### model

Package in package 'DDF'

model Version 1.0 Phase 1.0 Proposed cupke created on 11/28/2022. Last modified 11/28/2022

### model diagram

Class diagram in package 'model'

model Version 1.0 cupke created on 11/28/2022. Last modified 11/28/2022

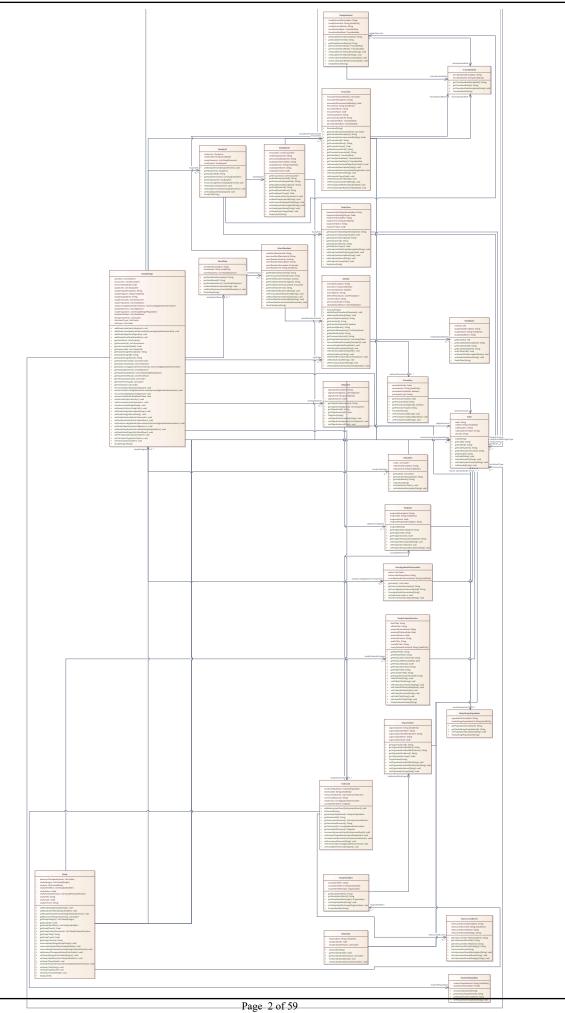


Figure 1: model

### **Activity**

Class in package 'model'

An action, undertaking, or event, which is anticipated to be performed or observed, or was performed or observed, according to the study protocol during the execution of the study.

Activity
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 11/28/2022. Last modified 11/28/2022

| ATTRIBUTES   |   |
|--|---|
| activityDescription : String Private   |   |
| The textual representation of the study activity.                                      | [ Is static True. Containment is Not Specified. ]                                 |
| activityId: String Private Const   | [ Is static True. Containment is Not Specified. ]                                 |
| activityIsOptional: boolean Private  | [ Is static True. Containment is Not Specified. ]                                 |
|  |   |
| The literal identifier (i.e., distinctive designation) of the clinical study activity. | [ Is static True. Containment is Not Specified. ]                                 |
|  | [ Is static True. Containment is Not Specified. ]                                 |
| nextActivityId: String Private   |   |
| A system identifier assigned to a study activity that occurs immediately after the     | ne current study activity.  [ Is static True. Containment is Not Specified. ]     |
| previousActivityId : String Private  |   |
| A system identifier assigned to a study activity that occurs immediately prior to      | to the current study activity.  [ Is static True. Containment is Not Specified. ] |
| studyDataCollection : List <studydata> Private</studydata>                             |   |

### **ATTRIBUTES**

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Activity

Target: Private definedProcedures (Class)

Procedure

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) Activity Target: Private studyDataCollection (Class)

StudyData

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) WorkflowItem Target: Private workflowItemActivity (Class)

Activity

Association (direction: Source -> Destination)

Source: Public (Class) StudyDesign Target: Private activities (Class) Activity

Cardinality: [0..\*]

### **OPERATIONS**

Activity (activityId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

addDefinedProcedure (procedure : Procedure ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

addStudyData (studyData : StudyData ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getActivityDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getActivityId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### Model Report 28 November, 2022 **OPERATIONS** getActivityIsOptional (): boolean Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getActivityName () : String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getDefinedProcedures () : List<Procedure> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getNextActivityId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getPreviousActivityId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] • getStudyDataCollection (): List<StudyData> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] removeDefinedProcedure (procedure : Procedure ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] removeStudyData (studyData : StudyData ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setActivityDescription (description : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setActivityIsOptional (activityIsOptional : boolean ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setActivityName (activityName : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setDefinedProcedures (definedProcedures : List<Procedure> ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setNextActivityId (nextActivityId : String ) : void Public

### **OPERATIONS**

setPreviousActivityId (previousActivityId: String): void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyDataCollection (studyDataCollection : List<StudyData>) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **AliasCode**

Class in package 'model'

An alternative symbol or combination of symbols which is assigned to the members of a collection.

AliasCode Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/28/2022. Last modified 11/28/2022

| ATTRIBUTES                        |   |
|-----------------------------------|---|
| aliasCodeId: String Private Const | [ Is static True. Containment is Not Specified. ] |
|                                   | [ Is static True. Containment is Not Specified. ] |
|                                   | [ Is static True. Containment is Not Specified. ] |

| ASSOCIATIONS                                   |  |
|--|--|
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) AliasCode               | Target: Private standardCode (Class) Code                          |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) AliasCode               | Target: Private standardCodeAliases (Class) Code Cardinality: [0*] |

### **OPERATIONS**

AliasCode (aliasCodeId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### 

setStandardCodeAliases (standardCodeAliases : List<Code> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Analysis Population**

Class in package 'model'

A target study population on which an analysis is performed. These may be represented by the entire study population, a subgroup defined by a particular characteristic measured at baseline, or a principal stratum defined by the occurrence (or non-occurrence, depending on context) of a specific intercurrent event. (ICH E9 R1 Addendum)

AnalysisPopulation Version 1.0 Phase 1.0 Proposed cupke created on 11/28/2022. Last modified 11/28/2022

## ATTRIBUTES analysisPopulationId: String Private Const [ Is static True. Containment is Not Specified. ] populationDescription: String Private The textual representation of the study population for analysis. [ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS Association (direction: Source -> Destination) Source: Public (Class) Estimand Target: Private analysisPopulation (Class) AnalysisPopulation

### OPERATIONS AnalysisPopulation (analysisPopulationId : String ) : Public

# OPERATIONS [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] ② getAnalysisPopulationId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] ② getPopulationDescription (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] ③ setPopulationDescription (populationDescription: String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### Code

Class in package 'model'

A symbol or combination of symbols which is assigned to the members of a collection.

Code Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/28/2022. Last modified 11/28/2022

| ATTRIBUTES   |   |
|--|---|
| ode: String Private  |   |
| The literal value of a code.   | [ Is static True. Containment is Not Specified. ]                                     |
| codeId: String Private Const   | [ Is static True. Containment is Not Specified. ]                                     |
| codeSystem: String Private   |   |
|  |   |
| The literal identifier (i.e., distinctive designation) of the system us  | sed to assign and/or manage codes.  |
| The literal identifier (i.e., distinctive designation) of the system us  | sed to assign and/or manage codes.  [ Is static True. Containment is Not Specified. ] |
| The literal identifier (i.e., distinctive designation) of the system use of the syst | -   |
|  | -   |
| codeSystemVersion : String Private   | [ Is static True. Containment is Not Specified. ]                                     |

### **ATTRIBUTES**

[ Is static True. Containment is Not Specified. ]

| GOCIATIONS   |  |
|--|--|
| Association (direction: Source -> Destination)     |  |
| Source: Public (Class) Objective                   | Target: Private objectiveLevel (Class) Code                          |
| Association (direction: Source -> Destination)     |  |
| Source: Public (Class) StudyDesign                 | Target: Private trialIntentType (Class) Code Cardinality: [0*]       |
| Association (direction: Source -> Destination)     |  |
| Source: Public (Class) Study                       | Target: Private studyType (Class) Code                               |
| Association (direction: Source -> Destination)     |  |
| Source: Public (Class) InvestigationalIntervention | Target: Private codes (Class) Code Cardinality: [0*]                 |
| Association (direction: Source -> Destination)     |  |
| Source: Public (Class) StudyDesign                 | Target: Private interventionModel (Class) Code                       |
| Association (direction: Source -> Destination)     |  |
| Source: Public (Class) Indication                  | Target: Private codes (Class) Code Cardinality: [0*]                 |
| Association (direction: Source -> Destination)     |  |
| Source: Public (Class) StudyEpoch                  | Target: Private studyEpochType (Class) Code                          |
| Association (direction: Source -> Destination)     |  |
| Source: Public (Class) Encounter                   | Target: Private encounterContactModes (Class) Code Cardinality: [0*] |

| ASSOCIATIONS                                   |  |
|--|--|
| Source: Public (Class) Study                   | Target: Private studyPhase (Class) Code          |
|  |  |
| Association (direction: Source -> Destination) |  |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) Encounter               | Target: Private encounterEnvironmentalSetting    |
| Source (States) Zareamer                       | (Class) Code                                     |
|  |  |
|  |  |
| Association (direction: Source -> Destination) |  |
|  |  |
| Source: Public (Class) Organization            | Target: Private organizationType (Class) Code    |
|  |  |
| Association (direction: Source -> Destination) |  |
| Association (direction, Source -> Destination) |  |
| Source: Public (Class) Endpoint                | Target: Private endpointLevel (Class) Code       |
|  | g()  |
|  |  |
| Association (direction: Source -> Destination) |  |
|  |  |
| Source: Public (Class) Study                   | Target: Private businessTherapeuticAreas (Class) |
|  | Code   |
|  | Cardinality: [0*]                                |
|  |  |
| Association (direction: Source -> Destination) |  |
|  |  |
| Source: Public (Class) StudyDesign             | Target: Private trialType (Class) Code           |
|  | Cardinality: [0*]                                |
|  |  |
|  |  |
| Association (direction: Source -> Destination) |  |
| Saurage Public (Class) Alica Cada              | Torrect, Drivete standard Code (Class) Code      |
| Source: Public (Class) AliasCode               | Target: Private standardCode (Class) Code        |
|  |  |
| Association (direction: Source -> Destination) |  |
| , , , , , , , , , , , , , , , , , , ,          |  |
| Source: Public (Class) AliasCode               | Target: Private standardCodeAliases (Class) Code |
|  | Cardinality: [0*]                                |
|  |  |
|  |  |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyArm                | Target: Private studyArmType (Class) Code        |
| Source. I done (Class) StudyPilli              | ranget. 111vate study Armitype (Class) Code      |
|  |  |
| Association (direction: Source -> Destination) |  |
| , , , , , , , , , , , , , , , , , , ,          |  |
| Source: Public (Class) Encounter               | Target: Private encounterType (Class) Code       |
|  |  |
|  |  |

# Association (direction: Source -> Destination) Source: Public (Class) StudyDesign Target: Private therapeuticAreas (Class) Code Cardinality: [0..\*] Association (direction: Source -> Destination) Source: Public (Class) StudyArm Target: Private studyArmDataOriginType (Class) Code Association (direction: Source -> Destination) Source: Public (Class) Procedure Target: Private procedureCode (Class) Code Association (direction: Source -> Destination) Source: Public (Class) StudyProtocolVersion Target: Private protocolStatus (Class) Code

| OPERATIONS                    |  |
|-------------------------------|--|
| Code (codeId : String ) : Pu  | ablic [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]          |
| getCode (): String Public     | [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]                |
| getCodeId () : String Public  | [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]                |
| getCodeSystem () : String F   | Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]        |
| getCodeSystemVersion () :     | String Public  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |
| getDecode () : String Public  | [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]                |
| setCode (code : String ) : vo | oid Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]     |
| setCodeSystem (codeSysten     | n : String ) : void Public   |

### OPERATIONS [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setCodeSystemVersion (codeSystemVersion : String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setDecode (decode : String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Encounter**

Class in package 'model'

Contact between subject/patient and healthcare practitioner/researcher, during which an assessment or activity is performed. Contact may be physical or virtual.

Encounter
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 11/28/2022. Last modified 11/28/2022

| TTRIBUTES   |  |
|---|--|
| • encounterContactModes : List <code> Private</code>                          |  |
|   |  |
| The means by which an interaction occurs between the subject/participa        | Is static True. Containment is Not Specified.                          |
|   | [ 13 static True. Contaminent is 100 Specifica. ]                      |
| encounterDescription : String Private   |  |
| The textual representation of the protocol-defined clinical encounter.        |  |
|   | [ Is static True. Containment is Not Specified. ]                      |
| encounterEnvironmentalSetting : Code Private                                  |  |
| The environment/setting where the event, intervention, or finding occurr      | d  |
| The environment/setting where the event, intervention, or finding occurr      | [ Is static True. Containment is Not Specified. ]                      |
| encounterId: String Private Const   |  |
|   | [ Is static True. Containment is Not Specified. ]                      |
| encounterName: String Private   |  |
| -   |  |
| The literal identifier (i.e., distinctive designation) for a protocol-defined | clinical encounter.  [ Is static True. Containment is Not Specified. ] |
|   | [ Is static True. Containment is Not Specified. ]                      |

### ATTRIBUTES

encounterType : Code Private

A characterization or classification of contact between subject/patient and healthcare practitioner/researcher, during which an assessment or activity is performed.

[ Is static True. Containment is Not Specified. ]

nextEncounterId : String Private

A system identifier assigned to a clinical encounter that occurs immediately after the current clinical encounter.

[ Is static True. Containment is Not Specified. ]

previousEncounterId : String Private

A system identifier assigned to a clinical encounter that occurs immediately prior to the current clinical encounter.

[ Is static True. Containment is Not Specified. ]

[ Is static True. Containment is Not Specified. ]

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Encounter

Target: Private transitionEndRule (Class)

TransitionRule

Association (direction: Source -> Destination)

Source: Public (Class) Encounter

Target: Private encounterContactModes (Class)

Code

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) Encounter

Target: Private encounterEnvironmentalSetting

(Class) Code

Association (direction: Source -> Destination)

Source: Public (Class) Encounter

Target: Private encounterType (Class) Code

### ASSOCIATIONS Association (direction: Source -> Destination) Source: Public (Class) Encounter Target: Private transitionStartRule (Class) TransitionRule Association (direction: Source -> Destination) Source: Public (Class) WorkflowItem Target: Private workflowItemEncounter (Class) Encounter Association (direction: Source -> Destination) Source: Public (Class) StudyDesign Target: Private encounters (Class) Encounter Cardinality: [0..\*] Association (direction: Source -> Destination) Source: Public (Class) StudyEpoch Target: Private encounters (Class) Encounter Cardinality: [0..\*]

|   | PEI   | D A | TI | ON | TC  |
|---|-------|-----|----|----|-----|
| • | r rai | NA  |    |    | 1.7 |

• Encounter (encounterId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEncounterContactModes () : List<Code> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEncounterDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEncounterEnvironmentalSetting () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEncounterId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEncounterName () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEncounterType () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **OPERATIONS**

getNextEncounterId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getPreviousEncounterId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStartRule () : TransitionRule Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getTransitionEndRule () : TransitionRule Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getTransitionStartRule () : TransitionRule Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEncounterContactModes (encounterContactModes : List<Code> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEncounterDescription (encounterDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEncounterEnvironmentalSetting (encounterEnvironmentalSetting : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEncounterName (encounterName : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEncounterType (encounterType : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setNextEncounterId (nextEncounterId : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setPreviousEncounterId (previousEncounterId : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setTransitionEndRule (transitionEndRule : TransitionRule ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **OPERATIONS**

setTransitionStartRule (transitionStartRule : TransitionRule ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Endpoint**

Class in package 'model'

A defined variable intended to reflect an outcome of interest that is statistically analyzed to address a particular research question. NOTE: A precise definition of an endpoint typically specifies the type of assessments made, the timing of those assessments, the assessment tools used, and possibly other details, as applicable, such as how multiple assessments within an individual are to be combined. [After BEST Resource]

> Endpoint Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/28/2022. Last modified 11/28/2022

### **ATTRIBUTES** endpointDescription : String Private The textual representation of the study endpoint. [ Is static True. Containment is Not Specified. ] endpointId : String Private Const [ Is static True. Containment is Not Specified. ] endpointLevel : Code Private A characterization or classification of the study endpoint that determines its category of importance relative to other study endpoints. [ Is static True. Containment is Not Specified. ] endpointPurposeDescription : String Private The textual representation of the study endpoint purpose. [ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS Association (direction: Source -> Destination) Source: Public (Class) Endpoint Target: Private endpointLevel (Class) Code Association (direction: Source -> Destination) Source: Public (Class) Estimand Target: Private variableOfInterest (Class) Endpoint

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Objective

Target: Private objectiveEndpoints (Class) Endpoint

Cardinality: [0..\*]

### **OPERATIONS**

• Endpoint (endpointId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEndpointDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEndpointId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEndpointLevel (): Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getEndpointPurposeDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEndpointDescription (endpointDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEndpointLevel (endpointLevel : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEndpointPurposeDescription (endpointPurposeDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Estimand**

Class in package 'model'

A precise description of the treatment effect reflecting the clinical question posed by a given clinical trial objective. It summarises at a population level what the outcomes would be in the same patients under different treatment conditions being compared. (ICH E9 R1 Addendum)

Estimand

 $Version\ 1.0\ \ Phase\ 1.0\ \ Proposed$  Chris Upkes created on 11/28/2022. Last modified 11/28/2022

| ATTRIBUTES   |   |
|--|---|
| analysisPopulation : AnalysisPopulation Private                                | [ Is static True. Containment is Not Specified. ] |
| estimandId: String Private Const   | [ Is static True. Containment is Not Specified. ] |
|  | [ Is static True. Containment is Not Specified. ] |
| summaryMeasure : String Private  |   |
| A synopsis of the clinical endpoint of interest within the analysis target str | udy population.                                   |
|  | [ Is static True. Containment is Not Specified. ] |
|  | [ Is static True. Containment is Not Specified. ] |
| variableOfInterest : Endpoint Private  | [ Is static True. Containment is Not Specified. ] |

| SOCIATIONS                                     |  |
|--|--|
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) Estimand                | Target: Private treatment (Class)<br>InvestigationalIntervention               |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) Estimand                | Target: Private intercurrentEvents (Class) IntercurrentEvent Cardinality: [0*] |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) Estimand                | Target: Private analysisPopulation (Class)<br>AnalysisPopulation               |

### ASSOCIATIONS Source: Public (Class) Estimand Target: Private variableOfInterest (Class) Endpoint Association (direction: Source -> Destination) Source: Public (Class) StudyDesign Target: Private studyEstimands (Class) Estimand Cardinality: [0..\*]

### **OPERATIONS** addIntercurrentEvent (intercurrentEvent : IntercurrentEvent ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] Estimand (estimandId : String ) : Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getAnalysisPopulation () : AnalysisPopulation Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getEstimandId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getIntercurrentEvents () : List<IntercurrentEvent> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getSummaryMeasure (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getTreatment (): InvestigationalIntervention Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getVariableOfInterest () : Endpoint Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] removeIntercurrentEvent (intercurrentEvent : IntercurrentEvent ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setAnalysisPopulation (analysisPopulation: AnalysisPopulation): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setIntercurrentEvents (intercurrentEvents : List<IntercurrentEvent> ) : void Public

### **OPERATIONS**

setSummaryMeasure (summaryMeasure : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setTreatment (treatment : InvestigationalIntervention ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setVariableOfInterest (variableOfInterest : Endpoint ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Indication**

Class in package 'model'

The condition, disease or disorder that the clinical trial is intended to investigate or address.

Indication
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 11/28/2022. Last modified 11/28/2022

### ATTRIBUTES

codes : List<Code> Private

A short sequence of characters that represents the disease indication.

[ Is static True. Containment is Not Specified. ]

indicationDescription: String Private

The condition, disease or disorder that the clinical trial is intended to investigate or address.

[ Is static True. Containment is Not Specified. ]

indicationId: String Private Const

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Indication Target: Private codes (Class) Code

Cardinality: [0..\*]

Association (direction: Source -> Destination)

### ASSOCIATIONS

Source: Public (Class) StudyDesign

Target: Private studyIndications (Class) Indication

Cardinality: [0..\*]

### **OPERATIONS**

getCodes () : List<Code> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getIndicationDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getIndicationId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

Indication (indicationId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setCodes (codes : List<Code> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setIndicationDescription (indicationDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### IntercurrentEvent

Class in package 'model'

An event(s) occurring after treatment initiation that affects either the interpretation or the existence of the measurements associated with the clinical question of interest. (ICH E9 Addendum on Estimands)

IntercurrentEvent
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 11/28/2022. Last modified 11/28/2022

### ATTRIBUTES

intercurrentEventDescription: String Private

The textual representation of the intercurrent event.

[ Is static True. Containment is Not Specified. ]

intercurrentEventId: String Private Const

[ Is static True. Containment is Not Specified. ]

### ATTRIBUTES

intercurrentEventName: String Private

The literal identifier (i.e., distinctive designation) of the intercurrent event.

[ Is static True. Containment is Not Specified. ]

intercurrentEventStrategy: String Private

A textual description of the planned strategy to manage and/or mitigate intercurrent events.

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Estimand

Target: Private intercurrentEvents (Class) IntercurrentEvent

Cardinality: [0..\*]

### **OPERATIONS**

• getIntercurrentEventDescription () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getIntercurrentEventId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getIntercurrentEventName (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getIntercurrentEventStrategy (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

● IntercurrentEvent (intercurrentEventId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setIntercurrentEventDescription (intercurrentEventDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setIntercurrentEventName (intercurrentEventName : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **OPERATIONS**

setIntercurrentEventStrategy (intercurrentEventStrategy : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### InvestigationalIntervention

Class in package 'model'

The drug, device, therapy, or process under investigation in a clinical study that is believed to have an effect on outcomes of interest in a study. [After https://grants.nih.gov/grants/policy/faq clinical trial definition.htm#5224] (CDISC-Glossary)

> InvestigationalIntervention Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/28/2022. Last modified 11/28/2022

### ATTRIBUTES codes : List<Code> Private A short sequence of characters that represents the investigational intervention. [ Is static True. Containment is Not Specified. ] interventionDescription: String Private The textual representation of the study intervention. [ Is static True. Containment is Not Specified. ] investigationalInterventionId: String Private Const [ Is static True. Containment is Not Specified. ]

| ASSOCIATIONS                                       |   |
|--|---|
| Association (direction: Source -> Destination)     |   |
| Source: Public (Class) InvestigationalIntervention | Target: Private codes (Class) Code Cardinality: [0*]          |
| Association (direction: Source -> Destination)     |   |
| Source: Public (Class) Estimand                    | Target: Private treatment (Class) InvestigationalIntervention |
| Association (direction: Source -> Destination)     |   |
| Source: Public (Class) StudyDesign                 | Target: Private studyInvestigationalInterventions             |

### ASSOCIATIONS

(Class) InvestigationalIntervention

Cardinality: [0..\*]

### **OPERATIONS**

getCodes () : List<Code> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

• getInterventionDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getInvestigationalInterventionId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setCodes (codes : List<Code> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setInterventionDescription (interventionDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Objective**

Class in package 'model'

The reason for performing a study in terms of the scientific questions to be answered by the analysis of data collected during the study.

Objective Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/28/2022. Last modified 11/28/2022

### **ATTRIBUTES**

objectiveDescription : String Private

The textual representation of the study objective. (BRIDG)

[ Is static True. Containment is Not Specified. ]

objectiveEndpoints : List<Endpoint> Private

[ Is static True. Containment is Not Specified. ]

### ATTRIBUTES

objectiveId: String Private Const

[ Is static True. Containment is Not Specified. ]

objectiveLevel : Code Private

A characterization or classification of the study endpoint that determines its category of importance relative to other study objectives.

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Objective Target: Private objectiveLevel (Class) Code

Association (direction: Source -> Destination)

Source: Public (Class) Objective Target: Private objectiveEndpoints (Class)

Endpoint

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) StudyDesign Target: Private studyObjectives (Class) Objective

Cardinality: [0..\*]

### **OPERATIONS**

• getObjectiveDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getObjectiveEndpoints () : List<Endpoint> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getObjectiveId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getObjectiveLevel () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

Objective (objectiveId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

# OPERATIONS setObjectiveDescription (objectiveDescription: String): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setObjectiveEndpoints (objectiveEndpoints: List<Endpoint>): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setObjectiveLevel (objectiveLevel: Code): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Organization**

Class in package 'model'

A formalized group of persons or other organizations collected together for a common purpose (such as administrative, legal, political) and the infrastructure to carry out that purpose. (BRIDG)

Organization
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 11/28/2022. Last modified 11/28/2022

| ATTRIBUTES  |  |
|---|--|
| organizationId: String Private Const  | [ Is static True. Containment is Not Specified. ]  |
| organizationIdentifier: String Private  |  |
| A unique symbol that establishes identity of the organization. (BRIDG)        | [ Is static True. Containment is Not Specified. ]  |
| organizationIdentifierScheme: String Private                                  |  |
| The name of the organization that provides the identifier for the entity.     | [ Is static True. Containment is Not Specified. ]  |
| organizationName: String Private  |  |
| A non-unique textual identifier for the organization. (BRIDG)                 | [ Is static True. Containment is Not Specified. ]  |
| organizationType : Code Private   |  |
| A characterization or classification of the formalized group of persons or of | ther organizations collected together for a common |

### **ATTRIBUTES**

purpose (such as administrative, legal, political) and the infrastructure to carry out that purpose.

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Organization

Target: Private organizationType (Class) Code

Association (direction: Source -> Destination)

Source: Public (Class) StudyIdentifier

Target: Private studyIdentifierScope (Class)

Organization

### **OPERATIONS**

getOrganizationId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getOrganizationIdentifier (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getOrganizationIdentifierScheme (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getOrganizationName (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getOrganizationType () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

Organization (organizationId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setOrganizationIdentifier (organizationIdentifier : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setOrganizationIdentifierScheme (organizationIdentifierScheme : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setOrganizationName (organizationName: String): void Public

### **OPERATIONS**

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setOrganizationType (organizationType : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **Procedure**

Class in package 'model'

Any activity performed by manual and/or instrumental means for the purpose of diagnosis, assessment, therapy, prevention, or palliative care.

Procedure Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/28/2022. Last modified 11/28/2022

| ATTRIBUTES   |   |
|--|---|
| <ul> <li>procedureCode : Code Private</li> <li>A symbol or combination of symbols which is assigned to medical procedure.</li> </ul> | [ Is static True. Containment is Not Specified. ] |
| procedureId: String Private Const  | [ Is static True. Containment is Not Specified. ] |
| procedureIsOptional : boolean Private  | [ Is static True. Containment is Not Specified. ] |
| <ul> <li>procedureType: String Private</li> <li>A characterization or classification of the study procedure.</li> </ul>              | [ La statia Tuna Containment in Nat Specified ]   |
|  | [ Is static True. Containment is Not Specified. ] |

| ASSOCIATIONS                                   |   |
|--|---|
| Association (direction: Source -> Destination) |   |
| Source: Public (Class) Procedure               | Target: Private procedureCode (Class) Code          |
| Association (direction: Source -> Destination) |   |
| Source: Public (Class) Activity                | Target: Private definedProcedures (Class) Procedure |
|  | Cardinality: [0*]                                   |

### ASSOCIATIONS

### **OPERATIONS**

getProcedureCode () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getProcedureId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getProcedureIsOptional (): boolean Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getProcedureType () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

Procedure (procedureId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setProcedureCode (procedureCode : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setProcedureIsOptional (procedureIsOptional : boolean ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setProcedureType (procedureType : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### Study

Class in package 'model'

A clinical study involves research using human volunteers (also called participants) that is intended to add to medical knowledge. There are two main types of clinical studies: clinical trials (also called interventional studies) and observational studies. [[http://ClinicalTrials.gov]](CDISC Glossary)

Study
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 11/28/2022. Last modified 11/28/2022

### **ATTRIBUTES**

businessTherapeuticAreas : List<Code> Private

### ATTRIBUTES A therapeutic area classification based on the structure and operations of the business unit. [ Is static True. Containment is Not Specified. ] studyDesigns : List<StudyDesign> Private [ Is static True. Containment is Not Specified. ] studyId : UUID Private Const [ Is static True. Containment is Not Specified. ] studyIdentifiers : List<StudyIdentifier> Private [ Is static True. Containment is Not Specified. ] studyPhase : Code Private A step in the clinical research and development of a therapy from initial clinical trials to post-approval studies. NOTE: Clinical trials are generally categorized into four (sometimes five) phases. A therapeutic intervention may be evaluated in two or more phases simultaneously in different trials, and some trials may overlap two different phases. [21 CFR section 312.21; After ICH Topic E8 NOTE FOR GUIDANCE ON GENERAL CONSIDERATIONS FOR CLINICAL TRIALS, CPMP/ICH/291/95 March 1998] [ Is static True. Containment is Not Specified. ] studyProtocolVersions : List<StudyProtocolVersion> Private [ Is static True. Containment is Not Specified. ] studyTitle : String Private The sponsor-defined name of the clinical study. [ Is static True. Containment is Not Specified. ] studyType : Code Private The nature of the investigation for which study information is being collected. (After clinicaltrials.gov) [ Is static True. Containment is Not Specified. ] studyVersion : String Private A plan at a particular point in time for a study. [ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Study

Target: Private studyIdentifiers (Class)

| •  |   |
|--|---|
| ASSOCIATIONS                                   |   |
|  | StudyIdentifier                                       |
|  | Cardinality: [0*]                                     |
|  |   |
|  |   |
| Association (direction: Source -> Destination) |   |
| Source: Public (Class) Study                   | Target: Private studyType (Class) Code                |
| Source. I ubite (Class) Study                  | ranget. Trivate study Type (Class) Code               |
|  |   |
| Association (direction: Source -> Destination) |   |
|  |   |
| Source: Public (Class) Study                   | Target: Private studyPhase (Class) Code               |
|  |   |
|  |   |
| Association (direction: Source -> Destination) |   |
| Source: Public (Class) Study                   | Target: Private studyDesigns (Class) StudyDesign      |
| Source. I ubite (Class) Study                  | Cardinality: [0*]                                     |
|  | 7 [- ]  |
|  |   |
| Association (direction: Source -> Destination) |   |
|  |   |
| Source: Public (Class) Study                   | Target: Private businessTherapeuticAreas (Class) Code |
|  | Cardinality: [0*]                                     |
|  | caronamy. [on 1                                       |
|  |   |
| Association (direction: Source -> Destination) |   |
|  |   |
| Source: Public (Class) Study                   | Target: Private studyProtocolVersions (Class)         |
|  | StudyProtocolVersion  Cardinality: [0*]               |
|  | Cardinality: [U*]                                     |
|  |   |

### **OPERATIONS**

addStudyDesign (studyDesign : StudyDesign ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

addStudyIdentifier (studyIdentifier : StudyIdentifier ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

addStudyProtocolVersion (studyProtocolVersion : StudyProtocolVersion ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getBusinessTherapeuticAreas (): List<Code> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyDesigns () : List<StudyDesign> Public

### **OPERATIONS** [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyId (): UUID Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyIdentifiers (): List<StudyIdentifier> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyPhase () : Code Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyProtocolVersions (): List<StudyProtocolVersion> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyTitle (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyType () : Code Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyVersion () : String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] removeStudyDesign (studyDesign : StudyDesign ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] removeStudyIdentifier (studyIdentifier : StudyIdentifier ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] 🗣 removeStudyProtocolVersion (studyProtocolVersion : StudyProtocolVersion ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setBusinessTherapeuticAreas (businessTherapeuticAreas: List<Code>): void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyDesigns (studyDesigns : List<StudyDesign>) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyIdentifiers (studyIdentifiers : List<StudyIdentifier>) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **OPERATIONS** setStudyPhase (studyPhase : Code ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] 🄷 setStudyProtocolVersions (studyProtocolVersions : List<StudyProtocolVersion> ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyTitle (studyTitle : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyType (studyType : Code ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyVersion (studyVersion : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] Study (studyId : UUID ) : Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **StudyArm**

Class in package 'model'

A planned pathway assigned to the subject as they progress through the study, usually referred to by a name that reflects one or more treatments, exposures, and/or controls included in the path.

> StudyArm Version 1.0 Phase 1.0 Proposed

### Chris Upkes created on 11/28/2022. Last modified 11/28/2022 ATTRIBUTES studyArmDataOriginDescription: String Private The textual representation of the study arm data origin. [ Is static True. Containment is Not Specified. ] studyArmDataOriginType: Code Private A characterization or classification of the study arm with respect to where the study arm data originates. [ Is static True. Containment is Not Specified. ] studyArmDescription : String Private Page 33 of 59

### ATTRIBUTES

The textual representation of the study arm.

[ Is static True. Containment is Not Specified. ]

studyArmId: String Private Const

[ Is static True. Containment is Not Specified. ]

studyArmName : String Private

The literal identifier (i.e., distinctive designation) of the study arm.

[ Is static True. Containment is Not Specified. ]

studyArmType : Code Private

The literal identifier (i.e., distinctive designation) of the study arm type.

[ Is static True. Containment is Not Specified. ]

### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) StudyArm

Target: Private studyArmType (Class) Code

Association (direction: Source -> Destination)

Source: Public (Class) StudyArm

Target: Private studyArmDataOriginType (Class)

Code

Association (direction: Source -> Destination)

Source: Public (Class) StudyCell

Target: Private studyArm (Class) StudyArm

### **OPERATIONS**

getStudyArmDataOriginDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyArmDataOriginType () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyArmDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **OPERATIONS**

getStudyArmId () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyArmName () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyArmType () : Code Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyArmDataOriginDescription (studyArmDataOriginDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyArmDataOriginType (studyArmDataOriginType : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyArmDescription (studyArmDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyArmName (studyArmName : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyArmType (studyArmType : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

StudyArm (studyArmId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### **StudyCell**

Class in package 'model'

A partitioning of a study arm into individual pieces, which are associated with an epoch and any number of sequential elements within that epoch.

StudyCell Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/28/2022. Last modified 11/28/2022

### **ATTRIBUTES**

studyArm : StudyArm Private

[ Is static True. Containment is Not Specified. ]

### 

| ASSOCIATIONS                                   |  |
|--|--|
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyCell               | Target: Private studyEpoch (Class) StudyEpoch                        |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyCell               | Target: Private studyArm (Class) StudyArm                            |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyCell               | Target: Private studyElements (Class) StudyElement Cardinality: [0*] |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyDesign             | Target: Private studyCells (Class) StudyCell Cardinality: [0*]       |

# OPERATIONS addStudyElement (studyElement : StudyElement ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyArm () : StudyArm Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyCellId () : String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

#### **OPERATIONS**

getStudyElements (): List<StudyElement> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyEpoch () : StudyEpoch Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

removeStudyElement (studyElement : StudyElement ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyArm (studyArm : StudyArm ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyElements (studyElements : List<StudyElement>) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyEpoch (studyEpoch : StudyEpoch ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

StudyCell (studyCellId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

#### **StudyData**

Class in package 'model'

Data collected in the course of a clinical study.

StudyData
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 11/28/2022. Last modified 11/28/2022

#### ATTRIBUTES

ecrfLink : URI Private

The uniform resource locator used to access the digital case report form.

[ Is static True. Containment is Not Specified. ]

studyDataDescription : String Private

The textual representation of the study data.

[ Is static True. Containment is Not Specified. ]

#### ATTRIBUTES

studyDataId: String Private Const

[ Is static True. Containment is Not Specified. ]

studyDataName : String Private

The literal identifier (i.e., distinctive designation) for the study data.

[ Is static True. Containment is Not Specified. ]

#### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Activity

Target: Private studyDataCollection (Class) StudyData

Cardinality: [0..\*]

#### **OPERATIONS**

getEcrfLink (): URI Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

• getStudyDataDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyDataId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyDataName (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEcrfLink (ecrfLink : URI ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyDataDescription (studyDataDescription: String): void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyDataName (studyDataName : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

StudyData (studyDataId : String ) : Public

#### **OPERATIONS**

#### StudyDesign

Class in package 'model'

A plan detailing how a study will be performed in order to represent the phenomenon under examination, to answer the research questions that have been asked, and informing the statistical approach.

StudyDesign Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/28/2022. Last modified 11/28/2022

| ATTRIBUTES  |  |
|---|--|
|   | [ Is static True. Containment is Not Specified. ]  |
| encounters : List <encounter> Private</encounter>                                 | [ Is static True. Containment is Not Specified. ]  |
| interventionModel: Code Private   |  |
| The general design of the strategy for assigning interventions to participants in | n a clinical study. (clinicaltrials.gov) [ Is static True. Containment is Not Specified. ] |
| studyCells: List <studycell> Private</studycell>                                  | [ Is static True. Containment is Not Specified. ]  |
| studyDesignDescription: String Private  |  |
| The textual representation of the study design.                                   | [ Is static True. Containment is Not Specified. ]  |
| studyDesignId: String Private Const   | [ Is static True. Containment is Not Specified. ]  |
|   |  |
| The literal identifier (i.e., distinctive designation) of the study design.       | [ Is static True. Containment is Not Specified. ]  |
| studyEstimands : List <estimand> Private</estimand>                               | [ Is static True. Containment is Not Specified. ]  |

## ATTRIBUTES studyIndications : List<Indication> Private [ Is static True. Containment is Not Specified. ] studyInvestigationalInterventions : List<InvestigationalIntervention> Private [ Is static True. Containment is Not Specified. ] studyObjectives : List<Objective> Private [ Is static True. Containment is Not Specified. ] studyPopulations : List<StudyDesignPopulation> Private [ Is static True. Containment is Not Specified. ] studyWorkflows : List<Workflow> Private [ Is static True. Containment is Not Specified. ] therapeuticAreas : List<Code> Private A categorization of a disease, disorder, or other condition based on common characteristics and often associated with a medical specialty focusing on research and development of specific therapeutic interventions for the purpose of treatment and prevention. [ Is static True. Containment is Not Specified. ] trialIntentType : List<Code> Private The planned purpose of the therapy, device, or agent under study in the clinical trial. [ Is static True. Containment is Not Specified. ] trialType : List<Code> Private The nature of the interventional study for which information is being collected. [ Is static True. Containment is Not Specified. ]

# Association (direction: Source -> Destination) Source: Public (Class) StudyDesign Target: Private trialIntentType (Class) Code Cardinality: [0..\*] Association (direction: Source -> Destination) Source: Public (Class) StudyDesign Target: Private studyWorkflows (Class) Workflow

Cardinality: [0..\*]

| ASSOCIATIONS                                   |  |
|--|--|
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyDesign             | Target: Private interventionModel (Class) Code   |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyDesign             | Target: Private studyPopulations (Class) StudyDesignPopulation Cardinality: [0*]                         |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyDesign             | Target: Private studyCells (Class) StudyCell Cardinality: [0*]   |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyDesign             | Target: Private encounters (Class) Encounter Cardinality: [0*]   |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyDesign             | Target: Private activities (Class) Activity  Cardinality: [0*]   |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyDesign             | Target: Private trialType (Class) Code Cardinality: [0*]   |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyDesign             | Target: Private studyInvestigationalInterventions (Class) InvestigationalIntervention  Cardinality: [0*] |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyDesign             | Target: Private studyIndications (Class) Indication Cardinality: [0*]                                    |
| Association (direction: Source -> Destination) |  |

| SSOCIATIONS                                    |   |
|--|---|
| Source: Public (Class) StudyDesign             | Target: Private studyEstimands (Class) Estimand Cardinality: [0*]   |
| Association (direction: Source -> Destination) |   |
| Source: Public (Class) StudyDesign             | Target: Private therapeuticAreas (Class) Code Cardinality: [0*]     |
| Association (direction: Source -> Destination) |   |
| Source: Public (Class) StudyDesign             | Target: Private studyObjectives (Class) Objective Cardinality: [0*] |
| Association (direction: Source -> Destination) |   |
| Source: Public (Class) Study                   | Target: Private studyDesigns (Class) StudyDesign Cardinality: [0*]  |

|   | OPERATIONS  |  |
|---|---|--|
|   |   |  |
| addStudyIndication (indication : Indication ) : void Public |   |  |
|   | [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] |  |

- addStudyInvestigationalIntervention (investigationalIntervention : InvestigationalIntervention ) : void Public

  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
- addStudyObjective (objective : Objective ) : void Public

  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
- addStudyWorkflow (workflow: Workflow): void Public

  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
- getActivities (): List<Activity> Public
  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
- getEncounters (): List<Encounter> Public
  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
- getInterventionModel (): Code Public

  [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]
- getStudyCells () : List<StudyCell> Public

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# Model Report **OPERATIONS** [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyDesignDescription (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyDesignId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyDesignName (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyEstimands (): List<Estimand> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyIndications () : List<Indication> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyInvestigationalInterventions (): List<InvestigationalIntervention> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyObjectives () : List<Objective> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyPopulations (): List<StudyDesignPopulation> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyWorkflows (): List<Workflow> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getTherapeuticAreas () : List<Code> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getTrialIntentType () : List<Code> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getTrialType () : List<Code> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

removeStudyIndication (indication: Indication): void Public

#### OPERATIONS

🗣 removeStudyInvestigationalIntervention (investigationalIntervention : InvestigationalIntervention ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

removeStudyObjective (objective : Objective ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

removeStudyWorkflow (workflow: Workflow): void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setActivities (activities : List<Activity>) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setEncounters (encounters : List<Encounter> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setInterventionModel (interventionModel : Code ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyCells (studyCells : List<StudyCell> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyDesignDescription (studyDesignDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyDesignName (studyDesignName : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyEstimands (studyEstimands : List<Estimand>) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyIndications (studyIndications : List<Indication> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

🍨 setStudyInvestigationalInterventions (studyInvestigationalInterventions : List<InvestigationalIntervention> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setStudyObjectives (studyObjectives : List<Objective> ) : void Public

# OPERATIONS setStudyPopulations (studyStudyDesignPopulations : List<StudyDesignPopulation>) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyWorkflows (studyWorkflows : List<Workflow>) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setTherapeuticAreas (therapeuticAreas : List<Code>) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setTrialIntentType (trialIntentType : List<Code>) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setTrialType (trialType : List<Code>) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

### StudyDesignPopulation

StudyDesign (studyDesignId : String ) : Public

Class in package 'model'

The population within the general population to which the study results can be generalized.

StudyDesignPopulation
Version 1.0 Phase 1.0 Proposed
cupke created on 11/28/2022. Last modified 11/28/2022

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

# 

| ASSOCIATIONS                                   |  |
|--|--|
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyDesign             | Target: Private studyPopulations (Class) |

#### ASSOCIATIONS

#### StudyDesignPopulation

Cardinality: [0..\*]

#### **OPERATIONS**

getPopulationDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

• getStudyDesignPopulationId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setPopulationDescription (populationDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

StudyDesignPopulation (uuid : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

#### **StudyElement**

Class in package 'model'

A basic building block for time within a clinical study comprising the following characteristics: a description of what happens to the subject during the element; a definition of the start of the element; a rule for ending the element.

StudyElement Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/28/2022. Last modified 11/28/2022

#### ATTRIBUTES

studyElementDescription : String Private

The textual representation of the study design element.

[ Is static True. Containment is Not Specified. ]

studyElementId : String Private Const

element only attributes - these purely describe an element

[ Is static True. Containment is Not Specified. ]

The literal identifier (i.e., distinctive designation) of the study design element.

[ Is static True. Containment is Not Specified. ]

# ATTRIBUTES

transitionEndRule : TransitionRule Private

[ Is static True. Containment is Not Specified. ]

all elements point to transition rules

[ Is static True. Containment is Not Specified. ]

#### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) StudyElement

Target: Private transitionEndRule (Class)

TransitionRule

Association (direction: Source -> Destination)

Source: Public (Class) StudyElement

Target: Private transitionStartRule (Class)

TransitionRule

Association (direction: Source -> Destination)

Source: Public (Class) StudyCell

Target: Private studyElements (Class)

StudyElement

Cardinality: [0..\*]

#### **OPERATIONS**

getStudyElementDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getStudyElementId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

• getStudyElementName () : String Public

 $[\hbox{ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False.}]$ 

getTransitionEndRule () : TransitionRule Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getTransitionStartRule (): TransitionRule Public

# 

#### StudyEpoch

Class in package 'model'

A named time period defined in the protocol, wherein a study activity is specified and unchanging throughout the interval, to support a study-specific purpose.

StudyEpoch Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/28/2022. Last modified 11/28/2022

| <ul> <li>encounters: List<encounter> Private</encounter></li> <li>nextStudyEpochId: String Private</li> <li>A system identifier assigned to the epoch that occurs immediately after the</li> </ul> | -   |
|--|---|
|  | e current epoch.                                |
|  | -   |
| A system identifier assigned to the epoch that occurs immediately after the  | -   |
| A system identifier assigned to the epoch that occurs immediately after the  | -   |
|  |   |
|  | [ Is static True. Containment is Not Specified. |
| previousStudyEpochId: String Private   |   |
| A system identifier assigned to the epoch that occurs immediately prior to   | the current epoch.                              |
|  | [ Is static True. Containment is Not Specified. |
|  |   |

#### **ATTRIBUTES**

The textual representation of the study epoch.

[ Is static True. Containment is Not Specified. ]

studyEpochId : String Private Const

[ Is static True. Containment is Not Specified. ]

The literal identifier (i.e., distinctive designation) of the study epoch, i.e., the named time period defined in the protocol, wherein a study activity is specified and unchanging throughout the interval, to support a study-specific purpose.

[ Is static True. Containment is Not Specified. ]

studyEpochType : Code Private

A characterization or classification of the study epoch, i.e., the named time period defined in the protocol, wherein a study activity is specified and unchanging throughout the interval, to support a study-specific purpose.

[ Is static True. Containment is Not Specified. ]

#### **ASSOCIATIONS**

Association (direction: Source -> Destination)

Source: Public (Class) StudyEpoch

Target: Private studyEpochType (Class) Code

Association (direction: Source -> Destination)

Source: Public (Class) StudyEpoch

Target: Private encounters (Class) Encounter

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) StudyCell

Target: Private studyEpoch (Class) StudyEpoch

#### **OPERATIONS**

getEncounters (): List<Encounter> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getNextStudyEpochId(): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getPreviousStudyEpochId (): String Public

# **OPERATIONS** [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyEpochDescription (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyEpochId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyEpochName (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyEpochType () : Code Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setEncounters (encounters : List<Encounter> ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setNextStudyEpochId (nextStudyEpochId : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setPreviousStudyEpochId (previousStudyEpochId : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyEpochDescription (studyEpochDescription : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyEpochName (studyEpochName : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStudyEpochType (studyEpochType : Code ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

#### Studyldentifier

Class in package 'model'

A sequence of characters used to identify, name, or characterize the study.

StudyEpoch (studyEpochId : String ) : Public

StudyIdentifier Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/28/2022. Last modified 11/28/2022

# ATTRIBUTES studyIdentifier: String Private A sequence of characters used to identify, name, or characterize the study. studyIdentifierId: String Private Const Is static True. Containment is Not Specified. ] studyIdentifierScope: Organization Private Is static True. Containment is Not Specified. ]

| SSOCIATIONS                                    |  |
|--|--|
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyIdentifier         | Target: Private studyIdentifierScope (Class)<br>Organization               |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) Study                   | Target: Private studyIdentifiers (Class) StudyIdentifier Cardinality: [0*] |

| ERATIONS           |   |
|--------------------|---|
| getStudyIdentifier | r (): String Public   |
|                    | [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. |
| getStudyIdentifier | rId () : String Public  |
|                    | [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. |
| getStudyIdentifier | rScope (): Organization Public  |
|                    | [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. |
| setStudyIdentifier | r (studyIdentifier : String ) : void Public   |
|                    | [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. |

#### **OPERATIONS**

A --4C4-- 1-

setStudyIdentifierScope (studyIdentifierScope : Organization ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

StudyIdentifier (studyIdentifierId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

#### StudyProtocolVersion

Class in package 'model'

A plan at a particular point in time for a formal investigation to assess the utility, impact, pharmacological, physiological, and/or psychological effects of a particular treatment, procedure, drug, device, biologic, food product, cosmetic, care plan, or subject characteristic. (BRIDG)

StudyProtocolVersion
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 11/28/2022. Last modified 11/28/2022

# **ATTRIBUTES** briefTitle : String Private The short descriptive name for the protocol. [ Is static True. Containment is Not Specified. ] officialTitle: String Private The formal descriptive name for the protocol. [ Is static True. Containment is Not Specified. ] protocolAmendment : String Private A written description of a change(s) to, or formal clarification of, a protocol. (ICH E6) [ Is static True. Containment is Not Specified. ] protocolEffectiveDate : Date Private The date and time specifying when the protocol amendment takes effect or becomes operative. [ Is static True. Containment is Not Specified. ] protocolStatus : Code Private A condition of the protocol at a point in time with respect to its state of readiness for implementation. [ Is static True. Containment is Not Specified. ]

#### **ATTRIBUTES**

protocolVersion : String Private

A plan at a particular point in time for a formal investigation to assess the utility, impact, pharmacological, physiological, and/or psychological effects of a particular treatment, procedure, drug, device, biologic, food product, cosmetic, care plan, or subject characteristic. (BRIDG)

[ Is static True. Containment is Not Specified. ]

publicTitle : String Private

The descriptive name of the protocol that is intended for the lay public, written in easily understood language.

[ Is static True. Containment is Not Specified. ]

scientificTitle : String Private

A more extensive descriptive name of the protocol that is intended for medical professionals, written using medical and scientific language.

[ Is static True. Containment is Not Specified. ]

studyProtocolVersionId: String Private Const

[ Is static True. Containment is Not Specified. ]

#### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) StudyProtocolVersion Target: Private protocolStatus (Class) Code

Association (direction: Source -> Destination)

Source: Public (Class) Study

Target: Private studyProtocolVersions (Class)
StudyProtocolVersion

Cardinality: [0..\*]

#### **OPERATIONS**

getBriefTitle () : String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getOfficialTitle (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getProtocolAmendment (): String Public

# **OPERATIONS** getProtocolEffectiveDate (): Date Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getProtocolStatus () : Code Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getProtocolVersion (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getPublicTitle (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getScientificTitle () : String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStudyProtocolVersionId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setBriefTitle (briefTitle : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setOfficialTitle (officialTitle : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setProtocolAmendment (protocolAmendment : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setProtocolEffectiveDate (protocolEffectiveDate : Date ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setProtocolStatus (protocolStatus : Code ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setProtocolVersion (protocolVersion : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setPublicTitle (publicTitle : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

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setScientificTitle (scientificTitle : String ) : void Public

#### **OPERATIONS**

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

StudyProtocolVersion (studyProtocolVersionId : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

#### **TransitionRule**

Class in package 'model'

A guide that governs the allocation of subjects to operational options at a discrete decision point or branch (e.g., assignment to a particular arm, discontinuation) within a clinical trial plan.

TransitionRule Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/28/2022. Last modified 11/28/2022

| ATTRIBUTES   |   |
|--|---|
| transitionRuleDescription : String Private         |   |
| The textual representation of the transition rule. | [ Is static True. Containment is Not Specified. ] |
| transitionRuleId: String Private Const             | [ Is static True. Containment is Not Specified. ] |

| Association (direction: Source -> Destination) |  |
|--|--|
| Source: Public (Class) StudyElement            | Target: Private transitionEndRule (Class) TransitionRule   |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) Encounter               | Target: Private transitionEndRule (Class) TransitionRule   |
| Association (direction: Source -> Destination) |  |
| Source: Public (Class) StudyElement            | Target: Private transitionStartRule (Class) TransitionRule |

# ASSOCIATIONS Source: Public (Class) Encounter Target: Private transitionStartRule (Class) TransitionRule

# 

#### Workflow

Class in package 'model'

The operational aspect of a work procedure: how tasks are structured, who performs them, what their relative order is, how they are synchronized, how information flows to support the tasks and how tasks are being tracked.

Workflow Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/28/2022. Last modified 11/28/2022

| ATTRIBUTES                                       |   |
|--|---|
| workflowDescription : String Private             |   |
| The textual representation of the workflow.      |   |
|  | [ Is static True. Containment is Not Specified. ] |
|  |   |
| workflowId : String Private Const                | [ Is static True. Containment is Not Specified. ] |
|  |   |
| The textual representation of the workflow item. |   |
|  | [ Is static True. Containment is Not Specified. ] |

#### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) Workflow Target: Private workflowItems (Class)

WorkflowItem

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) StudyDesign Target: Private studyWorkflows (Class) Workflow

Cardinality: [0..\*]

#### **OPERATIONS**

getWorkflowDescription (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getWorkflowId (): String Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

getWorkflowItems () : List<WorkflowItem> Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setWorkflowDescription (workflowDescription : String ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setWorkflowItems (workflowItems : List<WorkflowItem> ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

♦ Workflow (workFlowUUID : String ) : Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

#### WorkflowItem

Class in package 'model'

 $Workflow Item \\ Version~1.0~Phase~1.0~Proposed \\ Chris~Upkes~created~on~11/28/2022.~Last~modified~11/28/2022$ 

#### ATTRIBUTES

nextWorkflowItemId: String Private

#### ATTRIBUTES

A system identifier assigned to a workflow item that occurs immediately prior to the current workflow item.

[ Is static True. Containment is Not Specified. ]

previousWorkflowItemId : String Private

A system identifier assigned to a workflow item that occurs immediately prior to the current workflow item.

[ Is static True. Containment is Not Specified. ]

workflowItemActivity : Activity Private

[ Is static True. Containment is Not Specified. ]

workflowItemDescription : String Private

The textual representation of the workflow item.

[ Is static True. Containment is Not Specified. ]

workflowItemEncounter : Encounter Private

[ Is static True. Containment is Not Specified. ]

workflowItemId: String Private Const

[ Is static True. Containment is Not Specified. ]

#### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) WorkflowItem

Target: Private workflowItemEncounter (Class)

Encounter

Association (direction: Source -> Destination)

Source: Public (Class) WorkflowItem

Target: Private workflowItemActivity (Class)

Activity

Association (direction: Source -> Destination)

Source: Public (Class) Workflow

Target: Private workflowItems (Class)

WorkflowItem

Cardinality: [0..\*]

#### **OPERATIONS**

getNextWorkflowItemId () : String Public

## Model Report 28 November, 2022 **OPERATIONS** [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getPreviousWorkflowItemId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getWorkflowItemActivity (): Activity Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getWorkflowItemDescription (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getWorkflowItemEncounter(): Encounter Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getWorkflowItemId (): String Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setNextWorkflowItemId (nextWorkflowItemId : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setPreviousWorkflowItemId (previousWorkflowItemId : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setWorkflowItemActivity (workflowItemActivity : Activity ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setWorkflowItemDescription (workflowItemDescription : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

setWorkflowItemEncounter (workflowItemEncounter : Encounter ) : void Public

[ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ]

WorkflowItem (workflowItemId : String ): Public