

Bidirectional Services eReferrals

Implementation Guide FHIR Profiles



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HL7 Public Health Workgroup

Table of Contents

1 AllergyIntolerance 4

1.1 BSeR Patient Allergy 11

2 Composition 12

2.1 BSeR Referral Feedback 12

3 Condition 14

3.1 BSeR Diagnosis 14

4 Consent 15

4.1 BSeR Patient Consent 15

5 Coverage 16

5.1 BSeR Coverage 16

6 Location 17

6.1 BSeR Service Delivery Location 17

7 MedicationAdministration 18

7.1 BSeR Medication Administration 18

8 Observation 19

8.1 BSeR Arthritis Feedback Observation 19

8.2 BSeR Blood Pressure Observation 19

8.3 BSeR Body Height Observation 20

8.4 BSeR Body Mass Index Observation 20

8.5 BSeR Body Weight Observation 21

8.6 BSeR Childhood Nutrition Feedback Obs 21

8.7 BSeR Childhood Nutrition Referral Obs 22

8.8 BSeR Education Level 22

8.9 BSeR Employment Status 23

8.10 BSeR HA1c Observation 23

8.11 BSeR Referral Activity Status 24

8.12 BSeR Sessions Attended Observation 24

8.13 BSeR Smoking Status 25

8.14 BSeR Tobacco Cessation Feedback Obs 25

8.15 BSeR Tobacco Cessation Referral Obs 26

9 Organization 27

9.1 BSeR Organization 27

10 Patient 28

10.1 BSeR Patient 28

11 Practitioner 30

11.1 BSeR Practitioner 30

12 PractitionerRole 31

12.1 BSeR Referring Provider 31

12.2 BSeR Servicing Provider 31

13 ReferralRequest 33

13.1 BSeR Referral Request 33

14 RelatedPerson 35

14.1 BSeR Related Person 35

15 Template Ids in This Guide 36

16 Code Systems in This Guide 39

Table of Tables

Table 1: BSeR Patient Allergy Contexts 12

Table 2: BSeR Referral Feedback Contexts 13

Table 3: BSeR Diagnosis Contexts 15

Table 4: BSeR Patient Consent Contexts 16

Table 5: BSeR Coverage Contexts 17

Table 6: BSeR Service Delivery Location Contexts 18

Table 7: BSeR Medication Administration Contexts 19

Table 8: BSeR Blood Pressure Observation Contexts 20

Table 9: BSeR Body Height Observation Contexts 21

Table 10: BSeR Body Mass Index Observation Contexts 21

Table 11: BSeR Body Weight Observation Contexts 22

Table 12: BSeR Education Level Contexts 23

Table 13: BSeR Employment Status Contexts 24

Table 14: BSeR Organization Contexts 28

Table 15: BSeR Patient Contexts 29

Table 16: BSeR Practitioner Contexts 31

Table 17: BSeR Referring Provider Contexts 32

Table 18: BSeR Servicing Provider Contexts 32

Table 19: BSeR Referral Request Contexts 34

Table 20: BSeR Related Person Contexts 36

Table 21: Template Containments 37

Table 22: Code Systems 40

**BSeR FHIR Profiles**

A key concept adopted in the design of the BSeR FHIR Profiles is the concept of parsimony. Program area referral and feedback transactions contain common transaction data and program specific data. The idea is to limit the exchange of clinical information to program areas to only that data that pertain to the program. Transaction participant data such as Patient, Referring Provider, and Servicing Provider are common to both referral and feedback transactions. Transaction data content is partitioned into common and program specific data items. Some program specific data items specific for multiple program areas. Others are specific to a single subject area. The following diagram illustrates the partitioning of the FHIR profile content into common and program specific data items:

The BSeR IG FHIR profiles are all based upon the FHIR STU3 specification. Profiles from the US Core Implementation Guide are reused as a baseline for BSeR IG profiles where applicable. The table below specifies the US Core Profile or FHIR STU base resource used a baseline for one or more BSeR IG FHIR profiles. The relevant profile attributes are mapped to the data elements defined as required by each program area. The scope of the data element is also specified as common or program specific.

| **Base line** | **BSeR Profile** | **Profile Attribute** | **Data Element** | **Data Element Scope** |
| --- | --- | --- | --- | --- |
| **Composition (FHIR STU3)** | | | | |
|  | **Referral Feedback** | | | |
|  |  | **date** | feedbackReportDate | Feedback Common |
|  |  | **section\_text** | feedbackReportNote | Feedback Common |
|  |  |  |  |  |
| **Consent (FHIR STU3)** | | | | |
|  | **Consent** | | | |
|  |  | **category** | consentType | Transaction Common |
|  |  | **dateTime** | consentEffectiveDate | Transaction Common |
|  |  | **status** | consentStatus | Transaction Common |
|  |  |  |  |  |
| **Coverage (FHIR STU3)** | | | | |
|  | **Coverage** | | | |
|  |  | **grouping\_planDisplay** | planName | Transaction Common |
|  |  | **identifier** | policyIdentifier | Transaction Common |
|  |  | **period\_end** | coverageExpiryDate | Transaction Common |
|  |  | **period\_start** | coverageEffectiveDate | Transaction Common |
|  |  | **type** | insuranceType | Transaction Common |
|  |  |  |  |  |
| **Location (FHIR STU3)** | | | | |
|  | **service-delivery-location** | | | |
|  |  | **address** | programSiteAddress | Transaction Common |
|  |  | **name** | programSiteName | Transaction Common |
|  |  | **telecom** | programSiteEmailAddress | Transaction Common |
|  |  | **telecom** | programSiteTelephone | Transaction Common |
|  |  | **type** | programSiteType | Transaction Common |
|  |  |  |  |  |
| **Patient (FHIR STU3)** | | | | |
|  | **Patient** | | | |
|  |  | **address** | patientPostalAddress | Transaction Common |
|  |  | **communication\_preferred** | preferredLanguage | Transaction Common |
|  |  | **telecom** | patientEmailAddress | Transaction Common |
|  |  | **telecom** | patientTelephone | Transaction Common |
|  |  |  |  |  |
| **PractitionerRole (FHIR STU3)** | | | | |
|  | **Referring Provider** | | | |
|  |  | **code** | providerType | Transaction Common |
|  |  |  |  |  |
|  | **Servicing Provider** | | | |
|  |  | **code** | providerType | Transaction Common |
|  |  |  |  |  |
| **ReferralRequest (FHIR STU3)** | | | | |
|  | **Referral Request** | | | |
|  |  | **authoredOn** | referralDateTime | Referral Common |
|  |  | **identifier** | identifier | Referral Common |
|  |  | **identifier** | referralIdentifier | Feedback Common |
|  |  | **reasonCode** | referralReason | Referral Common |
|  |  | **status** | referralStatus | Feedback Common |
|  |  | **supportingInfo** | referralNote | Referral Common |
|  |  | **type** | referralType | Feedback Common |
|  |  | **type** | referralType | Referral Common |
|  |  |  |  |  |
| **RelatedPerson (FHIR STU3)** | | | | |
|  | **Related Person** | | | |
|  |  | **birthDate** | Baby's Birthdate | Early Childhood Nutrition Referral |
|  |  | **gender** | Baby's Sex | Early Childhood Nutrition Referral |
|  |  | **name** | Baby's Name | Early Childhood Nutrition Referral |
|  |  | **name** | contactName | Transaction Common |
|  |  | **relationship** | contactType | Transaction Common |
|  |  | **relationship** | patientRelationship | Transaction Common |
|  |  | **telecom** | contactEmailAddress | Transaction Common |
|  |  | **telecom** | contactTelephone | Transaction Common |
|  |  |  |  |  |
| **US Core AllergyIntolerance** | | | | |
|  | **Patient Allergy** | | | |
|  |  | **AllergyIntoleranceType** | Allergies | Referral Multi-Program |
|  |  |  |  |  |
| **US Core Condition** | | | | |
|  | **Diagnosis** | | | |
|  |  | **code\_coding.code** | Diagnosis code ICD10 (6) | Hypertension Referral |
|  |  | **code\_coding.display** | Diagnosis code text (6) | Hypertension Referral |
|  |  |  |  |  |
| **US Core MedicationAdministration** | | | | |
|  | **Medication Administration** | | | |
|  |  | **dosage\_dose** | Medication dose | Arthritis Referral |
|  |  | **dosage\_rate[x].rateQuantity** | Medication frequency | Arthritis Referral |
|  |  | **medication[x]\_medicationCodeableConcept.text** | cessationMedications | Tobacco Use Cessation Feedback |
|  |  | **medication[x]** | Medication name | Arthritis Referral |
|  |  | **medication[x]** | Medications | Early Childhood Nutrition Feedback |
|  |  |  |  |  |
| **US Core ObservationResults** | | | | |
|  | **Arthritis Feedback Observation** | | | |
|  |  | **value[x]\_valueBoolean** | Appropriate use of medications | Arthritis Feedback |
|  |  | **value[x]\_valueBoolean** | Healthy eating | Arthritis Feedback |
|  |  | **value[x]\_valueBoolean** | improving strength, flexibility, and endurance | Arthritis Feedback |
|  |  | **value[x]\_valueCodeableConcept.coding** | Pain Management | Arthritis Feedback |
|  |  | **value[x]\_valueCodeableConcept.coding** | pain, fatigue, frustration and isolation | Arthritis Feedback |
|  |  |  |  |  |
|  | **Childhood Nutrition Feedback Obs** | | | |
|  |  | **value[x]\_valueCodeableConcept.coding** | breastfeeding challenges/symptoms | Early Childhood Nutrition Feedback |
|  |  | **value[x]\_valueCodeableConcept.coding** | lactation support | Early Childhood Nutrition Feedback |
|  |  | **value[x]\_valueCodeableConcept.coding** | Tongue-tie and lip-tie assessment | Early Childhood Nutrition Feedback |
|  |  |  |  |  |
|  | **Childhood Nutrition Referral Obs** | | | |
|  |  | **value[x]\_valueBoolean** | Is Baby Latching | Early Childhood Nutrition Referral |
|  |  | **value[x]\_valueBoolean** | Nipple shield Use | Early Childhood Nutrition Referral |
|  |  | **value[x]\_valueCodeableConcept.coding** | Mom's Main Concerns | Early Childhood Nutrition Referral |
|  |  |  |  |  |
|  | **Education Level** | | | |
|  |  | **value[x]\_valueCodeableConcept** | educationLevel | Transaction Common |
|  |  |  |  |  |
|  | **Employment Status** | | | |
|  |  | **value[x]\_valueCodeableConcept** | employmentStatus | Transaction Common |
|  |  |  |  |  |
|  | **HA1c Observation** | | | |
|  |  | **dataAbsentReason\_coding.code** | HA1c done (Y/N) | Diabetes Prevention Referral |
|  |  | **effective[x]\_effectiveDateTime** | HA1c date taken | Diabetes Prevention Referral |
|  |  | **value[x]\_valueQuantity** | HA1c percent | Diabetes Prevention Referral |
|  |  |  |  |  |
|  | **Referral Activity Status** | | | |
|  |  | **component\_code** | activityStatusReason | Feedback Common |
|  |  | **value[x]\_valueCodeableConcept.coding** | activityStatus | Feedback Common |
|  |  |  |  |  |
|  | **Sessions Attended Observation** | | | |
|  |  | **value[x]\_ valueQuantity.value** | % of sessions Attended | Feedback Multi-Program |
|  |  |  |  |  |
|  | **Tobacco Cessation Feedback Obs** | | | |
|  |  | **value[x]\_ valueQuantity.value** | tobaccoFreeDuration | Tobacco Use Cessation Feedback |
|  |  | **value[x]\_valueBoolean** | cessationMedicationUseIndicator | Tobacco Use Cessation Feedback |
|  |  | **value[x]\_valueBoolean** | quitDateSetIndicator | Tobacco Use Cessation Feedback |
|  |  | **value[x]\_valueCodeableConcept.coding** | sessionType | Tobacco Use Cessation Feedback |
|  |  |  |  |  |
|  | **Tobacco Cessation Referral Obs** | | | |
|  |  | **value[x]\_valueBoolean** | leaveMessageIndicator | Tobacco Use Cessation Referral |
|  |  | **value[x]\_valueBoolean** | NicotineReplacementTherapyAuthorization | Tobacco Use Cessation Referral |
|  |  | **value[x]\_valueCodeableConcept.coding** | bestDayToCall | Tobacco Use Cessation Referral |
|  |  | **value[x]\_valueRange** | bestTimeToCall | Tobacco Use Cessation Referral |
|  |  |  |  |  |
| **US Core Organization** | | | | |
|  | **Organization** | | | |
|  |  | **address** | programOrganizationAddress | Transaction Common |
|  |  | **address** | providerOrganizationAddress | Transaction Common |
|  |  | **name** | carrierName | Transaction Common |
|  |  | **name** | programOrganizationName | Transaction Common |
|  |  | **name** | providerOrganizationName | Transaction Common |
|  |  | **telecom** | programOrganizationAddress | Transaction Common |
|  |  | **telecom** | programOrganizationTelephone | Transaction Common |
|  |  | **telecom** | providerOrganizationAddress | Transaction Common |
|  |  | **telecom** | providerOrganizationTelephone | Transaction Common |
|  |  |  |  |  |
| **US Core Patient** | | | | |
|  | **Patient** | | | |
|  |  | **birthDate** | birthDate | Transaction Common |
|  |  | **communication\_language** | preferredLanguage | Transaction Common |
|  |  | **gender** | sex | Transaction Common |
|  |  | **name** | patientName | Transaction Common |
|  |  | **us-core-ethnicity** | ethnicGroup | Transaction Common |
|  |  | **us-core-race** | race | Transaction Common |
|  |  |  |  |  |
| **US Core Practitioner** | | | | |
|  | **Practitioner** | | | |
|  |  | **address** | providerAddress | Transaction Common |
|  |  | **name** | providerName | Transaction Common |
|  |  | **telecom** | providerEmailAddress | Transaction Common |
|  |  | **telecom** | providerTelephone | Transaction Common |
|  |  |  |  |  |
| **US Core Smoking Status** | | | | |
|  | **Smoking Status** | | | |
|  |  | **value[x]\_valueCodeableConcept.coding** | smokingStatus | Tobacco Use Cessation Referral |
|  |  |  |  |  |
| **US Core Vital Signs (Blood pressure systolic and diastolic)** | | | | |
|  | **Blood Pressure Observation** | | | |
|  |  | **effective[x]\_effectiveDateTime** | Date last BP taken | Referral Multi-Program |
|  |  | **value[x]\_ valueQuantity.value** | BP systolic/diastolic | Feedback Multi-Program |
|  |  |  |  |  |
| **US Core Vital Signs (Body height)** | | | | |
|  | **Body Height Observation** | | | |
|  |  | **value[x]\_ valueQuantity.value** | Baby's Height/Length (cm) | Early Childhood Nutrition Referral |
|  |  | **value[x]\_ valueQuantity.value** | Height (inches) | Feedback Multi-Program |
|  |  | **value[x]\_ valueQuantity.value** | Height (inches) | Referral Multi-Program |
|  |  |  |  |  |
| **US Core Vital Signs (Body mass index)** | | | | |
|  | **Body Mass Index Observation** | | | |
|  |  | **value[x]\_ valueQuantity.value** | BMI (cm/KG) | Feedback Multi-Program |
|  |  | **value[x]\_ valueQuantity.value** | BMI (cm/KG) | Referral Multi-Program |
|  |  |  |  |  |
| **US Core Vital Signs (Body weight)** | | | | |
|  | **Body Weight Observation** | | | |
|  |  | **value[x]\_ valueQuantity.value** | Baby's Weight (kgs.) | Early Childhood Nutrition Referral |
|  |  | **value[x]\_ valueQuantity.value** | Weight (lbs.) | Feedback Multi-Program |
|  |  | **value[x]\_ valueQuantity.value** | Weight (lbs.) | Referral Multi-Program |
|  |  |  |  |  |
| **US Core Vital Signs (Diastolic blood pressure)** | | | | |
|  | **Blood Pressure Observation** | | | |
|  |  | **value[x]\_ valueQuantity.value** | BP Diastolic | Feedback Multi-Program |
|  |  | **value[x]\_ valueQuantity.value** | Last taken BP diastolic | Referral Multi-Program |
|  |  |  |  |  |
| **US Core Vital Signs (Systolic blood pressure)** | | | | |
|  | **Blood Pressure Observation** | | | |
|  |  | **value[x]\_ valueQuantity.value** | BP Systolic | Feedback Multi-Program |
|  |  | **value[x]\_ valueQuantity.value** | Last taken BP systolic | Referral Multi-Program |

# AllergyIntolerance

BSeR Patient Allergy

[AllergyIntolerance: identifier http://hl7.org/fhir/us/bser/StructureDefinition/PatientAllergy (open)]

Table 1: BSeR Patient Allergy Contexts

| Contained By: | Contains: |
| --- | --- |
| [BSeR Referral Feedback](#ReferralFeedback) (optional) | [BSeR Patient](#PatientRole) (required) |

1. Conforms to U.S. Core AllergyIntolerance Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-allergyintolerance).
2. SHALL contain exactly one [1..1] verificationStatus (CONF:4383-294).
3. SHALL contain exactly one [1..1] type (CONF:4383-295).
4. SHALL contain exactly one [1..1] code (CONF:4383-296).
5. SHALL contain exactly one [1..1] [BSeR Patient](#PatientRole) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole) (CONF:4383-292).
6. MAY contain zero or one [0..1] onset[x], where onset[x] is one of (CONF:4383-293)
   1. onsetDateTime (CONF:4383-297)
   2. or onsetAge (CONF:4383-298)
7. SHALL contain at least one [1..\*] reaction (CONF:4383-299).
   1. Such reactions SHALL contain exactly one [1..1] substance (CONF:4383-300).
   2. Such reactions SHALL contain at least one [1..\*] manifestation (CONF:4383-301).
   3. Such reactions SHOULD contain zero or one [0..1] severity (CONF:4383-302).

# Composition

BSeR Referral Feedback

[Composition: identifier http://hl7.org/fhir/us/bser/StructureDefinition/ReferralFeedback (open)]

Table 2: BSeR Referral Feedback Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [BSeR Patient](#PatientRole) (required)  [BSeR Practitioner](#PractitionerPerson) (required)  [BSeR Body Weight Observation](#BodyWeightObservation) (optional)  [BSeR Body Mass Index Observation](#BodyMassIndexObservation) (optional)  [BSeR Blood Pressure Observation](#BloodPressureObservation) (optional)  [BSeR Patient Allergy](#PatientAllergy) (optional)  [BSeR Body Height Observation](#BodyHeightObservation) (optional) |

1. Conforms to Composition template (identifier: http://hl7.org/fhir/StructureDefinition/Composition).
2. SHALL contain exactly one [1..1] identifier (CONF:4383-209).
3. SHALL contain exactly one [1..1] status (CONF:4383-210).
4. SHALL contain exactly one [1..1] type (CONF:4383-211).
5. SHALL contain exactly one [1..1] [BSeR Patient](#PatientRole) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole) (CONF:4383-205).
6. SHALL contain exactly one [1..1] date (CONF:4383-212).
7. SHALL contain exactly one [1..1] [BSeR Practitioner](#PractitionerPerson) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PractitionerPerson) (CONF:4383-206).
8. SHALL contain exactly one [1..1] title (CONF:4383-213).
9. SHALL contain exactly one [1..1] relatesTo (CONF:4383-207).
   1. This relatesTo SHALL contain exactly one [1..1] code (CONF:4383-214).
   2. This relatesTo SHALL contain exactly one [1..1] targetIdentifier (CONF:4383-215).  
      Note: Referral Request Document Identifier

This section contains program specific data items that apply to more than one program area.

1. SHALL contain exactly one [1..1] section (CONF:4383-230) such that it  
   Note: Multi-program specific feedback
   1. SHALL contain exactly one [1..1] title (CONF:4383-231).
   2. SHALL contain exactly one [1..1] code (CONF:4383-232).
   3. SHOULD contain exactly one [1..1] text (CONF:4383-233).
   4. SHOULD contain exactly one [1..1] [BSeR Body Height Observation](#BodyHeightObservation) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/BodyHeightObservation) (CONF:4383-240).
   5. SHOULD contain exactly one [1..1] [BSeR Body Weight Observation](#BodyWeightObservation) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/BodyWeightObservation) (CONF:4383-258).
   6. SHOULD contain exactly one [1..1] [BSeR Body Mass Index Observation](#BodyMassIndexObservation) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/BodyMassIndexObservation) (CONF:4383-269).
   7. SHOULD contain exactly one [1..1] [BSeR Blood Pressure Observation](#BloodPressureObservation) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/BloodPressureObservation) (CONF:4383-283).
   8. SHOULD contain exactly one [1..1] [BSeR Patient Allergy](#PatientAllergy) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PatientAllergy) (CONF:4383-460).

This section contains program specific data items that apply to a single program area.

1. SHALL contain exactly one [1..1] section (CONF:4383-241) such that it  
   Note: Single-program specific feedback
   1. SHALL contain exactly one [1..1] code (CONF:4383-290).
   2. SHOULD contain zero or one [0..1] section (CONF:4383-242) such that it  
      Note: Arthritis Program Specific Data
      1. SHALL contain exactly one [1..1] code (CONF:4383-284).
      2. SHOULD contain zero or one [0..1] entry (CONF:4383-285).  
         Note: Healthy eating
   3. SHOULD contain zero or one [0..1] section (CONF:4383-243) such that it
      1. SHOULD contain zero or more [0..\*] entry (CONF:4383-461).
      2. SHOULD contain zero or more [0..\*] entry (CONF:4383-462).
   4. SHOULD contain zero or one [0..1] section (CONF:4383-244) such that it
      1. MAY contain zero or more [0..\*] entry (CONF:4383-463).
      2. MAY contain zero or more [0..\*] entry (CONF:4383-464).

# Condition

BSeR Diagnosis

[Condition: identifier http://hl7.org/fhir/us/bser/StructureDefinition/Diagnosis (open)]

Table 3: BSeR Diagnosis Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [BSeR Patient](#PatientRole) (required) |

1. Conforms to U.S. Core Condition Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition).
2. SHALL contain exactly one [1..1] code (CONF:4383-314).
   1. This code SHALL contain exactly one [1..1] coding (CONF:4383-315).
      1. This coding SHALL contain exactly one [1..1] code (CONF:4383-318).
      2. This coding SHOULD contain zero or one [0..1] display (CONF:4383-319).
3. SHALL contain exactly one [1..1] [BSeR Patient](#PatientRole) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole) (CONF:4383-316).
4. SHOULD contain zero or one [0..1] onset[x], where onset[x] is one of (CONF:4383-317)
   1. onsetDateTime (CONF:4383-320)
   2. or onsetAge (CONF:4383-321)
   3. or onsetString (CONF:4383-322)

# Consent

BSeR Patient Consent

[Consent: identifier http://hl7.org/fhir/us/bser/StructureDefinition/PatientConsent (open)]

Table 4: BSeR Patient Consent Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [BSeR Patient](#PatientRole) (required)  [BSeR Practitioner](#PractitionerPerson) (required)  [BSeR Related Person](#PatientRelatedPerson) (required) |

1. Conforms to Consent template (identifier: http://hl7.org/fhir/StructureDefinition/Consent).
2. SHALL contain exactly one [1..1] status (CONF:4383-119).
3. SHALL contain exactly one [1..1] category (CONF:4383-124).
4. SHALL contain exactly one [1..1] [BSeR Patient](#PatientRole) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole) (CONF:4383-120).
5. SHALL contain exactly one [1..1] dateTime (CONF:4383-125).
6. SHALL contain at least one [1..\*] [BSeR Related Person](#PatientRelatedPerson) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PatientRelatedPerson) (CONF:4383-121).
7. SHALL contain at least one [1..\*] actor (CONF:4383-122).
   1. Such actors SHOULD contain zero or one [0..1] role (CONF:4383-126).
   2. Such actors SHALL contain exactly one [1..1] [BSeR Practitioner](#PractitionerPerson) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PractitionerPerson) (CONF:4383-123).

# Coverage

BSeR Coverage

[Coverage: identifier http://hl7.org/fhir/us/bser/StructureDefinition/InsuranceCoverage (open)]

Table 5: BSeR Coverage Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [BSeR Patient](#PatientRole) (required)  [BSeR Related Person](#PatientRelatedPerson) (required)  [BSeR Organization](#OrganizationEntity) (required) |

1. Conforms to Coverage template (identifier: http://hl7.org/fhir/StructureDefinition/Coverage).
2. SHOULD contain zero or one [0..1] identifier (CONF:4383-155).
3. SHALL contain exactly one [1..1] status (CONF:4383-151).
4. SHALL contain exactly one [1..1] type (CONF:4383-152).
5. SHALL contain exactly one [1..1] [BSeR Related Person](#PatientRelatedPerson) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PatientRelatedPerson) (CONF:4383-148).
6. SHALL contain exactly one [1..1] [BSeR Patient](#PatientRole) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole) (CONF:4383-149).
7. SHOULD contain zero or one [0..1] period (CONF:4383-153).
   1. The period, if present, SHALL contain exactly one [1..1] start (CONF:4383-156).
   2. The period, if present, MAY contain zero or one [0..1] end (CONF:4383-157).
8. SHALL contain exactly one [1..1] [BSeR Organization](#OrganizationEntity) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/OrganizationEntity) (CONF:4383-150).
9. SHOULD contain zero or one [0..1] grouping (CONF:4383-154).
   1. The grouping, if present, SHOULD contain zero or one [0..1] planDisplay (CONF:4383-158).

# Location

BSeR Service Delivery Location

[Location: identifier http://hl7.org/fhir/us/bser/StructureDefinition/ServiceDeliveryLocation (open)]

Table 6: BSeR Service Delivery Location Contexts

| Contained By: | Contains: |
| --- | --- |
| [BSeR Referring Provider](#ReferringProviderRole) (optional)  [BSeR Servicing Provider](#ServicingProviderRole) (optional) |  |

1. Conforms to Location template (identifier: http://hl7.org/fhir/StructureDefinition/Location).
2. SHOULD contain zero or more [0..\*] identifier (CONF:4383-177).
3. SHOULD contain zero or one [0..1] name (CONF:4383-178).
4. MAY contain zero or more [0..\*] alias (CONF:4383-179).
5. SHOULD contain zero or one [0..1] type (CONF:4383-180).
6. SHOULD contain zero or more [0..\*] telecom (CONF:4383-175).
   1. The telecom, if present, SHALL contain exactly one [1..1] system (CONF:4383-181).
   2. The telecom, if present, SHALL contain exactly one [1..1] value (CONF:4383-182).
   3. The telecom, if present, SHOULD contain zero or one [0..1] use (CONF:4383-183).
7. SHOULD contain zero or one [0..1] address (CONF:4383-176).
   1. The address, if present, SHOULD contain zero or one [0..1] use (CONF:4383-184).
   2. The address, if present, MAY contain zero or one [0..1] text (CONF:4383-185).
   3. The address, if present, SHOULD contain zero or more [0..\*] line (CONF:4383-186).
   4. The address, if present, SHOULD contain zero or one [0..1] city (CONF:4383-187).
   5. The address, if present, SHOULD contain zero or one [0..1] state (CONF:4383-188).
   6. The address, if present, SHOULD contain zero or one [0..1] postalCode (CONF:4383-189).
   7. The address, if present, MAY contain zero or one [0..1] country (CONF:4383-190).

# MedicationAdministration

BSeR Medication Administration

[MedicationAdministration: identifier http://hl7.org/fhir/us/bser/StructureDefinition/bserMedicationAdministration (open)]

Table 7: BSeR Medication Administration Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [BSeR Patient](#PatientRole) (required) |

1. Conforms to U.S. DAF MedicationAdministration Profile template (identifier: http://hl7.org/fhir/us/StructureDefinition/daf-medicationadministration).
2. SHALL contain exactly one [1..1] status (CONF:4383-308).
3. medicationCodeableConcept (CONF:4383-304)
   1. SHALL contain exactly one [1..1] coding (CONF:4383-309).
   2. SHOULD contain zero or one [0..1] text (CONF:4383-310).
4. SHALL contain exactly one [1..1] [BSeR Patient](#PatientRole) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole) (CONF:4383-305).
5. SHALL contain exactly one [1..1] effective[x], where effective[x] is (CONF:4383-311)
6. SHOULD contain zero or one [0..1] dosage (CONF:4383-306).
   1. The dosage, if present, SHALL contain exactly one [1..1] dose (CONF:4383-312).
   2. The dosage, if present, MAY contain zero or one [0..1] rateQuantity (CONF:4383-313).

# Observation

BSeR Arthritis Feedback Observation

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/ArthristisFeedbackObservation (open)]

1. Conforms to U.S. Core ObservationResults Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-observationresults).
2. SHALL contain exactly one [1..1] status (CONF:4383-422).
3. SHOULD contain zero or one [0..1] category (CONF:4383-423).
4. SHALL contain exactly one [1..1] code (CONF:4383-418).
   1. This code SHALL contain exactly one [1..1] coding (CONF:4383-419).
      1. This coding SHALL contain exactly one [1..1] system (CONF:4383-424).
      2. This coding SHOULD contain zero or one [0..1] version (CONF:4383-425).
      3. This coding SHALL contain zero or one [0..1] code (CONF:4383-426).
      4. This coding SHOULD contain zero or one [0..1] display (CONF:4383-427).
5. effectiveDateTime (CONF:4383-428)
6. SHALL contain zero or one [0..1] value[x], where value[x] is one of (CONF:4383-421)
   1. valueCodeableConcept (CONF:4383-429)
   2. or valueBoolean (CONF:4383-430)

BSeR Blood Pressure Observation

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/BloodPressureObservation (open)]

Table 8: BSeR Blood Pressure Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [BSeR Referral Feedback](#ReferralFeedback) (optional) |  |

1. Conforms to U.S. Core ObservationResults Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-observationresults).
2. SHALL contain exactly one [1..1] status (CONF:4383-275).
3. SHALL contain exactly one [1..1] category (CONF:4383-276).
4. SHALL contain exactly one [1..1] code (CONF:4383-277).
5. effectiveDateTime (CONF:4383-278)
6. valueQuantity (CONF:4383-272)
   1. SHALL contain exactly one [1..1] value (CONF:4383-279).
   2. SHALL contain zero or one [0..1] unit (CONF:4383-280).
7. valueQuantity (CONF:4383-274)
   1. SHALL contain exactly one [1..1] value (CONF:4383-281).
   2. SHALL contain exactly one [1..1] unit (CONF:4383-282).

BSeR Body Height Observation

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/BodyHeightObservation (open)]

Table 9: BSeR Body Height Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [BSeR Referral Feedback](#ReferralFeedback) (optional) |  |

1. Conforms to U.S. Core VitalSigns Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-vitalsigns).
2. SHALL contain exactly one [1..1] status="complete" complete (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4383-407).
3. SHALL contain exactly one [1..1] category (CONF:4383-408).
4. SHALL contain exactly one [1..1] code (CONF:4383-409).
5. effectiveDateTime (CONF:4383-404)
6. valueQuantity (CONF:4383-403)
   1. SHALL contain exactly one [1..1] value (CONF:4383-405).
   2. SHALL contain exactly one [1..1] unit (CONF:4383-406).

BSeR Body Mass Index Observation

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/BodyMassIndexObservation (open)]

Table 10: BSeR Body Mass Index Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [BSeR Referral Feedback](#ReferralFeedback) (optional) |  |

1. Conforms to U.S. Core ObservationResults Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-observationresults).
2. SHALL contain exactly one [1..1] status (CONF:4383-262).
3. SHALL contain exactly one [1..1] category (CONF:4383-263).
4. SHALL contain exactly one [1..1] code (CONF:4383-264).
5. effectiveDateTime (CONF:4383-265)
6. valueQuantity (CONF:4383-261)
   1. SHALL contain exactly one [1..1] value (CONF:4383-266).
   2. SHALL contain exactly one [1..1] unit (CONF:4383-267).
7. MAY contain zero or one [0..1] dataAbsentReason (CONF:4383-268).

BSeR Body Weight Observation

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/BodyWeightObservation (open)]

Table 11: BSeR Body Weight Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [BSeR Referral Feedback](#ReferralFeedback) (optional) |  |

1. Conforms to U.S. Core ObservationResults Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-observationresults).
2. SHALL contain exactly one [1..1] status="complete" complete (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4383-252).
3. SHALL contain exactly one [1..1] category (CONF:4383-253).
4. SHALL contain exactly one [1..1] code (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4383-254).
5. effectiveDateTime (CONF:4383-255)
6. valueQuantity (CONF:4383-251)
   1. SHALL contain exactly one [1..1] value (CONF:4383-256).
   2. SHALL contain exactly one [1..1] unit (CONF:4383-257).

BSeR Childhood Nutrition Feedback Obs

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/ChildhoodNutritionFeedbackObs (open)]

1. Conforms to U.S. Core ObservationResults Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-observationresults).
2. SHALL contain exactly one [1..1] status (CONF:4383-442).
3. SHOULD contain zero or one [0..1] category (CONF:4383-443).
4. SHALL contain exactly one [1..1] code (CONF:4383-431).
   1. This code SHALL contain exactly one [1..1] coding (CONF:4383-432).
      1. This coding SHALL contain exactly one [1..1] system (CONF:4383-435).
      2. This coding SHOULD contain zero or one [0..1] version (CONF:4383-436).
      3. This coding SHALL contain zero or one [0..1] code (CONF:4383-437).
      4. This coding SHOULD contain zero or one [0..1] display (CONF:4383-438).
5. effectiveDateTime (CONF:4383-439)
6. SHALL contain zero or one [0..1] value[x], where value[x] is one of (CONF:4383-434)
   1. valueCodeableConcept (CONF:4383-440)
   2. or valueBoolean (CONF:4383-441)

BSeR Childhood Nutrition Referral Obs

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/ChildhoodNutritionReferralObs (open)]

1. Conforms to U.S. Core ObservationResults Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-observationresults).
2. SHOULD contain zero or one [0..1] category (CONF:4383-327).
3. SHALL contain exactly one [1..1] code (CONF:4383-328).
4. SHALL contain exactly one [1..1] subject (CONF:4383-329).
5. effectiveDateTime (CONF:4383-330)
6. SHALL contain exactly one [1..1] value[x], where value[x] is one of (CONF:4383-326)
   1. valueCodeableConcept (CONF:4383-332)
      1. SHOULD contain zero or one [0..1] coding (CONF:4383-333).
      2. SHOULD contain zero or one [0..1] text (CONF:4383-334).
   2. or valueBoolean (CONF:4383-331)

BSeR Education Level

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/EducationLevel (open)]

Table 12: BSeR Education Level Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [BSeR Patient](#PatientRole) (required) |

1. Conforms to U.S. Core ObservationResults Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-observationresults).
2. SHALL contain exactly one [1..1] status="completed" completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4383-105).
3. SHALL contain exactly one [1..1] code=" 80913-7" Highest level of education (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4383-94).
4. SHALL contain exactly one [1..1] [BSeR Patient](#PatientRole) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole) (CONF:4383-95).
5. valueCodeableConcept (CONF:4383-98)
6. MAY contain zero or one [0..1] dataAbsentReason (CONF:4383-106).

BSeR Employment Status

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/bser-PatientEmploymentStatus (open)]

Table 13: BSeR Employment Status Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [BSeR Patient](#PatientRole) (required) |

1. Conforms to U.S. Core ObservationResults Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-observationresults).
2. SHALL contain exactly one [1..1] status="completed" completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4383-101).
3. SHALL contain exactly one [1..1] code=" 74165-2" History of employment status (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4383-102).
4. SHALL contain exactly one [1..1] [BSeR Patient](#PatientRole) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole) (CONF:4383-99).
5. valueCodeableConcept (CONF:4383-103)
6. MAY contain zero or one [0..1] dataAbsentReason (CONF:4383-104).

BSeR HA1c Observation

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/HA1cObservation (open)]

1. Conforms to U.S. Core ObservationResults Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-observationresults).
2. SHALL contain exactly one [1..1] status (CONF:4383-339).
3. SHOULD contain zero or more [0..\*] category (CONF:4383-340).
4. SHALL contain exactly one [1..1] code (CONF:4383-341).
5. effectiveDateTime (CONF:4383-342)
6. valueQuantity (CONF:4383-343)
7. MAY contain zero or one [0..1] dataAbsentReason (CONF:4383-337).
   1. The dataAbsentReason, if present, SHALL contain exactly one [1..1] coding (CONF:4383-338).
      1. This coding SHALL contain exactly one [1..1] code (CONF:4383-344).

BSeR Referral Activity Status

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/ReferralActivityStatus (open)]

1. Conforms to U.S. Core ObservationResults Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-observationresults).
2. SHALL contain exactly one [1..1] status (CONF:4383-384).
3. SHOULD contain zero or one [0..1] category (CONF:4383-385).
4. SHALL contain exactly one [1..1] code (CONF:4383-376).
   1. This code SHALL contain exactly one [1..1] coding (CONF:4383-377).
      1. This coding SHALL contain exactly one [1..1] system (CONF:4383-386).
      2. This coding SHOULD contain zero or one [0..1] version (CONF:4383-387).
      3. This coding SHALL contain exactly one [1..1] code (CONF:4383-388).
      4. This coding SHOULD contain zero or one [0..1] display (CONF:4383-389).
5. SHOULD contain zero or one [0..1] effective[x], where effective[x] is (CONF:4383-390)
6. valueCodeableConcept (CONF:4383-379)
   1. SHALL contain exactly one [1..1] coding (CONF:4383-380).
      1. This coding SHALL contain exactly one [1..1] system (CONF:4383-391).
      2. This coding SHOULD contain zero or one [0..1] version (CONF:4383-392).
      3. This coding SHALL contain exactly one [1..1] code (CONF:4383-393).
      4. This coding SHOULD contain zero or one [0..1] display (CONF:4383-394).
7. MAY contain zero or one [0..1] dataAbsentReason (CONF:4383-395).
8. SHOULD contain zero or one [0..1] component (CONF:4383-381).
   1. The component, if present, SHALL contain exactly one [1..1] code (CONF:4383-382).
      1. This code MAY contain exactly one [1..1] coding (CONF:4383-383).
         1. This coding SHALL contain exactly one [1..1] system (CONF:4383-396).
         2. This coding SHOULD contain zero or one [0..1] version (CONF:4383-397).
         3. This coding SHALL contain exactly one [1..1] code (CONF:4383-398).
         4. This coding SHOULD contain zero or one [0..1] display (CONF:4383-399).
   2. The component, if present, MAY contain zero or one [0..1] dataAbsentReason (CONF:4383-400).

BSeR Sessions Attended Observation

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/SessionsAttendedObservation (open)]

1. Conforms to U.S. Core ObservationResults Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-observationresults).
2. SHALL contain exactly one [1..1] status (CONF:4383-413).
3. SHOULD contain zero or more [0..\*] category (CONF:4383-414).
4. SHALL contain exactly one [1..1] code (CONF:4383-415).
5. effectiveDateTime (CONF:4383-416)
6. valueQuantity (CONF:4383-412)
   1. SHALL contain exactly one [1..1] value (CONF:4383-417).

BSeR Smoking Status

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/SmokingStatus (open)]

1. Conforms to U.S. Core SmokingStatus Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-smokingstatus).
2. SHALL contain exactly one [1..1] status (CONF:4383-351).
3. SHALL contain exactly one [1..1] code (CONF:4383-345).
   1. This code SHALL contain exactly one [1..1] coding (CONF:4383-346).
      1. This coding SHALL contain exactly one [1..1] system (CONF:4383-352).
      2. This coding SHOULD contain zero or one [0..1] version (CONF:4383-353).
      3. This coding SHALL contain exactly one [1..1] code (CONF:4383-354).
      4. This coding SHOULD contain zero or one [0..1] display (CONF:4383-355).
4. effectiveDateTime (CONF:4383-356)
5. valueCodeableConcept (CONF:4383-349)
   1. SHALL contain exactly one [1..1] coding (CONF:4383-350).
      1. This coding SHALL contain exactly one [1..1] system (CONF:4383-357).
      2. This coding SHOULD contain zero or one [0..1] version (CONF:4383-358).
      3. This coding SHALL contain exactly one [1..1] code (CONF:4383-359).
      4. This coding SHOULD contain zero or one [0..1] display (CONF:4383-360).
6. MAY contain zero or one [0..1] dataAbsentReason (CONF:4383-361).

BSeR Tobacco Cessation Feedback Obs

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/TobaccoCessationFeedbackObs (open)]

1. Conforms to U.S. Core ObservationResults Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-observationresults).
2. SHALL contain exactly one [1..1] status (CONF:4383-455).
3. SHOULD contain zero or one [0..1] category (CONF:4383-456).
4. SHALL contain exactly one [1..1] code (CONF:4383-444).
   1. This code SHALL contain exactly one [1..1] coding (CONF:4383-445).
      1. This coding SHALL contain exactly one [1..1] system (CONF:4383-448).
      2. This coding SHOULD contain zero or one [0..1] version (CONF:4383-449).
      3. This coding SHALL contain zero or one [0..1] code (CONF:4383-450).
      4. This coding SHOULD contain zero or one [0..1] display (CONF:4383-451).
5. effectiveDateTime (CONF:4383-452)
6. SHALL contain zero or one [0..1] value[x], where value[x] is one of (CONF:4383-447)
   1. valueQuantity (CONF:4383-457)
      1. SHALL contain exactly one [1..1] value (CONF:4383-458).
      2. MAY contain zero or one [0..1] comparator (CONF:4383-459).
   2. or valueCodeableConcept (CONF:4383-453)
   3. or valueBoolean (CONF:4383-454)

BSeR Tobacco Cessation Referral Obs

[Observation: identifier http://hl7.org/fhir/us/bser/StructureDefinition/TobaccoCessationReferralObs (open)]

1. Conforms to U.S. Core ObservationResults Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-observationresults).
2. SHALL contain exactly one [1..1] status (CONF:4383-366).
3. SHALL contain exactly one [1..1] code (CONF:4383-367).
4. effectiveDateTime (CONF:4383-368)
5. SHALL contain exactly one [1..1] value[x], where value[x] is one of (CONF:4383-363)
   1. valueCodeableConcept (CONF:4383-364)
      1. SHALL contain exactly one [1..1] coding (CONF:4383-365).
         1. This coding SHALL contain exactly one [1..1] system (CONF:4383-369).
         2. This coding SHOULD contain zero or one [0..1] version (CONF:4383-370).
         3. This coding SHALL contain exactly one [1..1] code (CONF:4383-371).
         4. This coding SHOULD contain zero or one [0..1] display (CONF:4383-372).
   2. or valueBoolean (CONF:4383-373)
   3. or valueRange (CONF:4383-374)
6. MAY contain zero or one [0..1] dataAbsentReason (CONF:4383-375).

# Organization

BSeR Organization

[Organization: identifier http://hl7.org/fhir/us/bser/StructureDefinition/OrganizationEntity (open)]

Table 14: BSeR Organization Contexts

| Contained By: | Contains: |
| --- | --- |
| [BSeR Referring Provider](#ReferringProviderRole) (optional)  [BSeR Servicing Provider](#ServicingProviderRole) (optional)  [BSeR Coverage](#InsuranceCoverage) (required) |  |

1. SHOULD contain zero or more [0..\*] identifier (CONF:4383-162).
2. SHOULD contain exactly one [1..1] type (CONF:4383-163).
3. SHALL contain exactly one [1..1] name (CONF:4383-164).
4. SHOULD contain zero or more [0..\*] telecom (CONF:4383-160).
   1. The telecom, if present, SHALL contain exactly one [1..1] system (CONF:4383-165).
   2. The telecom, if present, SHALL contain exactly one [1..1] value (CONF:4383-166).
   3. The telecom, if present, SHOULD contain zero or one [0..1] use (CONF:4383-167).
5. SHOULD contain zero or more [0..\*] address (CONF:4383-161).
   1. The address, if present, SHOULD contain zero or one [0..1] use (CONF:4383-168).
   2. The address, if present, MAY contain zero or one [0..1] text (CONF:4383-169).
   3. The address, if present, SHOULD contain zero or more [0..\*] line (CONF:4383-170).
   4. The address, if present, SHOULD contain zero or one [0..1] city (CONF:4383-171).
   5. The address, if present, SHOULD contain zero or one [0..1] state (CONF:4383-172).
   6. The address, if present, SHOULD contain zero or one [0..1] postalCode (CONF:4383-173).
   7. The address, if present, MAY contain zero or one [0..1] country (CONF:4383-174).

# Patient

BSeR Patient

[Patient: identifier http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole (open)]

Table 15: BSeR Patient Contexts

| Contained By: | Contains: |
| --- | --- |
| [BSeR Education Level](#EducationLevel) (required)  [BSeR Employment Status](#EmploymentStatus) (required)  [BSeR Patient Consent](#PatientConsent) (required)  [BSeR Related Person](#PatientRelatedPerson) (required)  [BSeR Coverage](#InsuranceCoverage) (required)  [BSeR Referral Request](#ReferralRequestTransaction) (required)  [BSeR Referral Feedback](#ReferralFeedback) (required)  [BSeR Patient Allergy](#PatientAllergy) (required)  [BSeR Medication Administration](#bserMedicationAdministration) (required)  [BSeR Diagnosis](#Diagnosis) (required) |  |

1. Conforms to U.S. Core Patient Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient).
2. SHALL contain at least one [1..\*] identifier (CONF:4383-34).
   1. Such identifiers SHOULD contain zero or one [0..1] type (CONF:4383-39).
   2. Such identifiers SHALL contain exactly one [1..1] system (CONF:4383-40).
   3. Such identifiers SHALL contain exactly one [1..1] value (CONF:4383-41).
3. SHALL contain at least one [1..\*] name (CONF:4383-54).
   1. Such names SHOULD contain zero or one [0..1] use (CONF:4383-110).
   2. Such names SHALL contain exactly one [1..1] family (CONF:4383-60).
   3. Such names SHALL contain at least one [1..\*] given (CONF:4383-61).
4. SHOULD contain zero or more [0..\*] telecom (CONF:4383-35).
   1. The telecom, if present, SHALL contain exactly one [1..1] system (CONF:4383-42).
   2. The telecom, if present, SHALL contain exactly one [1..1] value (CONF:4383-43).
   3. The telecom, if present, SHOULD contain zero or one [0..1] use (CONF:4383-44).
5. SHALL contain exactly one [1..1] gender (CONF:4383-55).
6. SHALL contain exactly one [1..1] birthDate (CONF:4383-56).
7. SHOULD contain zero or more [0..\*] address (CONF:4383-36).
   1. The address, if present, MAY contain zero or one [0..1] text (CONF:4383-111).
   2. The address, if present, SHOULD contain zero or more [0..\*] line (CONF:4383-45).
   3. The address, if present, SHOULD contain zero or one [0..1] city (CONF:4383-46).
   4. The address, if present, SHOULD contain zero or one [0..1] state (CONF:4383-47).
   5. The address, if present, SHOULD contain zero or one [0..1] postalCode (CONF:4383-48).
   6. The address, if present, SHOULD contain zero or one [0..1] country (CONF:4383-49).
8. SHOULD contain zero or one [0..1] communication (CONF:4383-107).
   1. The communication, if present, SHALL contain exactly one [1..1] language (CONF:4383-108).
   2. The communication, if present, SHALL contain zero or one [0..1] preferred (CONF:4383-109).

# Practitioner

BSeR Practitioner

[Practitioner: identifier http://hl7.org/fhir/us/bser/StructureDefinition/PractitionerPerson (open)]

Table 16: BSeR Practitioner Contexts

| Contained By: | Contains: |
| --- | --- |
| [BSeR Referring Provider](#ReferringProviderRole) (required)  [BSeR Servicing Provider](#ServicingProviderRole) (required)  [BSeR Patient Consent](#PatientConsent) (required)  [BSeR Referral Request](#ReferralRequestTransaction) (optional)  [BSeR Referral Request](#ReferralRequestTransaction) (required)  [BSeR Referral Feedback](#ReferralFeedback) (required) |  |

1. Conforms to U.S. Core Practitioner Profile template (identifier: http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner).
2. SHOULD contain zero or more [0..\*] identifier (CONF:4383-68).
   1. The identifier, if present, SHALL contain exactly one [1..1] value (CONF:4383-74).
3. SHOULD contain zero or one [0..1] name (CONF:4383-69).
   1. The name, if present, SHALL contain exactly one [1..1] family (CONF:4383-75).
   2. The name, if present, SHOULD contain at least one [1..\*] given (CONF:4383-76).
   3. The name, if present, MAY contain zero or one [0..1] prefix (CONF:4383-77).
   4. The name, if present, MAY contain zero or one [0..1] suffix (CONF:4383-78).
4. SHOULD contain zero or more [0..\*] telecom (CONF:4383-70).
   1. The telecom, if present, SHALL contain exactly one [1..1] system (CONF:4383-159).
   2. The telecom, if present, SHALL contain exactly one [1..1] value (CONF:4383-81).
   3. The telecom, if present, SHOULD contain zero or one [0..1] use (CONF:4383-83).
5. SHOULD contain zero or one [0..1] address (CONF:4383-82).
   1. The address, if present, SHOULD contain zero or one [0..1] use (CONF:4383-84).
   2. The address, if present, SHOULD contain zero or one [0..1] city (CONF:4383-85).
   3. The address, if present, SHOULD contain zero or one [0..1] state (CONF:4383-86).
   4. The address, if present, SHOULD contain zero or one [0..1] postalCode (CONF:4383-87).
   5. The address, if present, MAY contain zero or one [0..1] country (CONF:4383-88).

# PractitionerRole

BSeR Referring Provider

[PractitionerRole: identifier http://hl7.org/fhir/us/bser/StructureDefinition/ReferringProviderRole (open)]

Table 17: BSeR Referring Provider Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [BSeR Practitioner](#PractitionerPerson) (required)  [BSeR Organization](#OrganizationEntity) (optional)  [BSeR Service Delivery Location](#ServiceDeliveryLocation) (optional) |

1. Conforms to PractitionerRole template (identifier: http://hl7.org/fhir/StructureDefinition/PractitionerRole).
2. SHALL contain exactly one [1..1] [BSeR Practitioner](#PractitionerPerson) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PractitionerPerson) (CONF:4383-62).
3. SHOULD contain zero or one [0..1] [BSeR Organization](#OrganizationEntity) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/OrganizationEntity) (CONF:4383-63).
4. SHOULD contain zero or one [0..1] code (CONF:4383-64).
   1. The code, if present, SHALL contain exactly one [1..1] coding (CONF:4383-65).
   2. The code, if present, MAY contain zero or one [0..1] text (CONF:4383-66).
5. SHOULD contain zero or one [0..1] [BSeR Service Delivery Location](#ServiceDeliveryLocation) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/ServiceDeliveryLocation) (CONF:4383-191).

BSeR Servicing Provider

[PractitionerRole: identifier http://hl7.org/fhir/us/bser/StructureDefinition/ServicingProviderRole (open)]

Table 18: BSeR Servicing Provider Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [BSeR Practitioner](#PractitionerPerson) (required)  [BSeR Organization](#OrganizationEntity) (optional)  [BSeR Service Delivery Location](#ServiceDeliveryLocation) (optional) |

1. Conforms to PractitionerRole template (identifier: http://hl7.org/fhir/StructureDefinition/PractitionerRole).
2. SHALL contain exactly one [1..1] [BSeR Practitioner](#PractitionerPerson) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PractitionerPerson) (CONF:4383-89).
3. SHOULD contain zero or one [0..1] [BSeR Organization](#OrganizationEntity) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/OrganizationEntity) (CONF:4383-90).
4. SHOULD contain zero or one [0..1] code (CONF:4383-91).
   1. The code, if present, SHALL contain exactly one [1..1] coding (CONF:4383-92).
   2. The code, if present, MAY contain zero or one [0..1] text (CONF:4383-93).
5. SHOULD contain zero or one [0..1] [BSeR Service Delivery Location](#ServiceDeliveryLocation) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/ServiceDeliveryLocation) (CONF:4383-192).

# ReferralRequest

BSeR Referral Request

[ReferralRequest: identifier http://hl7.org/fhir/us/bser/StructureDefinition/ReferralRequestTransaction (open)]

Table 19: BSeR Referral Request Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [BSeR Patient](#PatientRole) (required)  [BSeR Practitioner](#PractitionerPerson) (optional)  [BSeR Practitioner](#PractitionerPerson) (required) |

1. Conforms to ReferralRequest template (identifier: http://hl7.org/fhir/StructureDefinition/ReferralRequest).
2. SHALL contain exactly one [1..1] identifier (CONF:4383-197).
   1. This identifier SHOULD contain zero or one [0..1] type (CONF:4383-218).
   2. This identifier SHALL contain exactly one [1..1] value (CONF:4383-219).
3. SHALL contain exactly one [1..1] status (CONF:4383-198).
   1. This status SHALL contain exactly one [1..1] @value (CONF:4383-220).
4. SHALL contain at least one [1..\*] serviceRequested (CONF:4383-200).
   1. Such serviceRequesteds SHALL contain exactly one [1..1] coding (CONF:4383-216).
      1. This coding SHALL contain exactly one [1..1] code (CONF:4383-221).
      2. This coding SHOULD contain zero or one [0..1] display (CONF:4383-222).
   2. Such serviceRequesteds MAY contain zero or one [0..1] text (CONF:4383-223).
5. SHALL contain exactly one [1..1] [BSeR Patient](#PatientRole) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole) (CONF:4383-193).
6. SHALL contain exactly one [1..1] authoredOn (CONF:4383-201).
   1. This authoredOn SHALL contain exactly one [1..1] @value (CONF:4383-224).
7. SHALL contain exactly one [1..1] requester (CONF:4383-194).
   1. This requester SHALL contain exactly one [1..1] [BSeR Practitioner](#PractitionerPerson) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PractitionerPerson) (CONF:4383-195).
8. MAY contain zero or more [0..\*] [BSeR Practitioner](#PractitionerPerson) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PractitionerPerson) (CONF:4383-196).
9. SHALL contain exactly one [1..1] reasonCode (CONF:4383-202).
   1. This reasonCode SHALL contain exactly one [1..1] coding (CONF:4383-217).
      1. This coding SHOULD contain zero or one [0..1] system (CONF:4383-225).
      2. This coding MAY contain zero or one [0..1] version (CONF:4383-226).
      3. This coding SHALL contain exactly one [1..1] code (CONF:4383-227).
      4. This coding SHOULD contain zero or one [0..1] display (CONF:4383-228).
   2. This reasonCode MAY contain zero or one [0..1] text (CONF:4383-229).
10. SHOULD contain zero or more [0..\*] supportingInfo (CONF:4383-203).

# RelatedPerson

BSeR Related Person

[RelatedPerson: identifier http://hl7.org/fhir/us/bser/StructureDefinition/PatientRelatedPerson (open)]

Table 20: BSeR Related Person Contexts

| Contained By: | Contains: |
| --- | --- |
| [BSeR Patient Consent](#PatientConsent) (required)  [BSeR Coverage](#InsuranceCoverage) (required) | [BSeR Patient](#PatientRole) (required) |

1. SHALL contain exactly one [1..1] [BSeR Patient](#PatientRole) (identifier: http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole) (CONF:4383-129).
2. SHALL contain zero or one [0..1] relationship (CONF:4383-133).
3. SHALL contain at least one [1..\*] name (CONF:4383-130).
   1. Such names SHOULD contain zero or one [0..1] use (CONF:4383-134).
   2. Such names SHALL contain exactly one [1..1] family (CONF:4383-135).
   3. Such names SHALL contain at least one [1..\*] given (CONF:4383-136).
   4. Such names MAY contain zero or more [0..\*] suffix (CONF:4383-137).
4. SHOULD contain zero or more [0..\*] telecom (CONF:4383-131).
   1. The telecom, if present, SHALL contain exactly one [1..1] system (CONF:4383-138).
   2. The telecom, if present, SHALL contain exactly one [1..1] value (CONF:4383-139).
   3. The telecom, if present, SHOULD contain zero or one [0..1] use (CONF:4383-140).
5. SHOULD contain zero or one [0..1] gender (CONF:4383-323).
6. SHOULD contain zero or one [0..1] birthDate (CONF:4383-324).
7. SHOULD contain zero or more [0..\*] address (CONF:4383-132).
   1. The address, if present, SHOULD contain zero or one [0..1] use (CONF:4383-141).
   2. The address, if present, MAY contain zero or one [0..1] text (CONF:4383-142).
   3. The address, if present, SHOULD contain zero or more [0..\*] line (CONF:4383-143).
   4. The address, if present, SHOULD contain zero or one [0..1] city (CONF:4383-144).
   5. The address, if present, SHOULD contain zero or one [0..1] state (CONF:4383-145).
   6. The address, if present, SHOULD contain zero or one [0..1] postalCode (CONF:4383-146).
   7. The address, if present, MAY contain zero or one [0..1] country (CONF:4383-147).

# Template Ids in This Guide

Table 21: Template Containments

| Template Title | Template Type | templateId |
| --- | --- | --- |
| [BSeR Referral Feedback](#ReferralFeedback) | Composition | http://hl7.org/fhir/us/bser/StructureDefinition/ReferralFeedback |
| [BSeR Patient](#PatientRole) | Patient | http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole |
| [BSeR Practitioner](#PractitionerPerson) | Practitioner | http://hl7.org/fhir/us/bser/StructureDefinition/PractitionerPerson |
| [BSeR Body Weight Observation](#BodyWeightObservation) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/BodyWeightObservation |
| [BSeR Body Mass Index Observation](#BodyMassIndexObservation) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/BodyMassIndexObservation |
| [BSeR Blood Pressure Observation](#BloodPressureObservation) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/BloodPressureObservation |
| [BSeR Patient Allergy](#PatientAllergy) | AllergyIntolerance | http://hl7.org/fhir/us/bser/StructureDefinition/PatientAllergy |
| [BSeR Patient](#PatientRole) | Patient | http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole |
| [BSeR Body Height Observation](#BodyHeightObservation) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/BodyHeightObservation |
| [BSeR Diagnosis](#Diagnosis) | Condition | http://hl7.org/fhir/us/bser/StructureDefinition/Diagnosis |
| [BSeR Patient](#PatientRole) | Patient | http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole |
| [BSeR Patient Consent](#PatientConsent) | Consent | http://hl7.org/fhir/us/bser/StructureDefinition/PatientConsent |
| [BSeR Patient](#PatientRole) | Patient | http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole |
| [BSeR Practitioner](#PractitionerPerson) | Practitioner | http://hl7.org/fhir/us/bser/StructureDefinition/PractitionerPerson |
| [BSeR Related Person](#PatientRelatedPerson) | RelatedPerson | http://hl7.org/fhir/us/bser/StructureDefinition/PatientRelatedPerson |
| [BSeR Patient](#PatientRole) | Patient | http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole |
| [BSeR Coverage](#InsuranceCoverage) | Coverage | http://hl7.org/fhir/us/bser/StructureDefinition/InsuranceCoverage |
| [BSeR Patient](#PatientRole) | Patient | http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole |
| [BSeR Related Person](#PatientRelatedPerson) | RelatedPerson | http://hl7.org/fhir/us/bser/StructureDefinition/PatientRelatedPerson |
| [BSeR Patient](#PatientRole) | Patient | http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole |
| [BSeR Organization](#OrganizationEntity) | Organization | http://hl7.org/fhir/us/bser/StructureDefinition/OrganizationEntity |
| [BSeR Medication Administration](#bserMedicationAdministration) | MedicationAdministration | http://hl7.org/fhir/us/bser/StructureDefinition/bserMedicationAdministration |
| [BSeR Patient](#PatientRole) | Patient | http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole |
| [BSeR Arthritis Feedback Observation](#ArthristisFeedbackObservation) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/ArthristisFeedbackObservation |
| [BSeR Childhood Nutrition Feedback Obs](#ChildhoodNutritionFeedbackObs) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/ChildhoodNutritionFeedbackObs |
| [BSeR Childhood Nutrition Referral Obs](#ChildhoodNutritionReferralObs) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/ChildhoodNutritionReferralObs |
| [BSeR Education Level](#EducationLevel) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/EducationLevel |
| [BSeR Patient](#PatientRole) | Patient | http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole |
| [BSeR Employment Status](#EmploymentStatus) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/bser-PatientEmploymentStatus |
| [BSeR Patient](#PatientRole) | Patient | http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole |
| [BSeR HA1c Observation](#HA1cObservation) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/HA1cObservation |
| [BSeR Referral Activity Status](#ReferralActivityStatus) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/ReferralActivityStatus |
| [BSeR Sessions Attended Observation](#SessionsAttendedObservation) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/SessionsAttendedObservation |
| [BSeR Smoking Status](#SmokingStatus) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/SmokingStatus |
| [BSeR Tobacco Cessation Feedback Obs](#TobaccoCessationFeedbackObs) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/TobaccoCessationFeedbackObs |
| [BSeR Tobacco Cessation Referral Obs](#TobaccoCessationReferralObs) | Observation | http://hl7.org/fhir/us/bser/StructureDefinition/TobaccoCessationReferralObs |
| [BSeR Referring Provider](#ReferringProviderRole) | PractitionerRole | http://hl7.org/fhir/us/bser/StructureDefinition/ReferringProviderRole |
| [BSeR Practitioner](#PractitionerPerson) | Practitioner | http://hl7.org/fhir/us/bser/StructureDefinition/PractitionerPerson |
| [BSeR Organization](#OrganizationEntity) | Organization | http://hl7.org/fhir/us/bser/StructureDefinition/OrganizationEntity |
| [BSeR Service Delivery Location](#ServiceDeliveryLocation) | Location | http://hl7.org/fhir/us/bser/StructureDefinition/ServiceDeliveryLocation |
| [BSeR Servicing Provider](#ServicingProviderRole) | PractitionerRole | http://hl7.org/fhir/us/bser/StructureDefinition/ServicingProviderRole |
| [BSeR Practitioner](#PractitionerPerson) | Practitioner | http://hl7.org/fhir/us/bser/StructureDefinition/PractitionerPerson |
| [BSeR Organization](#OrganizationEntity) | Organization | http://hl7.org/fhir/us/bser/StructureDefinition/OrganizationEntity |
| [BSeR Service Delivery Location](#ServiceDeliveryLocation) | Location | http://hl7.org/fhir/us/bser/StructureDefinition/ServiceDeliveryLocation |
| [BSeR Referral Request](#ReferralRequestTransaction) | ReferralRequest | http://hl7.org/fhir/us/bser/StructureDefinition/ReferralRequestTransaction |
| [BSeR Patient](#PatientRole) | Patient | http://hl7.org/fhir/us/bser/StructureDefinition/PatientRole |
| [BSeR Practitioner](#PractitionerPerson) | Practitioner | http://hl7.org/fhir/us/bser/StructureDefinition/PractitionerPerson |
| [BSeR Practitioner](#PractitionerPerson) | Practitioner | http://hl7.org/fhir/us/bser/StructureDefinition/PractitionerPerson |

# Code Systems in This Guide

Table 22: Code Systems

| Name | OID |
| --- | --- |
| HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 |
| LOINC | urn:oid:2.16.840.1.113883.6.1 |