MDGuidelines® API: Medical Code Search v4

Specification 1.2

Date: October 1, 2023

1 Overview

1.1 Purpose and Intended Audience

The purpose of this document is to provide detailed descriptions and specifications for the Medical Code Search V4 API for MDGuidelines clients.

The Medical Code Search API is intended to be used by MDGuidelines customers and partners that have integrated MDGuidelines into their own products who want to find medical codes related to a keyword or medical code.

The Medical Code Search API is part of the MDGuidelines API product offering.

This specification is specific to V4 of the Medical Code Search end point.

1.2 Description

The Medical Code Search API provides a paginated list of medical code results and content reference data to help the integrated system users find and use medical code related content.

Terminology

Term	Definition
Billable	A medical code is billable if it provides the most specific coding for a diagnosis. Conventionally, users and systems may use non-billable codes (also known as headers), however most MDGuidelines functionality is designed to use billable diagnosis codes only. Non-billable codes are primarily used for locating Topics.
Case Prediction	A predicted duration based on case specific parameters, provided by the MDGuidelines predictive model. Part of the Duration Views tool in the MDGuidelines website. Case Predictions may be obtained via the Durations Case API.
Formulary	Refers to the Formulary tool and data. Based on the American College of Occupational and Environmental 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. The Medical Code Search API simply returns the indicator in "hasFormulary" about whether the listed Medical Code has associated Formulary data. Formulary data may be obtained via the Formulary Detail API.

Term	Definition
Medical Code	An alpha-numeric code representing a diagnosis, procedure, or other condition of a patient. For the purposes of this API, the following types of medical codes are supported: ICD-9-CM, ICD-10-CM, and CPT® (with additional license, see Authorization). Medical Codes are limited to the current edition from the code provider. Medical codes are updated annually in the January timeframe. • ICD-9-CM (2015, frozen) • ICD-10-CM (2021) • CPT® (2021)
Physiologic al Durations	Return to work guidelines based on the Topic and treatment factors. The Medical Code Search API simply returns the indicator "hasDuration" about whether the listed medical code has associated Physiological Durations. The Physiological Durations content may be obtained via the Durations Physiological API, or by viewing one of the related Topics in the website in the Length of Disability section or the Duration Views tool.
Rehabilitation	Rehabilitation frequency guidelines. Medical codes may have content related to patient rehabilitation. The Medical Code Search API simply returns the indicator "hasRehab" about whether the listed medical code has associated Rehabilitation frequency content. Rehabilitation frequency content is available via the Rehabilitation API.
Topic	A document covering a condition (diagnosis or procedure) from MDGuidelines. Topics may have been previously referred to as monographs. An index of Topic-related data (including Topic names and URLs) may be obtained via the Topic Search API. Full Topic content may be obtained via the Topics API.

2 API Specification

This section documents the technical usage of the Medical Code Search API. General information about any of the MDGuidelines APIs may be found at https://api.mdguidelines.com/help.

MDGuidelines APIs are RESTful.

Responses may be formatted as XML or JSON (see Section 2.5 Input Parameters, below).

This information will also be published at https://api.mdguidelines.com/help/medicalCodeSearch-v4.html. Currently, this help page includes a test harness form (see Section 2.8 Testing, below).

2.1 Endpoint

The Medical Code Search API endpoint is: https://api.mdguidelines.com/api/v4/medicalcode/search

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 at MDGuidelines.

2.3 Authorization

The customer's API license key provides access to all API end points without requiring additional configuration. Some of the APIs optionally include content related to CPT® treatment codes. To obtain use of APIs for CPT® content, an additional licensing agreement is required. The customer can obtain additional information and licensing through their account executive at MDGuidelines.

2.4 Version Information

The current stable version of this API is v4.

The currently supported version(s) of this API are:

Version	Support End Date
v4	N/A
v3	N/A
v2	N/A

2.5 Input Parameters

Data Element	Data Type	Req?	Format	Data Element Description	Default Value
Term	String	Yes	N/A	The search term to find one or more matching Medical Codes. Use keywords or medical codes.	N/A
CodeType	String	Yes	N/A	Specify which medical code set to search within. No spaces or hyphens; not case sensitive. Values: ICD9CM ICD10CM CPT Note: CPT® medical code use requires additional license. See Authorization, above.	N/A – No default
IncludeNonBillable	Boolean	No	N/A	Specify whether to include non-billable medical codes in addition to billable medical codes. Values: true false	False
Start	Integer	No	N/A	The starting row number (result number) for returning subsequent pages of results. The row numbers start at 0. Use to return subsequent pages in paginated results.	0
Rows	Integer	No	N/A	The number of search results to return. If no value is provided, then the response will include up to 25 results. Use to set pagination size.	25

2.6 Response

Data can be returned as JSON or XML.

If using XML, the XSD may be found here: https://api.mdguidelines.com/xsd/MedicalCodeSearchV4.xsd

Data Element	Data Type	Req?	Format	Data Element Description	Default Value
code	String	Yes	N/A	The medical code with a description that matches the search term.	N/A
longDescription	String	Yes	N/A	The long description for the medical code.	N/A
shortDescription	String	Yes	N/A	The short description for the medical code.	N/A
codeType	String	Yes	N/A	The medical code type. Values: ICD-9-CM ICD-10-CM CPT Note: CPT® medical code use requires additional license. See Authorization, above.	N/A
diagnosticCategory	Integer	Yes	N/A	The diagnostic category ID. See Appendix (Section 3.1 Diagnostic Categories).	N/A
billable	Boolean	Yes	true/false	An indicator of whether the medical code is billable or non-billable. Billable codes represent specific medical codes used for medical billing purposes. Non-billable codes are header codes within the medical code taxonomy. Values: true = billable false = non-billable	N/A
application	String	Yes	N/A	Indicator of whether the code refers to a diagnosis or procedure. ICD-9-CM codes include both Diagnostic and Procedural codes. ICD-10-CM codes include only Diagnostic codes. CPT® codes include only Procedural codes. Values: Diagnostic Procedural	N/A

hasFormulary	Boolean	Yes	true/false	Indicator of whether the medical code has related Formulary information which may be obtained via the Formulary Search API.	N/A
hasDuration	Boolean	Yes	true/false	Indicator of whether the medical code has related Physiological Durations data which may be obtained via the Durations Physiological API.	N/A
hasRehab	Boolean	Yes	true/false	Indicator of whether the medical code has related Rehabilitation data, which may be obtained via the Rehabilitation API.	N/A
topicIdList	String	No	N/A	A comma-delimited list of Topic IDs that are related to the medical code. These topic IDs may be used to retrieve topic texts via the Topic API.	N/A
comorbidGroupCode	String	No	N/A	The related comorbidity grouping which the Medical Code belongs to, if applicable. This code is used by the Durations Case API to input comorbidity conditions for the Case Prediction.	N/A

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

Status Code	Cause(s)
200	Message: • OK This status may occur with an empty data set in the response data. When this happens, it means that the request was correctly formed, however no medical code results match the request. This would be the typical response for a keyword search with no matches. When this response is returned for an intended search by medical code, it may be a situation when the medical code type does not match the provided medical code search term (examples: a search for G56.01 with medicalCodeType = icd9cm; a search for a non-supported medicalCodeType, such as icd10pcs.
400	Messages: • Invalid parameter specified: [*parameter name*] • The following parameter is required: [*parameter name*]
401	Message: • License code not authorized. This response will be returned in the following scenarios: • License key is expired • License key is missing • License key is otherwise invalid
403	Message: • License does not provide access to the requested resource This response will be returned in the following scenarios: • A CPT® medical code type is requested, but the customer's MDGuidelines license does not support CPT® usage. See Authorization, above.

Status Code	Cause(s)
500	If the server, API site, or this service failed, the response will be a 500 Server error.

2.8 Testing

MDGuidelines offers a test harness for integration testing:

https://api.mdguidelines.com/help/medicalCodeSearch-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/medicalcode/search";
uri += "/carpal";
uri += "/icd9cm";
uri += "&includenonbillable=true";
uri += "&start=0";
uri += "&rows=100";

$.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) }
})
```

3 Appendices

This section includes additional references for interpreting the data.

3.1 Diagnostic Categories

Diagnostic Category ID	Diagnostic Category	CodeType
101	Infectious and Parasitic Diseases (001-139)	ICD-9-CM
102	Neoplasms (140-239 and M-Codes)	ICD-9-CM
103	Endocrine, Nutritional and Metabolic Diseases, and Immunity Disorders (240-279)	ICD-9-CM
104	Diseases of the Blood and Blood-Forming Organs (280-289)	ICD-9-CM
105	Mental Disorders (290-319)	ICD-9-CM
106	Diseases of the Nervous System and Sense Organs (320-389)	ICD-9-CM
107	Diseases of the Circulatory System (390-459)	ICD-9-CM
108	Diseases of the Respiratory System (460-519)	ICD-9-CM
109	Diseases of the Digestive System (520-579)	ICD-9-CM
110	Diseases of the Genitourinary System (580-629)	ICD-9-CM
111	Complications of Pregnancy, Childbirth, and the Puerperium (630-679)	ICD-9-CM
112	Diseases of the Skin and Subcutaneous Tissue (680-709)	ICD-9-CM
113	Diseases of the Musculoskeletal System and Connective Tissue (710-739)	ICD-9-CM
114	Congenital Anomalies (740-759)	ICD-9-CM
115	Certain Conditions Originating in the Perinatal Period (760-779)	ICD-9-CM
116	Symptoms, Signs, and Ill-Defined Conditions (780-799)	ICD-9-CM
117	Injury and Poisoning (800-999)	ICD-9-CM
118	Health Status and Contact with Health Services (V01-V91, excluding V22 codes)	ICD-9-CM
119	External Causes of Injury and Poisoning (E000-E999)	ICD-9-CM
120	Procedures and Interventions, Not Elsewhere Classified (00)	ICD-9-CM

Diagnostic Category ID	Diagnostic Category	CodeType
121	Operations on the Nervous System (01-05)	ICD-9-CM
122	Operations on the Endocrine System (06-07)	ICD-9-CM
123	Operations on the Eye (08-16)	ICD-9-CM
124	Operations on the Ear (18-20)	ICD-9-CM
125	Operations on the Nose, Mouth, and Pharynx (21-29)	ICD-9-CM
126	Operations on the Respiratory System (30-34)	ICD-9-CM
127	Operations on the Cardiovascular System (35-39)	ICD-9-CM
128	Operations on the Hemic and Lymphatic System (40-41)	ICD-9-CM
129	Operations on the Digestive System (42-54)	ICD-9-CM
130	Operations on the Urinary System (55-59)	ICD-9-CM
131	Operations on the Male Genital Organs (60-64)	ICD-9-CM
132	Operations on the Female Genital Organs (65-71)	ICD-9-CM
133	Obstetrical Procedures (72-75)	ICD-9-CM
134	Operations on the Musculoskeletal System (76-84)	ICD-9-CM
135	Operations on the Integumentary System (85-86)	ICD-9-CM
136	Miscellaneous Diagnostic and Therapeutic Procedures (87-99)	ICD-9-CM
138	Other Miscellaneous Procedures (17)	ICD-9-CM
201	Evaluation and Management	CPT®
202	Anesthesiology (also includes 99100-99140)	CPT®
203	Surgery	CPT®
204	Imaging	CPT®
205	Pathology and Laboratory	CPT®
206	Medicine (except Anesthesiology)	CPT®
207	Other than Category I CPT Codes	CPT®
210	Certain Infectious and Parasitic Diseases (A00-B99)	ICD-10-CM
211	Neoplasms (C00-D49)	ICD-10-CM

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Diagnostic Category ID	Diagnostic Category	CodeType
212	Diseases of the Blood and Blood-Forming Organs and Certain Disorders Involving the Immune Mechanism (D50-D89)	ICD-10-CM
213	Endocrine, Nutritional, and Metabolic Disease (E00-E89)	ICD-10-CM
214	Mental, Behavioral, and Neurodevelopmental Disorders (F01-F99)	ICD-10-CM
215	Diseases of the Nervous System (G00-G99)	ICD-10-CM
216	Diseases of the Eye and Adnexa (H00-H59)	ICD-10-CM
217	Diseases of the Ear and Mastoid Process (H60-H95)	ICD-10-CM
218	Diseases of the Circulatory System (I00-I99)	ICD-10-CM
219	Diseases of the Respiratory System (J00-J99)	ICD-10-CM
220	Diseases of the Digestive System (K00-K95)	ICD-10-CM
221	Diseases of the Skin and Subcutaneous Tissue (L00-L99)	ICD-10-CM
222	Diseases of the Musculoskeletal System and Connective Tissue (M00-M99)	ICD-10-CM
223	Diseases of the Genitourinary System (N00-N99)	ICD-10-CM
224	Pregnancy, Childbirth, and the Puerperium (O00-O9A, in addition include Z34 codes)	ICD-10-CM
225	Certain Conditions Originating in the Perinatal Period (P00-P96)	ICD-10-CM
226	Congenital Malformations, Deformations, and Chromosomal Abnormalities (Q00-Q99)	ICD-10-CM
227	Symptoms, Signs, and Abnormal Clinical and Laboratory Findings, Not Elsewhere Classified (R00-R99)	ICD-10-CM
228	Injury, Poisoning, and Certain Other Consequences of External Causes (S00-T88)	ICD-10-CM
229	External Causes of Morbidity (V00-Y99)	ICD-10-CM
230	Factors Influencing Health Status and Contact with Health Services (Z00-Z99, excluding Z34 codes)	ICD-10-CM
248	Codes for Special Purposes (U00-U85)	ICD-10-CM

Document Revision History

Date	Reason For Changes	Document Version
05/22/2017	Initial Version Version 4 of the Medical Code Search API is an enhancement of Version 3, providing support for CPT® codes, where licensed.	1.0
10/13/2017	Added Medical Code version information (Section 1.2, Terminology), update to CPT® copyright text.	1.1
10/1/2023	Updated Section 3.1, Diagnostic Categories, Minor formatting changes	1.2