 / KIS ID)', is highlighted. At the bottom of the clipboard window, there are buttons for 'merge cases', 'Move as Another Tumour', and 'Move as tumor case'.</p> |
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| <p>Step 9</p> | <p>Tick the check boxes on the cases that you wish to merge</p> <p><i>The merge button is disabled until both cases that need to be merged are selected.</i></p> | <p>Clipboard</p> <p>Client: St Luke's Dublin</p> <p>Patient: Merge, Minor born on 01.10.1960 (NCIS ID 12655000202 / KIS ID)</p> <p>Description: Tumour case</p> <p>delete: </p> <hr/> <p>Client: St Luke's Dublin</p> <p>Patient: *Title Field Entry* Merge, Major born on 01.10.1960 (NCIS ID 12655000010 / KIS ID)</p> <p>Description: Tumour case</p> <p>delete: </p> <p>merge cases Move as Another Tumour Move as tumor case</p> | |
| <p>Step 10</p> | <p>Click merge cases</p> | <p>Clipboard</p> <p>Client: St Luke's Dublin</p> <p>Patient: Merge, Minor born on 01.10.1960 (NCIS ID 12655000202 / KIS ID)</p> <p>Description: Tumour case</p> <p>delete: </p> <hr/> <p>Client: St Luke's Dublin</p> <p>Patient: *Title Field Entry* Merge, Major born on 01.10.1960 (NCIS ID 12655000010 / KIS ID)</p> <p>Description: Tumour case</p> <p>delete: </p> <p>merge cases Move as Another Tumour Move as tumor case</p> | |

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| | <p>therapy form) multiple forms are combined into the merged case and no conflict will be noted.</p> <p>Check that all differences have been validated. The user can open each warning to review the information, tick the items that have been reviewed. Each item should be crossed out, note that changes cannot be made to the minor case but the major case can be modified where a change is required.</p> |  |
| Step 14 | | Note: a user should not click close or leave the case view until the merge is complete. This will interrupt the merge. |
| Step 15 | | Complete the merge by clicking on completed |

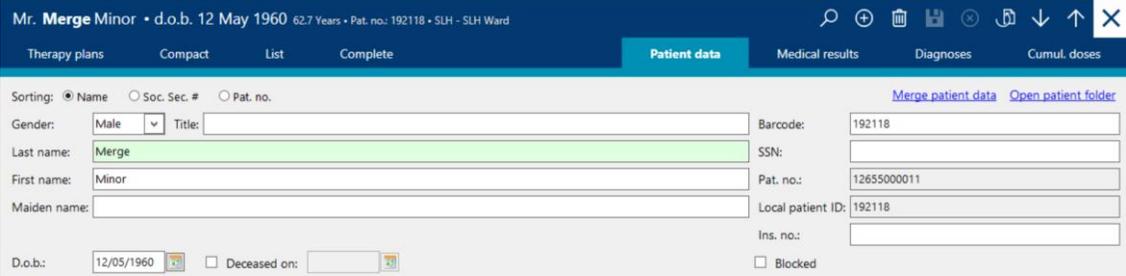
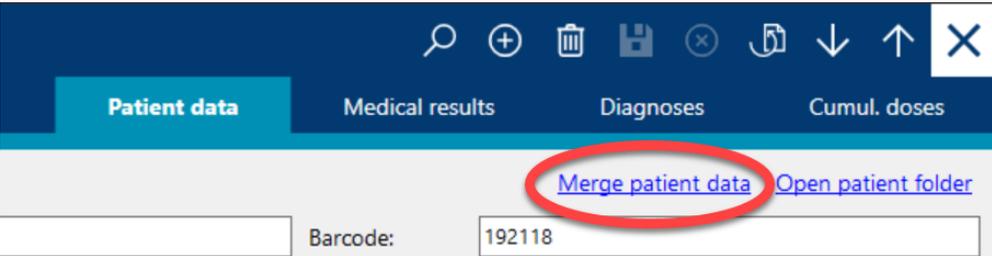
Checks:

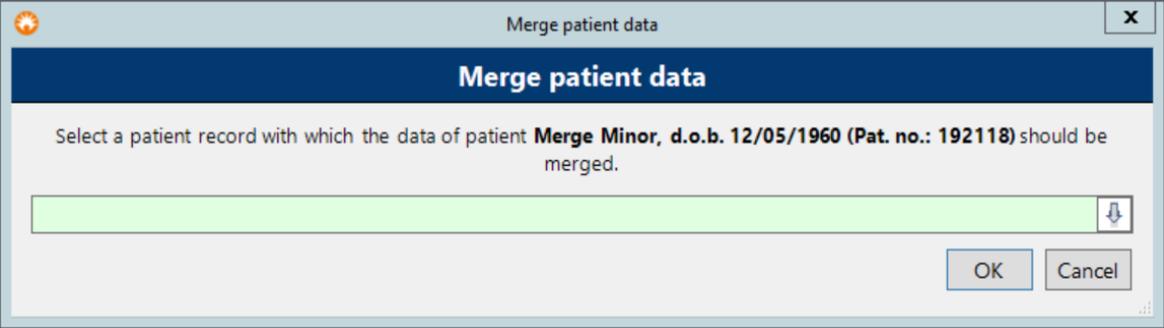
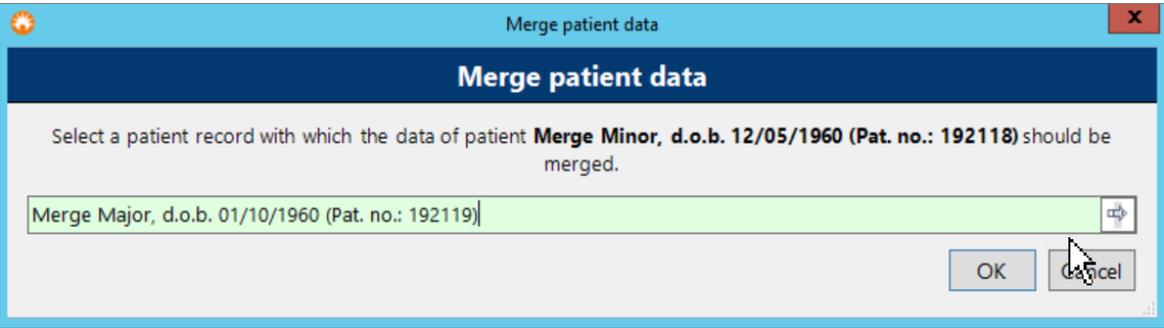
- After the merge in NCIS.Chart is completed, search for the patient and ensure there is only one linked entry.
- If the patient has more than 2 entries to begin with you will need to repeat the process as only 2 records can be merged at a time.
- Check NCIS Med to ensure there are no duplicates in this section

Process for an NCIS MED Merge

In reviewing the NCIS record before a Merge, the user should establish and take note of the record(s) for the patient in NCIS Med, in particular it is important to note which NCIS ID is seen in NCIS MED.

Generally, the NCIS MED merge will take place automatically. If the two NCIS IDs are being merged and each one has a NCIS MED record, the merge in NCIS.Chart should automatically follow through to NCIS.Med. However, if it should ever be required, it is possible to complete a merge in NCIS.Med. This functionality is available to Local Administrator users. **Please note: the merge option in NCIS.MED should only be used when the user is not in patient context.**

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| <p>Step 1:</p> | <p>Identify the major case and the minor record(s) to be merged.</p> | |
| <p>Step 2:</p> | <p>Open the Minor case in NCIS.MED.</p> |  |
| <p>Step 3:</p> | <p>In the patient data tab click "merge patient data"</p> <p><i>This cannot be done in patient context</i></p> |  |

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| Step 4: | The merge selection box appears. This provides the option to search for the <u>Major</u> patient with which you wish this record. |  | |
| Step 5: | Select the major patient and click ok. |  | |
| Step 6: | Merge complete, check record | | |

Appendix

Patient Record Merge Checklist for NCIS and PAS

Before Starting:

- Confirm duplicate patient records exist
 - Determine if duplicates are in PAS, NCIS, or both
 - Complete any necessary merges in PAS first
-

Scenario 1: PAS Merge Only

- Identify Major (surviving) and Minor (non-surviving) PAS records
 - Perform PAS merge
 - Confirm merge message sent to NCIS MPI
 - Verify only Major record appears in NCIS MPI search
-

Scenario 2: PAS Merge with NCIS Case(s)

2.1 Major PAS linked to NCIS case

- Perform PAS merge
- Confirm NCIS MPI updates
- No further NCIS action needed

2.2 Minor PAS linked to NCIS case

- Perform PAS merge
- Complete HIS Match if required
- Confirm PAS identifier update to MPI, NCIS.Chart, and NCIS.MED

2.3 Both Major and Minor PAS linked to NCIS cases

- Perform PAS merge
 - Perform NCIS merge (Scenario 3)
 - Complete HIS Match if required
 - Confirm update to MPI, NCIS.Chart and NCIS.MED
-

Scenario 3: NCIS Merge Only

- Review cases for same diagnosis and hospital
- Use NCIS Chart Clipboard to add Major and Minor cases
- Select cases and merge, confirming Major case as survivor
- Review conflict warnings and resolve demographic or case differences
- Complete merge and confirm only one linked entry
- Repeat for additional duplicates if necessary
- Verify NCIS Med for duplicates and perform Med merge if needed

Troubleshooting

- Check PAS for unmerged or duplicate entries
- Verify patient identity details (DOB, name, address)
- Use HIS Match to resolve demographic mismatches

| Problem 1: | Problem 2: |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Patient has two or more records on NCIS. Record One has a Local ID and an NCIS ID Additional Record(s) has NCIS ID only.</p> | <p>Patient has two or more records on NCIS Both records have the same local ID.</p> |
| <p>More than one record for the patient on PAS, Demographic information changed after an entry has been created on NCIS – This causes an unlinking and an additional record for the patient with an NCIS ID but no Local ID.</p> <p><i>(If the patient has only one entry on PAS it is likely that there has been a change to the demographic information which created a second MPI entry for the same PAS record. The unlinked records can be resolved on NCIS using HIS Match and then merged to tidy up the additional cases)</i></p> | <p>Patient has had a new case created instead of an existing case opened. This can sometimes occur if the user double clicks at the point of creating the first case.</p> |
| <p>CHECK</p> <ul style="list-style-type: none"> - <i>That this is the same patient by checking the date of birth, name and address.</i> - <i>Whether the cases have become unlinked due to demographic change, typos, use of apostrophe other character in address.</i> - <i>PAS to ensure there are no unmerged entries. If the patient has more than one entry on PAS, this will need to be resolved by a PAS merge <u>before</u> the records can be merged on NCIS.</i> | <p>CHECK</p> <ul style="list-style-type: none"> - <i>Demographic Information for any discrepancy.</i> - <i>PAS to ensure there is only one patient record.</i> - <i>Which record has had information added to determine the major case.</i> |

| Step | Scenario 1 | Scenario 2.1 | Scenario 2.2 | Scenario 2.3 | Scenario 3 |
|----------------------|-------------|--------------|-----------------------|------------------------|-------------------------------------|
| Records in PAS only | Yes | No | No | No | No |
| Records in NCIS | No | Major linked | Minor linked | Both linked | Multiple NCIS cases, one PAS record |
| PAS Merge Required | Yes | Yes | Yes | Yes | No |
| NCIS Merge Required | No | No | (HIS Match) | Yes | Yes |
| Merge Process | PAS merge | PAS merge | PAS merge + HIS Match | PAS merge + NCIS merge | NCIS Chart Clipboard |
| Minor PAS identifier | Deactivated | Deactivated | Deactivated | Deactivated | N/A |
| MPI Update | Automatic | Automatic | Automatic | Automatic | Automatic |

Table 1: Quick Reference: NCIS and PAS Patient Merge

Which Merge Scenario Do I Need to Follow?

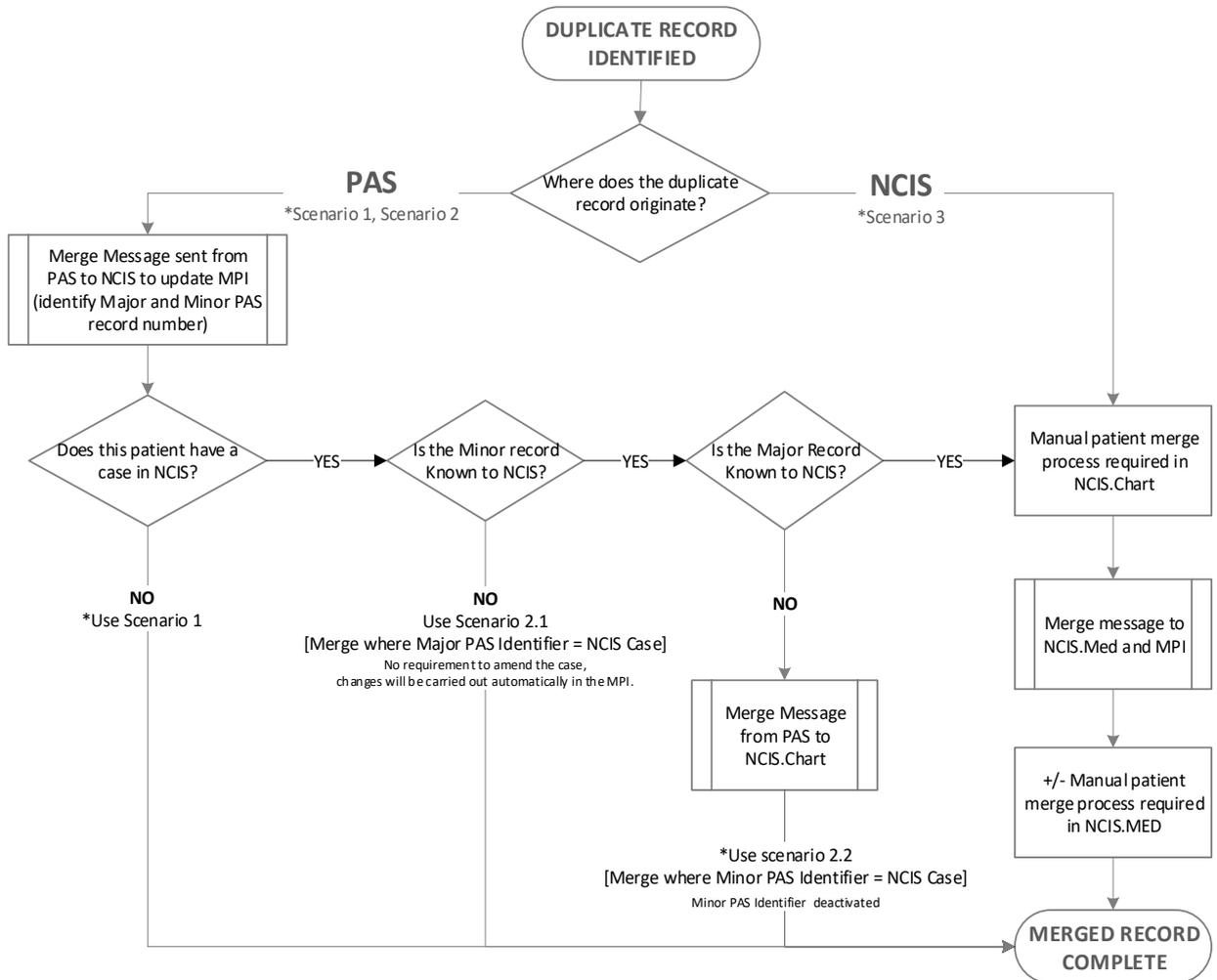


Figure 1: Merge Types