

# NBIA WADO API User Guide

The NBIA Web Access to DICOM Objects (WADO) API is an extension of the REST API that allows image retrieval. For more information about formatting requests and security, see the [NBIA REST API Guides](#). For details on each parameter and how to use WADO, see the [WADO Specification](#). The following table lists the attributes that the NBIA WADO API supports.

| Parameter    | Required |
|--------------|----------|
| requestType  | Yes      |
| studyUID     | Yes      |
| seriesUID    | Yes      |
| objectUID    | Yes      |
| contentType  | No       |
| rows         | No       |
| columns      | No       |
| region       | No       |
| windowCenter | No       |
| windowWidth  | No       |
| frameNumber  | No       |
| imageQuality | No       |

## Example WADO Call

```
curl -H "Authorization:Bearer 5fb31a78-60d5-4645-b415-9633fd7a77ff" -k "https://public-dev.cancerimagingarchive.net/nbia-api/services/getWado" -d "seriesUID=1.3.6.1.4.1.14519.5.2.1.3023.4024.536949365601910993926257264114&objectUID=1.3.6.1.4.1.14519.5.2.1.3023.4024.822829852603295162591249163632&studyUID=1.3.6.1.4.1.14519.5.2.1.3023.4024.215308722288168917637555384485&requestType=WADO"
```

## WADO v1 API

This API allows the retrieval of an image without a token.

For information about parameters and how to use WADO, see the [WADO Specification](#). The following table lists the attributes that the NBIA WADO API supports.

| Parameter    | Required |
|--------------|----------|
| requestType  | Yes      |
| studyUID     | Yes      |
| seriesUID    | Yes      |
| objectUID    | Yes      |
| contentType  | No       |
| rows         | No       |
| columns      | No       |
| region       | No       |
| windowCenter | No       |
| windowWidth  | No       |

|              |    |
|--------------|----|
| frameNumber  | No |
| imageQuality | No |

## Example WADO Call

```
http://localhost:8080/nbia-api/services/v1/wado?requestType=WADO&studyUID=9999.240485997311278841349744799381613841880&seriesUID=9999.286604908682648966415774572891837946&objectUID=9999.303597443592981901792680796557741974250&contentType=application/dicom
```