Guide til FMB 4.1.0

The new version of FMB contains three new optional features, and the method of using them will be described in this document.

The three new features are the following:

1. Rule 13 – Anticholinergics
2. Rule 14 – Discontinuation (Seponering)
3. customDrugInformation – Ikke registrerede lægemidler

NOTE:

In version 5, the system and org headers will be made mandatory.
We urge you to fill out these headers if you haven't already done so:

```
x-request-bst-systemownername
x-request-bst-systemname
x-request-bst-systemversion
x-request-bst-orgresponsiblename
x-request-bst-orgusingname
x-request-bst-orgusingid
x-request-bst-orgusingidtype
```

More information and example values can be found in our existing documentation on
https://docs.exttest.kliniskbeslutningsstøtte.dk/v4/overview

Anticholinergics

This is a new module. Warnings from this module will NOT be returned by default, and will have to be explicitly enabled.

Usage

When calling the FMB API, there is a header with the key:
"X-Request-ATAH-UseDecisionSupportModulesHeader"

This key contains the list of FMB modules that should be called when executing the request.

An example of a value for this header could be:
"R1,R2,R3,R4,R5,R6,R7,R9,R10,R11"

To use the new Anticholinergics module, simply add "R13" to the list.
An example of a header that enables the calculation of Anticholinergics warnings is shown here:
"X-Request-ATAH-UseDecisionSupportModulesHeader=
R1,R2,R3,R4,R5,R6,R7,R9,R10,R11,**R13**"

Here is an example of a curl request that will return a R13 warning as of time of writing:

```
curl -XPOST \
-H 'X-Request-ATAH-UseDecisionSupportModulesHeader: R13' \
-H 'Authorization: Bearer [Your token here]' \
-H "Content-type: application/json" \
-d
'{"cave":[],"diagnosis":[],"drugMedications":[{"drugId":"28104132107","rou
teOfAdministration":"OR","dosage":[],"startDate":"2024-01-
30","pausedPeriods":[],"localRef":"Demo Drug
A"},{"drugId":"28104132107","routeOfAdministration":"OR","dosage":[],"star
tDate":"2024-01-30","pausedPeriods":[],"localRef":"Demo Drug
B"}],"customDrugs":[],"measurements":[],"gender":"female","birthday":"2000
-01-01","pregnancy":false,"lactating":false}' \
'https://api.develop.xn--kliniskbeslutningssttte-4mc.dk/v4/evaluate'
```

Results

A R13 warning will have the following format (The specific short, action, background and inDepth text has been replaced with sample text, as they are subject to change):

```
{
    "warningId": "R13-0-4.1.0:[Internal UUIDs for traceability]",
    "warningType": "WarningTypeR13",
    "warningSubType": "0",
    "warningText": {
        "shortText": "Lorem ipsum shortText",
        "reasonText": {
            "actionText": "Lorem ipsum actionText",
            "backgroundText": "Lorem ipsum backgroundText"
        },
        "inDepthText": "Lorem ipsum inDepthText"
    },
    "links": [
        ...[Links]
    ],
    "references": [
        ...[References]
    ],
    "severity": {
        "type": "caution",
        "typeText": "Forsigtighed",
    },
    "sources": [
        ...[Sources]
    ],
    "meta": {
        ...[Metadata]
    }
}
```

(Fields marked in …[Brackets] contain the usual data, but they have been omitted for brevity, since it does not differ from the existing format)

Discontinuation (Seponering)

This is a new module. Warnings from this module will NOT be returned by default, and will have to be explicitly enabled.

This module should only be enabled when a practitioner explicitly calls for it, since it generates lengthy warnings about how to *cease* the prescription of existing drugs, which is usually irrelevant in cases where a new drug is prescribed.

Usage

When calling the FMB API, there is a header with the key:
"X-Request-ATAH-UseDecisionSupportModulesHeader"

This key contains the list of FMB modules that should be called when executing the request.

An example of a value for this header could be:
"R1,R2,R3,R4,R5,R6,R7,R9,R10,R11"

To use the new Discontinuation module, simply add "R14" to the list.
An example of a header that enables the calculation of Anticholinergics warnings is shown here:
"X-Request-ATAH-UseDecisionSupportModulesHeader=
R1,R2,R3,R4,R5,R6,R7,R9,R10,R11,**R14**"

Here is an example of a curl request that will return a R14 warning as of time of writing:

```
curl -XPOST \
-H 'X-Request-ATAH-UseDecisionSupportModulesHeader: R14' \
-H 'Authorization: Bearer [Your token here]' \
-H "Content-type: application/json" \
-d
'{"cave":[],"diagnosis":[],"drugMedications":[{"drugId":"28101317587","rou
teOfAdministration":"OR","dosage":[],"startDate":"2024-04-
18","pausedPeriods":[],"localRef":"Demo"}],"customDrugs":[],"measurements"
:[],"gender":"female","birthday":"2000-01-
01","pregnancy":false,"lactating":false}' \
'https://api.develop.xn--kliniskbeslutningssttte-4mc.dk/v4/evaluate'
```

Results

A R14 warning will have the following format (The specific short, action, background and inDepth text has been replaced with sample text, as they are subject to change):

```json
{
    "warningId": "R14-0-4.1.0:[Internal UUIDs for traceability]",
    "warningType": "WarningTypeR14",
    "warningSubType": "0",
    "warningText": {
        "shortText": "Lorem ipsum shortText",
        "reasonText": {
            "actionText": "Lorem ipsum actionText",
            "backgroundText": "Lorem ipsum backgroundText"
        },
        "inDepthText": "Lorem ipsum inDepthText"
    },
    "links": [
        ...[Links]
    ],
    "references": [
        ...[References]
    ],
    "severity": {
        "type": "caution",
        "typeText": "Forsigtighed",
        "subType": "freeText",
        "subTypeText": "Seponeringslisten",
        "subTypeFreeText": "Seponeringslisten"
    },
    "sources": [
        ...[Sources]
    ],
    "meta": {
        ...[Metadata]
    }
}
```

(Fields marked in …[Brackets] contain the usual data, but they have been omitted for brevity, since it does not differ from the existing format)

NOTE:

Since the warnings take their input directly from *seponeringslisten,* they can be quite long. To better separate the content, FMB makes use of the <hr> html tag, which creates a separating line between segments.

Therefore, it's important to make sure the <hr> tag is supported in the text displays.

customDrugInformation – Ikke registrerede lægemidler

When a doctor prescribes a customDrug (Ikke registreret lægemiddel) It is sometimes sent to FMB as a normal drug, but with a drugId that is not recognized in Taksten (List of recognized drugs).

This would usually produce a validation error, and the drug would not be processed.

With this new feature, there will be an **optional** field on the drugMedication object, that will serve as a fallback, in case the drug isn't recognized.

If the drugId of a prescription isn't recognized, the new field will be used to recover instead of rejecting, and decision support will still be provided for the prescription.

Usage

The new field is named: `customDrugInformation` and contains the following fields:
`name`,
`atcCode`,
`form`,
`strength`

`name` and `atcCode` are both strings that describe the name of the drug, and the atcCode of the drug.

`form` can be either an `ICustomDrugFormCode` object or an `ICustomDrugFormText` object.

`ICustomDrugFormCode` looks like this:
```
{
    "type": "CODE",
    "code": "A string contained in the list of form codes (LMS22) fx. TAB"
}
```

`ICustomDrugFormText` looks like this:

```
{
    "type": "TEXT",
    "text": "Free text field (fx. Tablet)"
}
```

`strength` can be either an `ICustomDrugStrengthCode` object or an `ICustomDrugStrengthText` object.

`ICustomDrugStrengthCode` looks like this:
```
{
    "type": "CODE",
    "value": 42.42, //A number, decimals are allowed
    "code": "A string contained in the list of strength codes (LMS15) fx. MG"
}
```

`ICustomDrugStrengthText` looks like this:

```
{
    "type": "TEXT",
    "text": " Free text field (fx. 42.42 milligram)"
}
```

Example Request

Here is an example of a request that correctly uses the fallback object on a drugMedication:

```json
{
    "cave": [],
    "diagnosis": [],
    "drugMedications": [
        {
            "drugId": "12345678900",
            "routeOfAdministration": "OR",
            "dosage": [],
            "startDate": "2021-10-08",
            "localRef": "Demo",
            "customDrugInformation": {
                "name": "Demo Name",
                "atcCode": "A01AA01",
                "form": {
                    "type": "CODE",
                    "code": "TAB"
                },
                "strength": {
                    "type": "CODE",
                    "value": 42.42,
                    "code": "MG"
                }
            }
        }
    ],
    "measurements": [],
    "gender": "female",
    "birthday": "2000-01-01",
    "pregnancy": false,
    "lactating": false
}
```