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## Introduction

In this documentation we will list all the steps required to access Protected Health Information (PHI) based on the documentation of an open API. The API makes health information broadly available using FHIR®, a set of clinical interoperability resources under the umbrella of the HL7 standards organization. FHIR is based on common web standards that can be reached through a RESTful protocol in which each FHIR resource has a known URL.

## FHIR Server Endpoint

FHIR: <https://staging.pemr.com:93/api>

Authentication Server: <https://staging.pemr.com:93/api/authorize/authorize>

## Types of SMART-On-FHIR applications supported

Standalone App: SMART on FHIR confidential client with a patient context, refresh token, and OpenID Connect (OIDC) identity token.

EHR Embedded app: Demonstrate the ability to perform an EHR launch to a SMART on FHIR.

Smart Backend Services App (Multi-patient authorization and API): These are server-to-server backend applications e.g., Export clinical data for multiple patients in a group. This app is system level app without any UI.

## Types of Supported Authentications

Symmetric (“client secret”) authentication (HL7.FHIR.UV.SMART-APP-LAUNCH\Example App Launch for Symmetric Client Auth - FHIR v3.1.1)

Asymmetric (“private key JWT”) authentication (HL7.FHIR.UV.SMART-APP-LAUNCH\Example App Launch for Asymmetric Client Auth – FHIR v3.1.1)

Public Clients (HL7.FHIR.UV.SMART-APP-LAUNCH\Example App Launch for Public Client - FHIR v3.1.1)

## Steps for Smart App Launch

- Client App Registration
- Retrieve. well-known/smart-configuration
- Obtain authorization code
- Obtain access token
- Access FHIR API
- Refresh Token to obtain new access token



## Interoperability requirements with IPClinical for Native Applications

- Native applications MUST be capable of storing the refresh token in a secure manner similar to the requirements of storing a secret for confidential apps.
- Native applications must request the `offline_scope` in their initial API request in order to receive a refresh token
- Native application refresh tokens are valid for 3 months before they must be renewed.
- Native applications can only communicate with IPClinical over a TLS secured channel in order to ensure the safe transmission of the refresh token.
- Native applications must use the Authorization Code grant flow in order to receive a refresh token.

## Client APP Registration

Before a SMART app can run against an EHR, the app must be registered with that EHR's authorization service. We are using JWT Client Request process. Third-party applications must contact with the following info to register their apps:

- The app name
- The necessary APIs / Scopes
- Any redirect URIs
- Launch\_URL (optional)
- URL to JWK Set (Only for apps supporting asymmetric client authentication)

The application is created by the EHR admin after confirming the app's registration parameters and communicates a `client_id` to the app. FHIR APIs (of any supported version) listed within the USCDI v1 core data set will support only reads data from FHIR server.

### Retrieve. well-known/smart-configuration:

In order to obtain launch context and request authorization to access FHIR resources, the app discovers the EHR FHIR server's SMART configuration metadata, including OAuth authorization\_endpoint and token\_endpoint URLs. FHIR server makes SMART configuration available from well-known endpoint. You can get Authorization end point and token endpoint

### SMART Configuration can be retrieved from:

<https://staging.pemr.com:93/api/.well-known/smart-configuration>

### METADATA CONFORMANCE and Supported Operations can be retrieved from:

<https://staging.pemr.com:93/api/metadata>

### Obtain Authorization Code, Code Request:

[https://staging.pemr.com:93/api/authorize/authorize?response\\_type=code&client\\_id=<CLIENT\\_ID>&redirect\\_uri=<REDIRECT\\_URI>&scope=...](https://staging.pemr.com:93/api/authorize/authorize?response_type=code&client_id=<CLIENT_ID>&redirect_uri=<REDIRECT_URI>&scope=...)

### Obtain Access Token:

[https://staging.pemr.com:93/api/authorize/authorize?code=<CODE>&grant\\_type=authorization\\_code&redirect\\_uri=<REDIRECT\\_URI>](https://staging.pemr.com:93/api/authorize/authorize?code=<CODE>&grant_type=authorization_code&redirect_uri=<REDIRECT_URI>)



Token Response:

```
{
  "id_token":"eyJ0eXAiOiJKV1QiLCJhbG...."
  "patient":"...",
  "access_token":"..."
  "need_patient_banner": true,
  "smart_style_url":"https://staging.pemr.com:93/api/smart-styles/smart-light",
  "token_type":"Bearer",
  "expires_in":3600,
  "refresh_token":".... ", //NOTE ONLY AVAILABLE WITH OFFLINE SCOPE
  "scope":" launch/patient openid fhirUser offline_access patient/Medication.read
  patient/AllergyIntolerance.read patient/CarePlan.read patient/CareTeam.read
  patient/Condition.read patient/Device.read patient/DiagnosticReport.read
  patient/DocumentReference.read patient/Encounter.read patient/Goal.read
  patient/Immunization.read patient/Location.read patient/MedicationRequest.read
  patient/Observation.read patient/Organization.read patient/Patient.read patient/Practitioner.read
  patient/Procedure.read patient/Provenance.read patient/PractitionerRole.read"
}
```

### Access FHIR APIs

Please Refer to <http://hl7.org/fhir/us/core/STU3.1.1/> for more information for FHIR Structures.

### Supported FHIR resources are:

- AllergyIntolerance
  - US Core AllergyIntolerance Profile
- CarePlan
  - US Core CarePlan Profile
- CareTeam
  - US Core CareTeam Profile
- Condition
  - US Core Condition Encounter Diagnosis Profile
  - US Core Condition Problems and Health Concerns Profile
- Device
  - US Core Implantable Device Profile
- DiagnosticReport
  - US Core DiagnosticReport Profile for Laboratory Results Reporting
  - US Core DiagnosticReport Profile for Report and Note Exchange
- DocumentReference
  - US Core DocumentReference Profile
- Encounter
  - US Core Encounter Profile
- Goal
  - US Core Goal Profile
- Immunization
  - US Core Immunization Profile
- Location



## IPClinical (g)(10) API Documentation

- US Core Location Profile
- Medication
  - US Core Medication Profile
- MedicationRequest
  - US Core MedicationRequest Profile
- Observation
  - US Core Observation Clinical Test Result Profile
  - US Core Observation Imaging Result Profile
  - US Core Laboratory Result Observation Profile
  - US Core Observation Social History Profile
  - US Core Smoking Status Observation Profile
  - US Core Vital Signs Profile
    - US Core Pediatric Head Occipital-frontal Circumference Percentile Profile
    - US Core Pediatric Head Occipital-frontal Circumference Percentile Profile
    - US Core Blood Pressure Profile
    - US Core BMI Profile
    - US Core Body Height Profile
    - US Core Body Temperature Profile
    - US Core Body Weight Profile
    - US Core Head Circumference Profile
    - US Core Heart Rate Profile
    - US Core Pediatric BMI for Age Observation Profile
    - US Core Pediatric Weight for Height Observation Profile
    - US Core Pulse Oximetry Profile
    - US Core Respiratory Rate Profile
- Organization
  - US Core Organization Profile
- Patient
  - US Core Patient Profile
- Practitioner
  - US Core Practitioner Profile
- PractitionerRole
  - US Core PractitionerRole Profile
- Procedure
  - US Core Procedure Profile
- Provenance
  - US Core Provenance Profile

## Components and Configurations

- **Confidential Clients:** To be registered as a confidential client, the client must be capable of storing a client secret.
- **Bulk Export:** Clients using the Bulk Export API must support authorization using the Client Credentials Flow with JWT Credential.
- **Standalone Launch:** Standalone Launch is currently supported for patient-facing 3rd-party applications. These Apps must support the Authorization Code Flow as outlined in the SMART App Launch IG 1.0.0.
- **EHR Launch:** EHR Launch is currently supported for provider-facing applications that are integrated with the EHR. These Apps must support the Authorization Code Flow as outlined in the SMART App Launch IG 1.0.0.



## Capability Statement

**Sample Request:** <https://staging.pemr.com:93/api/metadata>

**Sample Response:**

```
{
  "resourceType": "CapabilityStatement",
  "status": "active",
  "date": "2022-10-31T18:03:00+00:00",
  "publisher": "IPClinical",
  "kind": "instance",
  "implementation": {
    "description": " IPClinical FHIR Server US Core R4 Profile",
    "url": "https://staging.pemr.com:93/api"
  },
  "fhirVersion": "4.0.1",
  "format": [
    "application/fhir+xml",
    "application/fhir+json"
  ],
  "implementationGuide": [
    "http://hl7.org/fhir/us/core/ImplementationGuide/hl7.fhir.us.core|3.1.1"
  ],
  "rest": [
    {
      "mode": "server",
      "security": {
        "extension": [
          {
            "url": "http://fhir-registry.smarthealthit.org/StructureDefinition/oauth-uris",
            "extension": [
              {
                "url": "token",
                "valueUri": "https://staging.pemr.com:93/api/authorize/authorize"
              },
              {
                "url": "authorize",
                "valueUri": "https://staging.pemr.com:90/login.aspx"
              },
              {
                "url": "revoke",
                "valueUri": "https://staging.pemr.com:93/api/login/revoke"
              }
            ]
          }
        ]
      }
    }
  ],
  "service": [
    {
      "coding": [
```





## IPClinical (g)(10) API Documentation

```
{
  "system": "http://terminology.hl7.org/CodeSystem/restful-security-service",
  "code": "SMART-on-FHIR"
},
"text": "OAuth2 using SMART-on-FHIR profile (see http://docs.smarthealthit.org)"
],
"resource": [
  {
    "type": "AllergyIntolerance",
    "supportedProfile": [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-allergyintolerance"
    ]
  },
  "interaction": [
    {
      "code": "search-type"
    },
    {
      "code": "read"
    },
    {
      "code": "vread"
    },
    {
      "code": "history-instance"
    }
  ],
  "searchRevInclude": [
    "Provenance:target"
  ],
  "searchParam": [
    {
      "name": "clinical-status",
      "type": "token"
    },
    {
      "name": "patient",
      "type": "reference"
    }
  ]
},
{
  "type": "CarePlan",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-careplan"
  ],
  "interaction": [
    {
      "code": "search-type"
    }
  ]
}
```



## IPClinical (g)(10) API Documentation

```
    },
    {
      "code": "read"
    },
    {
      "code": "vread"
    },
    {
      "code": "history-instance"
    }
  ],
  "searchRevInclude": [
    "Provenance:target"
  ],
  "searchParam": [
    {
      "name": "category",
      "type": "token"
    },
    {
      "name": "date",
      "type": "date"
    },
    {
      "name": "patient",
      "type": "reference"
    },
    {
      "name": "status",
      "type": "token"
    }
  ]
},
{
  "type": "CareTeam",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-careteam"
  ],
  "interaction": [
    {
      "code": "search-type"
    },
    {
      "code": "read"
    },
    {
      "code": "vread"
    },
    {
      "code": "history-instance"
    }
  ]
}
```



## IPClinical (g)(10) API Documentation

```
],
  "searchRevInclude": [
    "Provenance:target"
  ],
  "searchParam": [
    {
      "name": "patient",
      "type": "reference"
    },
    {
      "name": "status",
      "type": "token"
    }
  ]
},
{
  "type": "Condition",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition"
  ],
  "interaction": [
    {
      "code": "search-type"
    },
    {
      "code": "read"
    },
    {
      "code": "vread"
    },
    {
      "code": "history-instance"
    }
  ],
  "searchRevInclude": [
    "Provenance:target"
  ],
  "searchParam": [
    {
      "name": "category",
      "type": "token"
    },
    {
      "name": "clinical-status",
      "type": "token"
    },
    {
      "name": "patient",
      "type": "reference"
    }
  ],
  {
```



IPClinical (g)(10) API Documentation

```
"name": "onset-date",
  "type": "date"
},
{
  "name": "code",
  "type": "token"
}
]
},
{
  "type": "Device",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-implantable-device"
  ],
  "interaction": [
    {
      "code": "search-type"
    },
    {
      "code": "read"
    },
    {
      "code": "vread"
    },
    {
      "code": "history-instance"
    }
  ],
  "searchRevInclude": [
    "Provenance:target"
  ],
  "searchParam": [
    {
      "name": "patient",
      "type": "reference"
    },
    {
      "name": "type",
      "type": "token"
    }
  ]
},
{
  "type": "DiagnosticReport",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-lab",
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-note"
  ],
  "interaction": [
    {
      "code": "create"
    }
  ]
}
```



## IPClinical (g)(10) API Documentation

```
    },
    {
      "code": "search-type"
    },
    {
      "code": "read"
    },
    {
      "code": "vread"
    },
    {
      "code": "history-instance"
    }
  ],
  "searchRevInclude": [
    "Provenance:target"
  ],
  "searchParam": [
    {
      "name": "status",
      "type": "token"
    },
    {
      "name": "patient",
      "type": "reference"
    },
    {
      "name": "category",
      "type": "token"
    },
    {
      "name": "code",
      "type": "token"
    },
    {
      "name": "date",
      "type": "date"
    }
  ]
},
{
  "type": "DocumentReference",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
  ],
  "interaction": [
    {
      "code": "create"
    },
    {
      "code": "search-type"
    }
  ]
}
```



## IPClinical (g)(10) API Documentation

```
    },
    {
      "code": "read"
    },
    {
      "code": "vread"
    },
    {
      "code": "history-instance"
    }
  ],
  "searchRevInclude": [
    "Provenance:target"
  ],
  "searchParam": [
    {
      "name": "_id",
      "type": "token"
    },
    {
      "name": "status",
      "type": "token"
    },
    {
      "name": "patient",
      "type": "reference"
    },
    {
      "name": "category",
      "type": "token"
    },
    {
      "name": "type",
      "type": "token"
    },
    {
      "name": "date",
      "type": "date"
    },
    {
      "name": "period",
      "type": "date"
    }
  ]
},
{
  "type": "Encounter",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter"
  ],
  "interaction": [
```



## IPClinical (g)(10) API Documentation

```
{
  "code": "search-type"
},
{
  "code": "read"
},
{
  "code": "vread"
},
{
  "code": "history-instance"
}
],
"searchRevInclude": [
  "Provenance:target"
],
"searchParam": [
  {
    "name": "_id",
    "type": "token"
  },
  {
    "name": "class",
    "type": "token"
  },
  {
    "name": "date",
    "type": "date"
  },
  {
    "name": "identifier",
    "type": "token"
  },
  {
    "name": "patient",
    "type": "reference"
  },
  {
    "name": "status",
    "type": "token"
  },
  {
    "name": "type",
    "type": "token"
  }
]
},
{
  "type": "Goal",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-goal"
```



```
],
"interaction": [
  {
    "code": "search-type"
  },
  {
    "code": "read"
  },
  {
    "code": "vread"
  },
  {
    "code": "history-instance"
  }
],
"searchRevInclude": [
  "Provenance:target"
],
"searchParam": [
  {
    "name": "lifecycle-status",
    "type": "token"
  },
  {
    "name": "patient",
    "type": "reference"
  },
  {
    "name": "target-date",
    "type": "date"
  }
]
},
{
  "type": "Group",
  "operation": [
    {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/capabilitystatement-expectation",
          "valueCode": "SHOULD"
        }
      ],
      "name": "group-export",
      "definition": "http://hl7.org/fhir/uv/bulkdata/OperationDefinition/group-export"
    }
  ]
},
{
  "type": "Immunization",
  "supportedProfile": [
```





```
],
"interaction": [
  {
    "code": "search-type"
  },
  {
    "code": "read"
  },
  {
    "code": "vread"
  },
  {
    "code": "history-instance"
  }
],
"searchRevInclude": [
  "Provenance:target"
],
"searchParam": [
  {
    "name": "patient",
    "type": "reference"
  },
  {
    "name": "status",
    "type": "token"
  },
  {
    "name": "date",
    "type": "date"
  }
]
},
{
  "type": "Location",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-location"
  ],
  "interaction": [
    {
      "code": "search-type"
    },
    {
      "code": "read"
    },
    {
      "code": "vread"
    },
    {
      "code": "history-instance"
    }
  ]
}
```



IPClinical (g)(10) API Documentation

```
}
],
"searchParam": [
  {
    "name": "name",
    "type": "string"
  },
  {
    "name": "address",
    "type": "string"
  },
  {
    "name": "address-city",
    "type": "string"
  },
  {
    "name": "address-state",
    "type": "string"
  },
  {
    "name": "address-postalcode",
    "type": "string"
  }
]
},
{
  "type": "Medication",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-medication"
  ],
  "interaction": [
    {
      "code": "read"
    },
    {
      "code": "vread"
    },
    {
      "code": "history-instance"
    }
  ]
},
{
  "type": "MedicationRequest",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-medicationrequest"
  ],
  "interaction": [
    {
      "code": "search-type"
    }
  ],
}
```



## IPClinical (g)(10) API Documentation

```
{
  "code": "read"
},
{
  "code": "vread"
},
{
  "code": "history-instance"
}
],
"searchInclude": [
  "MedicationRequest:medication"
],
"searchRevInclude": [
  "Provenance:target"
],
"searchParam": [
  {
    "name": "status",
    "type": "token"
  },
  {
    "name": "intent",
    "type": "token"
  },
  {
    "name": "patient",
    "type": "reference"
  },
  {
    "name": "encounter",
    "type": "reference"
  },
  {
    "name": "authoredon",
    "type": "date"
  }
]
},
{
  "type": "Observation",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-smokingstatus",
    "http://hl7.org/fhir/us/core/StructureDefinition/pediatric-weight-for-height",
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-observation-lab",
    "http://hl7.org/fhir/us/core/StructureDefinition/pediatric-bmi-for-age",
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-pulse-oximetry",
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-pulse-oximetry",

"http://hl7.org/fhir/us/core/StructureDefinition/head-occipital-frontal-circumference-percentile",
    "http://hl7.org/fhir/StructureDefinition/bp",
```



IPClinical (g)(10) API Documentation

```
"http://hl7.org/fhir/StructureDefinition/bodyheight",
"http://hl7.org/fhir/StructureDefinition/bodyweight",
"http://hl7.org/fhir/StructureDefinition/hearttrate",
"http://hl7.org/fhir/StructureDefinition/resprate",
"http://hl7.org/fhir/StructureDefinition/bodytemp"
],
"interaction": [
  {
    "code": "search-type"
  },
  {
    "code": "read"
  },
  {
    "code": "vread"
  },
  {
    "code": "history-instance"
  }
],
"searchRevInclude": [
  "Provenance:target"
],
"searchParam": [
  {
    "name": "status",
    "type": "token"
  },
  {
    "name": "category",
    "type": "token"
  },
  {
    "name": "code",
    "type": "token"
  },
  {
    "name": "date",
    "type": "date"
  },
  {
    "name": "patient",
    "type": "reference"
  }
]
},
{
  "type": "Organization",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-organization"
  ],
}
```



## IPClinical (g)(10) API Documentation

```
"interaction": [  
  {  
    "code": "search-type"  
  },  
  {  
    "code": "read"  
  },  
  {  
    "code": "vread"  
  },  
  {  
    "code": "history-instance"  
  }  
],  
"searchParam": [  
  {  
    "name": "name",  
    "type": "string"  
  },  
  {  
    "name": "address",  
    "type": "string"  
  }  
]  
},  
{  
  "type": "Patient",  
  "supportedProfile": [  
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient"  
  ],  
  "interaction": [  
    {  
      "code": "search-type"  
    },  
    {  
      "code": "read"  
    },  
    {  
      "code": "vread"  
    },  
    {  
      "code": "history-instance"  
    }  
  ],  
  "searchRevInclude": [  
    "Provenance:target"  
  ],  
  "searchParam": [  
    {  
      "name": "_id",  
      "type": "token"  
    }  
  ]  
}
```



## IPClinical (g)(10) API Documentation

```
    },
    {
      "name": "birthdate",
      "type": "date"
    },
    {
      "name": "family",
      "type": "string"
    },
    {
      "name": "gender",
      "type": "token"
    },
    {
      "name": "given",
      "type": "string"
    },
    {
      "name": "identifier",
      "type": "token"
    },
    {
      "name": "name",
      "type": "string"
    }
  ]
},
{
  "type": "Practitioner",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"
  ],
  "interaction": [
    {
      "code": "search-type"
    },
    {
      "code": "read"
    },
    {
      "code": "vread"
    },
    {
      "code": "history-instance"
    }
  ],
  "searchParam": [
    {
      "name": "name",
      "type": "string"
    }
  ],
}
```



## IPClinical (g)(10) API Documentation

```
{
  "name": "identifier",
  "type": "token"
},
"operation": [
  {
    "extension": [
      {
        "url": "http://hl7.org/fhir/StructureDefinition/capabilitystatement-expectation",
        "valueCode": "SHOULD"
      }
    ],
    "name": "patient-export",
    "definition": "http://hl7.org/fhir/uv/bulkdata/OperationDefinition/patient-export"
  }
],
},
{
  "type": "PractitionerRole",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole"
  ],
  "interaction": [
    {
      "code": "search-type"
    },
    {
      "code": "read"
    },
    {
      "code": "vread"
    },
    {
      "code": "history-instance"
    }
  ],
  "searchInclude": [
    "PractitionerRole:endpoint",
    "PractitionerRole:practitioner"
  ],
  "searchParam": [
    {
      "name": "specialty",
      "type": "token"
    },
    {
      "name": "practitioner",
      "type": "reference"
    }
  ]
}
```



## IPClinical (g)(10) API Documentation

```
},
{
  "type": "Procedure",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure"
  ],
  "interaction": [
    {
      "code": "search-type"
    },
    {
      "code": "read"
    },
    {
      "code": "vread"
    },
    {
      "code": "history-instance"
    }
  ],
  "searchRevInclude": [
    "Provenance:target"
  ],
  "searchParam": [
    {
      "name": "status",
      "type": "token"
    },
    {
      "name": "patient",
      "type": "reference"
    },
    {
      "name": "date",
      "type": "date"
    },
    {
      "name": "code",
      "type": "token"
    }
  ]
},
{
  "type": "Provenance",
  "supportedProfile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-provenance"
  ],
  "interaction": [
    {
      "code": "read"
    }
  ],
}
```





## IPClinical (g)(10) API Documentation

```
{
  "code": "vread"
},
{
  "code": "history-instance"
}
]
}
],
"operation": [
  {
    "name": "get-resource-counts",
    "definition":
    "https://inferno.healthit.gov/reference-server/OperationDefinition/-s-get-resource-counts"
  },
  {
    "extension": [
      {
        "url": "http://hl7.org/fhir/StructureDefinition/capabilitystatement-expectation",
        "valueCode": "SHOULD"
      }
    ],
    "name": "export",
    "definition": "http://hl7.org/fhir/uv/bulkdata/OperationDefinition/export"
  }
]
}
]
}
```

## EXCEPTIONS

**200:** Ok

**500:** Internal Server Error



## Patient

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
id (string)	Required
identifier (code)	Required
name (string)	Required
birthdate (date) and name (date)	Required
gender (code) and name (string)	Required
birthdate (date) and family (string)	Optional
family (string) and gender (code)	Optional

### Example for Getting Patient # 18 Data

Sample Request

<https://staging.pemr.com:93/api/Patient? id=18>

HEADER

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG...

Default response is the FHIR Bundle in JSON Optionally

Header Accept can be sent as XML to get Data in XML Format

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "patient-bundle",
  "type": "searchset",
  "total": 1,
  "entry": [
    {
      "resource": {
        "resourceType": "Patient",
        "id": "31",
        "extension": [
          {
            "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-race",
            "extension": [
              {
                "url": "text",
                "valueString": "American Indian or Alaska Native"
              }
            ]
          }
        ],
        "extension": [
          {
            "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity",
            "extension": [
              {

```



IPClinical (g)(10) API Documentation

```
"url": "text",
  "valueString": "Not Hispanic or Latino"
}
],
{
  "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-birthsex",
  "valueCode": "M"
}
],
"identifier": [
  {
    "type": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/v2-0203",
          "code": "MR",
          "display": "Medical Record Number"
        }
      ]
    },
    "system": "http://terminology.hl7.org/CodeSystem/v2-0203",
    "value": "31"
  }
],
"name": [
  {
    "use": "official",
    "family": "Gibbs",
    "given": [
      "Dawn"
    ]
  }
],
"telecom": [
  {
    "system": "phone",
    "value": "(406) 555-7960",
    "use": "home"
  }
],
"gender": "male",
"birthDate": "2015-04-15",
"address": [
  {
    "use": "home",
    "line": [
      "543 Blount Dr"
    ],
    "city": "BOZEMAN",
    "state": "MT",
```



## IPClinical (g)(10) API Documentation

```
"postalCode": "59715",
"country": "US",
"period": {
  "start": "2022-11-23T01:12:17-05:00"
}
},
"contact": [
  {
    "telecom": [
      {
        "system": "phone",
        "value": "(406) 555-7960",
        "use": "home"
      }
    ]
  }
],
"communication": [
  {
    "language": {
      "coding": [
        {
          "system": "urn:ietf:bcp:47",
          "code": "en",
          "display": "English"
        }
      ]
    }
  }
]
}
]
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Allergy Intolerance

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference)	Required
clinical-status (code)	Required

### Sample Request:

<https://staging.pemr.com:93/api/AllergyIntolerance?patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1Ni9.eyJhdWQiOiJhZG....

### Sample Response: {

```

"resourceType": "Bundle",
"id": "allergy-bundle",
"type": "searchset",
"total": 1,
"entry": [
  {
    "resource": {
      "resourceType": "AllergyIntolerance",
      "id": "1612",
      "clinicalStatus": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-clinical",
            "code": "active",
            "display": "Active"
          }
        ],
        "text": "active"
      },
      "verificationStatus": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-verification",
            "code": "confirmed",
            "display": "confirmed"
          }
        ]
      },
      "type": "allergy",
      "code": {

```



## IPClinical (g)(10) API Documentation

```
"coding": [
  {
    "system": "http://www.nlm.nih.gov/research/umls/rxnorm",
    "code": "733",
    "display": "RXNORM"
  }
],
"text": "Ampicillin"
},
"patient": {
  "reference": "Patient/18"
},
"onsetDateTime": "1980-05-10T00:00:00-04:00",
"reaction": [
  {
    "manifestation": [
      {
        "coding": [
          {
            "system": "http://snomed.info/sct",
            "code": "247472004",
            "display": "Snomed"
          }
        ],
        "text": "Hives"
      }
    ]
  }
]
}
]
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Care Plan

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and category (code)	Required
patient (reference)and category (code) and date (date)	Optional
patient (reference) and category (code) and status (code)	Optional
patient (reference) and category (code) and status (code) and date (date)	Optional

### Sample Request:

<https://staging.pemr.com:93/api/CarePlan?category=assess-plan&patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "careplan-bundle",
  "type": "searchset",
  "total": 1,
  "entry": [
    {
      "resource": {
        "resourceType": "CarePlan",
        "id": "149",
        "text": {
          "status": "additional",
          "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Care Plan<br/>i. Get an EKG done
on 6/23/2015.\nii. Take Clindamycin 300mg three times a day as needed if pain does not
subside/\niii. Schedule follow on visit with Neighborhood Physicians Practice
on\n7/1/2015.\n\nPlanned Observation\nUrinalysis macro LOINC 24357-6
6/22/2015\nUrinalysis macro LOINC 24357-6 6/29/2015</div>"
        },
        "status": "active",
        "intent": "plan",
        "category": [
          {
            "coding": [
              {

```



```
IPClinical (g)(10) API Documentation
  "system": "http://hl7.org/fhir/us/core/CodeSystem/careplan-category",
  "code": "assess-plan",
  "display": "assess-plan"
}
]
}
],
  "description": "i. Get an EKG done on 6/23/2015.\nii. Take Clindamycin 300mg three times
a day as needed if pain does not subside/\niii. Schedule follow on visit with Neighborhood
Physicians Practice on\n7/1/2015.\n\nPlanned Observation\nUrinalysis macro LOINC
24357-6 6/22/2015\nUrinalysis macro LOINC 24357-6 6/29/2015",
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  }
}
}
]
}
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error





## Care Team

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and status (code)	Required

### Sample Request:

<https://staging.pemr.com:93/api/CareTeam?patient=18&status=active>

**authorization:**Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZGZG.....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "carteam-bundle",
  "type": "searchset",
  "total": 1,
  "entry": [
    {
      "resource": {
        "resourceType": "CareTeam",
        "id": "2",
        "status": "active",
        "subject": {
          32 "reference": "Patient/18"
        },
        "encounter": {
          "reference": "Encounter/32"
        },
        "period": {
          "start": "2022-11-23T13:06:07-05:00"
        },
        "participant": [
          {
            "role": [
              {
                "coding": [
                  {
                    "system": "http://snomed.info/sct",
                    "code": "116154003",
                    "display": "Patient"
                  }
                ]
              }
            ]
          }
        ]
      }
    }
  ]
}
```



```

    }
    ],
    "member": {
      "reference": "Patient/18"
    }
  },
  {
    "role": [
      {
        "coding": [
          {
            "system": "http://snomed.info/sct",
            "code": "223366009",
            "display": "Heathcare Provider"
          }
        ]
      }
    ],
    "member": {
      "reference": "Practitioner/1"
    }
  },
  {
    "role": [
      {
"coding": [
  {
"system": "http://snomed.info/sct",
"code": "224891009",
"display": "Heathcare Services"
}
]
}
],
"member": {
  "reference": "Organization/1"
}
},
"managingOrganization": [{
  "reference": "Organization/1"
}
],
{
  "resource": {
    "resourceType": "CareTeam",
    "id": "2",
    "status": "active",
    "subject": {

```



IPClinical (g)(10) API Documentation

```
"reference": "Patient/18"
},
"encounter": {
  "reference": "Encounter/32"
},
"period": {
  "start": "2022-11-23T13:06:07-05:00"
},
"participant": [
  {
    "role": [
      {
        "coding": [
          {
            "system": "http://snomed.info/sct",
            "code": "116154003",
            "display": "Patient"
          }
        ]
      }
    ]
  }
],
"member": {
  "reference": "Patient/18"
},
{
  "role": [
    {
      "coding": [
        {
          "system": "http://snomed.info/sct",
          "code": "223366009",
          "display": "Heathcare Provider"
        }
      ]
    }
  ]
},
"member": {
  "reference": "Practitioner/11"
},
], {
  "role": [
    {
      "coding": [
        {
          "system": "http://snomed.info/sct",
          "code": "224891009",
          "display": "Heathcare Services"
        }
      ]
    }
  ]
}
```



```
IPClinical (g)(10) API Documentation
  ],
  "member": {
    "reference": "Organization/1"
  }
}
],
"managingOrganization": [
  {
    "reference": "Organization/1"
  }
]
}
]
}
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Conditions

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference)	Required
patient (reference) and clinical-status (code)	Optional
patient (reference) and category (code)	Optional
patient (reference) and code (code)	Optional
patient (reference) and onset (code)	Optional

### Sample Request:

<https://staging.pemr.com:93/api/Condition?patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "condition-bundle",
  "type": "searchset",
  "total": 6,
  "entry": [
    {
      "resource": {
        "resourceType": "Condition",
        "id": "22",
        "clinicalStatus": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
              "code": "active"
            }
          ]
        },
        "verificationStatus": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
              "code": "confirmed",
              "display": "confirmed"
            }
          ]
        }
      }
    }
  ]
}
```



## IPClinical (g)(10) API Documentation

```
    },
    "category": [
      {
        "extension": [
          {
            "url": "http://hl7.org/fhir/StructureDefinition/data-absent-reason",
            "valueCode": "unknown"
          }
        ]
      }
    ],
    "code": {
      "coding": [
        {
          "system": "http://snomed.info/sct",
          "code": "386661006",
          "display": "Fever"
        }
      ],
      "text": "Fever"
    },
    "subject": {
      "reference": "Patient/18"
    },
    "onsetDateTime": "2015-06-22T00:00:00-04:00"
  }
},
{
  "resource": {
    "resourceType": "Condition",
    "id": "22",
    "clinicalStatus": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
          "code": "active"
        }
      ]
    },
    "verificationStatus": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
          "code": "confirmed",
          "display": "confirmed"
        }
      ]
    }
  },
  "category": [
    {
      "coding": [
```



```
IPClinical (g)(10) API Documentation
{
  "system": "http://terminology.hl7.org/CodeSystem/condition-category",
  "code": "problem-list-item",
  "display": "Problem List Item"
}
],
"text": "Problem"
}
],
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "386661006",
      "display": "Fever"
    }
  ],
  "text": "Fever"
},
"subject": {
  "reference": "Patient/18"
},
"onsetDateTime": "2015-06-22T00:00:00-04:00"
}
]
}
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Implantable Device

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference)	Required
patient (reference) and type (code)	Support

### Sample Request:

<https://staging.pemr.com:93/api/Device?patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "device-bundle",
  "type": "searchset",
  "total": 1,
  "entry": [
    {
      "resource": {
        "resourceType": "Device",
        "id": "11",
        "udiCarrier": [
          {
            "deviceIdentifier": "00643169007222",
            "carrierHRF": "(01)00643169007222(17)160128(21)BLC200461H"
          }
        ],
        "status": "active",
        "distinctIdentifier": "(01)00643169007222(17)160128(21)BLC200461H",
        "manufacturer": "MEDTRONIC, INC.",
        "manufactureDate": "2020-01-15T00:00:00-05:00",
        "expirationDate": "2099-12-31T00:00:00-05:00",
        "lotNumber": "12345u57r8575",
        "serialNumber": "BLC200461H",
        "deviceName": [
          {
            "name": "CRT-D DTBA1QQ VIVA QUAD XT US IS4/DF4",
            "type": "udi-label-name"
          }
        ]
      }
    }
  ]
}
```





## IPClinical (g)(10) API Documentation

```
"type": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "704708004",
      "display": "Cardiac resynchronization therapy implantable defibrillator (physical object)"
    }
  ]
},
"patient": {
  "reference": "Patient/18"
}
}
]
}
```

### EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Diagnostic Report for Report and Note exchange

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference)	Required
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required
patient (reference) status (string)	Optional
patient (reference) and code (code) and date(date)	Optional

### Sample Request:

<https://staging.pemr.com:93/api/DiagnosticReport?category=LP29684-5&patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1Ni9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "diagnostic-bundle",
  "type": "searchset",
  "total": 1,
  "entry": [
    {
      "resource": {
        "resourceType": "DiagnosticReport",
        "id": "1",
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://loinc.org",
                "code": "LP29684-5",
                "display": "Radiology"
              }
            ],
            "text": "Radiology"
          }
        ],
        "code": {
```



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```
"coding": [
  {
    "system": "http://loinc.org",
    "code": "57133-1",
    "display": "Referral note"
  }
],
"subject": {
  "reference": "Patient/18"
},
"encounter": {
  "reference": "Encounter/32"
},
"effectiveDateTime": "2022-01-15T00:00:00-05:00",
"issued": "2022-01-15T00:00:00.000-05:00",
"performer": [
  {
    "reference": "Practitioner/1"
  }
],
"presentedForm": [
  {
    "contentType": "text/plain",
    "data":
"Q2pFNU5UZ3RNRfV0TWpNS0NpTWdRMmhwWldZZ1EyOXRjR3hoYVc1MENrNXZJR052YI
hCc1IXbHVkSE11Q2dvakIFaHBJM1J2Y25rZ2IyWWdVSEpsYzJWdWRDQkpiR3h1WlhOekNreD
FZMmxsYmpRd09DQnBjeUJoSURFNEIibGxZWEI0YjJ4a0IHNXZiaTFvYVhOd1IXNXBZeUlzYU
dsMFpTQnRZV3hsTGICUVIYUnBaVzUwSUdoAGN5QmHJR2hwYzNSdmNua2diMlInYjNScGR
HbHpJRzFsWkdsaExDQmhZM1YwWlNCMmFYSmhiQ0J3YUdGeWVXNW5hWFJwY3IbB1pHb
HpiM0prWlhJcExDQm1jbUZqZEhWeVpTQnZaaUJqYkdGMmFXTnNaU3dnZG1seVIXd2djMmx
1ZFhOcGRHbHpJQ2hrYVhOdmNtUmxaWt1Q2dvaklGTnZZMmxoYkNCSWFYtjBiM0o1Q2ICU
VIYUnBaVzUwSUdsekIHRnVJR0ZqZEdsMlPnQnpiVzlyWlhJZ1IXNWtJR2x6SUdGdUIHRnNZMjI
vYjJ4cFISNGdVROyWvYVdWdWRDQnBaR1Z1ZEEdsbWFXVnpJR0Z6SUdobGRHVnliM05sZUHW
aGJDNEtDbEJoZEdsbGJuUWdZMjI0WlhNZ1puSnZiU0JoSUDocFoyZ2djMjIqYVc5bFkyOXViMj
FwWXlCaVIXTnJaM0p2ZFc1a0xpQlFZWfJwWlC1MEIHaGhjeUJqYjlx2JHVjBaV1FnYzI5dFpT
QmpiMnhzWldkbEIHTnZkWEp6WlhNdUlGQmhr2xsYm5RZ1kzVnljbVZ1ZEEd4NUIHaGhjeUJD
YkhWbElFTnliM056SUVKc2RXVWdVMmhwWld4a0xnb0tJeUJCYkd4bGNtZHBaWE1LVG04Z1
MyNXZkMjRnUVd4c1pYSm5hV1Z6TGdvS0I5Qk5aV1JwWTJGMGFxOXVjd3B3WlC1cFkybHNI
R2x1SUdjZ016YzFJRzFuTDIxc0IHbHVhbVZqZEdGaWJHVWdjMjIzZFHScGlyNDdJR0Z6Y0dse
WFXNGdPREVnYldjZ2IzSmhiQ0IwWVdKc1pYUTdJR0Z0YjNocFkybHNiR2x1SURJMU1DQnR
aeUF2SUdOc1IYWjFiR0Z1WVhSbEIERXIOU0J0WnlCdmNtRnNJSFJoWW14bGRBb0tJeUJCY
zNOBGMzTnRaVzUwSUdGdVpDQlFiR0Z1Q2dvS0I5TWdVVR3hoYmdwUVIYUnBaVzUwSUhka
GN5Qm5hWFpsYmlCMGFHVWdabTlzYkc5M2FXNW5JR2x0YlhwWdWFYcGhkR2x2Ym5NNklH
bHVabXgxWlC1NlITd2djMIzoYzI5dVIXd3NJR2x1YW1WamRHRmlr1VzSUhCeVpYtMxjblpoZE
dsMlPnQm1jbVzTGlBS1ZHaGxJR1p2Ykd4dmQybHVaeUJ3Y205alpXUjFjbVZ6SUhkbGNtVW
dZMjI1WkhWamRHVmtPZ290SUcxbFpHbGpZWfJwYjI0Z2NtVmpimjVqYVd4cFIYUnBiMjRnS0
hCeWlyTmxaSFZ5WINrSw=="
  }
]
}
```



```
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  }  
 ]  
 }
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Diagnostic Report for Laboratory Results Reporting

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference)	Required
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required
patient (reference) status (string)	Optional
patient (reference) and code (code) and date(date)	Optional

### Sample Request:

<https://staging.pemr.com:93/api/DiagnosticReport?category=LAB&patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1Ni9.eyJhdWQiOiJhZGZG.....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "diagnostic-bundle",
  "type": "searchset",
  "total": 1,
  "entry": [
    {
      "resource": {
        "resourceType": "DiagnosticReport",
        "id": "LAB-2094",
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/v2-0074",
                "code": "LAB",
                "display": "Laboratory"
              }
            ]
          }
        ]
      },
      "code": {
        "coding": [
```



```

    {
      "system": "http://loinc.org",
      "code": "57021-8",
      "display": "CBC W Auto Differential panel - Blood (57021-8) "
    }
  ],
  "text": " CBC W Auto Differential panel - Blood (57021-8) "43
},
"subject": {
  "reference": "Patient/18"
},
"encounter": {
  "reference": "Encounter/32"
},
"effectiveDateTime": "2015-06-22T00:00:00-04:00",
"issued": "2015-06-22T00:00:00.000-04:00",
"performer": [
  {
    "reference": "Practitioner/1"
  }
],
"result": [
  {
    "reference": "Observation/13"
    "display": "Hemoglobin [Mass/volume] in Arterial blood (30313-1)"
  },
  {
    "reference": "Observation/14"
    "display": "Leukocytes [# /volume] in Blood Product unit.platelet pheresis by Automated
      count (33765-9)"
  },
  {
    "reference": "Observation/15"
    "display": "Platelets [# /volume] in Blood (26515-7)"
  },
  {
    "reference": "Observation/16"
    "display": "Everolimus [Mass/volume] in Blood (50544-6)"
  }
]
}
]
}

```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Document Reference

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
id (string)	Required
patient (reference)	Required
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required
patient (reference) status (string)	Optional
patient (reference) and type (uri) and period (date)	Optional

### Sample Request:

<https://staging.pemr.com:93/api/DocumentReference?patient=18>

**authorization:**Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZGZG.....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "document-bundle",
  "type": "searchset",
  "total": 7,
  "entry": [
    {
      "resource": {
        "resourceType": "DocumentReference",
        "id": "143",
        "identifier": [
          {
            "system": "urn:ietf:rfc:3986",
            "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
          }
        ],
        "status": "superseded",
        "type": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "11506-3",
              "display": "Progress note"
            }
          ]
        }
      }
    }
  ]
}
```



```
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  }
]
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
        "code": "clinical-note",
        "display": "clinical note"
      }
    ]
  }
],
"subject": {
  "reference": "Patient/18"
},
"date": "2021-10-08T00:00:00.000-04:00",
"author": [
  {
    "reference": "Practitioner/1"
  }
],
"custodian": {
  "reference": "Organization/1"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"VUhKbmNtVnpjeUJpYjNSbENrTm9hV1ZtSUVOdmJYQnNZV2x1ZERvZ1RtOGdZMjI0Y0d4aG
FXNTBjeTRLU0ZCSk9pQIFZWFJwWlclMElIQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUIFWnZ
iR3h2ZDNWd0NsTnZZMmxoYkNCSWFYtjBiM0o1T2ICT0wwRUtRV3hzWlhKbmFXVnpPaUJp
UzBSQkNsQnNZVzQ2SUZKVVR5QXlJSGRsWld0eg=="
    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "Mimetype Sufficient"
    }
  }
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/32"
    }
  ],
  "period": {
```





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```
    "start": "2021-10-08T00:00:00-04:00",
    "end": "2021-10-08T00:00:00-04:00"
  }
}
},
{
  "resource": {
    "resourceType": "DocumentReference",
    "id": "144",
    "identifier": [
      {
        "system": "urn:ietf:rfc:3986",
        "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
      }
    ],
    "status": "superseded",
    "type": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "11506-3",
          "display": "Progress note"
        }
      ]
    },
    "category": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
            "code": "clinical-note",
            "display": "clinical note"
          }
        ]
      }
    ],
    "subject": {
      "reference": "Patient/18"
    },
    "date": "2022-10-08T00:00:00.000-04:00",
    "author": [
      {
        "reference": "Practitioner/1"
      }
    ],
    "custodian": {
      "reference": "Organization/1"
    },
    "content": [
```



```
{
  "attachment": {
    "contentType": "text/plain",
    "data":
"VUhKbmNtVnpjeUJpYjNSbENrTm9hV1ZtSUV0dmJYQnNZV2x1ZERvZ1RtOGdZMjl0Y0d4aG
FXNTBjeTRLU0ZCSk9pQIFZWFJwWlc1MEllQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUIFWnZ
iR3h2ZDNWd0NsTnZZMmxoYkNCSWFYTjBiM0o1T2ICT0wwRUtRV3hzWlhKbmFXVnpPaUJP
UzBSQkNsQnNZVzQ2SUZKVVR5QXlJSGRsWld0eg=="
    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "Mimetype Sufficient"
    }
  }
},
"context": {
  "encounter": [
    {
      "reference": "Encounter/32"
    }
  ],
  "period": {
    "start": "2022-10-08T00:00:00-04:00",
    "end": "2022-10-08T00:00:00-04:00"
  }
}
},
{
  "resource": {
    "resourceType": "DocumentReference",
    "id": "145",
    "identifier": [
      {
        "system": "urn:ietf:rhc:3986",
        "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
      }
    ],
    "status": "superseded",
    "type": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "11488-4",
          "display": "Consult note"
        }
      ]
    }
  }
},
"category": [
  {
```



```
"coding": [
  {
    "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
    "code": "clinical-note",
    "display": "clinical note"
  }
],
"subject": {
  "reference": "Patient/18"
},
"date": "2018-10-23T00:00:00.000-04:00",
"author": [
  {
    "reference": "Practitioner/1"
  }
],
"custodian": {
  "reference": "Organization/1"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"VUhKbmNtVnpjeUJpYjNSbENrTm9hV1ZtSUV0dmJYQnNZV2x1ZERvZ1RtOGdZMjI0Y0d4aG
FXNTBjeTRLU0ZCSk9pQIFZWfJwWlc1MEllQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUIFWnZ
iR3h2ZDNWd0NsTnZZMmxoYkNCSWFYtjBiM0o1T2ICT0wwRUtRV3hzWlhKbmFXVnpPaUJP
UzBSQkNsQnNZVzQ2SUZKVVR5QXlJSGRsWld0eg=="
    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "Mimetype Sufficient"
    }
  }
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/32"
    }
  ],
  "period": {
    "start": "2018-10-23T00:00:00-04:00",
    "end": "2018-10-23T00:00:00-04:00"
  }
}
}
```



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```
    },
    {
      "resource": {
        "resourceType": "DocumentReference",
        "id": "146",
        "identifier": [
          {
            "system": "urn:ietf:rfc:3986",
            "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
          }
        ],
        "status": "superseded",
        "type": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "18842-5",
              "display": "Discharge summary"
            }
          ]
        },
        "category": [
          {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
                "code": "clinical-note",
                "display": "clinical note"
              }
            ]
          }
        ],
        "subject": {
          "reference": "Patient/18"
        },
        "date": "2018-10-25T00:00:00.000-04:00",
        "author": [
          {
            "reference": "Practitioner/1"
          }
        ],
        "custodian": {
          "reference": "Organization/1"
        },
        "content": [
          {
            "attachment": {
              "contentType": "text/plain",
              "data":
"VUhKbmNtVnpjeUJpYjNSbENrTm9hV1ZtSUV0dmJYQnNZV2x1ZERvZ1RtOGdZMjI0Y0d4aG
```



FXNTBjeTRLU0ZCSk9pQIFZWFJwWlc1MEllQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUIFWnZ  
iR3h2ZDNWd0NsTnZZMmxoYkNCSWFYtjBiM0o1T2ICT0wwRUtRV3hzWlhKbmFXVnpPaUJP  
UzBSQkNsQnNZVzQ2SUZKVVVR5QXlJSGRsWld0eg=="

```
    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "Mimetype Sufficient"
    }
  },
  ],
  "context": {
    "encounter": [
      {
        "reference": "Encounter/32"
      }
    ],
    "period": {
      "start": "2018-10-25T00:00:00-04:00",
      "end": "2018-10-25T00:00:00-04:00"
    }
  }
},
{
  "resource": {
    "resourceType": "DocumentReference",
    "id": "147",
    "identifier": [
      {
        "system": "urn:ietf:rhc:3986",
        "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
      }
    ],
    "status": "superseded",
    "type": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "34117-2",
          "display": "History and physical note"
        }
      ]
    },
    "category": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-  
category",
            "code": "clinical-note",
```



```
      "display": "clinical note"
    }
  ]
}
],
"subject": {
  "reference": "Patient/18"
},
"date": "2020-10-23T00:00:00.000-04:00",
"author": [
  {
    "reference": "Practitioner/1"
  }
],
"custodian": {
  "reference": "Organization/1"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"VUhKbmNtVnpjeUJPyjNSbENrTm9hV1ZtSUV0dmJYQnNZV2x1ZERvZ1RtOGdZMjI0Y0d4aG
FXNTBjeTRLU0ZCSk9pQlFZWfJwWlc1MEllQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUJFWnZ
iR3h2ZDNWd0NsTnZMZmxoYkNCSWFYtjBiM0o1T2ICT0wwRUtRV3hzWlhKbmFXVnpPaUJp
UzBSQkNsQnNZVzQ2SUZkVVR5QXlJSGRsWld0eg=="
    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "Mimetype Sufficient"
    }
  }
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/32"
    }
  ],
  "period": {
    "start": "2020-10-23T00:00:00-04:00",
    "end": "2020-10-23T00:00:00-04:00"
  }
}
}
},
{
  "resource": {
    "resourceType": "DocumentReference",
    "id": "148",
```



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```
"identifier": [
  {
    "system": "urn:ietf:rfc:3986",
    "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
  }
],
"status": "superseded",
"type": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "28570-0",
      "display": "Procedure note"
    }
  ]
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
        "code": "clinical-note",
        "display": "clinical note"
      }
    ]
  }
],
"subject": {
  "reference": "Patient/18"
},
"date": "2010-10-23T00:00:00.000-04:00",
"author": [
  {
    "reference": "Practitioner/1"
  }
],
"custodian": {
  "reference": "Organization/1"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"VUhKbmNtVnpjeUJPyjNSbENrTm9hV1ZtSUV0dmJYQnNZV2x1ZERvZ1RtOGdZMjI0Y0d4aG
FXNTBjeTRLU0ZCSk9pQlFZWfJwWlc1MElIQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUIFWnZ
iR3h2ZDNWd0NsTnZZMmxoYkNCSWFYtjBiM0o1T2ICT0wwRUtRV3hzWlhKbmFXVnpPaUJp
UzBSQkNsQnNZVzQ2SUZKVVVR5QXlJSGRsWld0eg=="
    }
  }
],
"format": {
```



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```
    "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
    "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
    "display": "Mimetype Sufficient"
  }
},
"context": {
  "encounter": [
    {
      "reference": "Encounter/32"
    }
  ],
  "period": {
    "start": "2010-10-23T00:00:00-04:00",
    "end": "2010-10-23T00:00:00-04:00"
  }
}
},
{
  "resource": {
    "resourceType": "DocumentReference",
    "id": "149",
    "identifier": [
      {
        "system": "urn:ietf:rfc:3986",
        "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
      }
    ],
    "status": "superseded",
    "type": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "11506-3",
          "display": "Progress note"
        }
      ]
    },
    "category": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
            "code": "clinical-note",
            "display": "clinical note"
          }
        ]
      }
    ]
  }
},
],
```





## IPClinical (g)(10) API Documentation

```
"subject": {
  "reference": "Patient/18"
},
"date": "2022-10-23T00:00:00.000-04:00",
"author": [
  {
    "reference": "Practitioner/1"
  }
],
"custodian": {
  "reference": "Organization/1"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"VUhKbmNtVnpjeUJpYjNSbENrTm9hV1ZtSUVOdmJYQnNZV2x1ZERvZ1RtOGdZMjl0Y0d4aG
FXNTBjeTRLU0ZCSk9pQIFZWfJwWlc1MEIiQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUJFWnZ
iR3h2ZDNWd0NsTnZZMmxoYkNCSWFYtjBiM0o1T2ICT0wwRUtRV3hzWlhKbmFXVnpPaUJp
UzBSQkNsQnNZVzQ2SUZKVVR5QXlJSGRsWld0eg=="
    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "Mimetype Sufficient"
    }
  }
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/32"
    }
  ],
  "period": {
    "start": "2022-10-23T00:00:00-04:00",
    "end": "2022-10-23T00:00:00-04:00"
  }
}
]
```

### EXCEPTIONS

JSON response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Goal

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference)	Required
patient (reference) and type (code)	Support

### Sample Request:

<https://staging.pemr.com:93/api/Goal?patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "goals-bundle",
  "type": "searchset",
  "total": 1,
  "entry": [
    {
      "resource": {
        "resourceType": "Goal",
        "id": "24",
        "lifecycleStatus": "active",
        "category": [
          {
            "coding": [
              {
                "system": "http://snomed.info/sct",
                "code": "129688005",
                "display": "Goals"
              }
            ],
            "text": "Disturbed energy field"
          }
        ],
        "description": {
          "coding": [
            {
              "system": "http://snomed.info/sct",
              "code": "129688005",
              "display": "Goals"
            }
          ]
        }
      }
    }
  ]
}
```



## IPClinical (g)(10) API Documentation

```
    }
  ],
  "text": " Disturbed energy field"
},
"subject": {
  "reference": "Patient/18"
},
"target": [
  {
    "dueDate": "2019-09-04"
  }
]
}
]
}
```

### EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Immunization

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference)	Required
patient (reference) and date (date)	Optional
patient (reference) and status (code)	Optional

### Sample Request:

<https://staging.pemr.com:93/api/Immunization?patient=18>

**authorization:**Bearer eyJ0eXAI0iJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG.....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "immunization-bundle",
  "type": "searchset",
  "total": 2,
  "entry": [
    {
      "resource": {
        "resourceType": "Immunization",
        "id": "10014",
        "status": "completed",
        "vaccineCode": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/sid/cvx",
              "code": "88",
              "display": "Influenza, unspecified formulation "
            }
          ],
          "text": "Influenza, unspecified formulation "
        },
        "patient": {
          "reference": "Patient/18"
        },
        "encounter": {
          "reference": "Encounter/32"
        },
        "occurrenceDateTime": "2019-08-07T00:00:00-04:00",

```



```
"primarySource": true,
"lotNumber": "1"
}
},
{
"resource": {
"resourceType": "Immunization",
"id": "10015",
"status": "not-done",
"statusReason": {
"coding": [
{
"system": "http://terminology.hl7.org/CodeSystem/v3-ActReason",
"code": "OSTOCK",
"display": "product out of stock"
}
]
},
"vaccineCode": {
"coding": [
{
"system": "http://hl7.org/fhir/sid/cvx",
"code": "166",
"display": "influenza, intradermal, quadrivalent, preservative free "
}
],
"text": "influenza, intradermal, quadrivalent, preservative free "
},
"patient": {
"reference": "Patient/18"
},
"encounter": {
"reference": "Encounter/32"
},
"occurrenceDateTime": "2015-06-22T00:00:00-04:00",
"recorded": "2015-06-22T00:00:00-04:00",
"primarySource": true,
"note": [
{
"text": "Immunization was not given - Patient rejected immunization"
}
]
}
}
]
}
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code



**200:** Ok  
**401:** Unauthorized  
**400:** Bad Request  
**500:** Internal Server Error

## MedicationRequest

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and intent (code)	Required
patient (reference) and intent (code) and status (reference)	Required
patient (reference) and intent (code) and encounter (code)	Optional
patient (reference) and intent (code) and authoredon (date)	Optional

### Sample Request:

<https://staging.pemr.com:93/api/MedicationRequest?intent=order&patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```

{
  "resourceType": "Bundle",
  "id": "medicationRequest-bundle",
  "type": "searchset",
  "total": 2,
  "entry": [
    {
      "resource": {
        "resourceType": "MedicationRequest",
        "id": "10059",
        "status": "entered-in-error",
        "intent": "plan",
        "reportedBoolean": false,
        "medicationCodeableConcept": {
          "coding": [
            {
              "system": "http://www.nlm.nih.gov/research/umls/rxnorm",
              "code": "209387",
            }
          ]
        }
      }
    }
  ]
}

```



```

      "display": "Tylenol 325MG TABS"
    }
  ],
  "text": " Tylenol 325MG TABS "
},
"subject": {
  "reference": "Patient/18"
},
"encounter": {
  "reference": "Encounter/32"
},
"authoredOn": "2015-06-22T00:00:00-04:00",
"requester": {
  "reference": "Practitioner/1"
},
"dosageInstruction": [
  {
    "text": "As Needed"
  }
]
},
{
  "resource": {
    "resourceType": "MedicationRequest",
    "id": "10060",
    "status": "active",
    "intent": "order",
    "reportedBoolean": false,
    "medicationCodeableConcept": {
      "coding": [
        {
          "system": "http://www.nlm.nih.gov/research/umls/rxnorm",
          "code": "731241",
          "display": "Aranesp 0.5 MG/ML"
        }
      ],
      "text": "Aranesp 0.5 MG/ML"
    },
    "subject": {
      "reference": "Patient/18"
    },
    "encounter": {
      "reference": "Encounter/32"
    },
    "authoredOn": "2015-02-22T00:00:00-05:00",
    "requester": {
      "reference": "Practitioner/1"
    },
    "dosageInstruction": [
      {

```



```

    "text": "PRN"
  }
]
}
]
}
}

```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error

## Smoking Status Observation

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and code (code)	Required

### Sample Request:

<https://staging.pemr.com:93/api/Observation?code=72166-2&patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZGZG.....

### Sample Response:

```

{
  "resourceType": "Bundle",
  "id": "Observation-bundle",
  "type": "searchset",
  "total": 1,
  "entry": [
    {
      "resource": {
        "resourceType": "Observation",
        "id": "10017",
        "status": "final",
        "category": [
          {
            "coding": [

```







## Pediatric Weight for Height Observation

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required

### Sample Request:

<https://staging.pemr.com:93/api/Observation?code=77606-2&patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "Observation-bundle",
  "type": "searchset",
  "total": 2,
  "entry": [
    {
      "resource": {
        "resourceType": "Observation",
        "id": "50655",
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "vital-signs",
                "display": "Vital Signs"
              }
            ]
          }
        ],
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "77606-2",
            }
          ]
        }
      }
    }
  ]
}
```



```
      "display": "Weight-for-length Percentile\r\n(Birth - 36 months)"
    }
  ]
},
"subject": {
  "reference": "Patient/18"
},
"encounter": {
  "reference": "Encounter/32"
},
"effectiveDateTime": "2021-10-08",
"issued": "2021-10-08T00:00:00.000-04:00",
"valueQuantity": {
  "value": 89,
  "unit": "%",
  "system": "http://unitsofmeasure.org",
  "code": "%"
}
}
},
{
  "resource": {
    "resourceType": "Observation",
    "id": "50656",
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ]
      }
    ]
  },
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "77606-2",
        "display": "Weight-for-length Percentile\r\n(Birth - 36 months)"
      }
    ]
  },
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  },
}
```



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```
"effectiveDateTime": "2022-10-08",
"issued": "2022-10-08T00:00:00.000-04:00",
"valueQuantity": {
  "value": 89,
  "unit": "%",
  "system": "http://unitsofmeasure.org",
  "code": "%"
}
}
}
]
}
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Laboratory Result Observation

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required
patient (reference) and category (uri) and status (code)	Optional
patient (reference) and code (code) and date (date)	Optional

### Sample Request:

<https://staging.pemr.com:93/api/Observation?category=laboratory&patient=18>

**authorization:**Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZGZG.....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "Observation-bundle",
  "type": "searchset",
  "total": 1,
  "entry": [
    {
      "resource": {
        "resourceType": "Observation",
        "id": "13",
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "laboratory"
              }
            ]
          }
        ]
      }
    },
    {
      "code": {
        "coding": [
```



## IPClinical (g)(10) API Documentation

```
{
  "system": "http://loinc.org",
  "code": "30313-1",
  "display": " Hemoglobin [Mass/volume] in Arterial blood (30313-1) "
}
],
"subject": {
  "reference": "Patient/18"
},
"encounter": {
  "reference": "Encounter/32"
},
"effectiveDateTime": "2019-08-07",
"issued": "2019-08-07T00:00:00.000-04:00",
"valueQuantity": {
  "value": 140,
  "unit": "g/dL",
  "system": "http://unitsofmeasure.org",
  "code": "g/dL"
}
}
}
]
```

### EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Pediatric BMI for Age Observation

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required

### Sample Request:

<https://staging.pemr.com:93/api/Observation?code=59576-9&patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "Observation-bundle",
  "type": "searchset",
  "total": 2,
  "entry": [
    {
      "resource": {
        "resourceType": "Observation",
        "id": "10119",
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "vital-signs",
                "display": "Vital Signs"
              }
            ]
          }
        ],
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "59576-9",
            }
          ]
        }
      }
    }
  ]
}
```



```

        "display": "BMI Percentile"
      }
    ]
  },
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  },
  "effectiveDateTime": "2019-09-04",
  "issued": "2019-09-04T00:00:00.000-04:00",
  "valueQuantity": {
    "value": 123,
    "unit": "%",
    "system": "http://unitsofmeasure.org",
    "code": "%"
  }
}
},
{
  "resource": {
    "resourceType": "Observation",
    "id": "10120",
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ]
      }
    ]
  },
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "59576-9",
        "display": "BMI Percentile"
      }
    ]
  },
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  },
}

```





IPClinical (g)(10) API Documentation

```
"effectiveDateTime": "2019-09-04",
"issued": "2019-09-04T00:00:00.000-04:00",
"dataAbsentReason": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/data-absent-reason",
      "code": "unknown",
      "display": "unknown"
    }
  ]
}
}
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Pulse Oximetry

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required

### Sample Request:

<https://staging.pemr.com:93/api/Observation?code=2708-6&patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "Observation-bundle",
  "type": "searchset",
  "total": 2,
  "entry": [
    {
      "resource": {
        "resourceType": "Observation",
        "id": "50664",
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "vital-signs",
                "display": "Vital Signs"
              }
            ]
          }
        ],
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "2708-6",
            }
          ]
        }
      }
    }
  ]
}
```



```
    "display": "Oxygen saturation in Arterial blood"
  },
  {
    "system": "http://loinc.org",
    "code": "59408-5",
    "display": "Oxygen saturation in Arterial blood by Pulse oximetry"
  }
]
},
"subject": {
  "reference": "Patient/18"
},
"encounter": {
  "reference": "Encounter/32"
},
"effectiveDateTime": "2019-08-07",
"issued": "2019-08-07T00:00:00.000-04:00",
"valueQuantity": {
  "value": 78,
  "unit": "%",
  "system": "http://unitsofmeasure.org",
  "code": "%"
},
"component": [
  {
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "3151-8",
          "display": "Inhaled oxygen flow rate"
        }
      ]
    }
  },
  {
    "dataAbsentReason": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/data-absent-reason",
          "code": "unknown",
          "display": "unknown"
        }
      ]
    }
  }
]
},
{
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "3150-0",
        "display": "Inhaled oxygen concentration"
      }
    ]
  }
}
```



```

    }
  ]
},
"dataAbsentReason": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/data-absent-reason",
      "code": "unknown",
      "display": "unknown"
    }
  ]
}
]
}
}
]
}
},
{
  "resource": {
    "resourceType": "Observation",
    "id": "50665",
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ]
      }
    ],
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "2708-6",
          "display": "Oxygen saturation in Arterial blood"
        },
        {
          "system": "http://loinc.org",
          "code": "59408-5",
          "display": "Oxygen saturation in Arterial blood by Pulse oximetry"
        }
      ]
    },
    "subject": {
      "reference": "Patient/18"
    },
    "encounter": {
      "reference": "Encounter/32"
    }
  }
}

```



```

    },
    "effectiveDateTime": "2019-08-07",
    "issued": "2019-08-07T00:00:00.000-04:00",
    "valueQuantity": {
      "value": 78,
      "unit": "%",
      "system": "http://unitsofmeasure.org",
      "code": "%"
    },
    },
    "component": [
      {
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "3151-8",
              "display": "Inhaled oxygen flow rate"
            }
          ]
        },
        "valueQuantity": {
          "value": 89,
          "unit": "L/min",
          "system": "http://unitsofmeasure.org",
          "code": "L/min"
        }
      },
      {
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "3150-0",
              "display": "Inhaled oxygen concentration"
            }
          ]
        },
        "valueQuantity": {
          "value": 78,
          "unit": "%",
          "system": "http://unitsofmeasure.org",
          "code": "%"
        }
      }
    ]
  }
}

```

## EXCEPTIONS



JSON response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error

## Pediatric Head Occipital-frontal Circumference Percentile

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required

### Sample Request:

<https://staging.pemr.com:93/api/Observation?code=8289-1&patient=18>

**authorization:**Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "Observation-bundle",
  "type": "searchset",
  "total": 2,
  "entry": [
    {
      "resource": {
        "resourceType": "Observation",
        "id": "50654",
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "vital-signs",
                "display": "Vital Signs"
              }
            ]
          }
        ]
      }
    }
  ]
}
```



```

    }
  ],
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "8289-1",
        "display": "Head Circumference Percentile (Birth - 36 months)"
      }
    ]
  },
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  },
  "effectiveDateTime": "2019-09-04",
  "issued": "2019-09-04T00:00:00.000-04:00",
  "valueQuantity": {
    "value": 19,
    "unit": "%",
    "system": "http://unitsofmeasure.org",
    "code": "%"
  }
}
},
{
  "resource": {
    "resourceType": "Observation",
    "id": "50666",
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ]
      }
    ]
  },
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "8289-1",
        "display": "Head Circumference Percentile (Birth - 36 months)"
      }
    ]
  }
}
]

```



## IPClinical (g)(10) API Documentation

```
    },
    "subject": {
      "reference": "Patient/18"
    },
    "encounter": {
      "reference": "Encounter/32"
    },
    "effectiveDateTime": "2019-09-04",
    "issued": "2019-09-04T00:00:00.000-04:00",
    "valueQuantity": {
      "value": 89,
      "unit": "%",
      "system": "http://unitsofmeasure.org",
      "code": "%"
    }
  }
}
]
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error





## Observation Body Height

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required

### Sample Request:

<https://staging.pemr.com:93/api/Observation?code=8302-2&patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "Observation-bundle",
  "type": "searchset",
  "total": 2,
  "entry": [
    {
      "resource": {
        "resourceType": "Observation",
        "id": "50",
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "vital-signs",
                "display": "Vital Signs"
              }
            ]
          }
        ],
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "8302-2",
            }
          ]
        }
      }
    }
  ]
}
```



```

        "display": "Height"
      }
    ]
  },
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  },
  "effectiveDateTime": "2019-08-07",
  "issued": "2019-08-07T00:00:00.000-04:00",
  "valueQuantity": {
    "value": 177,
    "unit": "cm",
    "system": "http://unitsofmeasure.org",
    "code": "cm"
  }
}
},
{
  "resource": {
    "resourceType": "Observation",
    "id": "10090",
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ]
      }
    ]
  },
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "8302-2",
        "display": "Height"
      }
    ]
  },
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  },
}

```



IPClinical (g)(10) API Documentation

```
"effectiveDateTime": "2019-09-04",
"issued": "2019-09-04T00:00:00.000-04:00",
"valueQuantity": {
  "value": 177,
  "unit": "cm",
  "system": "http://unitsofmeasure.org",
  "code": "cm"
}
}
}
]
}
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Observation Body Temperature

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required

### Sample Request:

<https://staging.pemr.com:93/api/Observation?code=8310-5&patient=18>

**authorization:**Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG.....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "Observation-bundle",
  "type": "searchset",
  "total": 2,
  "entry": [
    {
      "resource": {
        "resourceType": "Observation",
        "id": "53",
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "vital-signs",
                "display": "Vital Signs"
              }
            ]
          }
        ],
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "8310-5",
            }
          ]
        }
      }
    }
  ]
}
```



```

        "display": "Temperature"
      }
    ]
  },
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  },
  "effectiveDateTime": "2019-08-07",
  "issued": "2019-08-07T00:00:00.000-04:00",
  "valueQuantity": {
    "value": 38,
    "unit": "Cel",
    "system": "http://unitsofmeasure.org",
    "code": "Cel"
  }
}
},
{
  "resource": {
    "resourceType": "Observation",
    "id": "10095",
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ]
      }
    ]
  },
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "8310-5",
        "display": "Temperature"
      }
    ]
  },
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  },
}

```



IPClinical (g)(10) API Documentation

```
"effectiveDateTime": "2019-09-04",
"issued": "2019-09-04T00:00:00.000-04:00",
"valueQuantity": {
  "value": 38,
  "unit": "Cel",
  "system": "http://unitsofmeasure.org",
  "code": "Cel"
}
}
}
]
}
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Observation Blood Pressure

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required

### Sample Request:

<https://staging.pemr.com:93/api/Observation?code=85354-9&patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "Observation-bundle",
  "type": "searchset",
  "total": 2,
  "entry": [
    {
      "resource": {
        "resourceType": "Observation",
        "id": "54",
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "vital-signs",
                "display": "Vital Signs"
              }
            ]
          }
        ],
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "85354-9",
            }
          ]
        }
      }
    }
  ]
}
```



```

    "display": "Blood Pressure"
  }
]
},
"subject": {
  "reference": "Patient/18"
},
"encounter": {
  "reference": "Encounter/32"
},
"effectiveDateTime": "2019-08-07",
"issued": "2019-08-07T00:00:00.000-04:00",
"component": [
  {
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "8462-4",
          "display": "Diastolic Blood Pressure"
        }
      ]
    },
    "valueQuantity": {
      "value": 77,
      "unit": "mm[Hg]",
      "system": "http://unitsofmeasure.org",
      "code": "mm[Hg]"
    }
  },
  {
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "8480-6",
          "display": "Systolic Blood Pressure"
        }
      ]
    },
    "valueQuantity": {
      "value": 120,
      "unit": "mm[Hg]",
      "system": "http://unitsofmeasure.org",
      "code": "mm[Hg]"
    }
  }
]
}
},
{

```





```

"resource": {
  "resourceType": "Observation",
  "id": "10093",
  "status": "final",
  "category": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/observation-category",
          "code": "vital-signs",
          "display": "Vital Signs"
        }
      ]
    }
  ],
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "85354-9",
        "display": " Blood Pressure"
      }
    ]
  },
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  },
  "effectiveDateTime": "2019-09-04",
  "issued": "2019-09-04T00:00:00.000-04:00",
  "component": [
    {
      "code": {
        "coding": [
          {
            "system": "http://loinc.org",
            "code": "8462-4",
            "display": "Diastolic Blood Pressure"
          }
        ]
      },
      "valueQuantity": {
        "value": 80,
        "unit": "mm[Hg]",
        "system": "http://unitsofmeasure.org",
        "code": "mm[Hg]"
      }
    }
  ],
  {

```



## IPClinical (g)(10) API Documentation

```
"code": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "8480-6",
      "display": "Systolic Blood Pressure"
    }
  ]
},
"valueQuantity": {
  "value": 120,
  "unit": "mm[Hg]",
  "system": "http://unitsofmeasure.org",
  "code": "mm[Hg]"
}
}
]
}
]
```

### EXCEPTIONS

JSON response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Observation Body Weight

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required

### Sample Request:

<https://staging.pemr.com:93/api/Observation?code=29463-7&patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "Observation-bundle",
  "type": "searchset",
  "total": 2,
  "entry": [
    {
      "resource": {
        "resourceType": "Observation",
        "id": "51",
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "vital-signs",
                "display": "Vital Signs"
              }
            ]
          }
        ],
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "29463-7",
            }
          ]
        }
      }
    }
  ]
}
```



```

        "display": "Weight"
      }
    ]
  },
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  },
  "effectiveDateTime": "2019-08-07",
  "issued": "2019-08-07T00:00:00.000-04:00",
  "valueQuantity": {
    "value": 120,
    "unit": "kg",
    "system": "http://unitsofmeasure.org",
    "code": "kg"
  }
}
},
{
  "resource": {
    "resourceType": "Observation",
    "id": "10091",
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ]
      }
    ],
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "29463-7",
          "display": "Weight"
        }
      ]
    },
    "subject": {
      "reference": "Patient/18"
    },
    "encounter": {
      "reference": "Encounter/32"
    }
  },

```



IPClinical (g)(10) API Documentation

```
"effectiveDateTime": "2019-09-04",
"issued": "2019-09-04T00:00:00.000-04:00",
"valueQuantity": {
  "value": 0,
  "unit": "kg",
  "system": "http://unitsofmeasure.org",
  "code": "kg"
}
}
}
]
}
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Observation Heart Rate

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required

### Sample Request:

<https://staging.pemr.com:93/api/Observation?code=8867-4&patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "Observation-bundle",
  "type": "searchset",
  "total": 2,
  "entry": [
    {
      "resource": {
        "resourceType": "Observation",
        "id": "55",
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "vital-signs",
                "display": "Vital Signs"
              }
            ]
          }
        ],
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "8867-4",

```



```

      "display": "Heart rate"
    }
  ]
},
"subject": {
  "reference": "Patient/18"
},
"encounter": {
  "reference": "Encounter/32"
},
"effectiveDateTime": "2019-08-07",
"issued": "2019-08-07T00:00:00.000-04:00",
"valueQuantity": {
  "value": 89,
  "unit": "/min",
  "system": "http://unitsofmeasure.org",
  "code": "/min"
}
}
},
{
  "resource": {
    "resourceType": "Observation",
    "id": "10094",
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ]
      }
    ]
  },
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "8867-4",
        "display": "Heart rate"
      }
    ]
  },
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  },
}

```



IPClinical (g)(10) API Documentation

```
"effectiveDateTime": "2019-09-04",
"issued": "2019-09-04T00:00:00.000-04:00",
"valueQuantity": {
  "value": 88,
  "unit": "/min",
  "system": "http://unitsofmeasure.org",
  "code": "/min"
}
}
}
]
}
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error





## Observation Respiratory Rate

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference) and category (uri)	Required
patient (reference) and code (code)	Required
patient (reference) and category (uri) and date (date)	Required

### Sample Request:

<https://staging.pemr.com:93/api//Observation?code=9279-1&patient=18>

**authorization:**Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "Observation-bundle",
  "type": "searchset",
  "total": 2,
  "entry": [
    {
      "resource": {
        "resourceType": "Observation",
        "id": "56",
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "vital-signs",
                "display": "Vital Signs"
              }
            ]
          }
        ],
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "9279-1",
            }
          ]
        }
      }
    }
  ]
}
```



```
        "display": "Respiratory rate"
      }
    ]
  },
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  },
  "effectiveDateTime": "2019-08-07",
  "issued": "2019-08-07T00:00:00.000-04:00",
  "valueQuantity": {
    "value": 76,
    "unit": "/min",
    "system": "http://unitsofmeasure.org",
    "code": "/min"
  }
}
},
{
  "resource": {
    "resourceType": "Observation",
    "id": "144T9279-1",
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ]
      }
    ]
  },
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "9279-1",
        "display": "Respiratory rate"
      }
    ]
  },
  "subject": {
    "reference": "Patient/18"
  },
  "encounter": {
    "reference": "Encounter/32"
  },
}
```



IPClinical (g)(10) API Documentation

```
"effectiveDateTime": "2019-09-04",
"issued": "2019-09-04T00:00:00.000-04:00",
"valueQuantity": {
  "value": 89,
  "unit": "/min",
  "system": "http://unitsofmeasure.org",
  "code": "/min"
}
}
}
]
}
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Procedure

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient (reference)	Required
patient (reference) and date (date)	Required
patient (reference) and status (code)	Optional
patient (reference) and code (code) and date (date)	Optional

### Sample Request:

<https://staging.pemr.com:93/api/Procedure?patient=18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "Procedure-bundle",
  "type": "searchset",
  "total": 2,
  "entry": [
    {
      "resource": {
        "resourceType": "Procedure",
        "id": "12",
        "status": "completed",
        "code": {
          "coding": [
            {
              "system": "http://snomed.info/sct",
              "code": "56251003",
              "display": "Nebulizer "
            }
          ]
        },
        "text": "Nebulizer "
      },
      "subject": {
        "reference": "Patient/18"
      },
      "performedDateTime": "2015-06-22T00:00:00-04:00",
      "location": {
```



```
    "reference": "Location/1"
  }
}
},
{
  "resource": {
    "resourceType": "Procedure",
    "id": "13",
    "status": "completed",
    "code": {
      "coding": [
        {
          "system": "http://snomed.info/sct",
          "code": "175135009",
          "display": "Introduction of cardiac pacemaker system via vein"
        }
      ],
      "text": "Introduction of cardiac pacemaker system via vein"
    },
    "subject": {
      "reference": "Patient/18"
    },
    "performedDateTime": "2011-10-05T00:00:00-04:00",
    "location": {
      "reference": "Location/1"
    }
  }
}
]
}
```

## EXCEPTIONS

JSON response is returned from **the FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Encounter

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
id (string)	Required
patient (reference)	Required
patient (reference) and date (date)	Required
identifier (code)	Optional
patient (reference) and class (code)	Optional
patient (reference) and status (code)	Optional

### Sample Request:

<https://staging.pemr.com:93/api/Encounter/18>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZGZG....

### Sample Response:

```
{
  "resourceType": "Encounter",
  "id": "32",
  "identifier": [
    {
      "system": "https://github.com/synthetichealth/synthea",
      "value": "32"
    }
  ],
  "status": "finished",
  "class": {
    "system": "http://terminology.hl7.org/CodeSystem/v3-ActCode",
    "code": "AMB",
    "display": "AMB"
  },
  "type": [
    {
      "coding": [
        {
          "system": "http://snomed.info/sct",
          "code": "162673000",
          "display": "General examination of patient (procedure)"
        }
      ]
    }
  ]
}
```



```

    ],
    "subject": {
      "reference": "Patient/18"
    },
    "participant": [
      {
        "type": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/v3-ParticipationType",
                "code": "PRPF",
                "display": "Primary Performer"
              }
            ]
          }
        ],
        "period": {
          "start": "2019-08-07T00:00:00-04:00",
          "end": "2019-08-07T00:00:00-04:00"
        },
        "individual": {
          "reference": "Practitioner/1"
        }
      }
    ],
    "period": {
      "start": "2019-08-07T00:00:00-04:00",
      "end": "2019-08-07T00:00:00-04:00"
    },
    "reasonCode": [
      {
        "coding": [
          {
            "system": "http://snomed.info/sct",
            "code": "162673000",
            "display": "General examination of patient (procedure)"
          }
        ]
      }
    ],
    "hospitalization": {
      "dischargeDisposition": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/discharge-disposition",
            "code": "oth",
            "display": "Other"
          }
        ]
      }
    }
  }

```



IPClinical (g)(10) API Documentation

```
},
"location": [
  {
    "location": {
      "reference": "Location/1"
    }
  }
],
"serviceProvider": {
  "reference": "Organization/1"
}
}
```

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error





## Organization

### Parameters

Parameter	Data Type
Id	String

Parameters/Parameters Combinations	Support as per US Core
name (string)	Required
address (string)	Required

### Sample Request:

<https://staging.pemr.com:93/api/Organization/1>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG...

### Sample Response:

```
{
  "resourceType": "Organization",
  "id": "1",
  "identifier": [
    {
      "system": "http://hl7.org/fhir/sid/us-npi",
      "value": "1235323023"
    }
  ],
  "active": true,
  "name": "Neighborhood Physicians Practice",
  "alias": [
    "Neighborhood Physicians Practice"
  ],
  "telecom": [
    {
      "system": "phone",
      "value": "555-555-1002"
    }
  ],
  "address": [
    {
      "line": [
        "2472, Rocky place"
      ],
      "city": "Beaverton",
      "state": "OR",
      "postalCode": "97006",
      "country": "US"
    }
  ]
}
```



IPClinical (g)(10) API Documentation  
}

## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Practitioner

### Parameters

Parameter	Data Type
Id	String

Parameters/Parameters Combinations	Support as per US Core
name (string)	Required
identifier (string)	Required

### Sample Request:

<https://staging.pemr.com:93/api/Practitioner/1>

**authorization:** Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Practitioner",
  "id": "1",
  "identifier": [
    {
      "system": "http://hl7.org/fhir/sid/us-npi",
      "value": "1437237468"
    }
  ],
  "active": true,
  "name": [
    {
      "family": "TEHRANI",
      "given": [
        "ALI"
      ]
    }
  ],
  "address": [
    {
      "line": [
        "9801 GEORGIA AVE SUITE 3-41"
      ],
      "city": "SILVER SPRING",
      "state": "MD",
      "postalCode": "20902-5276"
    }
  ]
}
```



## EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Provenance

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient id (string) and _revinclude=Provenance:target	Required
id of [Resource] (string) and _revinclude=Provenance:target	Required

### Sample Request:

<https://staging.pemr.com:93/api/Provenance/18>

**authorization:**Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Provenance",
  "id": "18",
  "target": [
    {
      "reference": "Patient/18"
    },
    {
      "reference": "Location/1"
    },
    {
      "reference": "Organization/1"
    },
    {
      "reference": "Practitioner/1"
    }
  ],
  "recorded": "1969-12-31T19:00:00.000-05:00",
  "agent": [
    {
      "type": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/provenance-participant-type",
            "code": "author",
            "display": "Author"
          }
        ]
      }
    }
  ],
}
```



## IPClinical (g)(10) API Documentation

```
"who": {
  "reference": "Practitioner/1"
},
"onBehalfOf": {
  "reference": "Organization/1"
}
},
{
  "type": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-provenance-participant-type",
        "code": "transmitter",
        "display": "Transmitter"
      }
    ]
  },
  "who": {
    "reference": "Practitioner/1"
  },
  "onBehalfOf": {
    "reference": "Organization/1"
  }
}
]
}
```

### EXCEPTIONS

**JSON** response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error



## Clinical Notes Guidance

### Parameters

Parameter	Data Type
Patient Id	String

Parameters/Parameters Combinations	Support as per US Core
patient id (string)	Required
Category (string)	Required

### Sample Request:

<https://staging.pemr.com:93/api/DocumentReference?patient=18>

**authorization:**Bearer eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9.eyJhdWQiOiJhZG....

### Sample Response:

```
{
  "resourceType": "Bundle",
  "id": "document-bundle",
  "type": "searchset",
  "total": 7,
  "entry": [
    {
      "resource": {
        "resourceType": "DocumentReference",
        "id": "143",
        "identifier": [
          {
            "system": "urn:ietf:rhc:3986",
            "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
          }
        ],
        "status": "superseded",
        "type": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "11506-3",
              "display": "Progress note"
            }
          ]
        },
        "category": [
          {
            "coding": [
```



```

    {
      "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
      "code": "clinical-note",
      "display": "clinical note"
    }
  ]
},
"subject": {
  "reference": "Patient/18"
},
"date": "2021-10-08T00:00:00.000-04:00",
"author": [
  {
    "reference": "Practitioner/1"
  }
],
"custodian": {
  "reference": "Organization/1"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"VUhKbmNtVnpjeUJpYjNSbENrTm9hV1ZtSUVOdmJYQnNZV2x1ZERvZ1RtOGdZMjI0Y0d4aG
FXNTBjeTRLU0ZCSk9pQlFZWfJwWlclMEllQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUJFWnZ
iR3h2ZDNWd0NsTnZZMmxoYkNCSWFYtjBiM0o1T2lCT0wwRUtRV3hzWlhKbmFXVnpPaUJP
UzBSQkNsQnNZVzQ2SUZKVVR5QXlJSGRsWld0eg=="
    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "Mimetype Sufficient"
    }
  }
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/32"
    }
  ],
  "period": {
    "start": "2021-10-08T00:00:00-04:00",
    "end": "2021-10-08T00:00:00-04:00"
  }
}
},
},

```





## IPClinical (g)(10) API Documentation

```
{
  "resource": {
    "resourceType": "DocumentReference",
    "id": "144",
    "identifier": [
      {
        "system": "urn:ietf:rfc:3986",
        "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
      }
    ],
    "status": "superseded",
    "type": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "11506-3",
          "display": "Progress note"
        }
      ]
    },
    "category": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
            "code": "clinical-note",
            "display": "clinical note"
          }
        ]
      }
    ],
    "subject": {
      "reference": "Patient/18"
    },
    "date": "2022-10-08T00:00:00.000-04:00",
    "author": [
      {
        "reference": "Practitioner/1"
      }
    ],
    "custodian": {
      "reference": "Organization/1"
    },
    "content": [
      {
        "attachment": {
          "contentType": "text/plain",
          "data":
"VUhKbmNtVnpjeUJpYjNSbENrTm9hV1ZtSUVOdmJYQnNZV2x1ZERvZ1RtOGdZMjI0Y0d4aG
FXNTBjeTRLU0ZCSk9pQlFZWfJwWlclMEIiQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUIFWnZ
```



```

    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "Mimetype Sufficient"
    }
  },
  "context": {
    "encounter": [
      {
        "reference": "Encounter/32"
      }
    ],
    "period": {
      "start": "2022-10-08T00:00:00-04:00",
      "end": "2022-10-08T00:00:00-04:00"
    }
  }
},
{
  "resource": {
    "resourceType": "DocumentReference",
    "id": "145",
    "identifier": [
      {
        "system": "urn:ietf:rhc:3986",
        "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
      }
    ],
    "status": "superseded",
    "type": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "11488-4",
          "display": "Consult note"
        }
      ]
    },
    "category": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
            "code": "clinical-note",
            "display": "clinical note"
          }
        ]
      }
    ]
  }
}

```



```

    }
  ]
}
],
"subject": {
  "reference": "Patient/18"
},
"date": "2018-10-23T00:00:00.000-04:00",
"author": [
  {
    "reference": "Practitioner/1"
  }
],
"custodian": {
  "reference": "Organization/1"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"VUhKbmNtVnpjeUJpYjNSbENrTm9hV1ZtSUV0dmJYQnNZV2x1ZERVz1RtOGdZMjl0Y0d4aG
FXNTBjeTRLU0ZCSk9pQIFZWFJwWlc1MEIIQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUIFWnZ
iR3h2ZDNWd0NsTnZZMmxoYkNCSWFYtjBiM0o1T2ICT0wwRUtRV3hzWlhKbmFXVnpPaUJp
UzBSQkNsQnNZVzQ2SUZKVVVR5QXlJSGRsWld0eg=="
    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "Mimetype Sufficient"
    }
  }
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/32"
    }
  ],
  "period": {
    "start": "2018-10-23T00:00:00-04:00",
    "end": "2018-10-23T00:00:00-04:00"
  }
}
}
},
{
  "resource": {
    "resourceType": "DocumentReference",
    "id": "146",
    "identifier": [

```



IPClinical (g)(10) API Documentation

```
{
  "system": "urn:ietf:rhc:3986",
  "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
},
"status": "superseded",
"type": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "18842-5",
      "display": "Discharge summary"
    }
  ]
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
        "code": "clinical-note",
        "display": "clinical note"
      }
    ]
  }
],
"subject": {
  "reference": "Patient/18"
},
"date": "2018-10-25T00:00:00.000-04:00",
"author": [
  {
    "reference": "Practitioner/1"
  }
],
"custodian": {
  "reference": "Organization/1"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"VUhKbmNtVnpjeUJpYjNSbENrTm9hV1ZtSUV0dmJYQnNZV2x1ZERvZ1RtOGdZMjI0Y0d4aG
FXNTBjeTRLU0ZCSk9pQlFZWfJwWlc1MEllQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUIFWnZ
iR3h2ZDNWd0NsTnZZMmxoYkNCSWFYtjBiM0o1T2ICT0wwRUtRV3hzWlhKbmFXVnpPaUJP
UzBSQkNsQnNZVzQ2SUZKVVVR5QXIJSGRsWld0eg=="
    }
  },
  "format": {
    "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
```



IPClinical (g)(10) API Documentation

```
    "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
    "display": "Mimetype Sufficient"
  }
},
"context": {
  "encounter": [
    {
      "reference": "Encounter/32"
    }
  ],
  "period": {
    "start": "2018-10-25T00:00:00-04:00",
    "end": "2018-10-25T00:00:00-04:00"
  }
}
},
{
  "resource": {
    "resourceType": "DocumentReference",
    "id": "147",
    "identifier": [
      {
        "system": "urn:ietf:rfc:3986",
        "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
      }
    ],
    "status": "superseded",
    "type": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "34117-2",
          "display": "History and physical note"
        }
      ]
    },
    "category": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
            "code": "clinical-note",
            "display": "clinical note"
          }
        ]
      }
    ],
    "subject": {
```



IPClinical (g)(10) API Documentation

```
"reference": "Patient/18"
},
"date": "2020-10-23T00:00:00.000-04:00",
"author": [
  {
    "reference": "Practitioner/1"
  }
],
"custodian": {
  "reference": "Organization/1"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"VUhKbmNtVnpjeUJpYjNSbENrTm9hV1ZtSUV0dmJYQnNZV2x1ZERvZ1RtOGdZMjI0Y0d4aG
FXNTBjeTRLU0ZCSk9pQIFZWFJwWlc1MEllQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUIFWnZ
iR3h2ZDNWd0NsTnZZMmxoYkNCSWFYtjBiM0o1T2lCT0wwRUtRV3hzWlhKbmFXVnpPaUJP
UzBSQkNsQnNZVzQ2SUZKVVVR5QXlJSGRsWld0eg=="
    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "Mimetype Sufficient"
    }
  }
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/32"
    }
  ],
  "period": {
    "start": "2020-10-23T00:00:00-04:00",
    "end": "2020-10-23T00:00:00-04:00"
  }
}
},
{
  "resource": {
    "resourceType": "DocumentReference",
    "id": "148",
    "identifier": [
      {
        "system": "urn:ietf:rhc:3986",
        "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
      }
    ]
  }
},
```



IPClinical (g)(10) API Documentation

```
"status": "superseded",
"type": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "28570-0",
      "display": "Procedure note"
    }
  ]
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
        "code": "clinical-note",
        "display": "clinical note"
      }
    ]
  }
],
"subject": {
  "reference": "Patient/18"
},
"date": "2010-10-23T00:00:00.000-04:00",
"author": [
  {
    "reference": "Practitioner/1"
  }
],
"custodian": {
  "reference": "Organization/1"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"VUhKbmNtVnpjeUJpYjNSbENrTm9hV1ZtSUVOdmJYQnNZV2x1ZERvZ1RtOGdZMjI0Y0d4aG
FXNTBjeTRLU0ZCSk9pQlFZWfJwWlc1MEllQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUJFWnZ
iR3h2ZDNWd0NsTnZMZmxoYkNCSWFYtjBiM0o1T2ICT0wwRUtRV3hzWlhKbmFXVnpPaUJp
UzBSQkNsQnNZVzQ2SUZKVVVR5QXIJSGRsWld0eg=="
    }
  }
],
"format": {
  "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
  "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
  "display": "Mimetype Sufficient"
}
],
```



```

"context": {
  "encounter": [
    {
      "reference": "Encounter/32"
    }
  ],
  "period": {
    "start": "2010-10-23T00:00:00-04:00",
    "end": "2010-10-23T00:00:00-04:00"
  }
}
},
{
  "resource": {
    "resourceType": "DocumentReference",
    "id": "149",
    "identifier": [
      {
        "system": "urn:ietf:rhc:3986",
        "value": "urn:uuid:acc9d16d-da9b-9dc9-fbb4-9e6f950b11e6"
      }
    ],
    "status": "superseded",
    "type": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "11506-3",
          "display": "Progress note"
        }
      ]
    },
    "category": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
            "code": "clinical-note",
            "display": "clinical note"
          }
        ]
      }
    ],
    "subject": {
      "reference": "Patient/18"
    },
    "date": "2022-10-23T00:00:00.000-04:00",
    "author": [
      {

```





## IPClinical (g)(10) API Documentation

```
"reference": "Practitioner/1"
}
],
"custodian": {
  "reference": "Organization/1"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"VUhKbmNtVnpjeUJpYjNSbENrTm9hV1ZtSUV0dmJYQnNZV2x1ZERvZ1RtOGdZMjl0Y0d4aG
FXNTBjeTRLU0ZCSk9pQlFZWfJwWlc1MElIQnlaWE5sYm5RZ2RHOWtZWGtnWm05eUIFWnZ
iR3h2ZDNWd0NsTnZZMmxoYkNCSWFYtjBiM0o1T2ICT0wwRUtRV3hzWlhKbmFXVnpPaUJP
UzBSQkNsQnNZVzQ2SUZKVVR5QXlJSGRsWld0eg=="
    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "Mimetype Sufficient"
    }
  }
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/32"
    }
  ],
  "period": {
    "start": "2022-10-23T00:00:00-04:00",
    "end": "2022-10-23T00:00:00-04:00"
  }
}
}
]
}
```

## EXCEPTIONS

JSON response is returned from the **FHIR** Server along with the code

**200:** Ok

**401:** Unauthorized

**400:** Bad Request

**500:** Internal Server Error