

# RED Interchange API - Search/Read Medication

Patient medication uses several FHIR bundles to cover all aspects-

- Medication with name, description, identifier (PZN)
- MedicationStatement (permanent medication) with relation between medication and patient
- MedicationRequest (prescription) with dosage, dispense, substitution (aut-idem) and physician authorization
- MedicationRequestPZN (prescription) combines prescription and product information

## Medication

Medication represents a pharmaceutical product assigned to a patient. Medications are assigned to a patient and may be searched. A **search request (GET)** for patient medication returns a bundle of one or more FHIR items of type [KBV\\_PR\\_AW\\_Medikament](#).

### Example for a SEARCH request for the medication of a specific patient

```
{{baseUrl}}/{{tenant}}/Medication?page=1&subject=Patient/6006
```

Example: this search requests fetches all Medications of patient 6006 using paging to limit the number of results

For an example see [RED Interchange API - Postman Collection](#) 0118 - Patient - All Medication (Medikament)

Data of a specific medication may be fetched using a **read request (GET)** with the identifier of the specific medication. The request returns a FHIR item of type [KBV\\_PR\\_AW\\_Medikament](#).

### Example of a READ request for a specific medication item

```
{{baseUrl}}/{{tenant}}/Medication/egMNGiQHERUmzlrP
```

Example: this read request returns the FHIR item for a medication item with ID egMNGiQHERUmzlrP. The ID may be retrieved by a search request sent before this request.

For an example see [RED Interchange API - Postman Collection](#) 0119 - Patient - Specific Medication

### Example of a FHIR item for a medication item

```
<Medication xmlns="http://hl7.org/fhir">
  <id value="egMNGiQHERUmzlrP"/>
  <meta>
    <versionId value="1"/>
    <lastUpdated value="2022-08-03T18:44:24+00:00"/>
    <profile value="https://fhir.kbv.de/StructureDefinition/KBV_PR_AW_Medikament|1.2.0"/>
  </meta>
  <text>
    <status value="extensions"/>
    <div xmlns="http://www.w3.org/1999/xhtml">Medikament von PatientLuca Fink</div>
  </text>
  <code>
    <coding>
      <system value="http://fhir.de/CodeSystem/ifa/pzn"/>
      <code value="01231440"/>
    </coding>
    <text value="SINUPRET DRAGEES 2X10X50St"/>
  </code>
  <form>
    <coding>
      <system value="https://fhir.kbv.de/CodeSystem/KBV_CS_SFHIR_KBV_DARREICHUNGSFORM"/>
      <code value="UTA"/>
    </coding>
  </form>
  <amount>
    <numerator>
      <value value="1000"/>
      <unit value="St"/>
    </numerator>
    <denominator>
      <value value="1"/>
    </denominator>
  </amount>
</Medication>
```

## Medication Statement

A medication statement represents a relation between a pharmaceutical product and a patient if the patients uses this product as part of his permanent medication. Medications Statements are assigned to a patient and may be searched. A search request for patient medication returns a bundle of one or more FHIR items of type [KBV\\_PR\\_AW\\_Dauermedikation](#).

### Example for a SEARCH request for a medication statement

```
{{baseUrl}}/{{tenant}}/MedicationStatement?page=1&subject=Patient/6006
```

Example: this search requests fetches all Medications of patient 6006 using paging to limit the number of results

For an example see [RED Interchange API - Postman Collection](#) 0120 - Patient - All MedicationStatements (Dauermedikation)

As medication statement does not contain any relevant information but the reference between medication and patient we currently do not provide a read request for a specific statement.

### Example of a FHIR item for a medication statement

```
<MedicationStatement xmlns="http://hl7.org/fhir">
  <id value="Zemu6XkBDrpsrArZE1A46I7EAgEKNLAS"/>
  <meta>
    <versionId value="1"/>
    <lastUpdated value="2022-08-03T18:51:45+00:00"/>
    <profile value="https://fhir.kbv.de/StructureDefinition/KBV_PR_AW_Dauermedikation|1.2.0"/>
  </meta>
  <text>
    <status value="extensions"/>
    <div xmlns="http://www.w3.org/1999/xhtml">Dauermedikation von Patient Luca Fink</div>
  </text>
  <extension url="https://fhir.kbv.de/StructureDefinition/KBV_EX_Base_Additional_Comment">
    <valueString value="" />
  </extension>
  <status value="active"/>
  <medicationReference>
    <reference value="Medication/egMNGiQHERUmzlrP"/>
  </medicationReference>
  <subject>
    <reference value="Patient/6tVbNJZq1buNwKmp6UKpd8CpLceNDlRF/_history/1"/>
  </subject>
</MedicationStatement>
```

## Medication Request

A medication request represents a prescription. Medication requests are assigned to a patient and may be searched. A search request for patient medication returns a bundle of one or more FHIR items of type [KBV\\_PR\\_AW\\_Verordnung\\_Arzneimittel](#).

### Example for a SEARCH request for a medication request

```
{{baseUrl}}/{{tenant}}/MedicationRequest?page=1&subject=Patient/6006
```

Example: this search requests fetches all Medication requests of patient 6006 using paging to limit the number of results

For an example see [RED Interchange API - Postman Collection](#) 0121 - Patient - All MedicationRequests (Verordnung)

### Example of a FHIR item for a medication request

```
<MedicationRequest xmlns="http://hl7.org/fhir">
  <id value="gN7tsKbTW7gyqispAHTPSZuyiFBURWwm"/>
  <meta>
    <versionId value="1"/>
    <lastUpdated value="2022-08-04T07:15:54+00:00"/>
    <profile value="https://fhir.kbv.de/StructureDefinition/KBV_PR_AW_Verordnung_Arzneimittel|1.2.0"/>
  </meta>
  <text>
    <status value="extensions"/>
    <div xmlns="http://www.w3.org/1999/xhtml">(V1) | Patient Luca Fink | Medication Status active | zuletzt
bearbeitet 2022-08-04T07:15:54+00:00</div>
  </text>
  <status value="active"/>
  <intent value="order"/>
  <medicationReference>
    <reference value="Medication/egMNGiQHERUmzlrP"/>
  </medicationReference>
  <subject>
    <reference value="Patient/6tVbNJZq1buNwKmp6UKpd8CpLceNDlRF/_history/1"/>
  </subject>
  <authoredOn value="2022-08-04"/>
  <requester>
    <reference value="Practitioner/3xZjkMngCnOE9plIFpiAeDvUZHDvnCHn/_history/1"/>
  </requester>
  <dosageInstruction>
    <text value="0-0-0-0"/>
  </dosageInstruction>
  <dispenseRequest>
    <quantity>
      <value value="1"/>
      <system value="http://unitsofmeasure.org"/>
      <code value="{Package}"/>
    </quantity>
  </dispenseRequest>
  <substitution>
    <allowedBoolean value="true"/>
  </substitution>
</MedicationRequest>
```

## Extended Medication Request

This request type combines medication request and medication information and returns all products prescribed for a patient with the extended product information. Medications requests of this type are assigned to a patient and may be searched. A search request for patient medication returns a bundle of one or more FHIR items combining data from [KBV\\_PR\\_AW\\_Verordnung\\_Arzneimittel](#) and [KBV\\_PR\\_AW\\_Medikament](#).

### Example for a SEARCH request for an extended medication request

```
{{baseUrl}}/{{tenant}}/MedicationRequestPZN?page=1&subject=Patient/6006
```

For an example see [RED Interchange API - Postman Collection](#) 0122 - Patient - All MedicationRequests (Verordnung) PZN

### Example of the result of an extended medication request

```
<MedicationRequest xmlns="http://hl7.org/fhir">
  <id value="egQFFh8W0kx6BYyd"/>
  <meta>
    <versionId value="1"/>
    <lastUpdated value="2022-08-04T09:20:40+00:00"/>
    <profile value="https://fhir.kbv.de/StructureDefinition/KBV_PR_AW_Medikament|1.2.0"/>
  </meta>
  <text>
    <status value="extensions"/>
    <div xmlns="http://www.w3.org/1999/xhtml">Medikament von PatientLuca Fink</div>
  </text>
  <status value="active"/>
  <intent value="order"/>
  <medicationReference>
    <reference value="Medication/egQFFh8W0kx6BYyd"/>
  </medicationReference>
  <subject>
    <reference value="Patient/6tVbNJZq1buNwKmp6UKpd8CpLceNDlRF/_history/1"/>
  </subject>
  <authoredOn value="2022-08-04"/>
  <requester>
    <reference value="Practitioner/wK7hhpbEIGlqkSdvRCCd3AEA3W4lBfDB/_history/1"/>
  </requester>
  <dosageInstruction>
    <text value="0-1-0-0"/>
  </dosageInstruction>
  <dispenseRequest>
    <quantity>
      <value value="1"/>
      <system value="http://unitsofmeasure.org"/>
      <code value="{Package}"/>
    </quantity>
  </dispenseRequest>
  <substitution>
    <allowedBoolean value="true"/>
  </substitution>
  <code>
    <coding>
      <system value="http://fhir.de/CodeSystem/ifa/pzn"/>
      <code value="05481263"/>
    </coding>
    <text value="METFORMIN AL 500 180St N3"/>
  </code>
  <form>
    <coding>
      <system value="https://fhir.kbv.de/CodeSystem/KBV_CS_SFHIR_KBV_DARREICHUNGSFORM"/>
      <code value="FTA"/>
    </coding>
  </form>
  <amount>
    <numerator>
      <value value="180"/>
      <unit value="St"/>
    </numerator>
    <denominator>
      <value value="1"/>
    </denominator>
  </amount>
</MedicationRequest>
```