

**Matrix WS - REST
Cookbook
Version 1.2**

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eHealth platform

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To the attention of: “IT expert”, willing to integrate this web service.



2. Document management

2.1 Document history

Version	Date	Author	Description of changes / remarks
1.0	13/09/2024	eHealth platform	Initial version
1.1	07/05/2025	eHealth platform	Final Version incl. testing guidelines
1.2	24/03/2026	eHealth platform	Update Tracing section and contact center hours

3. Introduction

3.1 Goal of the service

Access to health data is defined at the level of an access matrix. A standard matrix is defined, but citizens can also modify this matrix. The purpose of this service is to enable consultation of the standard matrix and of any modifications requested by a citizen. The service will also support storage of the modifications asked by the citizen. Verifying the patient access matrix is one of the fundamental prerequisites to granting access to-patient's medical data. This service is one the PADAC services, it is used jointly with Therlink, Consent and Exclusion by the medical data holder to decide to grant access (or not) to the medical data.

The following operations will support the management of 'Matrices':

GET /standardMatrix	Allows an end-user to consult the standard access matrix.
GET /patientMatrices/{ssin}	Allows an end-user to consult the patient access matrix.
GET /patientMatrices/changes	Allows an end-user to consult information on all changes that have been made through the Matrix service that caused a permission value change related to a patient's access matrix for a selected period of time per user and for all the patients.
PATCH /patientMatrices/{ssin}	Allows an end-user to modify one or multiple permission(s) in a patient's access matrix.
POST /patientMatrices/{ssin}/reset	Allows an end-user to reset a patient access matrix.
GET /pseudo/patientMatrices/{ssin}:{transitInfo}	Allows an end-user to consult the patient access matrix for a patient identified by a pseudonymized SSIN.
PATCH /pseudo/patientMatrices/{ssin}:{transitInfo}	Allows an end-user to modify one or multiple permission(s) in a patient's access matrix for a patient identified by a pseudonymized SSIN.
POST /pseudo/patientMatrices/{ssin}:{transitInfo}/reset	Allows an end-user to reset the patient access matrix for a patient identified by a pseudonymized SSIN.
GET /refData/codeTypes/{codeType}	Allows an end-user to consult all the resources representing reference data (refData) used in the API for a given type.

3.2 Goal of the document

This document describes the management of the 'Matrix' service as provided by the eHealth platform. In this cookbook, we explain the structure and content aspects of the possible requests and the replies of eHealth Matrix WS. An example illustrates each of those messages. In addition, a list of possible errors can be found in this document.

This document should support (the IT department of) an organization to develop and use the WS call.

Some technical and legal requirements must be met to allow the integration of the eHealth WSs in client applications.



This document is neither a development nor a programming guide for internal applications; eHealth partners always keep total freedom within those fields. Nevertheless, to interact in a smooth, homogeneous and risk-controlled way with a maximum of partners, eHealth partners must commit to comply with specifications, data format, and release processes described within this document. In addition, our partners in the health sector must also comply with the business rules of validation and integration of data within their applications as to minimize errors and incidents.

3.3 eHealth document references

All the document references can be found on the eHealth platform portal¹. These versions or any following versions can be used for the eHealth platform service.

ID	Title	Version	Date	Author
1	eHealth Services – Web Access	2.0	12/07/2018	eHealth platform
2	I.AM Connect - Mobile integration - Technical specifications	1.5	26/06/2021	eHealth platform
3	I.AM Connect – HealthCare Client Registration	1.2	28/06/2021	eHealth platform
4	I.AM Connect – M2M Client registration	1.1	07/07/2021	eHealth platform
5	SOA – Error guide	1.0	10/06/2021	eHealth platform
6	Request test case template	3.0	22/02/2018	eHealth platform
7	IAM Connect Claim mappers	1.0	28/05/2021	eHealth platform
8	Pseudonymisation REST	1.6	03/05/2024	eHealth platform
9	MetaHub WS V2	3.1	30/04/2024	eHealth platform

¹ <https://www.ehealth.fgov.be>

4. Support

4.1 Helpdesk eHealth platform

4.1.1 Certificates

To access the secured eHealth platform environment, you must obtain an eHealth platform certificate, used to identify the initiator of the request. In case you do not have one, please consult the chapter about the eHealth Certificates on the portal of the eHealth platform:

- <https://www.ehealth.fgov.be/ehealthplatform/nl/ehealth-certificaten>
- <https://www.ehealth.fgov.be/ehealthplatform/fr/certificats-ehealth>

For technical issues regarding eHealth platform certificates:

- Acceptance: acceptance-certificates@ehealth.fgov.be
- Production: support@ehealth.fgov.be

4.1.2 For issues in production

eHealth platform contact centre:

- Phone: 02 788 51 55 (on working days from 8 am till 6 pm)
- Mail: support@ehealth.fgov.be
- Contact Form:
 - <https://www.ehealth.fgov.be/ehealthplatform/nl/contact> (Dutch)
 - <https://www.ehealth.fgov.be/ehealthplatform/fr/contact> (French)

4.1.3 For issues in acceptance

Integration-support@ehealth.fgov.be

4.1.4 For business issues

- Regarding an existing project: the project manager in charge of the application or service
- Regarding a new project or other business issues: info@ehealth.fgov.be

4.2 Status

The website <https://status.ehealth.fgov.be> is the monitoring and information tool for the ICT functioning of the eHealth services that are partners of the Belgian eHealth system.

4.3 I.AM Connect

To use the Matrix REST service you have to obtain an “Access token” which is delivered through I.AM Connect. You can find more information about I.AM Connect and how to register a client in I.AM Connect on the I.AM eHealth portal page:

Dutch version:

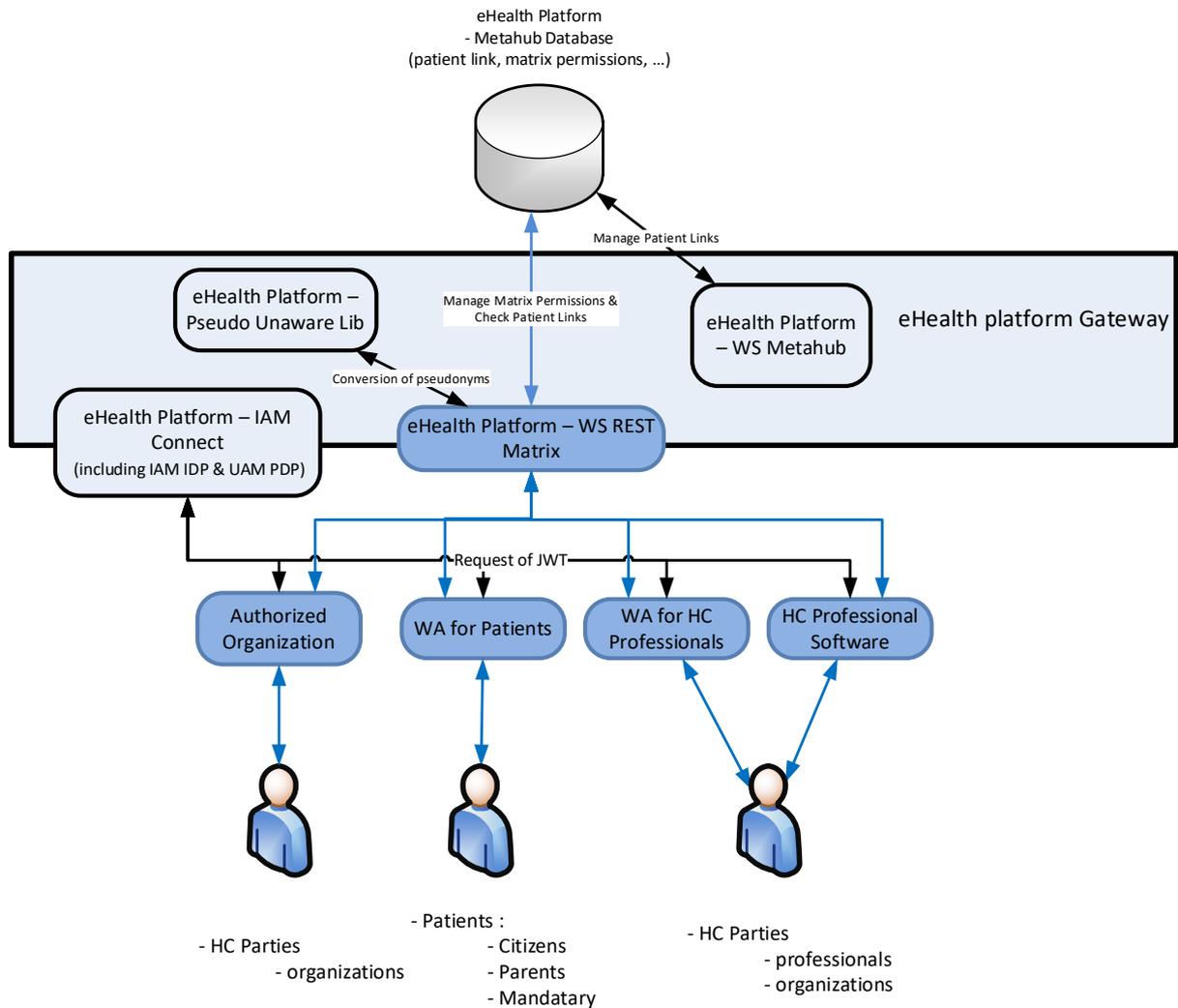
<https://www.ehealth.fgov.be/ehealthplatform/nl/service-iam-identity-access-management>

French version:

<https://www.ehealth.fgov.be/ehealthplatform/fr/service-iam-identity-access-management>



5. Global overview



This schema gives the users of this cookbook an overview of the management of the patient access matrix.

For example, the MyHealth WA will allow patients (incl. patient's parents or mandataries) to manage the patient access matrix by calling the eHealth Matrix WS (REST).

6. Step-by-step

6.1 Technical requirements

6.1.1 Tracing

To use this service, the request SHOULD contain the following two http header values (see RFC <https://datatracker.ietf.org/doc/html/rfc7231#section-5.5.3>):

1. **User-Agent:** information identifying the software product and underlying technical stack/platform. It MUST include the minimal identification information of the software such that the emergency contact (see below) can uniquely identify the component.
 - a. Pattern: {minimal software information}/{version} {minimal connector information}/{connector-package-version}
 - b. Regular expression for each subset (separated by a space) of the pattern: `[[a-zA-Z0-9-\\V]*\\V[0-9azA-Z-_.]*`
 - c. *Examples:*
User-Agent: myProduct/62.310.4 Technical/3.19.0
User-Agent: Topaz-XXXX/123.23.X freeconnector/XXXXX.XXX
2. **From:** email-address that can be used for emergency contact in case of an operational problem.

Examples:

From: **info@mycompany.be**

Exception for Browser-Based Clients

Browsers control the User-Agent header natively and may block client-side modification for security reasons. When operating in a browser-based environment, supplying the custom User-Agent header is **not required**. That said, it **must** be included whenever the environment permits it.

The From header carries no such restriction and **must** be present in all requests, regardless of environment.

6.1.2 eHealth platform Authentication

As previously explained, to use the Matrix Rest service, you must have an access token delivered through I.AM Connect.

Several roles and profiles are defined for the using of the Matrix Rest service.

Possible roles:

- **Reader:** this role must be present in the end user's access token to use the standard matrix and patient matrix consultation methods.
- **Manager:** this role must be present in the end user's access token to use the standard matrix consultation methods and the patient matrix consultation and management methods.
- **Reader-pseudo:** this role must be present in the end user's access token to use the standard matrix and patient matrix consultation methods for a patient identified by a pseudonymized SSIN.
- **Manager-pseudo:** this role must be present in the end user's access token to use the standard matrix consultation methods and the patient matrix consultation and management methods for a patient identified by a pseudonymized SSIN.

Reader-audit: this role must be present in the access token in order to use the patient matrix changes method (/patientMatrices/changes) of the service.

- **Monitoring:** this role must be present in the access token in order to use the monitoring method (/health) of the service.



Operations allowed by role:

Path	User roles					
	reader	manager	reader-pseudo	manager-pseudo	reader-audit	monitoring
/standardMatrix :						
get:	Y	Y	Y	Y	Y	
/patientMatrices/{ssin} :						
get:	Y	Y				
patch:		Y				
/patientMatrices/{ssin}/reset :						
post:		Y				
/patientMatrices/changes :						
get:					Y	
/pseudo/patientMatrices/{ssin}:{transitInfo} :						
get:			Y	Y		
patch:				Y		
/pseudo/patientMatrices/{ssin}:{transitInfo}/reset :						
post:				Y		
/health :						
get:						Y
/refData/codeTypes/{codeType}	Y	Y	Y	Y	Y	

Presentation of the roles and profiles in the access token:

```

"resource_access" :
{
  "ehealth-padac-matrix-api" :
  {
    "roles" :
    [
      "manager"
    ]
  }
}

```

6.2 The Matrix REST Service

The REST interface is described with a JSON/ OpenAPI available on the eHealth portal page:

Dutch version:

<https://www.ehealth.fgov.be/ehealthplatform/nl/service-ehealth-patient-access-matrix>

French version:

<https://www.ehealth.fgov.be/ehealthplatform/fr/service-ehealth-patient-access-matrix>

The Matrix WS has the following endpoints:

- Acceptance environment: <https://api-acpt.ehealth.fgov.be/patientDataAccess/matrix/v1>
- Production environment: <https://api.ehealth.fgov.be/patientDataAccess/matrix/v1>

6.3 GET /standardMatrix

The requests of type “GET” on path /standardMatrix allows the user to retrieve the list of permissions related to the standard matrix, depending on the specified arguments.

Request



Query Parameter	Description
Profile (optional)	<p>This parameter allows to filter the permissions search based on a list of codifications² representing the rows of the matrix.</p> <p>By default, all codifications representing the rows of the matrix are considered.</p>
Resource (optional)	<p>This parameter allows to filter the permissions search based on a list of codifications² representing the column of the matrix.</p> <p>By default, all codifications representing the column of the matrix are considered.</p>
PageSize (optional)	<p>This parameter allows to select the maximum number of items per page to display. For the last page, its value should be independent of the number of actually returned items.</p> <p>The pageSize value is limited to a minimum of 1 and a maximum of 1000 which is also the default value.</p> <p>The result is alphabetically organized by row of the matrix and then by column of the matrix.</p>
Page (mandatory)	<p>This parameter allows to select the specific page of items to display.</p> <p>The default and first page is 1.</p>

Header Parameter	Description
If-None-Match (optional)	<p>This request header is used to condition a request. If the value of this parameter matches the value of the latest version of the access matrix (Etag returned by the service in response to a GET), then the service returns an HTTP 304 (Not Modified) status code.</p> <p>Otherwise, the service returns an HTTP 200 with the search result in a body.</p>

Example:

```
GET /patientDataAccess/matrix/v1/standardMatrix?profile=dentist&pageSize=2&page=1
```

Response

Success:

HTTP code 200 (Success) returned in case of an empty or non-empty list of permissions found.

In case of a non-empty list, the body contains an array of permissions objects organized alphabetically by row of the matrix and then by column of the matrix.

² Existing codifications can be consulted via the GET /refData (see section 5.4) operation.



In any case, in the response headers you will also find the "Etag" element³ corresponding to the latest version of the standard matrix which can be used as an input parameter (If-None-Match) of this operation.

Examples:

- Empty list of permissions:

```
{
  "items": [],
  "total": 29,
  "pageSize": 2
}
```

- Non-empty list of permissions:

```
{
  "items": [
    {
      "profile": "dentist",
      "resource": "adminData:nameAddressContactInfo",
      "allowed": "trueAll"
    },
    {
      "profile": "dentist",
      "resource": "contactReport:allDepts",
      "allowed": "falseAll"
    }
  ],
  "total": 29,
  "pageSize": 2,
  "next": "https://api.ehealth.fgov.be/patientDataAccess/matrix/v1/standardMatrix?pageSize=2&page=2"
}
```

Error:

HTTP code 304 (Not Modified) returned in case the value of the If-None-Match (Etag) specified in the request header matches the latest version of the standard matrix. In this case, no body is returned in response.

Failures:

For failure description please refer to section 8 of this cookbook.

6.4 GET /refData/codeTypes/{codeType}

The request of type "GET" on path /refData allows the user to retrieve the list of reference data (representing a codification) used in the API for a given type.

Request

Path Parameter	Description
----------------	-------------

³ The "Etag" element is an epoch time calculated based on the date and time of the last modification recorded on the standard matrix.

CodeType (mandatory)	<p>This parameter allows to specify the type of codification to display.</p> <p>Currently, 3 values are available for 'codeType':</p> <ul style="list-style-type: none"> - profile⁴ - resource⁵ - allowed⁶
----------------------	--

Query Parameter	Description
PageSize (optional)	<p>This parameter allows to select the maximum number of items per page to display. For the last page, its value should be independent of the number of actually returned items.</p> <p>The pageSize value is limited to a minimum of 1 and a maximum of 1000 which is also the default value.</p> <p>The result is alphabetically organized.</p>
Page (mandatory)	<p>This parameter allows to select the specific page of items to display.</p> <p>The default and first page is 1.</p>

Example

```
GET /patientDataAccess/matrix/v1/refData/codeTypes/profile?pageSize=2&page=1
```

Response

Success:

HTTP code 200 (Success) returned in case of an empty or non-empty list of reference data found.

In case of a non-empty list, the body contains an array of reference data objects organized alphabetically.

Examples:

- Empty list of reference data:

```
{
  "items": [],
  "total": 28,
  "pageSize": 2
}
```

- Non-empty list of reference data:

```
{
  "items": [
    {"code": "audician"},
    {"code": "audiologist"}
  ]
}
```

⁴ Refers to a row of the matrix.

⁵ Refers to a column of the matrix.

⁶ Refers to the possible values for permission.



```

    ],
    "total": 28,
    "pageSize": 2,
    "next": "https://api.ehealth.fgov.be/patientDataAccess/matrix/v1/refData/codeTypes/p
rofile?pageSize=2&page=2"
}

```

Failures:

For failure description please refer to section 8 of this cookbook.

6.5 POST /patientMatrices/{ssin}/reset

The request of type “POST” on path /patientMatrices allows the user to reset a patient’s access matrix to return to the standard matrix.

Request

pathParameter	Description
ssin (mandatory)	Social Security Identification Number (SSIN) of the concerned patient.

Example

```
POST /patientDataAccess/matrix/v1/patientMatrices/12345678910/reset
```

Response

Success:

HTTP code 204 (Success) returned in case of success for the deletion of all permissions.

Failures:

For failure description please refer to section 8 of this cookbook.

6.6 PATCH /patientMatrices/{ssin}

The request of type “PATCH” on path /patientMatrices allows the user to modify one or multiple permission(s) in a patient’s access matrix.

Request

Path Parameter	Description
ssin (mandatory)	Social Security Identification Number (SSIN) of the concerned patient.

Body Parameter	Description
----------------	-------------



Items (mandatory)	<p>A list of distinct permissions whose values may be different or the same for the patient compared to the standard access matrix.</p> <p>A permission is composed of 3 elements:</p> <ul style="list-style-type: none"> - Profile⁷: the identifier of the codification which defines a row in the matrix. - Resource⁷: the identifier of the codification which defines a column in the matrix. - Allowed⁷: the identifier of the codification which defines a value in the matrix.
Total (optional)	This parameter allows to specify the total number of items.

Examples:

- Update one permission:

```
PATCH /patientDataAccess/matrix/v1/patientMatrices/12345678910
{
  "items": [
    {
      "profile": "nurse",
      "resource": "prescription",
      "allowed": "trueAll"
    }
  ],
  "total": 1
}
```

- Update multiple permissions:

```
PATCH /patientDataAccess/matrix/v1/patientMatrices/12345678910
{
  "items": [
    {
      "profile": "nurse",
      "resource": "prescription",
      "allowed": "trueAll"
    },
    {
      "profile": "audician",
      "resource": "adminData:nameAddressContactInfo",
      "allowed": "falseAll"
    },
    {
      "profile": "patient",
      "resource": "adminData:nameAddressContactInfo",
      "allowed": "trueOwner"
    }
  ],
  "total": 3
}
```

⁷ Existing codifications can be consulted via the GET /refData (see section 5.4) operation.

Response

Success:

HTTP code 204 (Success) returned in case of success for the update of all permissions.

Failures:

For failure description please refer to section 8 of this cookbook.

6.7 GET /patientMatrices/{ssin}

The request of type “GET” on path /patientMatrices allows the user to consult a patient’s access matrix.

Request

Path Parameter	Description
ssin (mandatory)	Social Security Identification Number (SSIN) of the concerned patient.

Query Parameter	Description
Profile (optional)	This parameter allows to filter the permissions search based on a list of codifications ⁸ representing the rows of the matrix. By default, all codifications representing the rows of the matrix are considered.
Resource (optional)	This parameter allows to filter the permissions search based on a list of codifications ⁹ representing the column of the matrix. By default, all codifications representing the column of the matrix are considered.

⁸ Existing codifications can be consulted via the GET /refData (see section 5.4) operation.

⁹ Existing codifications can be consulted via the GET /refData (see section 5.4) operation.

View (optional)	<p>This parameter allows to specify whether the search must be limited to preferences saved for the user (via the use of the PATCH¹⁰ method) or to the entire patient matrix.</p> <p>Currently, 2 values are available for 'view' :</p> <ul style="list-style-type: none"> - all - patient <p>If the parameter is set to "all", the search will be performed by combining the standard access matrix and the patient preferences. This is the default value.</p> <p>If the parameter is set to "patient", only the patient's preferences will be considered in the search.</p>
PageSize (optional)	<p>This parameter allows to select the maximum number of items per page to display. For the last page, its value should be independent of the number of actually returned items.</p> <p>The pageSize value is limited to a minimum of 1 and a maximum of 1000 which is also the default value.</p> <p>The result is alphabetically organized by row of the matrix and then by column of the matrix.</p>
Page (mandatory)	<p>This parameter allows to select the specific page of items to display.</p> <p>The default and first page is 1.</p>

Header Parameter	Description
If-None-Match (optional)	<p>This request header is used to condition a request. If the value of this parameter matches the value of the latest version of the access matrix (Etag returned by the service in response to a GET), then the service returns an HTTP 304 (Not Modified) status code.</p> <p>Otherwise, the service returns an HTTP 200 with the search result in a body.</p>

Example

```
GET
/patientDataAccess/matrix/v1/patientMatrices/12345678910?profile=dentist&pageSize=2
&page=1
```

Response

Success:

HTTP code 200 (Success) returned in case of an empty or non-empty list of permissions found.

¹⁰ See section 5.6.



In case of a non-empty list, the body contains an array of permissions objects organized alphabetically by row of the matrix and then by column of the matrix.

In any case, in the response headers you will also find the "Etag" element¹¹ corresponding to the latest version of the patient matrix which can be used as an input parameter (If-None-Match) of this operation.

Examples:

- Empty list of permissions:

```
{
  "items": [],
  "total": 29,
  "pageSize": 2
}
```

- Non-empty list of permissions:

```
{
  "items": [
    {
      "href":
      "https://api.ehealth.fgov.be/patientDataAccess/matrix/v1/patientMatrices/1234567891
      0?profile=dentist&resource=adminData:nameAddressContactInfo",
      "profile": "dentist",
      "resource": "adminData:nameAddressContactInfo",
      "allowed": "trueAll"
    },
    {
      "href":
      "https://api.ehealth.fgov.be/patientDataAccess/matrix/v1/patientMatrices/1234567891
      0?profile=dentist&resource=contactReport:allDepts",
      "profile": "dentist",
      "resource": "contactReport:allDepts",
      "allowed": "falseAll"
    }
  ],
  "total": 29,
  "pageSize": 2,
  "next":
  "https://api.ehealth.fgov.be/patientDataAccess/matrix/v1/patientMatrices/1234567891
  0?pageSize=2&page=2&profile=dentist"
}
```

Error:

HTTP code 304 (Not Modified) returned in case the value of the If-None-Match (Etag) specified in the request header matches the latest version of the patient matrix. In this case, no body is returned in response.

Failures:

For failure description please refer to section 8 of this cookbook.

6.8 POST /pseudo/patientMatrices/{ssin}:{transitInfo}/reset

The request of type "POST" on path /pseudo/patientMatrices allows the user to reset a patient's access matrix to return to the standard matrix for a patient identified by a pseudonymized SSIN.

¹¹ The "Etag" element is an epoch time calculated based on the date and time of the last modification recorded on the patient matrix. This version can therefore be greater than or equal to the standard matrix version.

Request

Path Parameter	Description
Ssin:transitInfo (mandatory)	Pseudonymised SSIN in transit (for the domain “ehealth_v1”) as a string with the pattern $\${SEC1};\${transitInfo}$ ¹² .

Example:

```
POST
/patientDataAccess/matrix/v1/pseudo/patientMatrices/AgBDSWPpHUCBzZoLxu8yoM5dp2ZRwm3
oAAGWVAAtj8k1MRXb9UsaRXz9sx19RsSSIm1fcu0VH52TgwyoxGM1A5qfvYA:eyJhdWQiOiJodHRwczovL2F
waS1pbnRyYy51aGVhbHRoLmZnb3YuYmUvcHN1dWRvL3YxL2RvbWVpbnMvZWwh1YWx0aF92MSIsImVuYyI6Ik
EYNTZHQ00iLCJleHAiOjE3MzA3Mjg2NjAsIm1hdCI6MTczMDcyODA2MCwiYWxnIjoizGlyIiwia2lkIjoiz
TI0YWVWkYjEjZGRjMC00YjI3LWI5OTQ0tNzgwNDh1NmFlNjUyIn0..uCrxaTU6s936ThTj.9zvxoxvI-
wlQepfG5k1vl_msgACsizlqHziP2ID1-d7bB-aBsV1ZV4ihh2pcRLNXvc-
Y7H2_2bjsO29c7dGvcTpONv5Ky_ZgMM8y0E1Aj_4HPbVNI0s5eg3ftBbJaYeeOQzfcWkIrp7JvRf-
0yQIhSDY19ZDeXrK9rmH1jJ98IBg8XcUuCe.Q9-09q_LzNoGqmMEugRA2g/reset
```

Response

Success:

HTTP code 204 (Success) returned in case of success for the deletion of all permissions.

Failures:

For failure description please refer to section 8 of this cookbook.

6.9 PATCH /pseudo/patientMatrices/{ssin}:{transitInfo}

The request of type “PATCH” on path /pseudo/patientMatrices allows the user to modify one or multiple permission(s) in a patient’s access matrix for a patient identified by a pseudonymized SSIN.

Request

Path Parameter	Description
Ssin:transitInfo (mandatory)	Pseudonymised SSIN in transit (for the domain “ehealth_v1”) as a string with the pattern $\${SEC1};\${transitInfo}$ ¹³ .

Body Parameter	Description
----------------	-------------

¹² In case you need more details, please consult the “Pseudonymisation REST” cookbook on the portal of the eHealth platform

- <https://www.ehealth.fgov.be/ehealthplatform/fr/service-pseudonymisation-anonymisation>
- <https://www.ehealth.fgov.be/ehealthplatform/nl/service-pseudonimiseren-anonimiseren>

¹³ In case you need more details, please consult the “Pseudonymisation REST” cookbook on the portal of the eHealth platform

- <https://www.ehealth.fgov.be/ehealthplatform/fr/service-pseudonymisation-anonymisation>
- <https://www.ehealth.fgov.be/ehealthplatform/nl/service-pseudonimiseren-anonimiseren>



Items (mandatory)	<p>A list of distinct permissions whose values may be different or the same for the patient compared to the standard access matrix.</p> <p>A permission is composed of 3 elements:</p> <ul style="list-style-type: none"> - Profile¹⁴: the identifier of the codification which defines a row in the matrix. - Resource⁷: the identifier of the codification which defines a column in the matrix. - Allowed⁷: the identifier of the codification which defines a value in the matrix.
Total (optional)	This parameter allows to specify the total number of items.

Examples:

- Update one permission:

```
PATCH
/patientDataAccess/matrix/v1/pseudo/patientMatrices/AgBDSWPpHUCBzZoLxu8yoM5dp2ZRwm3
oAAGWVA tj8k1MRXb9UsaRXz9sx19RsSSIm1fcu0VH52TgwyoxGM1A5qfvYA:eyJhdWQiOiJodHRwczovL2F
waS1pbnRyYy51aGVhbHRoLmZnb3YuYmUvcHNldWRvL3YxL2RvbWVpbnMvZWwh1YWx0aF92MSIsImVuYyI6Ik
EyNTZHQ00iLCJleHAiOjE3MzA3Mjg2NjAsIm1hdCI6MTczMDcyODAwMjcwYWNlIjoieGlyIiwia2lkIjoieG
TI0YWVkyYjEtZGRjMCO0YjI3LWI5OTQtNzgwNDhlNmFlNjUyIn0..uCrxaTU6s936ThTj.9zvxoXvI-
wlQepfG5klvl_msgACSizlqHzIP2ID1-d7bB-aBsV1ZV4ihh2pcRLNXvc-
Y7H2_2bjsO29c7dGvcTpONv5Ky_ZqMM8y0E1Aj_4HPbVNI0s5eg3ftBbJaYeeOQzfcWkIrrp7JvRf-
0yQIhSDY19ZDeXrK9rmH1jJ98IBg8XcUuCe.Q9-09q_LzNoGqmMEugRA2g

{
  "items": [
    {
      "profile": "nurse",
      "resource": "prescription",
      "allowed": "trueAll"
    }
  ],
  "total": 1
}
```

- Update multiple permissions:

```
PATCH
/patientDataAccess/matrix/v1/pseudo/patientMatrices/AgBDSWPpHUCBzZoLxu8yoM5dp2ZRwm3
oAAGWVA tj8k1MRXb9UsaRXz9sx19RsSSIm1fcu0VH52TgwyoxGM1A5qfvYA:eyJhdWQiOiJodHRwczovL2F
waS1pbnRyYy51aGVhbHRoLmZnb3YuYmUvcHNldWRvL3YxL2RvbWVpbnMvZWwh1YWx0aF92MSIsImVuYyI6Ik
EyNTZHQ00iLCJleHAiOjE3MzA3Mjg2NjAsIm1hdCI6MTczMDcyODAwMjcwYWNlIjoieGlyIiwia2lkIjoieG
TI0YWVkyYjEtZGRjMCO0YjI3LWI5OTQtNzgwNDhlNmFlNjUyIn0..uCrxaTU6s936ThTj.9zvxoXvI-
wlQepfG5klvl_msgACSizlqHzIP2ID1-d7bB-aBsV1ZV4ihh2pcRLNXvc-
Y7H2_2bjsO29c7dGvcTpONv5Ky_ZqMM8y0E1Aj_4HPbVNI0s5eg3ftBbJaYeeOQzfcWkIrrp7JvRf-
0yQIhSDY19ZDeXrK9rmH1jJ98IBg8XcUuCe.Q9-09q_LzNoGqmMEugRA2g

{
  "items": [
    {
      "profile": "nurse",
      "resource": "prescription",

```

¹⁴ Existing codifications can be consulted via the GET /refData (see section 5.4) operation.



```

    "allowed": "trueAll"
  },
  {
    "profile": "audician",
    "resource": "adminData:nameAddressContactInfo",
    "allowed": "falseAll"
  },
  {
    "profile": "patient",
    "resource": "adminData:nameAddressContactInfo",
    "allowed": "trueOwner"
  }
],
"total": 3
}

```

Response

Success:

HTTP code 204 (Success) returned in case of success for the update of all permissions.

Failures:

For failure description please refer to section 8 of this cookbook.

6.10 GET /pseudo/patientMatrices/{ssin}:{transitInfo}

The request of type “GET” on path /patientMatrices allows the user to consult a patient’s access matrix for a patient identified by a pseudonymized SSIN.

Request

Path Parameter	Description
Ssin:transitInfo (mandatory)	Pseudonymised SSIN in transit (for the domain “ehealth_v1”) as a string with the pattern $\${SEC1}:\${transitInfo}$ ¹⁵ .

Query Parameter	Description
profile (optional)	This parameter allows to filter the permissions search based on a list of codifications ¹⁶ representing the rows of the matrix. By default, all codifications representing the rows of the matrix are considered.

¹⁵ In case you need more details, please consult the “Pseudonymisation REST” cookbook on the portal of the eHealth platform

- <https://www.ehealth.fgov.be/ehealthplatform/fr/service-pseudonymisation-anonymisation>
- <https://www.ehealth.fgov.be/ehealthplatform/nl/service-pseudonimiseren-anonimiseren>

¹⁶ Existing codifications can be consulted via the GET /refData (see section 5.4) operation.

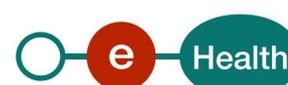
Resource (optional)	<p>This parameter allows to filter the permissions search based on a list of codifications¹⁷ representing the column of the matrix.</p> <p>By default, all codifications representing the column of the matrix are considered.</p>
View (optional)	<p>This parameter allows to specify whether the search must be limited to preferences saved for the user (via the use of the PATCH¹⁸ method) or to the entire patient matrix.</p> <p>Currently, 2 values are available for 'view' :</p> <ul style="list-style-type: none"> - all - patient <p>If the parameter is set to "all", the search will be performed by combining the standard access matrix and the patient preferences. This is the default value.</p> <p>If the parameter is set to "patient", only the patient's preferences will be considered in the search.</p>
PageSize (optional)	<p>This parameter allows to select the maximum number of items per page to display. For the last page, its value should be independent of the number of actually returned items.</p> <p>The pageSize value is limited to a minimum of 1 and a maximum of 1000 which is also the default value.</p> <p>The result is alphabetically organized by row of the matrix and then by column of the matrix.</p>
Page (mandatory)	<p>This parameter allows to select the specific page of items to display.</p> <p>The default and first page is 1.</p>

Header Parameter	Description
If-None-Match (optional)	<p>This request header is used to condition a request. If the value of this parameter matches the value of the latest version of the access matrix (Etag returned by the service in response to a GET), then the service returns an HTTP 304 (Not Modified) status code.</p> <p>Otherwise, the service returns an HTTP 200 with the search result in a body.</p>

Example:

¹⁷ Existing codifications can be consulted via the GET /refData (see section 5.4) operation.

¹⁸ See section 5.6.



```
GET
/patientDataAccess/matrix/v1/pseudo/patientMatrices/AgBDSWPpHUCBzZoLxu8yoM5dp2ZRwm3
oAAGWVAAtj8k1MRXb9UsaRXz9sx19RsSSIm1fcu0VH52TgwyoxGM1A5qfvYA:eyJhdWQiOiJodHRwczovL2F
waS1pbnRyYy51aGVhbHRoLmZnb3YuYmUvcHNldWRvL3YxL2RvbWFpbnMvZWwh1YWx0aF92MSIsImVuYyI6Ik
EyNTZHQ00iLCJleHAiOjE3MzA3Mjg2NjAsImldCI6MTczMDcyODA2MCwiYWxnIjoiZGlyIiwia2lkIjoiZ
TI0YWVvkYjEtZGRjMCO0YjI3LWI5OTQtNzgwNDhlNmFlNjUyIn0..uCrxaTU6s936ThTj.9zvxoXvI-
wlQepfG5klvl_msgACSizlqHzIP2ID1-d7bB-aBsV1ZV4ihh2pcRLNXvc-
Y7H2_2bjsO29c7dGvcTpONv5Ky_ZgMM8y0E1Aj_4HPbVNI0s5eg3ftBbJaYeeOQzfcWkIrpq7JvRf-
0yQIhSDY19ZDeXrK9rmH1jJ98IBg8XcUuCe.Q9-
09q_LzNoGqmMEugRA2g?profile=dentist&pageSize=2&page=1
```

Response

Success:

HTTP code 200 (Success) returned in case of an empty or non-empty list of permissions found.

In case of a non-empty list, the body contains an array of permissions objects organized alphabetically by row of the matrix and then by column of the matrix.

In any case, in the response headers you will also find the "Etag" element¹⁹ corresponding to the latest version of the patient matrix which can be used as an input parameter (If-None-Match) of this operation.

Examples:

- Empty list of permissions:

```
{
  "items": [],
  "total": 29,
  "pageSize": 2
}
```

- Non-empty list of permissions:

```
{
  "items": [
    {
      "href":
      "https://api.ehealth.fgov.be/patientDataAccess/matrix/v1/pseudo/patientMatrices/AgB
      DSWPpHUCBzZoLxu8yoM5dp2ZRwm3oAAGWVAAtj8k1MRXb9UsaRXz9sx19RsSSIm1fcu0VH52TgwyoxGM1A5q
      fvYA:eyJhdWQiOiJodHRwczovL2FwaS1pbnRyYy51aGVhbHRoLmZnb3YuYmUvcHNldWRvL3YxL2RvbWFpbn
      MvZWwh1YWx0aF92MSIsImVuYyI6IkEyNTZHQ00iLCJleHAiOjE3MzA3Mjg2NjAsImldCI6MTczMDcyODA2M
      CwiYWxnIjoiZGlyIiwia2lkIjoiZTI0YWVvkYjEtZGRjMCO0YjI3LWI5OTQtNzgwNDhlNmFlNjUyIn0..uCr
      xaTU6s936ThTj.9zvxoXvI-wlQepfG5klvl_msgACSizlqHzIP2ID1-d7bB-aBsV1ZV4ihh2pcRLNXvc-
      Y7H2_2bjsO29c7dGvcTpONv5Ky_ZgMM8y0E1Aj_4HPbVNI0s5eg3ftBbJaYeeOQzfcWkIrpq7JvRf-
      0yQIhSDY19ZDeXrK9rmH1jJ98IBg8XcUuCe.Q9-
      09q_LzNoGqmMEugRA2g?profile=dentist&resource=adminData:nameAddressContactInfo",
      "profile": "dentist",
      "resource": "adminData:nameAddressContactInfo",
      "allowed": "trueAll"
    },
    {
      "href":
      "https://api.ehealth.fgov.be/patientDataAccess/matrix/v1/pseudo/patientMatrices/AgB
      DSWPpHUCBzZoLxu8yoM5dp2ZRwm3oAAGWVAAtj8k1MRXb9UsaRXz9sx19RsSSIm1fcu0VH52TgwyoxGM1A5q
      fvYA:eyJhdWQiOiJodHRwczovL2FwaS1pbnRyYy51aGVhbHRoLmZnb3YuYmUvcHNldWRvL3YxL2RvbWFpbn
      MvZWwh1YWx0aF92MSIsImVuYyI6IkEyNTZHQ00iLCJleHAiOjE3MzA3Mjg2NjAsImldCI6MTczMDcyODA2M
      CwiYWxnIjoiZGlyIiwia2lkIjoiZTI0YWVvkYjEtZGRjMCO0YjI3LWI5OTQtNzgwNDhlNmFlNjUyIn0..uCr
      xaTU6s936ThTj.9zvxoXvI-wlQepfG5klvl_msgACSizlqHzIP2ID1-d7bB-aBsV1ZV4ihh2pcRLNXvc-
      Y7H2_2bjsO29c7dGvcTpONv5Ky_ZgMM8y0E1Aj_4HPbVNI0s5eg3ftBbJaYeeOQzfcWkIrpq7JvRf-
      0yQIhSDY19ZDeXrK9rmH1jJ98IBg8XcUuCe.Q9-
      09q_LzNoGqmMEugRA2g?profile=dentist&resource=contactReport:allDepts",
```

¹⁹ The "Etag" element is an epoch time calculated based on the date and time of the last modification recorded on the patient matrix. This version can therefore be greater than or equal to the standard matrix version.

```

    "profile": "dentist",
    "resource": "contactReport:allDepts",
    "allowed": "falseAll"
  }
],
"total": 29,
"pageSize": 2,
"next":
"https://api.ehealth.fgov.be/patientDataAccess/matrix/v1/pseudo/patientMatrices/AgB
DSWPpHUCBzZoLxu8yoM5dp2ZRwm3oAAGWVA tj8k1MRXb9UsaRXz9sx19RsSSIm1fcu0VH52TgwyoxGM1A5q
fvYA:eyJhdWQiOiJodHRwczovL2FwaS1pbnRyYy5laGVhbHRoLmZnb3YuYmUvcHNldWRvL3YxL2RvbWFpbm
MvZWwhlYWx0aF92MSIsImVuYyI6IkEyNTZHQ00iLlJleHAIojE3MzA3Mjg2NjAsImldhdCI6MTczMDcyODA2M
CwiYWxnIjoiZGlyIiwia2lkIjoiZTI0YWVkyjEtZGRjMC00YjI3LWI5OTQtNzgwNDhlNmFlNjUyIn0..uCr
xaTU6s936ThTj.9zvxoXvI-wlQepfG5klvl_msgACSizlqHzIP2ID1-d7bB-aBsVlZV4ihh2pcRLNXvc-
Y7H2_2bjsO29c7dGvcTpONv5Ky_ZgMM8y0E1Aj_4HPbVNI0s5eg3ftBbJaYeeOQzfCWkIrp7JvRf-
0yQIhSDY19ZDeXrK9rmH1jJ98TBg8XcUuCe.Q9-
09q_LzNoGqmMEugRA2g?pageSize=2&page=2&profile=dentist"
}

```

Error:

HTTP code 304 (Not Modified) returned in case the value of the If-None-Match (Etag) specified in the request header matches the latest version of the patient matrix. In this case, no body is returned in response.

Failures:

For failure description please refer to section 8 of this cookbook.

6.11 GET /patientMatrices/changes

The request of type “GET” on path /patientMatrices/changes allows the user to consult information on all change requests that have been made to the Matrix service that caused a value change for a permission in a patient’s access matrix for a selected period by the user and for all the patients.

Request

Query Parameter	Description
From (mandatory)	<p>The inclusive start date of the validity period of the search.</p> <p>The format to follow is as follows:</p> <ul style="list-style-type: none"> - yyyy-MM-dd'T'HH:mm:ss.SSSXXX
Until (optional)	<p>The exclusive end date of the validity period of the search.</p> <p>The element ‘until’ is optional:</p> <ul style="list-style-type: none"> - if provided, then ‘until’ must be strictly greater than ‘from’. Otherwise, the request is rejected. - If not provided, then ‘until’ is enriched with the current date and time. <p>The format to follow is as follows:</p> <ul style="list-style-type: none"> - yyyy-MM-dd'T'HH:mm:ss.SSSXXX



PageSize (optional)	<p>This parameter allows to select the maximum number of items per page to display. For the last page, its value should be independent of the number of actually returned items.</p> <p>The pageSize value is limited to a minimum of 1 and a maximum of 1000 which is also the default value.</p> <p>The result is chronologically organized.</p>
Page (mandatory)	<p>This parameter allows to select the specific page of items to display.</p> <p>The default and first page is 1.</p>

Example

```
GET /patientDataAccess/matrix/v1/patientMatrices/changes?from=2024-11-05T16:34:00.000+01:00&until=2024-11-05T16:41:00.000+01:00&pageSize=2&page=1
```

Response

Success:

HTTP code 200 (Success) returned in case of an empty or non-empty list of changes found.

In case of a non-empty list, the body contains an array of chronologically organized changed objects .

The response will only contain changes related to patients for whom there is a “patient link”²⁰ with the hub or the vault making the request.

Examples:

- Empty list of changes:

```
{
  "items": [],
  "total": 6,
  "pageSize": 2
}
```

- Non-empty list of changes:

```
{
  "items": [
    {
      "ssin": "12345678910",
      "permission": {
        "profile": "audician",
        "resource": "adminData:nameAddressContactInfo",
        "allowed": "falseAll"
      },
      "operation": "resetPermission",
      "timestamp": "2024-11-05T16:34:59.999999+01:00",
      "author": [
        {
          "qualificationCode": "patient",
          "ssin": "12345678910"
        }
      ]
    }
  ],
}
```

²⁰ For more information on “patient links”, please consult the “MetaHub WS V2” cookbook on the portal of the eHealth platform

- <https://www.ehealth.fgov.be/ehealthplatform/fr/service-repertoire-des-references-metahub>
- <https://www.ehealth.fgov.be/ehealthplatform/nl/service-verwijzingsrepertorium-metahub>



```

    {
      "ssin": "10987654321",
      "permission": {
        "profile": "audician",
        "resource": "adminData:nameAddressContactInfo",
        "allowed": "falseAll"
      },
      "operation": "updatePermission",
      "timestamp": "2024-11-05T16:35:00+01:00",
      "author": [
        {
          "qualificationCode": "mandatary",
          "ssin": "12345678910"
        }
      ]
    }
  ],
  "total": 6,
  "pageSize": 2,
  "next":
  "https://api.ehealth.fgov.be/patientDataAccess/matrix/v1/patientMatrices/changes?pa
  geSize=2&page=2&from=2024-11-05T16:34:00.000+01:00&until=2024-11-
  05T16:41:00.000+01:00"
}

```

Each change is composed of the following elements:

- *Ssin* : the Social Security Identification Number (SSIN) of the concerned patient.
- *Permission*: the permission that was changed.
- *Operation*: the carried-out operation.

Currently, 2 values are available:

- o updatePermission²¹
- o resetPermission²²
- *Timestamp*: the date and time of the change.
- *Author*: the author of change.

Currently, 2 values are available for the qualification code:

- o patient: the author of change is the patient himself.
- o mandatary: the author of the change is someone other than the patient himself.

Failures:

For failure description please refer to section 8 of this cookbook.

²¹ Result of using the PATCH method (see section 5.6 & 5.9).

²² Result of using the POST method (see section 5.5 & 5.8).

7. Risks and security

7.1 Risks & safety

7.2 Security

7.2.1 Business security

In case the development adds an additional use case based on an existing integration, the eHealth platform must be informed at least one month in advance with a detailed estimate of the expected load. This will ensure an effective capacity management.

When technical issues occur on the WS, the partner can obtain support from the contact center (see Chap 3).

If the eHealth platform should find a bug or vulnerability in its software, the partner must update his application with the latest version of the software, within ten (10) business days.

If the partner finds a bug or vulnerability in the software or web service made available by the eHealth platform, he is obliged to contact and inform us immediately. He is not allowed, under any circumstances, to publish this bug or vulnerability.

7.2.2 The use of username, password and token

The username, password, and token are strictly personal.

Each user takes care of his username, password and token, and he is forced to confidentiality of it. It is prohibited to transfer them to partners and clients. Until inactivation, each user is responsible for all uses, including the use by a third party.



8. Implementation aspects

8.1 Procedure

This chapter explains the procedures for testing and releasing an application in acceptance or in production.

8.1.1 Initiation

If you intend to use the eHealth platform service, please contact info@ehealth.fgov.be. The project department will provide you with the necessary information and mandatory documents.

8.1.2 Development and test procedure

You have to develop a client in order to connect to our WS. Most of the information needed to integrate is published on the portal of the eHealth platform.

Upon request, the eHealth platform provides you with test cases (see *Request Test Case template*) in order for you to test your client before releasing it in the acceptance environment.

8.1.3 Release procedure

When development tests are successful, you can request to access the acceptance environment of the eHealth platform. From this moment, you start the integration and acceptance tests. The eHealth platform suggests testing during minimum one month.

After successful acceptance tests, the partner sends his test and performance results with a sample of “eHealth request” and “eHealth answer” by email to his point of contact at the eHealth platform.

Once a release date has been agreed on, the eHealth platform prepares the connection to the production environment and provides the partner with the necessary information. During the release day, the partner provides the eHealth platform with feedback on the test and performance tests.

For further information and instructions, please contact: integration-support@ehealth.fgov.be

8.1.4 Operational follow-up

Once in production, the partner using the eHealth platform service for one of his applications will always test in the acceptance environment first, before releasing any adaptations of his application in production. In addition, he will inform the eHealth platform on the progress and test period.

8.2 Test cases

eHealth recommends performing tests for all of the following cases (depending on your access roles):

- GET /standardMatrix : successful consultation of the standard matrix.
- GET /refData : successful consultation of the reference data.
- GET /patientMatrices : successful consultation of the patient matrix or the changes.
- POST /patientMatrices : successful reset of the patient matrix.
- PATCH /patientMatrices : successful modification of the patient matrix.
- In addition, you should also run negative test cases.

Specific tests to validate the service onboarding are described in document “PADAC – WS Service User guidelines & Testing”



9. Error and failure messages

9.1 HTTP codes

9.1.1 HTTP 2xx

The meaning of 2xx HTTP codes is described in each Operation in section 5 of this document.

9.1.2 HTTP 500

This code means that an internal technical error occurred during the processing of the request.

This does not necessarily mean that the error is not due to a wrong input in the request.

Please double-check that your request is correct before reaching to the helpdesk.

9.1.3 HTTP 400

This code means that the request could not be performed due to a validation error.

The body returned explains what went wrong in your request.

Example:

```
{
  "type": "urn:problem-type:ehealth:matrix:refData:invalidCode",
  "href": "https://www.ehealth.fgov.be/ehealthplatform/fr/service-ehealth-matrix",
  "title": "Invalid refData",
  "status": 400,
  "detail": "There is no refData matching with the provided parameter.",
  "instance": "7a4216677b7c1b7e69667abd",
  "issues": [
    {
      "in": "query",
      "name": "profile",
      "detail": "The provided parameter nurs does not match an existing reference data.",
      "value": "nurs"
    }
  ],
  "id": "7a4216677b7c1b7e69667abd"
}
```

Here are the possible values that you can get in the body for the “400” errors:

Invalid refData	There is no refData matching with the provided parameter.
Invalid identifier	The provided patient ssn is invalid.
Forbidden operation	The user is not authorized to perform this operation.
Invalid search period	The provided search period is incorrect.