Patient Merge Operation

Implementation for FHIR Proxies / Appliances

Contents

0 Document Control

0.1 Version History

Date	Author	Comments
12/8/2021	Steve Shaw	
25/8/2021	Steve Shaw	Updated after review
2/9/2021	Steve Shaw	Updates to validation

0.2 Glossary

Term	Explanation

1 Introduction

A patient merge operation is required with the demographic representation of a patient changes such that that representation has a different logical id. All other resources that referred to the original patient id must be changed to the new patient id as well as old identifiers being transferred to the "survivor" (new representation).

This document describes the step required to make this change within the FHIR proxies (InterSystems and Docker based).

Note that much of this is a disambiguation or explicit choice of several options in the official $merge operation that is a work-in-progress by HL7 for FHIR release 5 (see https://confluence.hl7.org/display/PA/Merge+Operation)

2 Operation Definition

The FHIR OperationDefinition is included in the appendices and defines a $merge operation that can be called on the Patient resource type:

```
POST <base>/Patient/$merge
```

The body of the request is a Parameters resource with the following parameters:

Parameter Name	Card	Type	Description
source-patient	0..1	ResourceReference	A direct resource reference to the **source** patient resource (this may include an identifier)
source-patient-identifier	0..*	Identifier	The Identifier(s) of the **source** patient resource; all of these identifiers MUST be present in the located resource (in addition to the one included in the resource reference above - if included) (The purpose of this property is to ensure that the correct source patient resource is selected)
target-patient	0..1	ResourceReference	A direct resource reference to the **target** patient resource This is the surviving patient resource, the target for the merge
target-patient-identifier	0..*	Identifier	The Identifier(s) of the **target** patient resource; all of these identifiers MUST be present in the located resource (The purpose of this property is to ensure that the correct source patient resource is selected)

Parameter Name	Card	Type	Description
preview	0..1	boolean	If this is set to true then the merge will not be actually performed; an OperationOutcome will be returned in the Parameters response that will indicate that no merge has occurred and may include other diagnostic info if desired, such as the scale of the merge. e.g. Issue.details.text "Preview only Patient merge - no issues detected" e.g. Issue.diagnostics "Merge would update: 120 resources and 5 subscriptions" The resulting target patient resource will also be returned in the result
RETURN	1..1	Parameters	The status of the response will be one of: • 200 OK - If the merge request doesn't expect any issues (although warning may be present) for a preview, or was completed without issues if not a preview • 400 Bad Request - There are errors in the input parameters that need to corrected • 422 Unprocessable Entity - Business rules prevent this merge from completing The Parameters resource will include: • The Input parameters to the operation • An OperationOutcome containing errors, warnings, and information messages (parameter called "outcome" • The resulting merged Patient resource (or a patient reference if the patient is not committed) ("result-patient")

2.1 Errors

This table shows template issues for the OperationOutcome for various conditions

Issue	Description	Http Status
err: Missing Source Parameters	There are no source patient parameters, please include either a source-patient, source-patient-identifier parameter (or both)	Bad Request

Issue	Description	Http Status
err: Missing Target Parameters	There are no target patient parameters, please include either a target-patient, target-patient-identifier parameter (or both)	Bad Request
err: Same resource	The Source and Target matching resulted in the same FHIR Patient resource, likely already merged.	422 Unprocessable Entity
err: Source Patient not found	The source patient was not found based on the provided parameters	422 Unprocessable Entity
err: Target patient already merged	The Target patient resource was previously merged into another patient record, and is not a suitable target for merging.	422 Unprocessable Entity
err: Target Patient Id mismatch	The target patient id does not match the patient id in the result-patient resource	Bad Request
err: Target patient inactive	The Target patient resource is marked as inactive	422 Unprocessable Entity
err: Target Patient not found	The target patient was not found based on the provided parameters	422 Unprocessable Entity
err: Target/Source not duplicates	Attempt to merge 2 records that are known to not be duplicates of each other. *(Previous manual marking of the resources was done, and will need to be removed before retrying)*	422 Unprocessable Entity
info: Patient merge in progress	Note: This is applicable to other search operations on resources referencing these patient resource(s), and not specifically the merge operation itself. The patient record referenced by these records is currently being merged to/from another patient resource. Data may be incomplete, or inconsistent. *(this MAY be returned during a clinical data search using the patient ID as a search parameter)*	-

Issue	Description	Http Status
	The http://hl7.org/fhir/valueset-issue-type.html will be extended with a new child to the **transient** concept to indicate that **merge processing** is occurring	
info: Target Patient updated	Additional notes on what happened to the target patient resource on update, such as if fields weren't updated as requested due to internal business rules etc	-
info: Update summary	Other notes that are included reporting on what changed, such as how many resources were/may be affected	-
warn: Recommend reverse merge	The source resource is much larger than the target resource (in terms of resources that reference it) and recommend that the merge occur in the other direction Note: This would likely be returned/evaluated during the preview stage/mode if implemented.	-

3 Schema Changes

The Docker/NodeJS proxy uses a unique index on the search term "identifier" to ensure that no 2 patients have the same NHS Number. This should be removed for proxy (provider) use. This will allow 2 patients with the same NHS number to be stored which may well happen before a merge operation.

Note that this should NOT be removed for regional store use.

4 Process

4.1.1 Trigger event
When the merge is called, the source and target patients are expected to be present.

4.1.2 Validation

The first task is to validate the merge operation parameters:

1. Check that there is at least 1 of the source-patient or source-patient-identifier parameters
   a. Add an error to indicate missing source parameters to the return OperationOutcome
2. Check that there is at least 1 of the target-patient or target-patient-identifier parameters
   a. Add an error to indicate missing source parameters to the return OperationOutcome
3. Find the source patient
   a. Use the source-patient reference if present
   b. Use the combined source-patient-identifier parameter if source-patient is not present

4. If not present or inactive add an issue to the return OperationOutcome
5. Find the target patient
    a. Use the target-patient reference if present
    b. Use the combined target-patient-identifier parameter if target-patient is not present
6. If not present or inactive add an issue to the return OperationOutcome
7. For the source patient, validate that all of the source-patient-identifiers are present in the source patient. If not, add an issue to the return OperationOutcome to indicate that the source patient does not have all of the specified identifiers
8. For the target patient, validate that all of the target -patient-identifiers are present in the target patient. If not, add an issue to the return OperationOutcome to indicate that the target patient does not have all of the specified identifiers.
9. If there is an OperationOutcome with errors, return a 400 / 422 with a Parameters object the OperationOutcome in the body and stop.
10. If the source and target are the same resource, add an error and return 422
11. Check that the source and target do <u>not</u> have different NHS numbers as this could indicate a duplicate or confusion. If they do, return a 422 with a suitable error
12. Check that the source patient hasn't already been merged – if so, add a 422 error
13. Check that the target patient is not already merged (as in was the source of a previous merge) – if so, add the error and return 422

4.1.3   Preview

If the preview flag is set to true calculate the number of resources that reference the source patient that will be modified should the merge operation go ahead and return this in the Parameters.parameter[*].resource (an OperationOutcome) where Parameters.parameter[*].name is "outcome". And the issue is an info issue indicating what would change.

Also include a mock up of what the result-patient would look like by following the merge processing for the target patient WITHOUT persisting. See 4.1.6 & 4.1.8

There is no need to process any changes to the source for a preview.

4.1.4   De-register source patient

If not previewing, then the source patient should be de-registered from PIX. To do this, the Linkage id must be known, so:
1. Query the SoS for the Linkage for the provider organization (author) and source patient (item)
2. Issue a PIX deregister call:

```
DELETE [base]/pix/fhir/stu3/Linkage/[linkageId]
```

3. If a 204 Deleted is returned, the operation is successful and we can continue.
4. Else, transfer any error message into the return OperationOutcome and return a 422.

4.1.5   Demographic properties

No changes to the target patient's demographics (name, address, DoB, gender, etc) will be made – they are expected to be correct.

4.1.6   Active property

If possible, a transaction should be started so that all the following changes (up to registering the target patient in PIX) are atomic.

Set the source patient active property to false.
Set the target patient active property to true.

4.1.7   Link property

The Patient resource has a link property:

📁 link	?! Σ	0..*	BackboneElement	Link to another patient resource that concerns the same actual person
🔗 other	Σ	1..1	Reference(Patient | RelatedPerson)	The other patient or related person resource that the link refers to
▦ type	Σ	1..1	code	replaced-by | replaces | refer | seealso - type of link LinkType (Required)

This is modified in the source and target resources so that the source (old) patient has a "replaced-by" link to the target (survivor) patient and the target has a "replaces" link to the old one.

4.1.8   Identifier conflicts
The HL7 documentation makes a recommendation that the source Patient's identifiers are transferred to the target patient (if not already existing in the target) and marked with use=old. This use value only appears from R4 so cannot be used here. Therefore, the source identifiers should have their systems modified to include "/old".

E.g.:
```
"identifier": [
  {
    "use": "official",
    "system": "https://fhir.nhs.uk/Id/nhs-number/old",
    "value": "9657702291"
  },
  {
    "system": "https://ods.nhs.uk/Id/hospital-number/old",
    "value": "D03573537"
  }

]
```

The target patient can then assume these along with any new ones without conflicting the unique index:

```
"identifier": [
  {
    "use": "official",
    "system": "https://fhir.nhs.uk/Id/nhs-number",
```

```
    "value": "9657702291"
  },
  {
    "use": "usual",
    "system": "https://ods.nhs.uk/Id/hospital-number",
    "value": "X34935788"
  }
  {

    "use": "secondary",
    "system": "https://ods.nhs.uk/Id/hospital-number",
    "value": "D03573537"
  }

]
```

This has the additional advantage of not including the old Patient in fully qualified identifier based searches.

4.1.9   References

After adjustments to the source and target resources the FHIR store must replace all references to the source patient with a reference to the target patient.

For efficiency, finding the affected resources should be done directly in SQL. Note that both relative references and absolute references should be searched for.

For each resource referencing the source patient, update to use the target patient (relative or absolute as appropriate). The usual way would be to retrieve each matching resource, change the reference and the store and index. However, since that will re-index the whole resource, it may be more efficient to issue an update statement on the indices to replace just the references and to change the JSON resource without re-indexing.

IMPORTANT – Do not replace the source reference in the Patient.link property of the target Patient resource – this should be the only remaining reference to the source.

Any Security related resource must also be excluded, this includes AuditEvent, Provenance and Consent resource types.

Add an info issue to the returned outcome parameter to indicate what has been done.

4.1.10 Subscriptions

Subscriptions that are targeted on the source patient will have meta.tag entries with the patient reference as the code of the tag. These can be changed to point to the new reference. Care must be taken as they may be reference based:

```
"meta": {
  "tag": [
```

```
    {
      "system": "https://yhcr.nhs.uk/Subscription/patient-id",
      "code": "abcd123"
    },
  ]
}
```

The criteria of the subscription must also be updated as that will be tested against. E.g. Encounter?patient=Patient/source&… will need to be changed to Encounter?patient=Patient/target&…

Or if the identifier is used, and the identifier has changed, then that will need the same treatment.

4.1.11 End Transaction

If all operations so far have been successful, commit the transaction. Add the target patient to the result-patient parameter for the return body.

If there is any error, add the errors to the returned outcome parameter and rollback. The source patient can be re-registered to undo the de-registration

4.1.12 Register Target patient

If all has completed successfully thus far, issue a PIX registration request for the target patient. If this errors then the patient cannot be registered but the merge operation has still succeeded locally. Add a warning to the outcome parameter to indicate that the PIX registration failed and should be manually looked into.

5   Audit

The merge operation should be audited by creating an AuditEvent with the following specifics (a new a FHIR Operation Merge Event (YHCR0303) event subtype should be used
):

Field	Notes
agent.role	data-provider
agent.userId	Participant id
agent.altId	The JTI from the JWT (if present)
agent.name	Provider's name
agent.requestor	True
agent.network.address	Incoming IP address
entity[0].identifier	NHS Number of source patient
entity[0].reference	Source patient reference
entity[0].type	Patient

entity[0].lifecycle	http://hl7.org/fhir/iso-21089-lifecycle|19 (Merge - Lifecycle Event)
entity[0].detail[0]	Type = "source". Value = base64 encoded Patient resource.
entity[1].identifier	NHS Number of target patient
entity[1].reference	Target patient reference
entity[1].type	Patient
entity[1].lifecycle	http://hl7.org/fhir/iso-21089-lifecycle|19 (Merge - Lifecycle Event)
entity[1].detail[0]	Type = "target", Value = base64 encoded form of result-patient returned
entity[1].detail[1]	Type = "outcome", value = base 64 encoded form of outcome return parameter

6 Post Merge Expectations

6.1 Read operation

A read operation (GET) on the id of the source patient will still find the Patient and return it with 200 OK response. The Patient is marked inactive and has the link property.

6.2 Searches

Searches on the identifiers will not succeed if system and value is used as the systems will have been changed. Searches on the identifier value only will succeed and return the Patient.

Searches using chained parameter to the old identifier values (without systems) will succeed but return no results.

6.3 Create / Update

A check must be made for create and update operations on resources that have a reference to a Patient resource. If the resource exists and is for a Patient that has been merged (link of type "replaced-by" exists), then return a 422 with an OO indicating that the patient was merged into Patient/xyz).

7 Example merges

7.1 Successful merge on source and target with local identifiers and NHS numbers

7.1.1 Request

```
POST [base]/fhir/stu3/Patient/$merge

{
    "resourceType": "Parameters",
```

```
      "parameter": [
            {
                  "name": "source-patient",
                  "valueReference": {
                        "reference": "Patient/1"
                  }
            },
            {
                  "name": "source-patient-identifier",
                  "valueIdentifier": {
                        "system": "https://hosp.nhs.uk/Id/hospital-number",
                        "value": "P1"
                  }
            },
            {
                  "name": "source-patient-identifier",
                  "valueIdentifier": {
                        "system": "https://fhir.nhs.uk/Id/nhs-number",
                        "value": "9998881111"
                  }
            },
            {
                  "name": "target-patient",
                  "valueReference": {
                        "reference": "Patient/2"
                  }
            },
            {
                  "name": "target-patient-identifier",
                  "valueIdentifier": {
                        "system": "https://hosp.nhs.uk/Id/hospital-number",
                        "value": "P2"
                  }
            },
            {
                  "name": "target-patient-identifier",
                  "valueIdentifier": {
                        "system": "https://fhir.nhs.uk/Id/nhs-number",
                        "value": "9998882222"
                  }
            },
      ]
}
```

Assuming all the validation passes, the source patient will then look like:

```
{
      "resourceType": "Patient",
      "id": "1",
      "active": false,
      ...
      "identifier": [
            {
                  "use": "usual",
                  "system": "https://hosp.nhs.uk/Id/hospital-number/old",
                  "value": "P1"
```

```
        },
        {
                "use": "official"
                "system": "https://fhir.nhs.uk/Id/nhs-number/old",
                "value": "9998881111"
        }
    ],
    ...
    "link": [
        {
            "type": "replaced-by",
            "other": {
                    "reference": "Patient/2"
            }
        }
    ]
}
```

And the target:

```
{
        "resourceType": "Patient",
        "id": "2",
        "active": true,
        ...
        "identifier": [
                {
                        "use": "secondary",
                        "system": "https://hosp.nhs.uk/Id/hospital-number",
                        "value": "P1"
                },
                {
                        "use": "usual",
                        "system": "https://hosp.nhs.uk/Id/hospital-number",
                        "value": "P2"
                },
                {
                        "use": "official"
                        "system": "https://fhir.nhs.uk/Id/nhs-number",
                        "value": "9998882222"
                }
        ],
        ...
        "link": [
          {
                "type": "replaces",
                "other": {
                        "reference": "Patient/1"
                }
          }
        ]
}
```

7.1.2   Response

```
200 OK

{
  "resourceType": "Parameters",
  "parameter": [
    {
      "name": "source-patient",
      "valueReference": {
        "reference": "Patient/1"
      }
    },
    {
      "name": "source-patient-identifier",
      "valueIdentifier": {
        "system": "https://hosp.nhs.uk/Id/hospital-number",
        "value": "P1"
      }
    },
    {
      "name": "source-patient-identifier",
      "valueIdentifier": {
        "system": "https://fhir.nhs.uk/Id/nhs-number",
        "value": "9998881111"
      }
    },
    {
      "name": "target-patient",
      "valueReference": {
        "reference": "Patient/2"
      }
    },
    {
      "name": "target-patient-identifier",
      "valueIdentifier": {
        "system": "https://hosp.nhs.uk/Id/hospital-number",
        "value": "P2"
      }
    },
    {
      "name": "target-patient-identifier",
      "valueIdentifier": {
        "system": "https://fhir.nhs.uk/Id/nhs-number",
        "value": "9998882222"
      }
    },
    {
      "name": "result-patient",
      "resource": {
        "resourceType": "Patient",
        "id": "2",
        "active": true,
        ...
        "identifier": [
          {
            "use": "secondary",
            "system": "https://hosp.nhs.uk/Id/hospital-number",
```

```
          "value": "P1"
        },
        {
          "use": "usual",
          "system": "https://hosp.nhs.uk/Id/hospital-number",
          "value": "P2"
        },
        {
          "use": "official"
          "system": "https://fhir.nhs.uk/Id/nhs-number",
          "value": "9998882222"
        }
      ],
      ...
      "link": [
        {
          "type": "replaces",
          "other": {
            "reference": "Patient/P1"
          }
        }
      ]
    }
  },
  {
    "name": "outcome",
    "resource": {
      "resourceType": "OperationOutcome",
      "issue": [
        {
          "severity": "information",
          "code": "informational",
          "details": {
            "coding": [
              {
                "system": "https://yhcr.nhs.uk/Coding/merge-outcome",
                "code": "update-summary"
              }
            ],
            "text": "Patient/1 successfully merged into Patient/2"
          },
          "diagnostics": "204 resources referencing Patient/1 were
changed to Patient/2.  3 Subscriptions were updated."
        }
      ]

    }
  }
 ]
}
```

7.2 Preview merge

7.2.1 Request

```
POST [base]/fhir/stu3/Patient/$merge
```

```
{
    "resourceType": "Parameters",
    "parameter": [
        {
            "name": "source-patient",
            "valueReference": {
                "reference": "Patient/1"
            }
        },
        {
            "name": "target-patient",
            "valueReference": {
                "reference": "Patient/2"
            }
        },
        {
            "name": "preview",
            "valueBoolean": true
        },
    ]
}
```

7.2.2   Response

```
200 OK

{
  "resourceType": "Parameters",
  "parameter": [
    {
      "name": "source-patient",
      "valueReference": {
        "reference": "Patient/1"
      }
    },
    {
      "name": "target-patient",
      "valueReference": {
        "reference": "Patient/2"
      }
    },
    {
      "name": "preview",
      "valueBoolean": true
    },
    {
      "name": "result-patient",
      "resource": {
      "resourceType": "Patient",
      "id": "2",
      "active": true,
      ...
      "identifier": [
        {
```

```
            "use": "secondary",
            "system": "https://hosp.nhs.uk/Id/hospital-number",
            "value": "P1"
            },
            {
            "use": "usual",
            "system": "https://hosp.nhs.uk/Id/hospital-number",
            "value": "P2"
            },
            {
            "use": "official"
            "system": "https://fhir.nhs.uk/Id/nhs-number",
            "value": "9998882222"
            }
        ],
        ...
        "link": [
            {
            "type": "replaces",
            "other": {
              "reference": "Patient/P1"
            }
            }
        ]
        }
    },
    {
      "name": "outcome",
      "resource": {
      "resourceType": "OperationOutcome",
      "issue": [
          {
          "severity": "information",
          "code": "informational",
          "details": {
            "coding": [
            {
              "system": "https://yhcr.nhs.uk/Coding/merge-outcome",
              "code": "update-summary"
            }
            ],
            "text": "Preview only Patient merge - no issues detected"
          },
          "diagnostics": "Merge would update: 204 resources and 3
subscriptions"
          }
      ]

      }
    }
  ]
}
```

7.3 Invalid Identifiers

7.3.1   Request

```
POST [base]/fhir/stu3/Patient/$merge

{
     "resourceType": "Parameters",
     "parameter": [
            {
                  "name": "source-patient",
                  "valueReference": {
                        "reference": "Patient/1"
                  }
            },
            {
                  "name": "source-patient-identifier",
                  "valueIdentifier": {
                        "system": "https://hosp.nhs.uk/Id/hospital-number",
                        "value": "P1XXX"
                  }
            },
            {
                  "name": "source-patient-identifier",
                  "valueIdentifier": {
                        "system": "https://fhir.nhs.uk/Id/nhs-number",
                        "value": "9998881111"
                  }
            },
            {
                  "name": "target-patient",
                  "valueReference": {
                        "reference": "Patient/2"
                  }
            },
            {
                  "name": "target-patient-identifier",
                  "valueIdentifier": {
                        "system": "https://hosp.nhs.uk/Id/hospital-number",
                        "value": "P2"
                  }
            },
            {
                  "name": "target-patient-identifier",
                  "valueIdentifier": {
                        "system": "https://fhir.nhs.uk/Id/nhs-number",
                        "value": "9998882222"
                  }
            },
     ]
}
```

7.3.2   Response

```
200 OK
```

```json
{
  "resourceType": "Parameters",
  "parameter": [{
      "name": "source-patient",
      "valueReference": {
        "reference": "Patient/1"
      }
    }, {
      "name": "source-patient-identifier",
      "valueIdentifier": {
        "system": "https://hosp.nhs.uk/Id/hospital-number",
        "value": "P1XXX"
      }
    }, {
      "name": "source-patient-identifier",
      "valueIdentifier": {
        "system": "https://fhir.nhs.uk/Id/nhs-number",
        "value": "9998881111"
      }
    }, {
      "name": "target-patient",
      "valueReference": {
        "reference": "Patient/2"
      }
    }, {
      "name": "target-patient-identifier",
      "valueIdentifier": {
        "system": "https://hosp.nhs.uk/Id/hospital-number",
        "value": "P2"
      }
    }, {
      "name": "target-patient-identifier",
      "valueIdentifier": {
        "system": "https://fhir.nhs.uk/Id/nhs-number",
        "value": "9998882222"
      }
    }, {
      "name": "outcome",
      "resource": {
        "resourceType": "OperationOutcome",
        "issue": [{
            "severity": "error",
            "code": "processing",
            "details": {
              "coding": [{
                  "system": "https://yhcr.nhs.uk/Coding/merge-outcome",
                  "code": "source-identifier-mismatch"
                }
              ],
              "text": "Source Patient identifiers do not all exist in
source patient"
            },
            "diagnostics": "https://hosp.nhs.uk/Id/hospital-number|P1XXX
not present in Patient/1 "
          }
        ]
```

```
        }
      }
    ]
}
```

8 Operation Definition

```json
{
    "resourceType": "OperationDefinition",
    "id": "patient-merge",
    "url": "http://fhir.yhcr.nhs.uk/OperationDefinition/patient-merge",
    "version": "1",
    "name": "Patient Merge",
    "status": "draft",
    "kind": "operation",
    "date": "2021-08-25",
    "publisher": "Synanetics Ltd",
    "contact": [{
            "name": "System Administrator",
            "telecom": [{
                    "system": "email",
                    "value": "info@synanetics.com"
                }
            ]
        }
    ],
    "description": "Limited implementation of the draft Patient Merge
operation",
    "code": "merge",
    "resource": [
        "Patient"
    ],
    "system": false,
    "type": false,
    "instance": true,
    "parameter": [{
            "name": "source-patient",
            "use": "in",
            "min": 0,
            "max": "1",
            "documentation": "The source patient reference that is to be
merged into the target patient.  Can be relative or absolute reference.",
            "type": "Reference"
        }, {
            "name": "source-patient-identifier",
            "use": "in",
            "min": 0,
            "max": "*",
            "documentation": "The Identifier(s) of the source patient
resource; all of these identifiers MUST be present in the located resource
(in addition to the one included in the resource reference above - if
included)(The purpose of this property is to ensure that the correct source
patient resource is selected).",
            "type": "Identifier"
        }, {
```

```
            "name": "target-patient",
            "use": "in",
            "min": 0,
            "max": "1",
            "documentation": "The target patient reference that is to have
the source patient merged into it.  Can be relative or absolute
reference.",
            "type": "Reference"
        }, {
            "name": "target-patient-identifier",
            "use": "in",
            "min": 0,
            "max": "*",
            "documentation": "The Identifier(s) of the target patient
resource; all of these identifiers MUST be present in the located resource
(The purpose of this property is to ensure that the correct source patient
resource is selected).",
            "type": "Identifier"
        }, {
            "name": "preview",
            "use": "in",
            "min": 0,
            "max": "1",
            "documentation": "If this is set to true then the merge will
not be actually performed; an OperationOutcome will be returned in the
Parameters response that will indicate that no merge has occurred and may
include other diagnostic info if desired, such as the scale of the merge.",
            "type": "boolean"
        }, {
            "name": "return",
            "use": "out",
            "min": 1,
            "max": "1",
            "documentation": "Parameters resource containing the input
parameters, an outcome parameter (OperationOutcome) with information and/or
errors about the operation and the result-patient (Patient) that is the
merged patient.",
            "type": "Parameters"
        }
    ]
}
```