

The PARADIGM® Patient API provides resources for patient searches to retrieve internal unique identifiers to be used to retrieve data through the PARADIGM® Patient API as a C-CDA or through the PARADIGM® FHIR API set of resources.

This document provides guidance on the usage of the PARADIGM® Patient API.

## Table of Contents

<b>Terms and Conditions .....</b>	<b>2</b>
<b>Patient Search .....</b>	<b>5</b>
<b>Patient C-CDA.....</b>	<b>6</b>

## Terms and Conditions

These Terms of Use ("Terms") govern your access to and use of any and all PARADIGM® APIs and related documentation, services, etc. By accessing or using a Certified PARADIGM® API, you agree to be bound by these Terms. "Certified PARADIGM® API" means any API provided by QRS, Inc. to allow development of consumer-facing (i.e., patient, a patient's authorized representative, physician, practice, etc.) applications only. You represent and warrant that you are at least 18 years of age and that you possess the legal right and ability to agree to these Terms and to use Certified PARADIGM® APIs in accordance with these Terms.

### Developer Account and Registration

- ❖ **Developer Account.** In order to establish a Developer Account, you will be required to provide contact information, organizational details, billing details, and other information, and you agree to keep the information updated at all times. Developer accounts may only be registered through direct consultation and permission of a QRS Client.

### Representations and Responsibilities

- ❖ **Entity Representation.** If you are using a Certified PARADIGM® API on behalf of a legal entity (i.e., an App company), you represent that you have proper authority to act on behalf of and bind the entity to these Terms, and by accepting, you accept on behalf of the entity (and all references to "you" in the Terms refer to the entity).
- ❖ **Compliance.** You agree to be financially responsible for your use of Certified PARADIGM® APIs and to comply with your responsibilities and obligations as stated in these Terms. You agree to comply at all times with all applicable laws, rules and regulations relating to the use of Certified PARADIGM® APIs, the QRS, Inc. websites and the development, distribution, commercialization and use of your App. You further acknowledge and agree that you are not a supplier or downstream business associate (as defined under the Health Insurance Portability and Accountability Act of 1996 (as amended) of QRS, Inc. You hereby grant QRS, Inc. the right to monitor and periodically audit in a reasonable manner your use of Certified PARADIGM® APIs, your App and other activities related to your obligations under these Terms.
- ❖ **Responsibilities.** You represent and warrant that your use of Certified PARADIGM® APIs in a QRS, Inc. client's environment will comply with the following: A. Each consuming App will be whitelisted by QRS, Inc. as meeting the applicable technical specifications through QRS, Inc.'s application validation process; B. Each validated App will be approved and registered for use by the applicable QRS, Inc. client prior to implementation within such client's environment; and C. You have properly licensed and implemented your App to the applicable QRS, Inc. client under a dually-executed agreement with such client.
- ❖ **Virus Warranty.** You warrant that your Apps will not contain any viruses or other malicious computer instructions, devices, or techniques that can or were designed to threaten, infect, damage, disable, or shut down the Certified PARADIGM® APIs, any technology, software, solution, equipment or any computer system
- ❖ **Open-Source.** You warrant that your Apps do not contain any open-source software licensed under terms that require the user to make (a) the user's modifications to the open source freely available in source code form, or (b) any software that the user "combines" with the open-source software freely available in source code form.

## PARADIGM® PATIENT API DOCUMENTATION

- ❖ **App Distribution.** You are solely responsible for the demonstration, pricing, sales support (including product analyst support), licensing (via a written agreement with the QRS, Inc. client), configuration, installation, implementation, maintenance and technical support of your Apps.

### Copyright and Trademark Notices

- ❖ All contents of QRS, Inc. websites are: Copyright 2022. QRS, Inc., 2010 Castaic Lane, Knoxville, Tennessee 37932 U.S.A. All rights reserved. The software and documentation are protected by copyright laws as well as international copy-right treaties. Material found on the QRS, Inc. Web Sites contains the valuable properties of QRS, Inc., embodying substantial creative efforts, no part of which may be reproduced or transmitted in any form or by any means, or retained in any storage or retrieval system, without the express written permission of QRS, Inc. The use or misuse of these trademarks, service marks, tradenames, copyrights, or other materials (collectively “Intellectual Property”), except as permitted herein, is expressly prohibited and may be in violation of copyright law, trademark law, the law of slander and libel, the law of privacy and publicity, communications regulations and statutes, and other laws, statutes and/or regulations. QRS, Inc. reserves all rights in its Intellectual Property. For information about referencing or using QRS, Inc. marks (trademarks, service marks and tradenames), please consult the Third-Party Trademark Guidelines and the list of QRS, Inc. Trademarks.

### General

- ❖ **Changes.** QRS, Inc. may, in its sole and absolute discretion, make changes, modifications or updates to Certified PARADIGM® APIs (including without limitation changes to the capabilities and tech specs), the App Registration and Validation Process or any portion of its websites without notice to you. In addition, QRS, Inc. may withdraw, suspend or discontinue any functionality or feature of Certified PARADIGM® APIs at any time; provided, however, that if your dually-executed agreement with QRS, Inc. provides for the continued use of any functionality or feature, QRS, Inc. will continue to provide that respective functionality or feature to you subject to the provisions of such dually-executed agreement.
- ❖ **Global Availability.** QRS, Inc. makes no representations that Certified PARADIGM® APIs are appropriate or available for use in locations outside of the United States, and access to them from such territories is at your own risk. Those who choose to access Certified PARADIGM® APIs from locations outside of the United States do so at their own initiative and are responsible for compliance with applicable local laws.
- ❖ **Intellectual Property Rights.** You acknowledge and agree that any and all Certified PARADIGM® APIs and QRS, Inc.’s software, products and services are proprietary in nature, that QRS, Inc. claims all intellectual property rights therein as well as in all modifications, enhancements and alterations thereto, and that QRS, Inc. neither grants nor otherwise transfers any rights of ownership therein to you or any third party. No rights or licenses are granted by QRS, Inc. other than those rights expressly granted in these Terms, and QRS, Inc. reserves all rights not expressly granted.
- ❖ **Waiver, Release and Limitation of Liability.** You acknowledge and agree that neither QRS, Inc. nor any of its affiliates will have any responsibility or liability with respect to your or any third party’s distribution, implementation, commercialization, use, or other form of exploitation of any app, software, solution, service or other technology created by you or another third party. As between you and QRS, Inc., you are solely responsible and liable for all representations, warranties, support and other obligations made by you to any third party related to any app, software, solution, service or other technology created by you, including claims arising from product liability, breach of warranty, and intellectual property infringement. YOU HEREBY RELEASE

## PARADIGM® PATIENT API DOCUMENTATION

AND FOREVER WAIVE ANY AND ALL CLAIMS YOU MAY HAVE AGAINST QRS, Inc., ITS OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, INFORMATION PROVIDERS OR SUPPLIERS FOR LOSSES OR DAMAGES YOU SUSTAIN IN CONNECTION WITH YOUR USE OF CERTIFIED PARADIGM® API AND THE QRS, Inc. WEB SITES. THIS SECTION WILL NOT APPLY TO CLAIMS ARISING FROM GROSS NEGLIGENCE OR WILLFUL MISCONDUCT BY QRS, Inc. OR ANY OTHER CLAIMS IN RESPECT OF LIABILITY THAT CANNOT BE LAWFULLY EXCLUDED OR LIMITED. QRS, Inc. MAKES NO REPRESENTATIONS ABOUT THE SUITABILITY, RELIABILITY, AVAILABILITY, TIMELINESS AND ACCURACY OF CERTIFIED PARADIGM® APIs OR OTHER INFORMATION, TECHNOLOGY, SOFTWARE, PRODUCTS, SERVICES AND RELATED GRAPHICS PROVIDED BY QRS, Inc. FOR ANY PURPOSE. ALL SUCH TECHNOLOGY, INFORMATION, SOFTWARE, PRODUCTS, SERVICES AND RELATED GRAPHICS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND. QRS, Inc. HEREBY DISCLAIMS ALL WARRANTIES AND CONDITIONS WITH REGARD TO THE CERTIFIED PARADIGM® APIs, OTHER TECHNOLOGY, INFORMATION, SOFTWARE, SOLUTIONS, PRODUCTS, SERVICES AND RELATED GRAPHICS, INCLUDING ALL IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NONINFRINGEMENT. TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO EVENT SHALL QRS, Inc., ITS OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, AND/OR ITS SUPPLIERS BE LIABLE FOR ANY DIRECT, INDIRECT, PUNITIVE, INCIDENTAL, SPECIAL, CONSEQUENTIAL DAMAGES OR ANY OTHER DAMAGES WHATSOEVER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF USE, DATA OR PROFITS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE ACCESS, USE OR PERFORMANCE OF THE CERTIFIED PARADIGM® APIs, WITH THE DELAY OR INABILITY TO USE THE CERTIFIED PARADIGM® APIs OR RELATED TECHNOLOGY, SOFTWARE OR SERVICES, THE PROVISION OF OR FAILURE TO PROVIDE CERTIFIED PARADIGM® APIs, SOFTWARE OR SERVICES, OR FOR ANY INFORMATION, SOFTWARE, PRODUCTS, SERVICES AND RELATED GRAPHICS OBTAINED FROM QRS, Inc., OR OTHERWISE ARISING OUT OF THE USE OF THE CERTIFIED PARADIGM® APIs, WHETHER BASED ON CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, EVEN IF QRS, Inc. HAS BEEN ADVISED OF THE POSSIBILITY OF DAMAGES. BECAUSE SOME STATES/JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE ABOVE LIMITATION MAY NOT APPLY TO YOU. IF YOU ARE DISSATISFIED WITH ANY PORTION OF THE CERTIFIED PARADIGM® APIs, OR WITH THESE TERMS OF USE, YOUR SOLE AND EXCLUSIVE REMEDY IS TO DISCONTINUE USING CERTIFIED PARADIGM® APIs. NOTWITHSTANDING THE FOREGOING PARAGRAPH, THE TOTAL LIABILITY OF QRS, Inc., ITS OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, INFORMATION PROVIDERS AND SUPPLIERS, IF ANY, FOR LOSSES OR DAMAGES SHALL NOT EXCEED THE FEES PAID BY YOU FOR THE USE OF THE PARTICULAR TECHNOLOGY, SOFTWARE, PRODUCT, INFORMATION OR SERVICE PROVIDED BY QRS, Inc.

- ❖ **Indemnification.** YOU AGREE TO INDEMNIFY, DEFEND AND HOLD HARMLESS QRS, Inc., ITS OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, INFORMATION PROVIDERS AND SUPPLIERS FROM AND AGAINST ALL CLAIMS, LIABILITIES, LOSSES, EXPENSES, DAMAGES AND COSTS, INCLUDING REASONABLE ATTORNEYS' FEES, RESULTING FROM ANY VIOLATION OF THESE TERMS OR ANY ACTIVITY RELATED TO YOUR USE OF THE CERTIFIED PARADIGM® APIs OR THE QRS, Inc. WEB SITES AND ANY DEVELOPER ACCOUNT YOU MIGHT HAVE (INCLUDING INFRINGEMENT OF THIRD PARTIES' WORLDWIDE INTELLECTUAL PROPERTY RIGHTS, MISAPPROPRIATION OF TRADE SECRETS OR OTHER PROPRIETARY RIGHTS OR NEGLIGENT OR WRONGFUL CONDUCT).
- ❖ **Term and Termination.** Either you or QRS, Inc. may terminate your right to use Certified PARADIGM® APIs at any time, with or without cause, upon notice. QRS, Inc. also reserves the right to disable your App in a production environment at any time, with or without cause. QRS, Inc. reserves the right to remove your App from the QRS, Inc. whitelist if your App poses any security, privacy, or patient safety risks. The provisions concerning Indemnification, Waiver, Release and Limitation of Liability, and General shall survive any termination of these Terms.

- ❖ **Venue, Governing Law.** This Agreement is governed by US federal law or the laws of the State of Tennessee. You hereby consent to the exclusive jurisdiction and venue of courts in Knox County, Tennessee, U.S.A. in all disputes arising out of or relating to the use of Certified PARADIGM® APIs. Use of Certified PARADIGM® APIs is unauthorized in any jurisdiction that does not give effect to all provisions of these Terms, including without limitation this paragraph. Any cause of action or claim you may have with respect to QRS, Inc. must be commenced within one (1) year after the claim or cause of action arises. QRS, Inc.'s failure to insist upon or enforce strict performance of any provision of these Terms shall not be construed as a waiver of any provision or right. Neither the course of conduct between the parties nor trade practice shall act to modify any provision of these Terms.

## Patient Search

Patient search is used to identify the unique patient code used to retrieve patient data. Sufficient information must be provided to uniquely identify a patient and at least one of the request parameters must be included.

**Request:** GET <https://api.qrshs.com/v1/patient/search>

### ❖ Request Headers

Name	Type	Required	Description
Authorization	Basic	required	Client ID and secret

### ❖ Request Parameters

Name	Type	Required	Description
first_name	string	conditional	First name
mid_name	string	conditional	Middle name
last_name	string	conditional	Last name
birthdate	date	conditional	Date of birth
ssn	string	conditional	Social Security Number

### JSON Response Parameters:

Name	Type	Example
patient	string	"10006-111-20180823"

### Error Messages:

Message	Description
auth_failure	Authentication failure
no_criteria	At least one request parameter must be included
non_unique_return	More than one patient identified, search must be refined
not_found	No patient found matching search criteria

## Patient C-CDA

Patient C-is used to retrieve a C-CDA CCD document for a given patient. The return is an XML document unless an error is encountered, in which case the return will be in JSON format.

**Request:** GET <https://api.qrshs.com/v1/patient/ccda>

### ❖ Request Headers

Name	Type	Required	Description
Authorization	Basic	required	Client ID and secret

### ❖ Request Parameters

Name	Type	Required	Description
patient	string	required	Unique patient identifier
date	date	optional	Exact date of data to retrieve
start_date	date	optional	Start of date range for data
end_date	date	optional	End of date range for data

### Error Messages:

Message	Description
auth_failure	Authentication failure
no_patient	A valid patient code is required
bad_date	Invalid date format – should be DDMMYYYY