MDGuidelines® API: Crosswalk v1

Specification 1.2

Date: January 12, 2023

1 Overview

1.1 Purpose and Intended Audience

The purpose of this document is to provide detailed descriptions and specifications for the MDGuidelines® Crosswalk v1 API.

The Crosswalk API is intended to be used by MDGuidelines clients and partners who have integrated MDGuidelines into their own products who want to find treatment guidelines by ICD and/or CPT® medical codes.

The Crosswalk API is part of the MDGuidelines® API product offering.

This specification is specific to v1 of the Crosswalk end point.

1.2 Description

The Crosswalk API provides a paginated list of treatment recommendations matching the requested search criteria.

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 codes only. Non-billable codes are primarily used for locating Topics.
Crosswalk	A means to look up Treatment Guidelines by ICD and/or CPT® codes.
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 Section 2.3 Authorization, below). Medical Codes are limited to the current edition from the code provider. Medical codes are updated annually in the January timeframe. • ICD-9-CM • ICD-10-CM • CPT®

Term	Definition
Phase	The Phase of Care related to condition onset. • Acute: <1 month duration • Subacute: 1 to 3 months duration • Chronic: >3 months duration
Primary	Refers to the allocation of the recommendation in the event that more than one recommendation has the same combination of ICD, CPT® and Phase. It is not necessarily the case that the primary recommendation has more relevance to a given set of circumstances for the crosswalk user. However, the primary recommendation is considered to be most relevant on most occasions by the guideline developers. Users of the crosswalk should confirm that the circumstances they are investigating are covered by the primary recommendation. If not, consideration can be given to the secondary recommendations, which are not prioritized by the guideline developers.
Recommendations	The recommendations are the central component of the treatment guidelines. Current values are "Recommended", "Not Recommended," and "No Recommendation". For more details about the Recommendation Statuses and Strength of Recommendations, see Appendix 3.1 Recommendations.

2 API Specification

This section documents the technical usage of the Crosswalk 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 2.5 Input Parameters, below).

This information will also be published at https://api.mdguidelines.com/help/crosswalk-v1.html. This help page includes a test harness form (see Section 2.8 Testing, below).

2.1 Endpoint

The Crosswalk API endpoint is: https://api.mdguidelines.com/api/v1/crosswalk

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 Client's MDGuidelines Account Executive.

2.3 Authorization

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

2.4 Version Information

The current stable version of this API is v1.

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

Version	Support End Date
v1	N/A - Not announced.

API product enhancements providing new response elements will require clients to upgrade in order to take advantage of the new capabilities. The addition of new optional request parameters or content updates to existing response elements will not require an upgrade.

2.5 Input Parameters

Data Element	Data Type	Req?	Data Element Description	Default Value
state	String	Yes	The provider of the Treatment Guidelines. The supported values are: ACOEM, CA, NY Values are NOT Case Sensitive.	N/A – No default

diagnosisCode	String	Yes*	Billable ICD Diagnosis Code, including any decimal.
			
			Supported code types:
			  ICD9CM
			  ICD10CM
			
			Examples:
			  354.0
			  G56.00
			
			Values are NOT Case Sensitive.
			
			*Note: Either DiagnosisCode or TreatmentCode are required. Both may be provided, but at least one of these fields must be provided in a valid request.
				N/A – No default

diagnosisCodeType	String	No	Specify whether ICD-9-CM or ICD-10-CM. If not provided, MDGuidelines will be able to infer the code type.
			
			  Supported code types:
			  ICD9CM
			  ICD10CM
				N/A

Data Element	Data Type	Req?	Data Element Description	Default Value
treatmentCode	String	Yes*	CPT® treatment code. Values are NOT Case Sensitive. *Note: Either DiagnosisCode or TreatmentCode are required. Both may be provided, but at least one of these fields must be provided in a valid request.	N/A – No default

phase	String	No	The phase of care related to the condition onset.
			
			Supported code types:
			   Acute
			   Chronic
			   SubAcute
			
			See the Terminology section above for Phase definitions.	

onlyPrimary	Boolean	No	Specify whether to return only the Primary recommendation in the event that more than one recommendation has the same combination of ICD, CPT® and Phase.
			
			Values:
			   True – Include only Primary recommendations
			   False – Include all recommendations
			
			For more information, refer to the Terminology section above.
			
			Note: Any value other than "true" will be treated as "false".
				false

start	Integer	No	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. A negative number with any value for Rows parameter will result in a "No results found" result.	0

Data Element	Data Type	Req?	Data Element Description	Default Value
Rows	Integer	No	The number of search results to return. If no value is provided, then all results from the start value to the end of the data set will be returned. Use to set pagination size.	N/A

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/CrosswalkV1.xsd

Data Element	Data Type	Req?	Data Element Description
crosswalks	Complex	Yes	The collection of one or more results matching the requested parameters.
state	String	Yes	The provider of the Treatment Guidelines. The supported values are: ACOEM, CA, NY This value will match the request parameter.
recommendationId	String	Yes	A record identifier.

diagnosisCode	Complex	Yes	Information about the diagnosis code related to the recommendation.
			
			Elements include:
			   Code
			   MedCodeType
			   Description

treatmentCode	Complex	Yes	Informaton about the treatment code related to the recommendation.
			
			Elements include:
			   Code
			   MedCodeType
			   Description

Data Element	Data Type	Req?	Data Element Description

code	String	Yes	The medical code, including any decimals.
			
			Examples:
			  354.0
			  G56.00
			  20600

medCodeType	String	Yes	The type of medical code.
			
			Supported types are:
			  ICD9CM
			  ICD10CM
			  CPT

description	String	Yes	The medical code description.

phase	String	Yes	The phase of care related to the condition onset.
			
			Supported code types:
			  Acute
			  Chronic
			  SubAcute
			
			See the Terminology section above for Phase definitions.

recommendationStatus	String	Yes	Refers to recommendation advice regarding treatment.
			
			Values include:
			  Recommended
			  No recommendation
			  Not recommended
			
			See Appendix 3.1 Recommendations for more details.

recommendationText	String	Yes	Text of the recommendation, from the published treatment guidelines.

Data Element	Data Type	Req?	Data Element Description

evidenceStrength	String	Yes	All ACOEM recommendations are provided with a strength of evidence rating that describes the medical literature that the recommendation is based on.
			
			Values include:
			  Strong Evidence (A)
			  Moderate Evidence (B)
			  Limited Evidence (C)
			  Insufficient Evidence (I)
			  No Evidence Rating
			
			See Appendix 3.1 Recommendations for more details.

clinicalIndications	String	No	The specific indications for treatment or diagnostic investigations, where applicable.
frequencyDuration	String	No	Text that outlines the number and/or frequency for treatment recommended.
discontinuation	String	No	Clinical indications for the discontinuation of treatment.
isConditional	String	No	Indicates if the recommendation is conditional on other factors being present, where applicable. For example, discectomy is recommended if certain clinical indications are met. Values include: C1 C2 C3 C4 C5 See Appendix 3.2 Conditions for descriptions of these values.
conditionDescription	String	No	Describes the IsConditional value. See Appendix 3.2 Conditions.
URMax	String	No	Generally, this is the integer value taken from the ClinicalIndications or FrequencyDuration field. This value relates to the maximum quantum of treatment as recommended. Note: Some fields have a reference "AH" in the URMax field. AH refers to an ACOEM recommendation to supply the treatment At Home.
URUnit	String	No	The units of treatment. Examples include: scan, session, injection(s), etc.

Data Element	Data Type	Req?	Data Element Description
URDurationMax	String	No	Generally, the integer value of the maximum duration of treatment as measure of time.
URDurationUnit	String	No	The unit of treatment duration. Examples include: hours, days, weeks.

isPrimary	Boolean	Yes	Indicator for whether the recommendation is Primary among multiple results.
			
			When the request includes onlyPrimary = True, only the Primary recommendation for the specified Diagnosis, Treatment, and Phase will be returned.
			
			Values:
			  true
			  false
			
			For more information see the Terminology section above.

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 results match the request.
401	Message: • License key is not verified. This response will be returned in the following scenarios: • License key is expired • License key is missing • License key is otherwise invalid

Status Code	Cause(s)
403	Message: • License does not provide access to the requested resource This response will be returned in the following scenarios: • The Client's license does not support CPT® and Crosswalks usage. See Section 2.3 Authorization, above.
404	Message: • No results found This response will be returned in the following scenarios: • State parameter value is invalid • Start parameter value is a negative number with any value for Rows parameter • Diagnosis Code and/or Treatment Code parameters are provided, but neither values match known code values in the database. This may be because the code is valid but obsolete, or completely invalid such as including a typographical error.
406	Message: • Diagnosis Code Type is invalid. This response will be returned in the following scenarios: • A value other than "icd9cm" or "icd10cm" was provided for the diagnosisCodeType parameter. Message: • No Treatment Code or Diagnosis Code Provided This response will be returned in the following scenarios: • Neither diagnosis nor treatment code was provided. At least one of these parameters is required. Message: • Phase is invalid. This response will be returned in the following scenarios: • An invalid value for the Phase parameter was provided.
500	If the server, API site, or this service failed, the response will be a 500 Server error.

2.8 Testing

MDGuidelines supports these methods for integration testing:

1. Test Harness Page
   a. https://api.mdguidelines.com/help/crosswalk-v1.html
   b. Requires production license key configuration (RG-LICENSE-KEY)

2. API Testing tool, such as Postman
   a. https://www.getpostman.com/apps

2.9 Sample Code

JQuery

```
var uri = "https://api.mdguidelines.com/api/v1/crosswalk"; uri += "?state=acoem";
    uri += "&diagnosiscode=354.0";
    uri += "&diagnosiscodetype=icd9cm"; uri +=
    "&treatmentcode=";
    uri += "&phase=acute";
    uri += "&onlyprimary=true"; uri +=
    "&start=0";
    uri += "&rows=10";

$.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 Recommendations

The following information provides more detail about the status and strength of recommendations.

Recommendation Status

Status	Description
Recommended	The intervention is recommended for appropriate patients. The intervention improves important health and functional outcomes, as supported by the associated Evidence Strength or by consensus of the Evidence Based Practice Panel (EBPP).
Not Recommended	The evidence is insufficient for an evidence-based recommendation, there is at least moderate that the harms and costs exceed benefits, or there is high-quality evidence that the intervention is ineffective.
No Recommendation	The evidence is insufficient to recommend for or against routinely providing the intervention. Evidence that the intervention is effective is lacking, of poor quality, or conflicting and the balance of benefits, harms, and costs cannot be determined.

Evidence Strength

Evidence Rating	Description
Strong Evidence (A)	At least two high-quality studies support the recommendation.
Moderate Evidence (B)	At least one high-quality study or multiple moderate-quality studies relevant to the topic and the working population support the recommendation.
Limited Evidence (C)	At least one study of moderate quality supports the recommendation.

Evidence Rating	Description
Insufficient Evidence (I)	There are few to no quality studies to provide evidence for or against routinely providing the intervention. The Evidence-Based Practice Panel (EBPP) feels that the decision to recommend or not-recommend the intervention constitutes best medical practice. The EBPP believes based on the body of evidence, first principles, or collective experience that patients are best served by these practices, although the evidence is insufficient or irreconcilable for an evidence-based recommendation.
No Evidence Rating	There is no evidence associated with the recommendation.

3.2 Conditions

The following information provides more detail about conditions which may apply to certain Recommendations.

Condition Codes

Status	Description
C1	Treatment is recommended if the patient presents with moderate to severe pain.
C2	Treatment is recommended only if previous treatment has failed.
C3	Treatment is recommended if patient presents with specific clinical and diagnostic indications.
C4	Investigations are recommended for patients to confirm a diagnosis for which there is a high clinical suspicion.
C5	Treatment is recommended when used as an adjunct to other treatment modalities.

Document Revision History

Date	Reason For Changes	Document Version
08/16/2017	Initial Version Replaces the Crosswalk Flat File format, which has been deprecated.	1.0
10/13/2017	Added Medical Code version information (Section 1.2, Terminology), update to CPT® copyright text.	1.1
6/28/2022	Updated text and links	1.1.2
1/12/2023	Minor Changes and Corrections	1.2