#### model

Package in package 'DDF'

model Version 1.0 Phase 1.0 Proposed cupke created on 11/9/2022. Last modified 11/9/2022

#### model diagram

Class diagram in package 'model'

model Version 1.0 cupke created on 11/9/2022. Last modified 11/9/2022

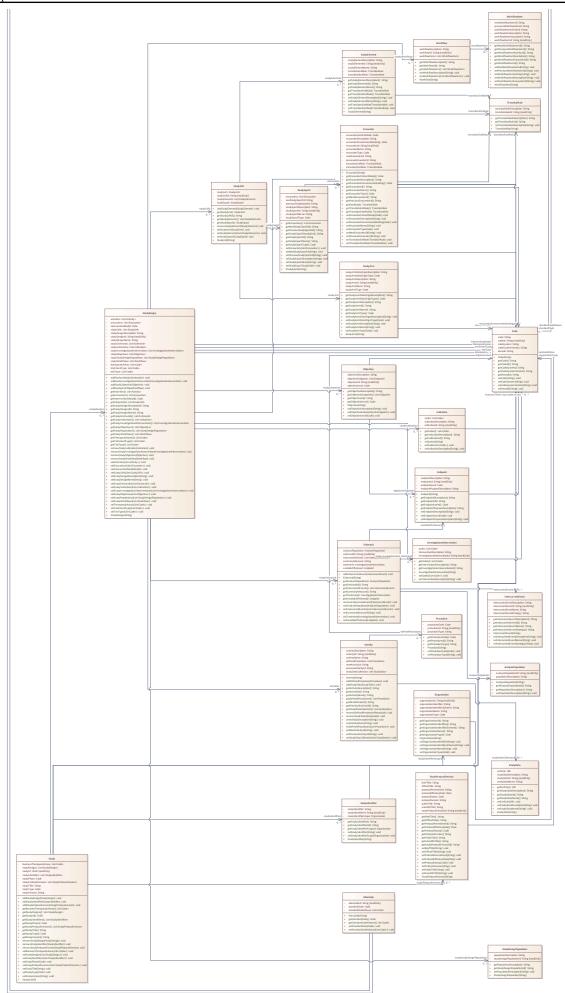


Figure 1: model

#### **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 11/9/2022. Last modified 11/9/2022

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. ]
activityName: String Private	
The literal identifier (i.e., distinctive designation) of the clinical study activity.	[ Is static True. Containment is Not Specified. ]
definedProcedures : List <procedure> Private</procedure>	[ Is static True. Containment is Not Specified. ]
<ul> <li>nextActivityId: String Private</li> <li>A system identifier assigned to a study activity that occurs immediately after the</li> </ul>	ne current study activity. [ Is static True. Containment is Not Specified. ]
<ul> <li>previousActivityId : String Private</li> <li>A system identifier assigned to a study activity that occurs immediately prior to</li> </ul>	o the current study activity.
	[ Is static True. Containment is Not Specified. ]
	[ 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) 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. ]

getActivityName (): String Public

 $[\ Is\ static\ False.\ Is\ return\ array\ False.\ Is\ query\ False.\ Is\ synchronized\ False.\ ]$ 

getDefinedProcedures () : List<Procedure> Public

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

getNextActivityId (): String Public

# **OPERATIONS** 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. ] 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. ] setNextActivityId (nextActivityId : String ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setPreviousActivityId (previousActivityId : String ) : 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.

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

AliasCode Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/9/2022. Last modified 11/9/2022

## 

SSOCIATIONS	
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 (aliasedCodeId: String): Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStandardCode (): Code Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] getStandardCodeAliases (): List<Code> Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setStandardCode (standardCode: Code): void 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. ]

#### AnalysisPopulation

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 11/9/2022. Last modified 11/9/2022

#### 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

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

getAnalysisPopulationId (): String Public

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

getPopulationDescription (): 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. ]

#### 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 11/9/2022. Last modified 11/9/2022

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. ]
<ul> <li>codeSystem: String Private</li> <li>The literal identifier (i.e., distinctive designation) of the system used to assign</li> </ul>	n and/or manage codes. [ Is static True. Containment is Not Specified. ]
The version of the code system.	[ Is static True. Containment is Not Specified. ]
decode: String Private	
Standardized or dictionary-derived human readable text associated with a cod	le. [ Is static True. Containment is Not Specified. ]

Association (direction: Source -> Destination)	
ource: Public (Class) Procedure	Target: Private procedureCode (Class) Code
Association (direction: Source -> Destination)	
Jource: Public (Class) Indication	Target: Private codes (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
source: Public (Class) Study	Target: Private studyType (Class) Code

Source: Public (Class) Encounter  Target: Private encounter/invironmental/setting (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private therapeuticAreas (Class) Code  Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) Organization  Target: Private trialIntentType (Class) Code  Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private trialIntentType (Class) Code  Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyArm  Target: Private studyArmType (Class) Code  Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) Study  Target: Private businessTherapeuticAreas (Class)  Code  Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) InvestigationalIntervention  Target: Private codes (Class) Code  Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyPoote)  Target: Private studyEpochType (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Endpoint  Target: Private endpointLevel (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Endpoint  Target: Private endpointLevel (Class) Code	L COO CY L TIVO YO	
(Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private therapeuticAreas (Class) Code Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) Organization  Target: Private organizationType (Class) Code Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private trialIntentType (Class) Code Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyArm  Target: Private studyArmType (Class) Code Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) Study  Target: Private businessTherapeuticAreas (Class) Code Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) InvestigationalIntervention  Target: Private codes (Class) Code Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyEpoch  Target: Private endpointLevel (Class) Code  Association (direction: Source -> Destination)  Target: Private endpointLevel (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Endpoint  Target: Private endpointLevel (Class) Code	ASSOCIATIONS	
Source: Public (Class) StudyDesign  Target: Private therapeuticAreas (Class) Code Cardinality: [0,*]  Association (direction: Source -> Destination)  Source: Public (Class) Organization  Target: Private organizationType (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 Arm  Target: Private studyArmType (Class) Code Cardinality: [0,*]  Association (direction: Source -> Destination)  Source: Public (Class) Study  Target: Private businessTherapeuticAreas (Class) Code Cardinality: [0,*]  Association (direction: Source -> Destination)  Source: Public (Class) InvestigationalIntervention  Target: Private codes (Class) Code Cardinality: [0,*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyFpoch  Target: Private studyEpochType (Class) Code  Target: Private endpointLevel (Class) Code  Target: Private endpointLevel (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Endpoint  Target: Private endpointLevel (Class) Code	Source: Public (Class) Encounter	e e
Association (direction: Source >> Destination)  Source: Public (Class) Organization  Target: Private organizationType (Class) Code  Association (direction: Source >> Destination)  Source: Public (Class) StudyDesign  Target: Private trialIntentType (Class) Code  Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyArm  Target: Private studyArmType (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Study  Target: Private business TherapeuticAreas (Class)  Code  Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) InvestigationalIntervention  Target: Private codes (Class) Code  Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyEpoch  Target: Private studyEpochType (Class) Code  Target: Private studyEpochType (Class) Code  Target: Private studyEpochType (Class) Code  Target: Private endpointLevel (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Endpoint  Target: Private endpointLevel (Class) Code	Association (direction: Source -> Destination)	
Association (direction: Source >> Destination)  Source: Public (Class) Organization  Target: Private organizationType (Class) Code  Association (direction: Source >> Destination)  Source: Public (Class) StudyDesign  Target: Private trialIntentType (Class) Code  Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyArm  Target: Private studyArmType (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Study  Target: Private business TherapeuticAreas (Class)  Code  Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) InvestigationalIntervention  Target: Private codes (Class) Code  Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyEpoch  Target: Private studyEpochType (Class) Code  Target: Private studyEpochType (Class) Code  Target: Private studyEpochType (Class) Code  Target: Private endpointLevel (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Endpoint  Target: Private endpointLevel (Class) Code		
Source: Public (Class) Organization  Target: Private organizationType (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private trialIntentType (Class) Code Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyArm  Target: Private studyArmType (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Study  Target: Private businessTherapeuticAreas (Class) Code Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) InvestigationalIntervention  Target: Private codes (Class) Code Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyEpoch  Target: Private studyEpochType (Class) Code  Target: Private endpointLevel (Class) Code  Target: Private endpointLevel (Class) Code  Target: Private endpointLevel (Class) Code	Source: Public (Class) StudyDesign	
Association (direction: Source -> Destination)  Source: Public (Class) StudyDesign  Target: Private trialIntentType (Class) Code Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyArm  Target: Private studyArmType (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Study  Target: Private businessTherapeuticAreas (Class) Code Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) InvestigationalIntervention  Target: Private codes (Class) Code Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyEpoch  Target: Private studyEpochType (Class) Code  Target: Private endpointLevel (Class) Code  Target: Private endpointLevel (Class) Code	Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign  Target: Private trialIntentType (Class) Code Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyArm  Target: Private studyArmType (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Study  Target: Private businessTherapeuticAreas (Class) Code Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) InvestigationalIntervention  Target: Private codes (Class) Code Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyEpoch  Target: Private studyEpochType (Class) Code  Association (direction: Source -> Destination)  Target: Private endpointLevel (Class) Code  Target: Private endpointLevel (Class) Code	Source: Public (Class) Organization	Target: Private organizationType (Class) Code
Cardinality: [0.*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyArm  Target: Private studyArmType (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Study  Target: Private businessTherapeuticAreas (Class) Code Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) InvestigationalIntervention  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) Endpoint  Target: Private endpointLevel (Class) Code	Association (direction: Source -> Destination)	
Source: Public (Class) StudyArm  Target: Private studyArmType (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Study  Target: Private businessTherapeuticAreas (Class) Code Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) InvestigationalIntervention  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) Endpoint  Target: Private endpointLevel (Class) Code	Source: Public (Class) StudyDesign	
Association (direction: Source -> Destination)  Source: Public (Class) Study  Target: Private businessTherapeuticAreas (Class) Code Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) InvestigationalIntervention  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) Endpoint  Target: Private endpointLevel (Class) Code	Association (direction: Source -> Destination)	
Source: Public (Class) Study  Target: Private businessTherapeuticAreas (Class) Code Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) InvestigationalIntervention  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) Endpoint  Target: Private endpointLevel (Class) Code	Source: Public (Class) StudyArm	Target: Private studyArmType (Class) Code
Code Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) InvestigationalIntervention  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) Endpoint  Target: Private endpointLevel (Class) Code	Association (direction: Source -> Destination)	
Source: Public (Class) InvestigationalIntervention  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) Endpoint  Target: Private endpointLevel (Class) Code	Source: Public (Class) Study	Code
Cardinality: [0*]  Association (direction: Source -> Destination)  Source: Public (Class) StudyEpoch  Target: Private studyEpochType (Class) Code  Association (direction: Source -> Destination)  Source: Public (Class) Endpoint  Target: Private endpointLevel (Class) Code	Association (direction: Source -> Destination)	
Source: Public (Class) StudyEpoch  Association (direction: Source -> Destination)  Source: Public (Class) Endpoint  Target: Private studyEpochType (Class) Code  Association (direction: Source -> Destination)	Source: Public (Class) InvestigationalIntervention	
Association (direction: Source -> Destination)  Source: Public (Class) Endpoint  Target: Private endpointLevel (Class) Code  Association (direction: Source -> Destination)	Association (direction: Source -> Destination)	
Source: Public (Class) Endpoint  Target: Private endpointLevel (Class) Code  Association (direction: Source -> Destination)	Source: Public (Class) StudyEpoch	Target: Private studyEpochType (Class) Code
Association (direction: Source -> Destination)	Association (direction: Source -> Destination)	
	Source: Public (Class) Endpoint	Target: Private endpointLevel (Class) Code
Source: Public (Class) StudyProtocolVersion Target: Private protocolStatus (Class) Code	Association (direction: Source -> Destination)	
	Source: Public (Class) StudyProtocolVersion	Target: Private protocolStatus (Class) Code

ASSOCIATIONS	
ASSOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) Encounter	Target: Private encounterType (Class) Code
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*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private trialType (Class) Code Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) Study	Target: Private studyPhase (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private interventionModel (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) Encounter	Target: Private encounterContactMode (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyArm	Target: Private studyArmDataOriginType (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) Objective	Target: Private objectiveLevel (Class) Code

#### **OPERATIONS**

# **OPERATIONS** Code (codeId : String) : Public [ 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 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 ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] setCodeSystem (codeSystem : String ) : void Public [ 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

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

**ATTRIBUTES** 

# ATTRIBUTES encounterContactMode : Code Private The means by which an interaction occurs between the subject/participant and person or entity (e.g., a device). [ Is static True. Containment is Not Specified. ] 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 occurred. [ 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. ] 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. ] transitionEndRule : TransitionRule Private [ Is static True. Containment is Not Specified. ] transitionStartRule : TransitionRule Private

#### **ATTRIBUTES**

[ Is static True. Containment is Not Specified. ]

Target: Private transitionStartRule (Class) TransitionRule
Target: Private encounterEnvironmentalSetting (Class) Code
Target: Private transitionEndRule (Class) TransitionRule
Target: Private encounterType (Class) Code
Target: Private encounterContactMode (Class) Code
Target: Private encounters (Class) Encounter Cardinality: [0*]
Target: Private encounters (Class) Encounter Cardinality: [0*]

#### **OPERATIONS**

Encounter (encounterId : String ) : Public

# 

getEncounterContactMode () : 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. ]

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. ]

setEncounterContactMode (encounterContactMode : 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

# 

#### **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]

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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. ]

#### ATTRIBUTES

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

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

 $[\ Is\ static\ False.\ Is\ return\ array\ False.\ Is\ query\ False.\ Is\ synchronized\ False.\ ]$ 

getEndpointLevel () : Code Public

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

getEndpointPurposeDescription (): String Public

# operations 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 11/9/2022. Last modified 11/9/2022

TTRIBUTES	
analysisPopulation : AnalysisPopulation Private	[ Is static True. Containment is Not Specified. ]
estimandId: String Private Const	[ Is static True. Containment is Not Specified. ]
intercurrentEvents: List <intercurrentevent> Private</intercurrentevent>	[ Is static True. Containment is Not Specified. ]
summaryMeasure : String Private	
A synopsis of the clinical endpoint of interest within the analysis tar	get study population.  [ Is static True. Containment is Not Specified. ]
◆ treatment : InvestigationalIntervention Private	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]

#### **ATTRIBUTES**

ASSOCIATIONS	
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 treatment (Class) InvestigationalIntervention
Association (direction: Source -> Destination)	
Source: Public (Class) Estimand	Target: Private variableOfInterest (Class) Endpoint
Association (direction: Source -> Destination)	
Source: Public (Class) Estimand	Target: Private analysisPopulation (Class) AnalysisPopulation
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. ]

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

9 November, 2022

# Model Report **OPERATIONS** 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. ] setIntercurrentEvents (intercurrentEvents : List<IntercurrentEvent> ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] 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 11/9/2022. Last modified 11/9/2022

**ATTRIBUTES** 

#### 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)

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

#### **OPERATIONS**

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 11/9/2022. Last modified 11/9/2022

#### 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. ]

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

#### **OPERATIONS**

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. ]

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 11/9/2022. Last modified 11/9/2022

#### **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

#### **ATTRIBUTES**

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

(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. ]

InvestigationalIntervention (investigationalInterventionId : 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. ]

setInterventionDescription (interventionDescription : String ) : void Public

#### **OPERATIONS**

[ 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 11/9/2022. Last modified 11/9/2022

ATTRIBUTES	
objectiveDescription : String Private	
The textual representation of the study objective. (BRIDG)	[ Is static True. Containment is Not Specified. ]
objectiveEndpoints : List <endpoint> Private</endpoint>	[ Is static True. Containment is Not Specified. ]
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 carobjectives.	ategory of importance relative to other study  [ Is static True. Containment is Not Specified. ]

Association (direction: Source -> Destination)	
Source: Public (Class) Objective	Target: Private objectiveEndpoints (Class) Endpoint
	Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) Objective	Target: Private objectiveLevel (Class) Code

#### ASSOCIATIONS

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. ]

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 11/9/2022. Last modified 11/9/2022

#### **ATTRIBUTES**

#### 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 other organizations collected together for a common 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

#### **OPERATIONS**

[ 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

[ 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 11/9/2022. Last modified 11/9/2022

#### **ATTRIBUTES**

procedureCode : Code Private

A symbol or combination of symbols which is assigned to medical procedure.

[ Is static True. Containment is Not Specified. ]

procedureId : String Private Const

[ Is static True. Containment is Not Specified. ]

#### ATTRIBUTES

procedureType : String Private

A characterization or classification of the study procedure.

[ 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..\*]

#### **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. ]

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. ]

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 11/9/2022. Last modified 11/9/2022

ATTRIBUTES	
businessTherapeuticAreas : List <code> Private</code>	
A therapeutic area classification based on the structure and operations of	the business unit.
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	L J
	[ Is static True. Containment is Not Specified. ]
	[ is static frue. Contaminent is Not specified. ]
studyIdentifiers : List <studyidentifier> Private</studyidentifier>	[ Is static True. Containment is Not Specified. ]
studyPhase : Code Private	
A step in the clinical research and development of a therapy from initial c Clinical trials are generally categorized into four (sometimes five) phases or more phases simultaneously in different trials, and some trials may ove After ICH Topic E8 NOTE FOR GUIDANCE ON GENERAL CONSIDIC CPMP/ICH/291/95 March 1998]	A therapeutic intervention may be evaluated in two grlap two different phases. [21 CFR section 312.21;
CLIMITACITES IVIAICII 1996]	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
studyTitle: String Private	
The sponsor-defined name of the clinical study.	
The sponsor-defined hame of the chinear study.	[ Is static True. Containment is Not Specified. ]
The nature of the investigation for which study information is being colle-	cted. (After clinicaltrials.gov)
	[ Is static True. Containment is Not Specified. ]

#### **ATTRIBUTES**

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 studyType (Class) Code

Association (direction: Source -> Destination)

Source: Public (Class) Study

Target: Private studyProtocolVersions (Class)

StudyProtocolVersion Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) Study

Target: Private studyIdentifiers (Class)

StudyIdentifier

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) Study

Target: Private businessTherapeuticAreas (Class)

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) Study

Target: Private studyDesigns (Class) StudyDesign

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) Study

Target: Private studyPhase (Class) Code

#### **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

# **OPERATIONS** [ 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 [ 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

# **OPERATIONS** 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. ] 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 11/9/2022. Last modified 11/9/2022

#### ATTRIBUTES

studyArmDataOriginDescription : String Private

#### **ATTRIBUTES**

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

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**

#### **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. ]

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 11/9/2022. Last modified 11/9/2022

ATTRIBUTES	
studyArm: StudyArm Private	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
studyEpoch : StudyEpoch Private	[ Is static True. Containment is Not Specified. ]
ASSOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) StudyCell	Target: Private studyElements (Class) StudyElement Cardinality: [0*]
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) StudyDesign	Target: Private studyCells (Class) StudyCell Cardinality: [0*]

OPERATIONS
addStudyElement (studyElement : StudyElement ) : void Public

#### **OPERATIONS**

[ 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. ]

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 11/9/2022. Last modified 11/9/2022

#### ATTRIBUTES

ecrfLink : URI Private

#### **ATTRIBUTES**

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. ]

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

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

#### 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 11/9/2022. Last modified 11/9/2022

ATTRIBUTES	
activities : List <activity> Private</activity>	[ 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	s in a clinical study. (clinicaltrials.gov) [ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]
studyDesignDescription : String Private	
The textual representation of the study design.	[ Is static True. Containment is Not Specified. ]
	[ Is static True. Containment is Not Specified. ]

## ATTRIBUTES The literal identifier (i.e., distinctive designation) of the study design. [ Is static True. Containment is Not Specified. ] studyEstimands : List<Estimand> Private [ Is static True. Containment is Not Specified. ] 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. ] studyStudyDesignPopulations : 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. ]

#### ASSOCIATIONS

ASSOCIATIONS	
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private studyEstimands (Class) Estimand 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 therapeuticAreas (Class) Code 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 trialIntentType (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) StudyDesign	Target: Private studyInvestigationalInterventions (Class) InvestigationalIntervention  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 studyStudyDesignPopulations (Class) StudyDesignPopulation

ASSOCIATIONS	
	Cardinality: [0*]
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private studyWorkflows (Class) Workflow 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 interventionModel (Class) Code
Association (direction: Source -> Destination)	
Source: Public (Class) StudyDesign	Target: Private studyIndications (Class) Indication 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

#### **OPERATIONS**

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

[ 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

# Model Report 9 November, 2022 **OPERATIONS** 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. ] removeStudyIndication (indication : Indication ) : void Public [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] 🌳 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. ]

#### **OPERATIONS**

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

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

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. ]

StudyDesign (studyDesignId : String ) : Public

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

#### StudyDesignPopulation

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 11/9/2022. Last modified 11/9/2022

#### ATTRIBUTES

populationDescription : String Private

The textual representation of the study population.

[ Is static True. Containment is Not Specified. ]

#### ATTRIBUTES

studyDesignPopulationId : String Private Const

[ Is static True. Containment is Not Specified. ]

#### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) StudyDesign

Target: Private studyStudyDesignPopulations (Class) 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 11/9/2022. Last modified 11/9/2022

#### ATTRIBUTES



studyElementDescription : String Private

The textual representation of the study design element.

[ Is static True. Containment is Not Specified. ]

#### ATTRIBUTES

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. ]

[ 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 transitionStartRule (Class)

TransitionRule

Association (direction: Source -> Destination)

Source: Public (Class) StudyElement

Target: Private transitionEndRule (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

# 

# StudyEpoch

Class in package 'model'

StudyElement (studyElementId : String ) : Public

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 11/9/2022. Last modified 11/9/2022

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

# 

#### ATTRIBUTES

A system identifier assigned to the epoch that occurs immediately after the current epoch.

[ 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. ]

studyEpochDescription : String Private

The textual representation of the study epoch.

[ Is static True. Containment is Not Specified. ]

[ Is static True. Containment is Not Specified. ]

studyEpochName : String Private

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 encounters (Class) Encounter

Cardinality: [0..\*]

Association (direction: Source -> Destination)

Source: Public (Class) StudyEpoch Target: Private studyEpochType (Class) Code

Association (direction: Source -> Destination)

Source: Public (Class) StudyCell Target: Private studyEpoch (Class) StudyEpoch

#### **OPERATIONS**

# OPERATIONS 9 NOVEMBER, 2022

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

[ 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

#### **OPERATIONS**

StudyEpoch (studyEpochId : String ) : 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.

StudyIdentifier Version 1.0 Phase 1.0 Proposed Chris Upkes created on 11/9/2022. Last modified 11/9/2022

#### ATTRIBUTES

studyIdentifier : String Private

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

[ Is static True. Containment is Not Specified. ]

[ Is static True. Containment is Not Specified. ]

studyIdentifierScope : Organization Private

[ Is static True. Containment is Not Specified. ]

#### ASSOCIATIONS

Association (direction: Source -> Destination)

Source: Public (Class) StudyIdentifier

Target: Private studyIdentifierScope (Class)

Organization

Association (direction: Source -> Destination)

Source: Public (Class) Study

Target: Private studyIdentifiers (Class)

StudyIdentifier

Cardinality: [0..\*]

#### **OPERATIONS**



getStudyIdentifier (): String Public

# 

getStudyIdentifierId (): String Public

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

getStudyIdentifierScope () : Organization Public

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

setStudyIdentifier (studyIdentifier : String ) : void Public

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

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 11/9/2022. Last modified 11/9/2022

#### 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. ]

#### ATTRIBUTES

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. ]

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**

# **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 [ Is static False. Is abstract False. Is return array False. Is query False. Is synchronized False. ] 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.] setScientificTitle (scientificTitle: String): void Public [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 11/9/2022. Last modified 11/9/2022

ATTRIBUTES	
transitionRuleDescription : String Private	
The textual representation of the transition rule.	[ 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 transitionStartRule (Class) TransitionRule
Association (direction: Source -> Destination)	

ASSOCIATIONS	
Source: Public (Class) Encounter	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) StudyElement	Target: Private transitionEndRule (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 11/9/2022. Last modified 11/9/2022

#### **ATTRIBUTES**

workflowDescription: String Private

The textual representation of the workflow.

[ Is static True. Containment is Not Specified. ]

#### ATTRIBUTES

workflowId: String Private Const

[ Is static True. Containment is Not Specified. ]

workflowItems : List<WorkflowItem> Private

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

#### WorkflowItem

Class in package 'model'

WorkflowItem
Version 1.0 Phase 1.0 Proposed
Chris Upkes created on 11/9/2022. Last modified 11/9/2022

ATTRIBUTES		
nextWorkflowItemId: String Private		
A system identifier assigned to a workflow item that occurs immediately prior	[ 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. ]	
workflowItemActivityId: String 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. ]	
	[ 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) Workflow Target: Private workflowItems (Class) WorkflowItem

Cardinality: [0..\*]

#### **OPERATIONS**

getNextWorkflowItemId () : String Public

#### OPERATIONS

getPreviousWorkflowItemId (): String Public

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

getWorkflowItemActivityId (): String 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. ]

getWorkflowItemEncounterId () : String 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 : String ) : 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. ]

setWorkflowItemEncounterId (workflowItemEncounterId : String ) : void Public

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

WorkflowItem (workflowItemId : String ) : Public