Archetype Extraction Report for action

blood_transfusion_management

Archetype ID: openEHR-EHR-ACTION.blood_transfusion_management.v0

Lifecycle State: in_development

Category: ACTION

Languages: en, ca, es

Purpose: To record details about a blood transfusion procedure.

Use: Use to record all or part of a blood transfusion procedure. Additional structured and detailed information about the transfusion can be captured using purpose-specific archetypes inserted into the 'Additional details' slot, where required. Timings related to a transfusion can be managed in one of two ways: - Using the reference model - the time for performance of any pathway step will use the ACTION time attribute for each step. - Archetyped data elements: --> 'Scheduled date/time' data element is intended to record the precise time when the transfusion is planned. Note: the corresponding ACTION time attribute for the 'Transfusion scheduled' step will record the time that the transfusion was scheduled into a system, not the intended date/time on which the transfusion is intended to be carried out; --> 'Start date/time' is intented to record the precise time when the transfusion was started. Note: the corresponding ACTION time attribute for the 'Transfusion unit commenced' will document the time each component performed was commenced. This 'Start date/time' data element will record the date/time of the starting active component of the procedure. This will enable a full duration of the active procedure to be calculated. --> 'End date/time' is intended to record the precise time when the procedure was ended. Note: the corresponding ACTION time attribute for the 'Transfusion unit completed' will document the time each component performed was commenced. This 'Final end date/time' data element will record the date/time of the final active component of the procedure. This will enable a full duration of the active procedure to be calculated.

Misuse: Not to be used to record the order for a transfusion. Use the INSTRUCTION.service_request.v1 archetype for this purpose. Not to be used to record other types of transfusions (Bone Marrow Transfusions (Transplants), Stem Cell Transfusions, Immunoglobulin Therapy, Platelet-Rich Plasma (PRP) Injections and Clotting Factor Concentrates).

Keywords: transfusion, blood, plasma, blood products, apheresis

Concepts:

- at0000::Blood transfusion management - Procedure to transfer blood or its components from a donor to a recipient to replenish depleted blood elements.
- at0001::Item tree - @ internal @
- at0002::Item tree - @ internal @
- at0061::Transfusion ordered - The transfusion of all blood products is requested.
- at0063::Blood products delivered - The blood products have been delivered to the physical place where the transfusion will take place.
- at0064::Transfusion scheduled - Transfusion has been scheduled to be performed.
- at0065::Transfusion postponed - Transfusion has been postponed.
- at0066::Transfusion cancelled - The transfusion has been cancelled as no longer appropriate or required.
- at0067::Transfusion suspended - The transfusion has been suspended and may restart.
- at0070::Unit administration completed - The blood product unit has been administered.
- at0072::Transfusion stopped - An ongoing blood transfusion is discontinued before its completion.
- at0068::Transfusion completed - All blood products have been administered.
- at0073::Transfusion expired - The blood transfusion does not occur within the planned timeframe.
- at0043::Blood product name - The blood product transfused.
- at0044::Blood product ID - The identifier of the blood product transfused.
- at0056::Transfusion ID - Unique identifier for the transfusion.
- at0058::Ordered date/time - The date when the blood product has been ordered.
- at0059::Delivered date/time - The date when the blood product has been delivered to the place where the tranfusion is going to be performed.
- at0048::Product location - The physical location of the product after delivery and prior to administration.
- at0049::Description - Narrative description about the transfusion.
- at0045::Expiration date - The effective date after which the blood product should not be transfused.
- at0050::Start date/time - The date and time when the transfusion of the unit commences.
- at0051::Stop date/time - The date and time when the transfusion of the unit stops.
- at0046::Unit volume - The amount of blood product contained in each unit.
- at0053::Comment - Additional narrative about the activity or pathway step not captured in other fields, including details of any variance between the intended action and the action actually performed.
- at0054::Additional details - Further structured details of the action, possibly specific to a pathway step.
- at0055::Adverse reaction - Additional information regarding a specific adverse reaction event caused by exposure to a specific substance.
- at0047::Unit sequence number - The sequence of the unit being transfused during the 'Unit administration started' or 'Unit administration completed' pathway steps.

- at0052::Volume administered - The cumulative total volume of the blood product that has been administered.
- at0057::Scheduled date/time - The date and/or time on which the transfusion is intended to be performed.
- at0060::Extension - Additional information required to capture local content or to align with other reference models/formalisms.
- at0074::Transfusion planned - Transfusion has been planned.
- at0069::Unit administration started - Administration of a unit of blood product has commenced.
- at0075::Blood and patient identification checked - The transfusion product identification and patient identification have been matched.
- at0076::Consent obtained - Consent for the transfusion has been obtained.
- at0062::Blood products ordered - The blood products have been ordered.
- at0071::Transfusion started - Administration of the first unit has commenced.
- at0042::Transfusion completed - All blood products have been administered.

care_plan

Archetype ID: openEHR-EHR-ACTION.care_plan.v0

Lifecycle State: in_development

Category: ACTION

Languages: en

Purpose: To record activity regarding the planning and carrying out of a single care plan as a whole.

Use: Use to record activity regarding the planning and carrying out of a single care plan as a whole.

Misuse: Not to be used to record activity of individual components of a care plan - use the specific ACTION archetype appropriate for each activity.

Keywords: care plan, activity

Concepts:

- at0000::Care Plan - Plan or sequence of discrete activities developed to achieve a specified management goal or treatment outcome, carried out by health professionals and/or the patient.
- at0002::Care Plan Name - Name of care plan.

- at0003::Care plan Need Identified - Need for a care plan has been identified.
- at0006::Care Plan Commenced - Care plan activities commenced and in progress.
- at0008::Care Plan Developed - Care plan components identified and documented.
- at0010::Care Plan Expired - Care plan duration has passed the 'Expiry Date'.
- at0013::Care Plan Completed - All activities related to the care plan have been reconciled or completed.
- at0015::Tree - @ internal @
- at0016::Care Plan ID - Identification of care plan.
- at0017::Expiry Date - Anticipated date beyond which the care plan can be deemed 'expired'.
- at0018::Care Plan Scheduled - Care plan has been scheduled.
- at0019::Tree - @ internal @
- at0020::Care Plan Reviewed - Care plan has been reviewed.
- at0021::Description - Description of activity performed/enacted against the plan.
- at0025::Reason - Reason for activity being performed /enacted against the plan.
- at0032::Care Plan Aborted - Care plan has been aborted.
- at0033::Care Plan Cancelled - Care plan has been cancelled prior to commencement.
- at0034::Care Plan Postponed - Commencement of care plan has been temporarily postponed to a future date.
- at0035::Care Plan Suspended - Care plan is temporarily suspended but intended to resume at a later date.

clinical_pathway

Archetype ID: openEHR-EHR-ACTION.clinical_pathway.v0

Lifecycle State: in_development

Category: ACTION

Languages: nb, en

Purpose: To record information about a high level, standardised clinical pathway carried out to organise the delivery of healthcare, and its constituent high level activities.

Use: Use to record information about a high level, standardised clinical pathway carried out to organise the delivery of healthcare, and its constituent high level activities. This archetype has been designed to support recording the carrying out of high level, standardised clinical pathways. Examples include, but are not limited to: - Cancer care pathways outlining the major events of a course of cancer treatment, including the start and end of investigation, particularly significant multidisciplinary team (MDT) meetings, or the start of medical, radiation or surgical treatment. - Standardised high level pathways for any

type of medical or surgical treatment, such as allergen immunotherapy (AIT) or elective hyperbaric oxygen therapy (HBOT).

Misuse: Not to be used to record the order for a clinical pathway. Use the INSTRUCTION.clinical_pathway_order archetype for this purpose. Not to be used to record information about individualised protocols, care plans or guidelines. Use other appropriate archetypes for this purpose.

Concepts:

- at0000::Clinical pathway - A high level, standardised clinical pathway carried out to organise the delivery of healthcare.
- at0001::Tree - @ internal @
- at0002::Activity - The name of the activity which was scheduled or performed.
- at0003::Activity performed - The activity has been performed.
- at0005::Pathway aborted - The pathway has been aborted.
- at0006::Pathway cancelled - The pathway has been cancelled.
- at0007::Pathway completed - The pathway has been completed.
- at0008::Activity scheduled - The activity has been scheduled.
- at0009::Pathway planned - The pathway has been planned.
- at0010::Description - Narrative description about the pathway or activity.
- at0011::Tree - @ internal @
- at0013::Healthcare provider details - Details about the healthcare provider or organisation responsible for the recorded care flow step.
- at0014::External activity - Was the activity performed outside of the healthcare provider responsible for the current health record?
- at0016::Pathway suspended - The pathway has been suspended.
- at0017::Pathway postponed - The pathway has been postponed.
- at0018::Additional details - Additional structured details about the care pathway or activity.
- at0019::Pathway name - The name of the clinical pathway.
- at0020::Reason - Reason that the care flow step for the clinical pathway was carried out.
- at0021::Comment - Additional narrative about the pathway not captured in other fields.
- at0022::Extension - Additional information required to capture local content or to align with other reference models/formalisms.

health_education

Archetype ID: openEHR-EHR-ACTION.health_education.v1

Lifecycle State: published

Category: ACTION

Languages: de, sv, nb, en, zh-cn

Purpose: To record details about communication to improve health literacy and life skills.

Use: Use to record details about communication to improve health literacy and life skills. Provision of health education may include, but is not limited to: - verbal advice; - a demonstration of a technique; or - handing out physical material, for example, fact sheets about the risks of a vasectomy. The life skills may include, but are not limited to, medication administration, self-injection, and post-operative self-care. If the education provided is a course or series of activities then details about each activity or visit will be recorded against the 'Education provided' pathway step and when the entire course is completed then the data will be recorded against the 'Education completed' pathway step. If the education provided is a single activity or visit, then data will be recorded simultaneously for 'Education provided' and 'Education completed'.

Misuse: Not to be used to record consent about health education - for example, consent to a vasectomy after provision of a fact sheet. Use ACTION.informed_consent for this purpose.

Keywords: information, education, fact sheet, instruction, demonstration, teaching, literacy, guidance, training, advice, coaching

Concepts:

- at0000::Health education - Communication to improve health literacy and life skills.
- at0001::Tree - @ internal @
- at0002::Topic name - Identification of the topic of health education, by name.
- at0003::Description - Narrative description about the health education.
- at0004::Method - Method by which the health education was communicated to the individual.
- at0006::Education planned - Education has been planned but no steps have been taken to initiate education.
- at0007::Education scheduled - Appointment for education scheduled.
- at0008::Education provided - Education session or material provided.
- at0010::Reason - Reason that the pathway step for the identified health education was carried out.
- at0013::Education completed - All planned activities for education have been successfully completed.
- at0014::Education postponed - Education has been postponed prior to commencement.
- at0015::Education cancelled - Education has been cancelled prior to commencement.
- at0016::Education not completed - Education session was abandoned before complete.

- at0017::Education suspended - Planned education sessions were suspended after commencement.
- at0018::Education recommended - Education has been recommended but no steps have been taken to initiate education.
- at0019::Outcome - Description of the outcome of health education.
- at0020::Session Number - Number of the education session in an multi-session course.
- at0021::Tree - @ internal @
- at0023::Extension - Additional information required to capture local context or to align with other reference models/formalisms.
- at0025::Material details - Structured details about the education material provided to the individual.
- at0026::Scheduled date/ time - The date and/or time on which the education activity is intended to be performed.
- at0027::Comment - Additional narrative about the activity or care pathway step not captured in other fields.
- at0028::Requestor - Details about the healthcare provider or organisation requesting the education.
- at0029::Receiver - Details about the healthcare provider or organisation who received the request for education.
- at0030::Requestor order identifier - The local ID assigned to the order by the healthcare provider or organisation requesting the education.
- at0031::Receiver order identifier - The ID assigned to the order by the healthcare provider or organisation receiving the request for education. This is also referred to as Filler Order Identifier.
- at0032::Recipient - Recipient of the health education.
- at0033::Additional details - Additional structured details about the health education.
- at0034::Interpreter details - Details about the interpretation.
- at0035::Clinical indication - The clinical reason for the education activity.

imaging_exam

Archetype ID: openEHR-EHR-ACTION.imaging_exam.v0

Lifecycle State: in_development

Category: ACTION

Languages: de, sv, nb, en, sl

Purpose: To record activity regarding the performance of imaging examinations.

Use: Use to record activity regarding the performance of imaging examinations.

Keywords: Radiology, Ultrasound, MRI, CT, scan, tomography

Concepts:

- at0000::Imaging examination - Clinical activity about performing an imaging examination.
- at0001::Tree - @ internal @
- at0002::Examination planned - Imaging examination is planned.
- at0003::Examination requested - Imaging examination has been requested.
- at0004::Appointment scheduled - Imaging examination appointment has been made.
- at0005::Appointment rescheduled - Appointment for imaging examination has been rescheduled.
- at0007::Examination complete - The imaging examination has been performed and all associated activities completed.
- at0008::Examination performed - The examation was performed but related activities not completed.
- at0009::Examination postponed - The examination has been postponed.
- at0010::Examination suspended - The examination has been suspended.
- at0011::Examination cancelled - The planned examination has been cancelled prior to commencement.
- at0012::Examination aborted - The examination has been aborted.
- at0014::Failed attempt - The examation was commenced but not completed successfully.
- at0015::Tree - @ internal @
- at0016::Start date/time - The start date and/or time for the procedure. This will indicate the scheduled date/time when recorded against the 'Appointment scheduled' care pathway step or the actual Start date/time in the 'Examination performed' step.
- at0017::Examination name - The name of the examination (to be) performed. Coding of the specific procedure with a terminology is preferred, where possible.
- at0018::Description - Narrative description about the activity or care pathway step for the identified examination, for example description about the performance and findings from the the examination, the failed attempt or the cancellation of the examination.
- at0019::Reason - Reason that the activity or care pathway step for the identified examination was carried out, for example, the reason for the cancellation or suspension of the examination.
- at0020::Comment - Additional narrative about the activity or care pathway step not captured in other fields.
- at0021::Examination detail - Structured information about the examination. Use to capture detailed, structured information about method & technique etc.
- at0022::Anatomical location - Structured information about the specific anatomical location of the examination.

informed_consent

Archetype ID: openEHR-EHR-ACTION.informed_consent.v0

Lifecycle State: in_development

Category: ACTION

Languages: de, ru, nb, en

Purpose: To record the status of a request for, or record of, informed consent prior to performing a procedure, clinical trial or healthcare-related activity.

Use: Use to record the status of an order to obtain informed consent, including what is planned, scheduled, requested, provided, or withdrawn. This archetype has been designed to be a framework that will be adequate for requesting and recording a simple consent, but allow for additional details to be optionally added within the 'Details' SLOT to meet the specific requirements of a more complex clinical scenario. For example, additional consent details can be included using the CLUSTER.consent_details archetype. Other archetypes can be developed and optionally included in the same SLOT for the purpose of recording specific details about the procedure, trial or activity. The status of the informed consent is reflected by the pathway steps - requested, refused, provided, withdrawn etc.

Keywords: consent, informed, caveat

Concepts:

- at0000::Informed consent - Record of status and details of informed consent from an individual (or the individual's agent/proxy) for a proposed procedure, trial or other healthcare-related activity (including treatments and investigations), based upon a clear appreciation and understanding of the facts, implications, and possible future consequences by the consenting party.
- at0001::Tree - @ internal @
- at0002::Procedure/Trial/Activity - Identification of the procedure, clinical trial or healthcare-related activity (including correct side/correct site, where appropriate) against which the consent status and details are recorded.
- at0003::Details - Additional structured details about the procedure/trial/activity itself or additional structured consent details.
- at0004::Form of consent - Form of the consent sought or provided.
- at0005::Written - Format of the consent is written.
- at0006::Verbal - Format of the consent is verbal.
- at0007::Reason - Reason that the care pathway step for the identified procedure, clinical trial or healthcare-related activity was carried out.

- at0008::Start date - Date, and optional time, when validity of the informed consent becomes active.
- at0009::End date - Date, and optional time, when validity of the informed consent ceased.
- at0010::Caveat - Details of any qualifications or exemptions to the informed consent.
- at0011::Consent description - Narrative description of the informed consent required or recorded prior to performing the proposed procedure, clinical trial or healthcare-related activity.
- at0012::Evidence link - Link to evidence of consent.
- at0013::Planned - Need for informed consent is identified.
- at0014::Informed consent requested - Informed consent has been requested from the patient or patient's agent, but no response has been received.
- at0015::Informed consent provided - Informed consent has been provided by the patient or patient's agent.
- at0016::Informed consent refused - In response to a request for informed consent, it has been refused by patient or patient's agent.
- at0017::Informed consent withdrawn - Following initial provision of informed consent, it has been withrawn by the patient or patient's agent.
- at0018::Cancelled - Intent to request informed consent has been cancelled, prior to requesting consent from patient or patient's agent..
- at0019::Postponed - Intent to request informed consent has been postponed.
- at0021::Informed consent not obtained - Informed consent was not obtainable from either the patient or patient's advocate.
- at0022::Completed - Informed consent has been provided by the patient or patient's agent and the activity is now complete.
- at0024::Tree - @ internal @
- at0025::Consent document used - Identification of the form or document used to obtain consent.
- at0026::Review date - Date when consent status is due for review.
- at0027::Appointment scheduled - An appointment has been scheduled to request consent.
- at0028::Consent requester - Details about the healthcare provider who is requesting or recording the consent.
- at0029::Consent provider - Details about the subject (or subject's agent) who is being requested for, or providing, the consent for the procedure, clinical trial or healthcare-related activity.
- at0030::Procedure/Trial/Activity description - Narrative description of the procedure, clinical trial or healthcare-related activity.
- at0031::Intent - Description of the intent of the procedure, clinical trial or healthcare-related activity.
- at0032::Name - Identification of the information made available.

- at0033::Patient information - Details about Patient Information made available to the subject or subject's agent.
- at0035::Description - Narrative description of the patient information made available.
- at0036::Comment - Additional narrative about the informed consent activity, not captured in other fields.
- at0037::Evidence details - Digital representation of the evidence of consent.
- at0038::Multimedia representation - Digital representation of the evidence of consent.

laboratory_test

Archetype ID: openEHR-EHR-ACTION.laboratory_test.v0

Lifecycle State: in_development

Category: ACTION

Languages: en

Purpose: To record information about the activities required to carry out a laboratory test, including the planning, scheduling, performance, suspension, cancellation, documentation and completion.

Use: Use to record information about the activities required to carry out a laboratory test, including the planning, scheduling, performance, suspension, cancellation, documentation and completion. This is done by the recording of data against specific activities, as defined by the 'Pathway' careflow steps in this archetype. The scope of this archetype encompasses activities for a broad range of clinical laboratory tests performed for screening or diagnostic purposes. Additional structured and detailed information about the laboratory test can be captured using purpose-specific archetypes inserted into the 'Test detail' slot, where required. Timings related to a laboratory test can be managed in one of two ways: - Using the reference model - the time for performance of any pathway step will use the ACTION time attribute for each step. - Archetyped data elements: --- the 'Scheduled date/time' data element is intended to record the precise time when the laboratory test is planned. Note: the corresponding ACTION time attribute for the Scheduled pathway step will record the time that the laboratory test was scheduled into a system, not the intended date/time on which the laboratory test is intended to be carried out; and --- the 'Final end date/time' is intended to record the precise time when the entire testing process was completed. It can be used to document the complex laboratory tests with multiple components such as a Glucose challenge test. Note: the corresponding ACTION time attribute for the 'Test performed' will document the time each component performed was commenced. This 'Final end date/time' data element will record the date/time of the final active component of the test process. This will enable a full duration of the active

laboratory test to be calculated, if required. In practice, many test specimens (for example, in ambulatory care) will be collected without a corresponding order (using an INSTRUCTION archetype) once and not be ordered in advance. The details about the laboratory test will be added against the pathway step, 'Specimen collected'. In point of care testing, the specimen may be collected and the test recorded as completed against the 'Test completed' pathway step without an order or recording of data against any other pathway steps. In some cases a recurring laboratory test will be ordered, and in this situation data against the 'Test performed' step will be recorded on each occasion, leaving the instruction in the active state. When the last occurrence is recorded the 'laboratory test completed' action is recorded showing that this order is now in the completed state. In other situations, such as secondary care, there may be a formal order for a laboratory test using a corresponding INSTRUCTION archetype. This ACTION archetype can then be used to record the workflow of when and how the order has been carried out. Recording information using this ACTION archetype indicates that some sort of activity has actually occurred; this will usually be the laboratory test itself but may be a failed attempt or another activity such as postponing the laboratory test. If there is a formal order for the laboratory test, the state of this order is represented by the Pathway step against which the data is recorded. For example, using this archetype the progressing state of a pre-operative blood test order may be recorded through separate entries in the EHR progress notes at each 'Pathway' step: - record the scheduled Start date/time for the test (Test scheduled); and - record that the laboratory test has been completed, including information about the laboratory test details (Test completed). Please note that in the openEHR Reference Model there is a 'Time' attribute, which is intended to record the date and time at which each pathway step of the Action was performed. This is the attribute to use to record the start of the laboratory test (using the 'Test performed' pathway step) or the time that the laboratory test was aborted (using the 'Test aborted' pathway step).

Misuse: Not to be used to record details about the test result - use the OBSERVATION.laboratory_test_result archetype for this purpose. Not to be used to record details about administrative activities - use specific ADMIN archetypes for this purpose. Not to be used to record details about related activities such as medication administered as part of the laboratory test or when imaging guidance is used during the laboratory test - use separate and specific ACTION archetypes within the same template for this purpose.

Keywords: laboratory, test, diagnostic, evaluation, investigation, screening

Concepts:

- at0000::Laboratory test - A clinical laboratory or point-of-care test carried out on a biological sample for screening or diagnostic purposes.
- at0001::Tree - @ internal @
- at0002::Test name - Identification of the laboratory test by name.
- at0003::Laboratory test detail - Structured information about the laboratory test.
- at0004::Test planned - The laboratory test to be undertaken is planned.

- at0005::Comment - Additional narrative about the activity or care pathway step not captured in other fields.
- at0007::Test request sent - Request for laboratory test sent.
- at0014::Reason - Reason that the activity or care pathway step for the identified laboratory test was carried out.
- at0036::Test scheduled - The laboratory test has been scheduled.
- at0038::Test postponed - The laboratory test has been postponed.
- at0039::Test cancelled - The planned laboratory test has been cancelled prior to commencement.
- at0040::Test suspended - The laboratory test has been suspended.
- at0041::Test abandoned - The laboratory test has been aborted.
- at0043::Test completed - The laboratory test has been performed and all associated clinical activities completed.
- at0047::Test performed - The laboratory test, or sublaboratory test in a multicomponent laboratory test, has been performed.
- at0049::Description - Narrative description about the laboratory test, as appropriate for the pathway step.
- at0053::Tree - @ internal @
- at0054::Requestor order identifier - The local ID assigned to the order by the healthcare provider or organisation requesting the test.
- at0055::Requestor - Details about the healthcare provider or organisation requesting the test.
- at0056::Receiver order identifier - The ID assigned to the order by the healthcare provider or organisation receiving the request for the test. This is also referred to as Filler Order Identifier.
- at0057::Receiver - Details about the healthcare provider or organisation receiving the request for the test.
- at0058::Urgency - Urgency of the laboratory test.
- at0063::Body site - Identification of the body site for the laboratory test.
- at0064::Extension - Additional information required to capture local content or to align with other reference models/formalisms.
- at0065::Method - Identification of specific method or technique for the laboratory test.
- at0066::Scheduled date/time - The date and/or time on which the laboratory test is intended to be performed.
- at0068::Test commenced - The laboratory test, or sublaboratory test in a multicomponent laboratory test, has been commenced.
- at0070::Indication - The clinical or process-related reason for the laboratory test.
- at0071::Specimen - None
- at0072::Specimen collected - The laboratory test is identified as a future activity.
- at0073::Specimen received by laboratory - None
- at0074::Specimen processed - None

medication

Archetype ID: openEHR-EHR-ACTION.medication.v1

Lifecycle State: published

Category: ACTION

Languages: de, sv, ru, es-ar, nb, pt-br, ar-sy, sl, en, zh-cn, es, ca

Purpose: For recording details about any activity related to the planning, scheduling, prescription management, dispensing, administration, cessation and other use of a medication, vaccine, nutritional product or other therapeutic item.

Use: Use to record information about the activities required to support all aspects of medication management, including the planning, scheduling, suspension, cancellation and completion of medication orders, as well as the actual administration of medication items. This is done by the recording of data against specific activities, as defined by the 'Pathway' careflow steps in this archetype. This archetype is intended to be used for any type of medication and related order, whether prescribed by a health professional or available for purchase 'over the counter'. The scope of this medication archetype also includes orders for vaccinations, parenteral fluids or other therapeutic goods, such as bandages, nutritional products or other items that are applied or administered to have a therapeutic effect and which have a common pattern for data recording. Within the context of a Medication or Vaccination List, this archetype will be used to record only what medication or vaccination has been prescribed or administered. Additional structured and detailed information about the activity can be captured using purpose-specific archetypes inserted into the 'Preparations details', 'Amount', 'Structured body site', 'Administration device' or 'Additional details' SLOTs, where required. Timings related to medication management can be managed in one of two ways: - Using the reference model - the time for performance of any pathway step will use the ACTION time attribute for each step. - Archetyped data elements - the 'Original scheduled date/time' data element is intended to record the time when the medication item was intended to be administered. Note: the corresponding ACTION time attribute for the Scheduled pathway step will record the time that the clinical activity was scheduled into a system, not the intended date/time on which the activity is intended to be carried out. In practice, some medications (for example, during resuscitation in the emergency department) will be administered on the basis of a protocol or verbal order and not be ordered in advance. The details about the medication will be added against the pathway step 'Dose administered'. For an ongoing course of medication, data about the medication item will be recorded against the 'Dose administered' step at each administration, leaving the instruction in the active state. When the last occurrence is recorded the ‘Medication course completed' step is recorded showing that this order is now

in the completed state. In other situations, such as secondary care, there may be a formal order for a medication item using a corresponding INSTRUCTION.medication_order archetype. This ACTION archetype can then be used to record the workflow of when and how the order has been carried out. Recording information using this ACTION archetype indicates that some sort of activity has actually occurred; this will most commonly be the administration of the medication item itself, but may be a delayed supply attempt or another activity such as suspending the medication item in preparation for a procedure. If there is a formal order for the medication item, the state of this order is represented by the Pathway step against which the data is recorded. For example, using this archetype the progressing state of a Paracetamol order may be recorded through separate entries in the EHR progress notes at each 'Pathway' step. When documenting the reason for why an activity was performed or a pathway step was chosen, for example why a dose was omitted or the medication was ceased, the element "Reason" may be used. When this ACTION archetype is used with the corresponding INSTRUCTION.medication_order archetype, information which hasn't changed from the order to the management activity aren't generally repeated in the action. It's considered good practice, though not mandatory, to record the medication item in the ACTION. The pathway steps make a distinction between those which relate directly to fulfillment of the order, such as authorisation, preparation and dose administration, and those which relate to handling of the prescription such as issue, re-authorisation, dispensing. In some jurisdictions these are regarded as a single pathway, in others it may be helpful to handle order fulfillment and prescription in separate templates. The names of most of the pathway steps in this archetype start with either "Medication" or "Prescription" to make it easier to differentiate between the pathway steps that are associated with prescription handling and those that are associated with handling the medication order itself. In some jurisdictions, a prescription can be re-authorised for the purpose of continuing an ongoing medication order, while in others an entirely new prescription must be issued in these circumstances. In the latter, the pathway step 'Prescription re-authorised' is not applicable.

Misuse: Not to be used for recording a medication order or instruction. Use the INSTRUCTION.medication_order archetype for this purpose. Not to be used to record the administration or dispensing of blood products, which involves a fundamentally different clinical process and is likely to require different supporting information. Use a different appropriate ACTION archetype for this purpose. Not to be used for recording details about therapeutic adherence, secondary effects or toxicity. Use other archetypes for these purposes. Not to be used for medication reconcilliation. Use other appropriate archetypes for this purpose. Not to be used for a formal review of an entire medication list, for example by a pharmacist. Use other appropriate archetypes for this purpose.

Keywords: medication, prescribe, dispense, administration, cessation, therapeutic good, supply, medicine, drug, preparation, medicinal, prescription, vaccine, vaccination, dosage, form, route, follow-up

Concepts:

- at0000::Medication management - Any activity related to the planning, scheduling, prescription management, dispensing, administration, cessation and other use of a medication, vaccine, nutritional product or other therapeutic item.
- at0002::Prescription issued - A prescription has been issued for the medication.
- at0003::Prescription dispensed - The ordered medication has been dispensed, for example from a pharmacy to the patient.
- at0004::Medication course commenced - The medication has been taken by, or administered to, the patient for the first time. Although in some settings this significant date may be computable as the first of several administrations, in other settings, such as primary care, specific administration dates are not readily available.
- at0005::Medication reassessed - The individual medication has been reassessed, for example whether the medication should still be taken. This is not intended to capture review of the medication list.
- at0006::Dose administered - A single administration of the medication has taken place.
- at0007::Medication course completed - The medication course has been completed as planned.
- at0008::Prescription supply delayed - The prescription has not been dispensed due to a technical or pharamaceutical supply issue.
- at0009::Administrations suspended - The administration of the medication has been suspended until further notice. No further doses should be given until the restart date or conditions have been met. When setting the date/conditions for restart after suspending, a step from ‘Administrations suspended’ and back to 'Medication start date/condition set' should be performed.
- at0010::Prescription re-issued - A prescription has been re-issued for an existing medication order.
- at0011::Prescription re-authorisation pending - Issue of the prescription is awaiting re-authorisation by a clinician.
- at0012::Medication course cancelled - The planned course of medication has been cancelled prior to any administration.
- at0013::Medication course postponed - The scheduled medication course has been postponed prior to any administration.
- at0015::Medication course stopped - Administration of the medication has been ceased during the period of the intended course.
- at0016::Medication start date/condition set - The time to start the medication, or other starting condition, has been set.
- at0017::Tree - @ internal @
- at0018::Dose administration omitted - An administration of the medication has been withheld and not given. There is no expectation that it will be given later, though the next dose (if any) should be administered according to the original order.
- at0020::Medication item - Name of the medication, vaccine or other therapeutic/prescribable item which was the focus of the activity.
- at0021::Reason - Reason that the pathway step for the identified medication was carried out.

- at0024::Comment - Additional narrative about the activity or pathway step not captured in other fields, including details of any variance between the intended action and the action actually performed.
- at0025::Sequence number - The sequence number specific to the pathway step being recorded.
- at0030::Tree - @ internal @
- at0033::Patient guidance - Any guidance, instructions or advice given to the subject of care or personal carer at the time of the pathway step.
- at0039::Major change to order - A major change to the order was required, resulting in this order being stopped and a replacement order being started.
- at0041::Minor change to order - The medication order has been changed in a manner which does not require a new instruction/order to be issued, according to local clinical rules.
- at0043::Original scheduled date/time - The datetime at which the medication action was scheduled to occur.
- at0044::Dose administration deferred - An administration of a dose of the medication has been delayed but is expected to be given as soon as possible.
- at0053::Additional details - Further structured details of the action, possibly specific to a pathway step.
- at0085::Extension - Additional information required to capture local content or to align with other reference models/formalisms.
- at0103::Order ID - Unique identifier for the medication order.
- at0104::Medication details - Structured details about the medication including strength, form and constituent substances.
- at0106::Prescription re-authorised - The original medication order has been re-authorised to allow repeat prescription or dispensing. In some jurisdictions an entirely new order must be issued in these circumstances.
- at0109::Medication recommended - The medication has been recommended but no steps have been taken to initiate prescribing.
- at0131::Amount - Specific details about the amount of the medication item.
- at0132::Substitution - Subsitution action taken by the person administering or dispensing the drug.
- at0133::Substitution reason - The reason or justification for the substitution action taken.
- at0138::Substitution performed - A medication was substituted which is bioequivalent to that ordered.
- at0139::Substitution not performed - Although allowed by the medication order a bioequvalent medication was not substituted.
- at0140::Administration details - Details of body site and administration of the medication.
- at0141::Body site - Structured description of the site of administration of the ordered item.

- at0142::Structured body site - Structured description of the site of administration of the medication, vaccine or therapeutic good.
- at0143::Administration method - The technique or device by which the ordered item was, or is to be, administered.
- at0144::Administration device - Details of the medical device used to assist administration of the medication.
- at0145::Prescription awaiting authorisation - Draft prescription has been prepared and is awaiting confirmation from an authorised clinician. May be used where reauthorisations are performed as a batch. This careflow_step may have a status of 'planned' or 'active', reflecting the need to to handle new orders as well as re-authorised orders.
- at0147::Route - The route by which the ordered item was, or is to be, administered into the subject's body.
- at0148::Medication prepared - The medication has been physically prepared.
- at0149::Double-checked? - The pathway step has been checked by a separate individual.
- at0150::Prescription cancelled - The prescription was cancelled prior to being issued.
- at0151::Prescription invalid or expired - Prescription has been invalidated or has expired without being fulfilled.
- at0152::Prescription fulfilled - The prescription has been fulfilled successfully.
- at0153::Medication authorised - The medication has been formally authorised for use.
- at0154::Restart date/time - The date/time on which the medication course is set to restart, as per the "Administrations suspended" pathway step.
- at0155::Restart criterion - The criterion which triggers the medication course to restart, as per the "Administrations suspended" pathway step.
- at0156::Clinical indication - The clinical reason for the medication activity.
- at0157::Medication double checked - The prepared medication has been double checked.

notification

Archetype ID: openEHR-EHR-ACTION.notification.v0

Lifecycle State: in_development

Category: ACTION

Languages: en

Purpose: To record detail about information provided as a notice, announcement or warning to an individual.

Use: Use to record detail about information provided as a notice, announcement or warning to an individual. If the notification is about clinical information, record this archetype in a template based on COMPOSITION.notification. The clinical data itself should be included in the same template using standard clinical archetypes.

Misuse: Not to be used to record information related to precautions, contraindications, adverse reaction risk or other archetypes in the therapeutic precautions family.

Concepts:

- at0000::Notification - Information provided as a notice, announcement or warning.
- at0001::Tree - @ internal @
- at0002::Addressee - The recipient of the notification.
- at0004::Type - Type of notification.
- at0005::Reason - Reason that the activity or care pathway step for the notification was carried out, for example, the reason for the cancellation or suspension of the notification.
- at0006::Method - The method of notification.
- at0007::Date sent - The date that the notification was sent.
- at0011::Comment - Additional narrative about the notification, not captured in other fields.
- at0012::Need identified - A trigger for the notification has been identified.
- at0014::Dictated - The notification has been dictated.
- at0015::Created - The notification has been created.
- at0016::Signed - The notification has been signed.
- at0017::Sent - The notification has been sent.
- at0018::Tree - @ internal @
- at0019::Extension - Additional information required to capture local content or to align with other reference models/formalisms.

procedure-Hip_arthroplasty_previous_procedure_res

Archetype ID: openEHR-EHR-ACTION.procedure-Hip_arthroplasty_previous_procedure_res.v1

Lifecycle State: AuthorDraft

Category: ACTION

Languages: ru, pt-br, sl, en, ar-sy

Purpose: To record details about a procedure that has been performed.

Use: Use to record detailed information about the procedure that has been carried out on an individual. Information about activities related to the procedure, such as anaesthesia or administration of medications, should be recorded in separate ACTION archetypes.

Keywords: procedure

Concepts:

- at0.59::Osteosynthesis after fracture - Osteosynthesis after fracture.
- at0.60::Arthrodesis - *
- at0.61::Osteotomy of Femur - Osteotomy of Femur.
- at0.62::Osteotomy of Acetabulum - Osteotomy of Acetabulum.
- at0000::Procedure undertaken - A clinical activity that has been carried out for therapeutic or diagnostic purposes.
- at0000.1::Primary hip arthroplasty - previous procedure - Details of procedures prior to primary hip arthroplasty.
- at0001::Tree - @ internal @
- at0002::Procedure - The name of the procedure.
- at0002.1::Previous procedure - The name of the procedure.
- at0003::Procedure Details - Detailed structure describing the procedure carried out, including preparation and details about the method and equipment/devices used.
- at0004::Procedure unsuccessful - Was the procedure ultimately unsuccessful? True if unsuccessful.
- at0005::Comments - Comments about the procedure.
- at0006::Complication - Details about any complication arising from the procedure.
- at0013::Multimedia - Multimedia representation of the procedure, including images.
- at0014::Reason/s for procedure - The reason or indication for the procedure.
- at0015::Unplanned event - An unplanned event prior to or related to the procedure, which may affect its execution e.g patient self-removed cannula.
- at0018::Failed attempts - The number of failed attempts to perform the procedure.
- at0030::Additional tasks - Record information about unplanned or unexpected activities that needed to be done during the procedure. Record the name of the task and a description within this archetype, but detail should be recorded in specific linked INSTRUCTION or ACTION archetypes.
- at0031::Task description - Description of additional task performed during the procedure.
- at0032::Record of additional task - Link to a detailed record of the additional task.
- at0034::Request initiated - Request for procedure is initiated.
- at0035::Request sent - Request for procedure sent.
- at0036::Procedure scheduled - Procedure has been scheduled.
- at0038::Request postponed - Request for procedure is postponed.
- at0039::Request cancelled - Procedure request has been cancelled.
- at0040::Procedure suspended - Procedure has been suspended.

- at0041::Procedure aborted - Procedure has been aborted.
- at0043::Completed - Procedure has been completed.
- at0044::Report authored - Procedure report has been written.
- at0045::Report attested - Procedure report has been attested.
- at0046::Report sent - Procedure report has been distributed.
- at0047::In progress - Procedure is being carried out.
- at0048::Outcome - Outcome of procedure performed.
- at0049::Description - Narrative description about the procedure carried out.
- at0050::Anatomical site details - Details about the anatomical site of procedure.
- at0051::Method/Technique - Identification of specific method or technique used for procedure.
- at0052::Task - Name of additional task performed during the procedure.
- at0053::Tree - @ internal @
- at0054::Requestor order identifier - The local ID assigned to the order by the healthcare provider or organisation requesting the service.
- at0055::Requestor - Details about the healthcare provider or organisation requesting the service.
- at0056::Receiver order identifier - The ID assigned to the order by the healthcare provider or organisation receiving the request for service. This is also referred to as Filler Order Identifier.
- at0057::Receiver - Details about the healthcare provider or organisation receiving the request for service.
- at0058::Emergency? - Was this procedure performed as an emergency? True if Yes.

procedure-hip_arthroplasty_revision_previous_procedure_res

Archetype ID: openEHR-EHR-ACTION.procedure-hip_arthroplasty_revision_previous_procedure_res.v1

Lifecycle State: AuthorDraft

Category: ACTION

Languages: ru, pt-br, sl, en, ar-sy

Purpose: To record details about a procedure that has been performed.

Use: Use to record detailed information about the procedure that has been carried out on an individual. Information about activities related to the procedure, such as anaesthesia or administration of medications, should be recorded in separate ACTION archetypes.

Keywords: procedure

Concepts:

- at0.59::Partial hip arthroplasty - Partial hip arthroplasty.
- at0.60::Primary Total Standard hip arthroplasty - Primary Total Standard hip arthroplasty.
- at0.61::Replacement of whole system - Replacement of whole system.
- at0.62::Replacement of Acetabular component - Replacement of Acetabular component.
- at0.63::Replacement of Femoral component - Replacement of Femoral component.
- at0.64::Replacement of Head - Replacement of Head.
- at0.65::Replacement of Inlay - Replacement of Inlay.
- at0.66::Prosthesis removal (Girdlestone) - Prosthesis removal (Girdlestone).
- at0.67::Primary Total Resurfacing hip arthroplasty - Total resurfacing Hip arthroplasty.
- at0.68::Primary Partial Bipolar Hip arthroplasty - Primary Partial Bipolar Hip arthroplasty.
- at0.69::Primary Partial Resurfacing hip arthroplasty - Primary Partial Resurfacing hip arthroplasty.
- at0.70::Replacement of bipolar/partial implant - Replacement of bipolar/partial implant.
- at0.71::Re-implantation after Girdlestone - Re-implantation after Girdlestone.
- at0.72::Replacement of Acetabular ring - Replacement of Acetabular ring.
- at0.73::Replacement of Neck - Replacement of neck.
- at0000::Procedure undertaken - A clinical activity that has been carried out for therapeutic or diagnostic purposes.
- at0000.1::Revision hip arthroplasty- previous procedure - To record details of a procedure carried out prior to a revision hip arthroplasty (Slovenian RES registry)
- at0001::Tree - @ internal @
- at0002::Procedure - The name of the procedure.
- at0002.1::Previous procedure - The name of the procedure.
- at0003::Procedure Details - Detailed structure describing the procedure carried out, including preparation and details about the method and equipment/devices used.
- at0004::Procedure unsuccessful - Was the procedure ultimately unsuccessful? True if unsuccessful.
- at0005::Comments - Comments about the procedure.
- at0006::Complication - Details about any complication arising from the procedure.
- at0013::Multimedia - Multimedia representation of the procedure, including images.
- at0014::Reason/s for procedure - The reason or indication for the procedure.
- at0015::Unplanned event - An unplanned event prior to or related to the procedure, which may affect its execution e.g patient self-removed cannula.
- at0018::Failed attempts - The number of failed attempts to perform the procedure.
- at0030::Additional tasks - Record information about unplanned or unexpected activities that needed to be done during the procedure. Record the name of the task and a

description within this archetype, but detail should be recorded in specific linked INSTRUCTION or ACTION archetypes.

- at0031::Task description - Description of additional task performed during the procedure.
- at0032::Record of additional task - Link to a detailed record of the additional task.
- at0034::Request initiated - Request for procedure is initiated.
- at0035::Request sent - Request for procedure sent.
- at0036::Procedure scheduled - Procedure has been scheduled.
- at0038::Request postponed - Request for procedure is postponed.
- at0039::Request cancelled - Procedure request has been cancelled.
- at0040::Procedure suspended - Procedure has been suspended.
- at0041::Procedure aborted - Procedure has been aborted.
- at0043::Completed - Procedure has been completed.
- at0044::Report authored - Procedure report has been written.
- at0045::Report attested - Procedure report has been attested.
- at0046::Report sent - Procedure report has been distributed.
- at0047::In progress - Procedure is being carried out.
- at0048::Outcome - Outcome of procedure performed.
- at0049::Description - Narrative description about the procedure carried out.
- at0050::Anatomical site details - Details about the anatomical site of procedure.
- at0051::Method/Technique - Identification of specific method or technique used for procedure.
- at0052::Task - Name of additional task performed during the procedure.
- at0053::Tree - @ internal @
- at0054::Requestor order identifier - The local ID assigned to the order by the healthcare provider or organisation requesting the service.
- at0055::Requestor - Details about the healthcare provider or organisation requesting the service.
- at0056::Receiver order identifier - The ID assigned to the order by the healthcare provider or organisation receiving the request for service. This is also referred to as Filler Order Identifier.
- at0057::Receiver - Details about the healthcare provider or organisation receiving the request for service.
- at0058::Emergency? - Was this procedure performed as an emergency? True if Yes.

procedure-primary_hip_arthroplasty_res

Archetype ID: openEHR-EHR-ACTION.procedure-primary_hip_arthroplasty_res.v1

Lifecycle State: AuthorDraft

Category: ACTION

Languages: ru, pt-br, sl, en, ar-sy

Purpose: To record details of primary hip arthroplasty constrined to align with Slovenian RES register.

Use: Use to record detailed information about the procedure that has been carried out on an individual. Information about activities related to the procedure, such as anaesthesia or administration of medications, should be recorded in separate ACTION archetypes.

Keywords: procedure

Concepts:

- at0.59::Total standard hip replacement - Total standard hip replacement.
- at0.60::Partial bipolar hip replacement - Partial bipolar hip replacement.
- at0.61::Partial resurfacing hip replacement - Partial resurfacing hip replacement.
- at0.62::Primary Osteoarthritis - ICD codes: M16.0 M16.1
- at0.63::Dysplasia /dysplasia with dislocation - ICD Codes M16.2 M16.3
- at0.64::Post-Traumatic - *
- at0.65::Aseptic Necrosis of Femoral Head - *
- at0.66::Post epipholysis / post Perthes - *
- at0.67::Rheumatoid Arthritis, other arthritis and anylosing spondyilitis - ICD codes: M05 M06 M07* M08 M09* M10 M11 M45
- at0.68::Cemented - *
- at0.69::Uncemented - *
- at0.70::Hybrid-cemented stem only - *
- at0.71::Inverse_ Hybrid - *
- at0.72::Anterior, - *
- at0.73::Anterolateral, Direct_lateral, - *
- at0.74::Posterolateral, Minimal_Invasive - *
- at0.75::Anterior - Anterior.
- at0.76::Anterolateral - Anterolateral.
- at0.77::Direct lateral - Direct lateral.
- at0.78::Posterolateral - Posterolateral.
- at0.79::Minimally Invasive - Minimally Invasive.
- at0.80::Other - ICD codes M00 M01* M15 M16.6 M16.7 M16.9 M19 M86
- at0.81::Total resurfacing hip replacement - Total resurfacing hip replacement.
- at0000::Procedure undertaken - A clinical activity that has been carried out for therapeutic or diagnostic purposes.
- at0000.1::Primary hip arthroplasty - Details of primary hip arthroplasty constrined to align with Slovenian RES register.
- at0001::Tree - @ internal @

- at0002::Procedure - The name of the procedure.
- at0002.1::Current procedure - The name of the procedure.
- at0003::Procedure Details - Detailed structure describing the procedure carried out, including preparation and details about the method and equipment/devices used.
- at0004::Procedure unsuccessful - Was the procedure ultimately unsuccessful? True if unsuccessful.
- at0005::Comments - Comments about the procedure.
- at0006::Complication - Details about any complication arising from the procedure.
- at0013::Multimedia - Multimedia representation of the procedure, including images.
- at0014::Reason/s for procedure - The reason or indication for the procedure.
- at0014.1::Reason for procedure - The reason or indication for the procedure.
- at0015::Unplanned event - An unplanned event prior to or related to the procedure, which may affect its execution e.g patient self-removed cannula.
- at0018::Failed attempts - The number of failed attempts to perform the procedure.
- at0030::Additional tasks - Record information about unplanned or unexpected activities that needed to be done during the procedure. Record the name of the task and a description within this archetype, but detail should be recorded in specific linked INSTRUCTION or ACTION archetypes.
- at0031::Task description - Description of additional task performed during the procedure.
- at0032::Record of additional task - Link to a detailed record of the additional task.
- at0034::Request initiated - Request for procedure is initiated.
- at0035::Request sent - Request for procedure sent.
- at0036::Procedure scheduled - Procedure has been scheduled.
- at0038::Request postponed - Request for procedure is postponed.
- at0039::Request cancelled - Procedure request has been cancelled.
- at0040::Procedure suspended - Procedure has been suspended.
- at0041::Procedure aborted - Procedure has been aborted.
- at0043::Completed - Procedure has been completed.
- at0044::Report authored - Procedure report has been written.
- at0045::Report attested - Procedure report has been attested.
- at0046::Report sent - Procedure report has been distributed.
- at0047::In progress - Procedure is being carried out.
- at0048::Outcome - Outcome of procedure performed.
- at0049::Description - Narrative description about the procedure carried out.
- at0050::Anatomical site details - Details about the anatomical site of procedure.
- at0051::Method/Technique - Identification of specific method or technique used for procedure.
- at0051.1::Prosthesis fixation - Identification of specific method or technique used for procedure.
- at0051.2::Approach - Identification of specific method or technique used for procedure.
- at0052::Task - Name of additional task performed during the procedure.

- at0053::Tree - @ internal @
- at0054::Requestor order identifier - The local ID assigned to the order by the healthcare provider or organisation requesting the service.
- at0055::Requestor - Details about the healthcare provider or organisation requesting the service.
- at0056::Receiver order identifier - The ID assigned to the order by the healthcare provider or organisation receiving the request for service. This is also referred to as Filler Order Identifier.
- at0057::Receiver - Details about the healthcare provider or organisation receiving the request for service.
- at0058::Emergency? - Was this procedure performed as an emergency? True if Yes.

procedure-revision_hip_arthroplasty_res

Archetype ID: openEHR-EHR-ACTION.procedure-revision_hip_arthroplasty_res.v1

Lifecycle State: AuthorDraft

Category: ACTION

Languages: ru, pt-br, sl, en, ar-sy

Purpose: Details of a revision hip arthroplasty aligned with Slovenian RES registry.

Use: Use to record detailed information about the procedure that has been carried out on an individual. Information about activities related to the procedure, such as anaesthesia or administration of medications, should be recorded in separate ACTION archetypes.

Keywords: procedure

Concepts:

- at0.100::Anterolateral - Anterolateral.
- at0.101::Direct lateral - Direct lateral.
- at0.102::Posterolateral - Posterolateral.
- at0.103::Minimally Invasive - Minimally Invasive.
- at0.104::Cemented - *
- at0.105::Uncemented - *
- at0.106::Hybrid-cemented stem only - *
- at0.107::Inverse_ Hybrid - *
- at0.108::Replacement of femoral neck - Femoral neck revised.
- at0.109::Osteotomy of femur - Osteotomy of femur.
- at0.110::Osteotomy of acetabulum - Osteotomy of acetabulum.

- at0.111::Athrodesis - Athrodesis.
- at0.112::Extended anterior approach - Extended anterior approach.
- at0.113::Osteolysis both parts - Osteolysis both parts.
- at0.114::Replacement of acetabular ring - Replacement of acetabular ring.
- at0.115::Replacement of neck - Replacement of neck.
- at0.59::Replacement of whole system - Replacement of whole system.
- at0.60::Replacement of acetabular component - Replacement of acetabular component.
- at0.61::Replacement of femoral component - Replacement of femoral component.
- at0.62::Replacement of head - Replacement of head.
- at0.63::Replacement of Inlay - Replacement of Inlay.
- at0.64::Totalisation of bipolar/partial Implant - Totalisation of bipolar/partial Implant.
- at0.65::Osteosynthesis after fracture - Osteosynthesis after fracture.
- at0.66::Prosthesis removal (Girdlestone) - Prosthesis removal (Girdlestone) procedure.
- at0.67::Re-implantation after Girdlestone - Re-implantation after Girdlestone procedure.
- at0.68::Para-articular ossification - Para-articular ossification.
- at0.69::Luxation - Luxation.
- at0.70::Wear - Wear.
- at0.71::Early infection - Early infection.
- at0.72::Chronic infection - Chronic infection.
- at0.73::Metal/taper related pathology - Metal/taper related pathology.
- at0.74::Loosening acetabular component - Loosening acetabular component.
- at0.75::Loosening femoral component - Loosening femoral component.
- at0.76::Osteolysis acetabulum - Osteolysis acetabulum.
- at0.77::Osteolysis femur - Osteolysis femur.
- at0.78::Large bone defect acetabulum - Large bone defect acetabulum.
- at0.79::Large bone defect femur (distal minor trochanter) - Large bone defect femur (distal minor trochanter).
- at0.80::Periprosthetic fracture - Periprosthetic fracture.
- at0.81::Implant broken - Implant broken.
- at0.82::Loosening acetabular component - Loosening acetabular component.
- at0.83::Loosening femoral component - Loosening femoral component.
- at0.84::Loosening of both components - Loosening of both components.
- at0.85::Luxation - ICD: M24.3 M24.4
- at0.86::Early infection (less than 3 months after primary) - ICD: T84.7 T84.7
- at0.87::Chronic infection (more than 3 months after primary) - ICD: T84.7 T84.7
- at0.88::Periprosthetic fracture of acetabulum - ICD: M96.6
- at0.89::Periprosthetic fracture of femur - ICD: M96.6
- at0.90::Osteolysis of acetabulum - Osteolysis of acetabulum.
- at0.91::Osteolysis of femur - Osteolysis of femur.
- at0.92::Osteolysis of both parts - Osteolysis of both parts.
- at0.93::Implant broken - Implant broken.
- at0.94::Wear of Inlay - Wear of Inlay.

- at0.95::Paraarticular ossification - Paraarticular ossification.
- at0.96::Condition after Girdlestone - Condition after Girdlestone.
- at0.97::Pain - Pain.
- at0.98::Others - Others.
- at0.99::Anterior - Anterior.
- at0000::Procedure undertaken - A clinical activity that has been carried out for therapeutic or diagnostic purposes.
- at0000.1::Revision hip arthroplasty - Details of a revision hip arthroplasty aligned with Slovenian RES registry.
- at0001::Tree - @ internal @
- at0002::Procedure - The name of the procedure.
- at0002.1::Revison procedure - The name of the procedure.
- at0003::Procedure Details - Detailed structure describing the procedure carried out, including preparation and details about the method and equipment/devices used.
- at0004::Procedure unsuccessful - Was the procedure ultimately unsuccessful? True if unsuccessful.
- at0005::Comments - Comments about the procedure.
- at0006::Complication - Details about any complication arising from the procedure.
- at0013::Multimedia - Multimedia representation of the procedure, including images.
- at0014::Reason/s for procedure - The reason or indication for the procedure.
- at0014.1::Reason/s for procedure - The reason or indication for the procedure.
- at0015::Unplanned event - An unplanned event prior to or related to the procedure, which may affect its execution e.g patient self-removed cannula.
- at0018::Failed attempts - The number of failed attempts to perform the procedure.
- at0030::Additional tasks - Record information about unplanned or unexpected activities that needed to be done during the procedure. Record the name of the task and a description within this archetype, but detail should be recorded in specific linked INSTRUCTION or ACTION archetypes.
- at0031::Task description - Description of additional task performed during the procedure.
- at0032::Record of additional task - Link to a detailed record of the additional task.
- at0034::Request initiated - Request for procedure is initiated.
- at0035::Request sent - Request for procedure sent.
- at0036::Procedure scheduled - Procedure has been scheduled.
- at0038::Request postponed - Request for procedure is postponed.
- at0039::Request cancelled - Procedure request has been cancelled.
- at0040::Procedure suspended - Procedure has been suspended.
- at0041::Procedure aborted - Procedure has been aborted.
- at0043::Completed - Procedure has been completed.
- at0044::Report authored - Procedure report has been written.
- at0045::Report attested - Procedure report has been attested.
- at0046::Report sent - Procedure report has been distributed.

- at0047::In progress - Procedure is being carried out.
- at0048::Outcome - Outcome of procedure performed.
- at0049::Description - Narrative description about the procedure carried out.
- at0050::Anatomical site details - Details about the anatomical site of procedure.
- at0051::Method/Technique - Identification of specific method or technique used for procedure.
- at0051.1::Prosthesis fixation - Identification of specific method or technique used for procedure.
- at0051.2::Approach - Identification of specific method or technique used for procedure.
- at0052::Task - Name of additional task performed during the procedure.
- at0053::Tree - @ internal @
- at0054::Requestor order identifier - The local ID assigned to the order by the healthcare provider or organisation requesting the service.
- at0055::Requestor - Details about the healthcare provider or organisation requesting the service.
- at0056::Receiver order identifier - The ID assigned to the order by the healthcare provider or organisation receiving the request for service. This is also referred to as Filler Order Identifier.
- at0057::Receiver - Details about the healthcare provider or organisation receiving the request for service.
- at0058::Emergency? - Was this procedure performed as an emergency? True if Yes.

procedure

Archetype ID: openEHR-EHR-ACTION.procedure.v1

Lifecycle State: published

Category: ACTION

Languages: de, pt-pt, ru, sv, nb, pt-br, en, ar-sy, sl, es, ca

Purpose: To record information about the activities required to carry out a procedure, including the planning, scheduling, performance, suspension, cancellation, documentation and completion.

Use: Use to record information about the activities required to carry out a procedure, including the planning, scheduling, performance, suspension, cancellation, documentation and completion. This is done by the recording of data against specific activities, as defined by the 'Pathway' careflow steps in this archetype. The scope of this archetype encompasses activities for a broad range of clinical procedures performed for evaluative, investigative, screening, diagnostic, curative, therapeutic or palliative purposes. Examples range from the

relatively simple activities, such as insertion of an intravenous cannula, through to complex surgical operations. Additional structured and detailed information about the procedure can be captured using purpose-specific archetypes inserted into the 'Procedure detail' slot, where required. Timings related to a procedure can be managed in one of two ways: - Using the reference model - the time for performance of any pathway step will use the ACTION time attribute for each step. - Archetyped data elements: --- the 'Scheduled date/time' data element is intended to record the precise time when the procedure is planned. Note: the corresponding ACTION time attribute for the Scheduled pathway step will record the time that the procedure was scheduled into a system, not the intended date/time on which the procedure is intended to be carried out; and --- the 'Final end date/time' is intended to record the precise time when the procedure was ended. It can be used to document the complex procedures with multiple components. Note: the corresponding ACTION time attribute for the 'Procedure performed' will document the time each component performed was commenced. This 'Final end date/time' data element will record the date/time of the final active component of the procedure. This will enable a full duration of the active procedure to be calculated. Within the context of an Operation Report, this archetype will be used to record only what was done during the procedure. Separate archetypes will be used to record the other required components of the Operation Report, including the taking of tissue specimen samples, use of imaging guidance, operation findings, post-operative instructions and plans for follow up. Within the context of a Problem list or summary, this archetype may be used to represent procedures that have been performed. The EVALUATION.problem_diagnosis will be used to represent the patient's problems and diagnoses. In practice, many procedures (for example, in ambulatory care) will occur once and not be ordered in advance. The details about the procedure will be added against the pathway step, 'Procedure completed'. In some cases a recurring procedure will be ordered, and in this situation data against the 'Procedure performed' step will be recorded on each occasion, leaving the instruction in the active state. When the last occurrence is recorded the 'Procedure completed' action is recorded showing that this order is now in the completed state. In other situations, such as secondary care, there may be a formal order for a procedure using a corresponding INSTRUCTION archetype. This ACTION archetype can then be used to record the workflow of when and how the order has been carried out. Recording information using this ACTION archetype indicates that some sort of activity has actually occurred; this will usually be the procedure itself but may be a failed attempt or another activity such as postponing the procedure. If there is a formal order for the procedure, the state of this order is represented by the Pathway step against which the data is recorded. For example, using this archetype the progressing state of a Gastroscopy order may be recorded through separate entries in the EHR progress notes at each 'Pathway' step: - record the scheduled Start date/time for the gastroscopy (Procedure scheduled); and - record that the gastroscopy procedure has been completed, including information about the procedure details (Procedure completed). Please note that in the openEHR Reference Model there is a 'Time' attribute, which is intended to record the date and time at which each pathway step of the Action was performed. This is the attribute to use to record the start of

the procedure (using the 'Procedure performed' pathway step) or the time that the procedure was aborted (using the 'Procedure aborted' pathway step).

Misuse: Not to be used to record details about the anaesthetic - use a separate ACTION archetype for this purpose. Not to be used to record details about imaging investigations - use ACTION.imaging_exam for this purpose. Not to be used to record details about laboratory investigations - use ACTION.laboratory_test for this purpose. Not to be used to record details about education delivered - use ACTION.health_education for this purpose. Not to be used to record details about administrative activities - use specific ADMIN archetypes for this purpose. Not to be used to record details about related activities such as the use of frozen sections taken during an operation, medication administered as part of the procedure or when imaging guidance is used during the procedure - use separate and specific ACTION archetypes within the same template for this purpose . Not to be used to record a whole operation or procedure report - use a template in which this archetype is only one component of the full report.

Keywords: procedure, intervention, surgical, medical, clinical, therapeutic, diagnostic, cure, treatment, evaluation, investigation, screening, palliative, therapy

Concepts:

- at0000::Procedure - A clinical activity carried out for screening, investigative, diagnostic, curative, therapeutic, evaluative or palliative purposes.
- at0001::Tree - @ internal @
- at0002::Procedure name - Identification of the procedure by name.
- at0003::Procedure detail - Structured information about the procedure.
- at0004::Procedure planned - The procedure to be undertaken is planned.
- at0005::Comment - Additional narrative about the activity or care pathway step not captured in other fields.
- at0006::Complication - Details about any complication arising from the procedure.
- at0007::Procedure request sent - Request for procedure sent.
- at0014::Reason - Reason that the activity or care pathway step for the identified procedure was carried out.
- at0034::X - Procedure planned - This pathway step has been deprecated as it was incorrectly associated with 'initial' status - use the new 'Procedure planned' (at0004) pathway step which is correctly associated with 'planned' status.
- at0035::X - Procedure request sent - This pathway step has been deprecated as it was incorrectly associated with 'initial' status - use the new 'Procedure request sent' (at0007) pathway step which is correctly associated with 'planned' status.
- at0036::Procedure scheduled - The procedure has been scheduled.
- at0038::Procedure postponed - The procedure has been postponed.
- at0039::Procedure cancelled - The planned procedure has been cancelled prior to commencement.
- at0040::Procedure suspended - The procedure has been suspended.

- at0041::Procedure aborted - The procedure has been aborted.
- at0043::Procedure completed - The procedure has been performed and all associated clinical activities completed.
- at0047::Procedure performed - The procedure, or subprocedure in a multicomponent procedure, has been performed.
- at0048::Outcome - Outcome of procedure performed.
- at0049::Description - Narrative description about the procedure, as appropriate for the pathway step.
- at0053::Tree - @ internal @
- at0054::Requestor order identifier - The local ID assigned to the order by the healthcare provider or organisation requesting the service.
- at0055::Requestor - Details about the healthcare provider or organisation requesting the service.
- at0056::Receiver order identifier - The ID assigned to the order by the healthcare provider or organisation receiving the request for service. This is also referred to as Filler Order Identifier.
- at0057::Receiver - Details about the healthcare provider or organisation receiving the request for service.
- at0058::Urgency - Urgency of the procedure.
- at0060::Final end date/time - The date and/or time when the entire procedure, or the last component of a multicomponent procedure, was finished.
- at0061::Total duration - The total amount of time taken to complete the procedure, which may include time spent during the active phase of the procedure plus time during which the procedure was suspended.
- at0062::Multimedia - Mulitimedia representation of a performed procedure.
- at0063::Body site - Identification of the body site for the procedure.
- at0064::Extension - Additional information required to capture local content or to align with other reference models/formalisms.
- at0065::Method - Identification of specific method or technique for the procedure.
- at0066::Scheduled date/time - The date and/or time on which the procedure is intended to be performed.
- at0067::Procedure type - The type of procedure.
- at0068::Procedure commenced - The procedure, or subprocedure in a multicomponent procedure, has been commenced.
- at0069::Procedural difficulty - Difficulties or issues encountered during performance of the procedure.
- at0070::Indication - The clinical or process-related reason for the procedure.

review

Archetype ID: openEHR-EHR-ACTION.review.v0

Lifecycle State: in_development

Category: ACTION

Languages: en

Purpose: To record details of clinical activity regarding the performance of a formal clinical review of a subject's clinical situation, a specific aspect of their clinical care or a specified part of the health record.

Use: Use to record details of clinical activity regarding the performance of a formal clinical review of a subject's clinical situation, a specific aspect of their clinical care or a specified part of the health record. For example: recording activity around the performance of a formal Medicines Review; or a care coordinator reviewing progress of Care Plans; or a file review by a case worker.

Keywords: record, review, medication, vaccination, adverse reaction, allergy, medicine

Concepts:

- at0000::Review - Clinical activity regarding the performance of a formal clinical review of a subject's clinical situation, a specific aspect of their clinical care or a specified part of the health record.
- at0001::Tree - @ internal @
- at0002::Review activity - Identification of the item or activity that is being reviewed.
- at0003::Review planned - The review activity is planned.
- at0004::Review scheduled - The review activity has been scheduled.
- at0006::Review performed - The review activity has been performed.
- at0010::Review postponed - The review has been postponed.
- at0011::Review suspended - The review activity has been suspended.
- at0012::Review cancelled - The review activity has been cancelled.
- at0013::Review aborted - The review activity has been aborted.
- at0014::Reason - Reason that the care pathway step for the identified Review Activity was carried out.
- at0015::Description - Narrative description of the Review Activity relevant for the care pathway step.
- at0016::Review completed - The review activity has been completed.
- at0017::Tree - @ internal @
- at0018::Start date/time - The start date and/or time for the Review activity.
- at0019::Review rescheduled - The review activity has been rescheduled.

- at0020::Extension - Additional information required to capture local content or to align with other reference models/formalisms.

screening

Archetype ID: openEHR-EHR-ACTION.screening.v0

Lifecycle State: in_development

Category: ACTION

Languages: en

Purpose: To record information about a health-related activity or test carried out to screen a patient for a health condition or assessment of health risk.

Use: Use to record information about a health-related activity or test carried out to screen a patient for a health condition or assessment of health risk.

Concepts:

- at0000::Screening Activity - Health-related activity or test used to screen a patient for a health condition or assessment of health risks.
- at0002::Screening planned - Screening is planned.
- at0003::Screening scheduled - Appointment for a screening service has been made.
- at0004::Screening performed - The healthcare provider has performed the Screening activity.
- at0005::Screening activities complete - All planned screening activities have been completed.
- at0006::Screening abandoned - The Screening has been ceased before the activity has been completed.
- at0008::Screening postponed - The planned Screening has been postponed.
- at0009::Screening cancelled - The planned Screening has been cancelled prior to commencement.
- at0010::Screening suspended - The Screening has been suspended without completion.
- at0013::Description - Description of the service provided.
- at0014::Service type - Type of service to be carried out or being carried out.
- at0015::Tree - @ internal @
- at0016::Requestor identifier - The local ID assigned to the order by the healthcare provider or organisation requesting the service. This is also referred to as Placer Order Identifier.

- at0017::Requestor - Details about the healthcare provider or organisation requesting the service.
- at0018::Receiver identifier - The ID assigned to the order by the healthcare provider or organisation receiving the request for Screening. This is also referred to as Filler Order Identifier.
- at0019::Receiver - Details about the healthcare provider or organisation receiving the request for Screening.
- at0023::Screening expired - The Screening has expired before the Screening episode has been completed.
- at0024::Screening incomplete - The Screening was commenced but unable to be completed.
- at0025::Screening Date/Time - The scheduled date and/or time for the Screening service. This will indicate the scheduled date/time when recorded against the Scheduled care pathway step or the actual Start date/time in the Screening Performed step.
- at0026::Tree - @ internal @
- at0027::Activity Name - Identification of the screening activity.
- at0028::Reason - Reason for activity, for example reason the screening test was aborted or reason the screening test was performed.
- at0029::Screening rescheduled - Appointment for a repeat screening service has been made.
- at0030::Screening declined - The planned Screening was offered but was declined prior to commencement.
- at0031::Comment - Additional narrative about the screening test not captured in other fields.

service

Archetype ID: openEHR-EHR-ACTION.service.v1

Lifecycle State: published

Category: ACTION

Languages: de, nb, pt-br, en, nl

Purpose: To record details about a simple health-related service or activity delivered by a clinician, organisation or agency.

Use: To record details about a simple health-related service or activity delivered by a clinician, organisation or agency. This includes tracking progress from planning, via scheduling and delivery to completion, as well as deviations from the intended care path

such as postponement or cancellation. This is achieved by the recording of relevant data elements about specific activities, each of which are described as the 'Pathway' careflow steps in this archetype. The scope of this archetype deliberately encompasses activities for a broad range of clinical services, to act as a non-specific archetype for all non-complex use cases. Examples include, but are not limited to: - self-referral by a patient for a check-up visit to a dentist for preventive care - a series of visits to a physiotherapist for management of a musculoskeletal strain; and - a referral from a requesting healthcare provider, such as a primary care clinician, to a receiving healthcare provider, such as a specialist, for the patient to receive a specific service, advice or care. Additional structured and detailed information about the service can be captured using purpose-specific archetypes inserted into the 'Service detail' slot, where required. This archetype may only be used in two ways: - as a full record of the service that was delivered; or - as a framework to record primarily the state of the requested service, with separate OBSERVATION archetypes used to record the actual test results for the delivered service - for example OBSERVATION.hearing_screening_result. Timings related to service management can be managed in one of two ways: - Using the reference model - the time for performance of any pathway step will use the ACTION time attribute for each step. - Archetyped data elements - the 'Scheduled date/time' data element is intended to record the time when the service was intended to be carried out. Note: the corresponding ACTION time attribute for the Scheduled pathway step will record the time that the clinical activity was scheduled into a system, not the intended date/time on which the activity is intended to be carried out. In practice, some services (for example, in ambulatory care) will occur once and not be ordered in advance. The details about the service will be added against the pathway step, 'Service completed'. In some cases a recurring service will be ordered, and in this situation data against the 'Service delivered' step will be recorded on each occasion, leaving the instruction in the active state. When the last delivery of the service is recorded, the 'Service completed' action is recorded showing that this order is now in the completed state. In other situations, such as secondary care, there may be a formal order for a service using a corresponding INSTRUCTION.request archetype. This ACTION archetype can then be used to record the workflow of when and how the order has been carried out. Recording information using this ACTION archetype indicates that some sort of activity has actually occurred; this will usually be the service delivery itself but may be a failed attempt or another activity such as postponement of the service delivery. If there is a formal order for the service, the state of this order is represented by the Pathway step against which the data is recorded. For example, using this archetype the progressing state of a referral request may be recorded through separate entries in the EHR progress notes at each 'Pathway' step: - record the scheduled Start date/time for the referral (Service scheduled); and - record that the referral has been completed, potentially including information about the service delivered (Service completed). When the activities follow the usual Planned > Scheduled > Active > Completed states, recording a 'Reason' is not usually necessary - rather, it is usually used to record the reason for deviation from the typical care pathway. Please note that in the openEHR Reference Model there is a 'Time' attribute, which is intended to record the date and time at which each pathway step of the Action was performed. This is the attribute to use to record

the start of the service (using the 'Service delivered' pathway step) or the time that the service was aborted (using the 'Service abandoned' pathway step).

Misuse: Not to be used to record data about activities carried out for activities that require a purpose built ACTION archetype because they have very specific data recording or pathway step requirements. For example: ACTION.procedure or ACTION.health_education.

Keywords: referral, visit, encounter

Concepts:

- at0000::Service - A simple health-related service or activity delivered by a clinician, organisation or agency.
- at0001::Tree - @ internal @
- at0002::Service planned - Service request to healthcare provider is planned.
- at0003::Service scheduled - An appointment for the service has been made.
- at0004::Service carried out - The service, or a single activity in a sequence of recurring service activities, has been carried out.
- at0005::Service activity complete - All service activities have been completed.
- at0006::Service abandoned - The referral has been ceased before the service has been completed.
- at0008::Service postponed - The planned service has been postponed.
- at0009::Service cancelled - The planned service has been cancelled prior to commencement.
- at0010::Service suspended - The service has been suspended without completion.
- at0011::Service name - Identification of the clinical service carried out.
- at0012::Reason - Reason that the activity or care pathway step for the identified service was carried out.
- at0013::Description - Narrative description about the service, as appropriate for the pathway step.
- at0014::Service type - Type of service carried out.
- at0015::Tree - @ internal @
- at0016::Requestor identifier - The local ID assigned to the order by the healthcare provider or organisation requesting the service.
- at0017::Requestor - Details about the healthcare provider or organisation requesting the service.
- at0018::Service provider identifier - The ID assigned to the order by the provider fulfilling the service.
- at0019::Receiver - Details about the healthcare provider or organisation receiving the service request.
- at0021::Sequence - The sequence of the specified clinical service.
- at0023::Service expired - The referral has expired before the referral episode has been completed.

- at0025::Scheduled date/time - The date and/or time on which the service is intended to be performed.
- at0026::Service request sent - Request for service sent.
- at0027::Service detail - Structured information about the service.
- at0028::Comment - Additional narrative about the activity or care pathway step not captured in other fields.
- at0029::Multimedia representation - Digital image, video, diagram or other media representing the service.
- at0031::Extension - Additional information required to capture local content or to align with other reference models/formalisms.
- at0032::Planned date/time - The estimated date and/or time on which the service is intended to be performed.
- at0035::Service request received - Request for service received by the service provider.
- at0036::Additional details - Additional structured details about the service.