



MDGuidelines® API: Formulary Search v4 Specification 1.1

Date: December 6, 2023

1 Overview

1.1 Purpose and Intended Audience

The purpose of this document is to provide detailed descriptions and specifications for the Formulary Search v4 API for MDGuidelines clients.

The Formulary Search API is intended to be used by MDGuidelines Customers and Partners that have integrated MDGuidelines into their own products who want to find Formulary records by medical code.

The Formulary Search API is part of the MDGuidelines API product offering.

The version number of this document refers to the Specification version. See Section 2.3 Version Information below for information related to the API version.

1.2 Description

The Formulary Search v4 API provides a list of Formulary summary records matching the requested Medical Code. The results of the Formulary Search can be used to identify records of interest by ID, which can then be used to request Formulary detailed data in a separate API service (Formulary).

Formulary Search v4 adds Pain Classification to the response elements. See the [Document Revision History](#) for details.

Terminology

Term	Definition
Medical Code	A numeric code representing a diagnosis, procedure, or other condition of a patient. For the purposes of this API, the following types of diagnostic medical codes are supported: ICD-9-CM and ICD-10-CM. Valid Medical Codes may be identified via the Medical Code Search API.
Formulary	Refers to the Formulary tool and data. Based on the American College of Occupational and Environment Medicine (ACOEM), the tool provides detailed support and guidance based on evidence reviews for or against the use of a given drug therapy for the given condition. Formulary data is associated to medical codes.

2 API Specification

This section documents the technical usage of the Formulary Search API. General information about any of the MDGuidelines APIs can be found at <https://api.mdguidelines.com/help>.

MDGuidelines APIs are RESTful.

Responses may be formatted as XML or JSON (see Section 2.4 Input Parameters, below).

This information will also be published at <https://api.mdguidelines.com/help/formulary.html>. Currently, this help page includes a test harness form (see Section 2.8 Testing, below).

2.1 End Point

The Formulary Search API endpoint is: <https://api.mdguidelines.com/api/v4/formularysearch/>

2.2 Authentication

The Organization’s API license key must be provided via the request headers as “RG-LICENSE-KEY”. This key will be provided by the Customer’s Account Executive.

2.3 Version Information

The current version of this API is v4. Old versions are no longer supported, effective February 17, 2024.

2.4 Parameters

Data Element	Data Type	Req?	Data Element Description	Length/Max Length	Default Value
medCode	String	Yes	Either ICD-9-CM or ICD-10-CM diagnostic medical codes may be used. Valid medical codes may be identified via the Medical Code Search API.	N/A	NA

2.5 Response

Data can be returned as JSON or XML.

If using XML, the XSD may be found here: <https://api.mdguidelines.com/xsd/FormularySearchV4.xsd>

Data Element	Data Type	Req?	Data Element Description
AvailableDrugClasses	Collection	Yes	<p>A list of distinct Drug Class values for the returned list of Formularies.</p> <p>This list can be used to create a filter field in the Integrated Application User Interface.</p> <p>See Drug Classes, below, for a list of possible options.</p>
AvailableEvidenceSupport	Collection	Yes	<p>A list of distinct Evidence Support values for the returned list of Formularies.</p> <p>This list can be used to create a filter field in the Integrated Application User Interface.</p> <p>See Evidence Support, below, for a list of possible options.</p>
AvailablePhases	Collection	Yes	<p>A list of distinct Evidence Support values for the returned list of Formularies.</p> <p>This list can be used to create a filter field in the Integrated Application User Interface.</p> <p>Possible values: Acute Chronic</p>
Formularies	Collection	Yes	A list of Formulary records matching the requested Medical Code.
FormularyID	Short	Yes	Unique identifier for a given Formulary record. This ID can be used in the Formulary API to retrieve the full record details.
Condition	String	Yes	The name of the condition that the Formulary record applies to. Conditions may be represented by multiple medical codes.
Category	String	Yes	A categorization of Conditions. Category corresponds to the ACOEM Disorder Chapter name.
DrugClass	String	No	Class of medication for the Drug. For a list of possible classes, see Drug Classes below.
EvidenceSupport	String	No	<p>A combination of ACOEM Strength of Evidence levels and “Other” recommendations provided by the MDGuidelines pharmacy benefit management partner, HealtheSystems.</p> <p>For more information and a list of possible values, see Evidence Support below.</p>
Phase	String	Yes	<p>Phase of Treatment that the Formulary applies to.</p> <p>Possible values: Acute Chronic</p>

Data Element	Data Type	Req?	Data Element Description
DrugName	String	Yes	A combined field representing the generic drug name and the associated common brand names. The generic name is first, in all-caps. The brand names are second, within parentheses in proper case. Brand names may include special characters, such as the registered trademark character.
PainClassification	String	Yes	A description of pain to provide further guidance on the selection of medication for the particular condition being treated. Pain Classification may be a distinguishing factor for determining whether the drug can be recommended or not.

2.6 Reference Tables

Drug Classes

DrugClass
ALTERNATIVE MEDICINES
ANALGESICS - ANTI-INFLAMMATORY
ANALGESICS - NonNarcotic
ANALGESICS - OPIOID
ANTI-INFECTIVE AGENTS - MISC.
ANTIANGINAL AGENTS
ANTIANKXIETY AGENTS
ANTIARRHYTHMICS
ANTIASTHMATIC AND BRONCHODILATOR AGENTS
ANTICOAGULANTS
ANTICONVULSANTS
ANTIDEPRESSANTS
ANTIDIABETICS
ANTIHYPERTENSIVES
ANTIPARKINSON AGENTS
ANTISEPTICS & DISINFECTANTS
ASSORTED CLASSES
CALCIUM CHANNEL BLOCKERS
CEPHALOSPORINS
CHEMICALS
CORTICOSTEROIDS
COUGH/COLD/ALLERGY
DERMATOLOGICALS
DIURETICS
ENDOCRINE AND METABOLIC AGENTS - MISC.
FLUOROQUINOLONES
GASTROINTESTINAL AGENTS - MISC.
GENERAL ANESTHETICS
GENITOURINARY AGENTS - MISCELLANEOUS
GOUT AGENTS
HEMATOPOIETIC AGENTS
LOCAL ANESTHETICS-Parenteral

DrugClass
MACROLIDES
MINERALS & ELECTROLYTES
MUSCULOSKELETAL THERAPY AGENTS
NEUROMUSCULAR AGENTS
NUTRIENTS
OPHTHALMIC AGENTS
PENICILLINS
PSYCHOTHERAPEUTIC AND NEUROLOGICAL AGENTS - MISC.
TETRACYCLINES
TOXOIDS
ULCER DRUGS
VITAMINS

Evidence Support

For more information about Evidence Support, read more about Strength of Evidence in our [Formulary Help Page](#).

Evidence Support	EvidenceSortOrder	EvidenceFlag
Yes, Strong Evidence (A)	1	Yes
Yes, Moderate Evidence (B)	2	Yes
Yes, Limited Evidence (C)	3	Yes
Yes, Insufficient Evidence (I)	4	Yes
No, Strong Evidence (A)	5	No
No, Moderate Evidence (B)	6	No
No, Limited Evidence (C)	7	No
No, Insufficient Evidence (I)	8	No
No Recommendation	12	None
Yes, Other	13	Yes
No, Other	14	No

2.7 Exception Conditions and Troubleshooting

The service may provide response codes, for success or errors. The common response codes implemented in the MDGuidelines API are documented at <https://api.mdguidelines.com/help>.

Response Status Codes

Status Code	Cause(s)
401	<p>Message:</p> <ul style="list-style-type: none"> License code not authorized. <p>This response will be returned in the following scenarios:</p> <ul style="list-style-type: none"> License key is expired License key is missing License key is otherwise invalid
404	<p>Message:</p> <ul style="list-style-type: none"> No results found. <p>This response will be returned in the following scenarios:</p> <ul style="list-style-type: none"> Invalid parameter Invalid medical code No data found for the requested medical code
500	<p>Server error.</p> <p>If the server, API site, or this service failed, the response will be a 500 Server error.</p>

2.8 Testing

MDGuidelines offers a test harness for integration testing:

<https://api.mdguidelines.com/help/formularySearch-v4.html>

Note: use of the test harness requires production license key configuration (RG-LICENSE-KEY)

2.9 Sample Code

JQuery

```
var uri = "https://api.mdguidelines.com/api/v4/formularysearch/";
uri += "354.0";

$.ajax({
  url: uri,
  type: 'GET',
  dataType: 'json',
  headers: { 'RG-LICENSE-KEY': 'XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX', },
  success: function (data) { handleData(data) },
  error: function (xhr, status, error) { handleError(xhr, status, error) }
})
```


Document Revision History

Date	Reason For Changes	Document Version
07/07/2017	Initial Version of Specification Changes between v3 and v4 of the API end point: * Addition of PainClassification response element, which can be used to distinguish between recommendations.	1.0
12/6/2023	Fixed typo in URI endpoint in sample JQuery (Section 2.9), and other miscellaneous formatting adjustments.	1.1