**Appendix 1. Health Information Management (HIM) Practice Use Cases by Information Governance Principle**

1. **Information Governance Principle:** Record Availability

**HIM Practice A1**. All documents can be accounted for and the record closed as complete within a specific time period post patient discharge in accordance with State and Federal regulations, accreditation organizations (e.g. Joint Commission, Det Norske Veritas Healthcare - ISO 9000), or organizational policy.[[1]](#footnote-1)

Use Case A1.1. All documents can be accounted for within a specific time period ~~post patient discharge~~ post completion episode of care/encounter.

The term "accounted for" is defined as the following:

System shall support all types of medical records (paper and electronic) generated during a specified timeframe of an Episode of care/Encounter.

The time period as well as the type of the record is defined by the type and duration of each specific function/event/step of care within the episode of care/encounter, i.e., workflow steps and sub-steps. This includes completed, incomplete or cancelled records of the episode of care/encounter (See Use Case A1.2).

The episode of care/encounter may consist of the following functions that in turn produce records/ documents:

* visit registration/admission
* triage
* nurse's and physician's assessment
* laboratory and diagnostic testing
* diagnosis and care plan
* prescription
* discharge/transfer/disposition and other.

Figure 1 presents the examples of the episode of care/encounter’s functions and records/documents.

Figure 1. Examples of Episode of Care/Encounter’s Functions and Records/Documents

Linear and non-linear activities????

Add diagram that is patient centric and includes all actors (see below), all functions and all records – may be activity diagrams – NEED Examples form SMEs

* Elise Gorton/HIMSS graph

The decision on the list of the documents that will be accounted for is made by the facility's Form Management Committee[[2]](#footnote-2),[[3]](#footnote-3) comprised of representatives from clinical, business and technology departments. (Add additional policies examples here. Update the list below with the newer names for these participants based on other policies to be provided. Recommendation - to harmonize existing policies across healthcare organizations and recommend a general organizational policy related to form development and management)These representatives include

* patient care providers (MD, RN)
  + clinicians and
  + staff who supports ancillary services (laboratory, radiology, pharmacy, etc.)
* practice administrators (Dr.s family member, medical group administration)
* medical information services directors/medical informatics (CMIO)
* health information technology department (CIO)
* medical records directors (HIM, CDI, ROI)
* compliance officers (legal and regulatory support) (CLO, Audit)
* purchasing and financial managers (CFO) and
* vendors (scanning, imaging, EHR, laboratory, etc.)
* other.

Organizational policy also defines who is responsible for documenting information in the medical records - the business actors for the episode of care/encounter. They include:

* patient care providers
  + clinicians (MDs, PA, RNs, residents, other credentialed providers ) and
  + staff who supports ancillary services (laboratory, radiology, pharmacy, etc.)
* patient (patient-generated data that are coming from the portals) and
* mobile technology (e.g., diabetes monitors) – need to discuss with IHE if this is a technical actors

The custodian of the forms/documents is the health information management (HIM) department (former medical records department).

The list of forms/documents and personnel for defining and maintaining these forms/documents are specified by organizational policies.[[4]](#footnote-4) If other facility is involved in providing services, data sharing agreements between two facilities shall define the policies on how documentation will be accounted for when shared.

**Definitions:**

**Form/Document/Screen**

The terms “**Form**”, “**Document**” and “**Screen**” are used interchangeably in this White Paper. Form/document/screen is the representation of knowledge assembled from data collected during the Episode of care/Encounter. Formal definitions of these terms are the following:

**Forms** are pages that allow users to fill in and submit information[[5]](#footnote-5)

**Document** is any analog or digital, formatted and preserved “container” of data or information[[6]](#footnote-6)

**Screen** prototype is a sketch of the user interface of each screen that is anticipated in a project[[7]](#footnote-7)

Information in the Form/Document/Screen can be delivered as scanned document, .pdf, structured text or message. The standardized content for specific forms/documents generated under the episode of care/encounter’s functions such as patients demographic, assessment notes, test orders and results, care plans, medication prescriptions and other) is out of scope for this White Paper. It may be developed under the IHE Content Profiles in the future.

**Episode of Care/Encounter**

In this White paper, the **episode of care/encounter** are referred to a visit or multiple visits or interaction(s) between patient and provider and/or ancillary services within the facility. The type of episode of care/encounter is defined by the service type (e.g., inpatient, outpatient, emergency department (ED), long-term care and others). In this year, we will focus on inpatient facilities only, so the **end of the episode of care/encounter** is defined as patient discharge or transfer from the facility – TO BE DISCUSSED.

Please note that episode of care/encounter may not be completed within the same visit. The completion of the episode of care/encounter may involve multiple visits. Additional discussions are needed to align the terms for episode of care/encounter/ and visit with terminology used by other countries. – This could be a recommendation to work with IFHIMA

Term **interaction** includes phone calls, e-mail communication, telemedicine sessions, e-visits and other. Specific states of the interaction (**registration, admission, disposition, discharge/transfer)** are the **states** of the patient’s interaction are described under **Start and the End of the Episode of Care/Encounter** below.

The terms “**Day Hospital**”, “**Day Patient**” or “**Partial Hospital**” are referred as a partial care administered in the mental health institution, rehabilitation facility, surgery and other settings defined as an episode of care provided during the day of the visit.

The episode of care/encounter is comprised of **functions/events/steps**.

**Function, Event, Step**

The **Function** of the episode of care/encounter is defined as entity or the activity that involve a single healthcare department, service area or discipline, e.g., visit registration/admission; triage; nurse's and physician's assessment; laboratory and diagnostic testing; diagnosis and care plan; prescription; discharge/transfer/disposition and other (Figure 1).

The **Event** is defined as an action or activity that occurs within a system and/or network, inclusive of its boundaries.[[8]](#footnote-8)

The **Step** is defined as a sub-action or sub-activity that occurs within a specific event of care.

**The Start and End of the Episode of Care/Encounter**

The **start and the end** of each function/event/step within the episode of care/encounter are defined by the creation and completion of the correspondent record/document related to the specific function/event/step.

The **start of the episode of care/encounter** is defined by the **initial interaction** of the patient with the healthcare facility (e.g., present at the facility, e-mail, phone or other). This initial interaction sets into motion the chain of functions/events/steps defined by the clinical pathway of activities for a specific episode of care/encounter. This initial interaction acts as a trigger of a specific clinical pathway (Table 1).

Table 1. Relationship between Episode of Care/Encounter’s Flow of Events and Documents

|  |  |
| --- | --- |
| Episode of care/Encounter | |
| Clinical Pathway for <Function: Registration, Assessment, testing, etc.> | |
| Workflow Activities or Flow of Events | Records/Documents |
|  | Initial interaction with healthcare facility (visit, e-mail, phone) |
| Step 1 | Document 1 – output for Step 1 and input /trigger for Step 2 |
| Step 2 | Document 2 – output for Step 2 and input/trigger for Step 3 |
| Step 3 | Document 3 – output for Step 3 |

For patient registration, the start of the registration is triggered by the patient presenting at the facility in person or contacting the facility by phone or e-mail. The registrars’ person activates the command “Register a New Patient” or “Look up for the Existing Patient” in facility’s health information system (HIS) to initiate the specific record/document for Step 1 (Patient Registration Form).

For assessment that follows the registration, the completed Patient Registration Form serves as a trigger of the Medical Summary Form

Patient’s **registration, admission, disposition, discharge/transfer** are the **states of the patient’s interaction** with healthcare facility. HIS must capture change in these states. In the HIS the patient status is typically monitored in the **Patient Status** application**. – NEED TO GET BETTER DESCRIPTION OF THIS APPLICATION**. HIS also must support the document flow for each state (Table 1). For example, under disposition when patient is moved to another floor for testing, all previous documents that trigger this new function (input documents) and new documents generated by this new function (output documents) must be captured in the HIS.

STOPPED HERE

The **end** is defined by “verified by authentication” with the time stamp (date and time) for each document. This includes obtaining signature of an authorized person including digital signature on a specific document. Furthermore, within each document there can be multiple authentications as defined by organizational policy.

~~Rob Horn: in the~~ **~~end~~** ~~example do not need to call out~~ **~~digital signature;~~** ~~the word~~ **~~signature~~** ~~is sufficient~~**~~.~~** ~~There are a lot of different signature tools in use.~~

~~Lori Tolley: suggest that “on each document” to “for each document”~~. ~~Furthermore, within each document there can be multiple authentications.~~ ~~Also, suggested we should change “obtaining digital signature” to “verified by authentication”.~~ In her facility the system is Cerner, and Cerner uses metadata to verify the entry.-CLARIFY

**Clinical pathway** is defined as a flow of activities and documentation derived from the clinical guidelines as related to a specific episode of care.

Clinical pathway is a tool designed to coordinate multidisciplinary care planning for specific diagnoses and treatments. [[9]](#footnote-9)

Figure 2 represent example of episode of care/encounter and various HIS involved in documenting clinical pathway followed in the episode of care. Specific examples of participating information systems (technical actors) include:

1 – Administrative System

2 – EHR System

3 – Ancillary Systems (Laboratory, Radiology, etc.)

4 – Pharmacy System

Figure 2. Example of Episode of Care/Encounter and Various Health Information Systems (Technical Actors) Involved in Documenting Clinical Pathway.

**Use Case A1.2 Record is closed as complete within a specific time period post ~~patient discharge [1, p.40].~~ completion of the episode of care/encounter.**

There are three states of the record/document: **Open, Closed and in Progress** that represent the state of therecord.

**Closed (Complete) Record**

This includes completed, incomplete or cancelled records of the Episode of care/Encounter.

**Complete record (or record completeness)** is defined as an element of a legally defensible health record; the health record is not complete until all its parts are assembled and the appropriate documents are authenticated according to medical staff bylaw. [[10]](#footnote-10)

**Completeness** is defined as an element of a legally defensible health record; the health record is not complete until all its parts are assembled and the appropriate documents are authenticated according to medical staff bylaw. [[11]](#footnote-11)

**Record completion** is defined as the process whereby healthcare professionals are able to access, complete, or authenticate a specific patient’s medical information. [[12]](#footnote-12)

**Cancelled record** is defined as record/document that was generated to initiate a procedure (e.g., test orders) though the procedure was never completed (e.g., patient did not show up for lab testing), so the record (test order) was cancelled. Specific documentation on the reason why the procedure was not performed and the original /record was cancelled should be generated. The end result would be a completed record with a **Status of Cancelled. – need to align with Open and Closed terms suggested by Rob)**

**Open (Incomplete Record)**

In the paper-based environment **incomplete record** is defined as lost records that could not be found or record that had not been completed when physician left an organization. In the electronic environment these records can be traced as **Open** records or they could be assigned to have a status of **in progress**. An **incomplete record** is one where there is an obligation to complete the record before the time has passed. The Form Management Committee will make a decision on the processes of completing the record – is this a general policy or this is case by case including the incidences when the Committee decides that the record can be closed as incomplete.

Delinquent records are considered an **incomplete record. Define delinquent**

**Incomplete records policy** is defined as a policy that outlines how ~~physicians~~ clinicians are notified of records missing documentation or signatures. [[13]](#footnote-13)

**Retraction** is defined as the act of correcting information that was inaccurate, invalid, or made in error and preventing its display or hiding the entry or documentation from further view. [[14]](#footnote-14) **Retraction** is more often associated with **amendment** or **addendum** than **cancelled record.**

HIS must have capabilities to assure the completion of the records by the authorized personnel, as follows:

1. generate the list of incomplete records (Open records) for his patients must be available for clinician on a daily basis upon opening the HIS
2. generate notifications about the record for which the reasonable timeframe as defined by the Form Committee is expiring, so clinician could act upon this notification as follows:
   1. close the record supplying appropriate description for the reason of closure of the incomplete record
   2. sending reminder to the patient via phone, e-mail, etc. to follow-up
   3. providing other explanation why the record cannot be closed and
   4. other
3. generate audit reports on records generation, retraction (amendment or addendums), cancellation, completion.

Are these the only standards that define a-c above?

***Record Infrastructure RI. 1.4, Function; Record Completeness, Conformance Criteria****:*

***Statement:*** *Manage Record Completeness.*

***Description:*** *The EHR-S must provide the ability for an organization to define minimum elements and timeframes for completion at the report level and at the record level. Provide a report that identifies completion and timeliness status by patient/ health record number or other specified parameters. Prior to disclosure for legal proceedings or other official purposes, an organization analyzes the health record for completeness. EHR systems must provide the ability to define a minimum set of content to be analyzed for timeliness and completeness and provide a report of the status.[[15]](#footnote-15)*

**Care Provision Support (CPS) (SPELL OUT) 3.3.12:** The system SHOULD provide the ability to render an indicator that a patient record is incomplete (e.g., not finalized or authenticated/signed) when a discharge or transfer order is entered into the system. *[[16]](#footnote-16)*

**NEED THE RECORD LIFY CYCLE PICTURE TO CAPTURE OPEN AND CLOSED RECORD.**

~~Rob Horn: I am not surprised that these states are difficult to define.~~

~~Lori Tolley: A~~ **~~Cancelled record~~** ~~is seen as an error. These records can be closed to become~~ **~~Complete records.~~**

~~Sandra: We should keep in mind that there are procedures ordered, never completed, and then canceled. There should be documentation as to the reason why the procedure was cancelled.~~

~~Rob Horn: There are two states that I have seen are~~ **~~Open~~** ~~and~~ **~~Closed~~**~~. Perhaps we should consider two states:~~ **~~Open~~** ~~and~~ **~~Closed.~~**

~~Linda Bailey-Woods: The end result would be a completed record with a~~ **~~Status of Cancelled.~~**

~~Lori Tolley: Incomplete records could be assigned a status of~~ **~~in progress~~**~~. An~~ **~~incomplete record~~** ~~is one where there is an obligation to complete the record, but now that time has passed.~~

~~Rob Horn: I have always thought that~~ **~~incomplete records~~** ~~were lost records that could not be found. Another example would be physicians’ who left an organization often would often leave~~ **~~incomplete records~~**

**~~Lori Tolley:~~** ~~There would be a requirement that a statement be added to the record outlining what happened to the record, that the record could not be closed. The medical record committee would make a decision on how to best complete the record. In some incidences the record would be closed incomplete.~~

~~Rob Horn:~~  **~~Retraction~~** ~~is more often associated with~~~~amendment or addendum than~~ **~~cancelled record.~~**

~~Linda Bailey-Woods: We need to talk about delinquent records be considered an~~ **~~incomplete record.~~**

~~Lori Tolley:~~ **~~Cancelled record~~** ~~would be a form of Open or Closed. I would like to suggest that we consider lumping these incomplete records together as either~~ **~~Open, Closed, or~~ in progress.**

~~Harry Rhodes~~**~~:~~** ~~It is not really a solution to the problem. It does not clearly define what incomplete is.~~

~~Lori Tolley: from the HIM practitioners point of view all records must reach a completed status in some fashion.~~

~~Rob Horn: I believe that we are now on the right direction. This is the type of discussion that the IT implementers are looking for. This will help them better understand the expectations that end users have.~~

Definitions provided by Elisa Gorton – to be discussed:

Complete-a record that has been authenticated and noted as complete with pertinent required elements to substantiate the care rendered.

Incomplete-a record that is missing the required elements per hospital and regulatory guidelines

cancelled record-no such thing for us. A record is never cancelled. A service may be cancelled but not a record. If something was documented in error it is errored but never cancelled or removed from the record.

Open-a record is not complete or incomplete and may or may not be for a patient still in treatment ex. Physician office records are open until the patient leaves a practice, infusion/recurring patients.

Closed-similar to a complete record

Delinquent-record for patient no longer inhouse and the provider has required open elements that are past the by-laws and regulatory timeframe requirements for completion (ex. 30 days for discharge summary for JC and Medicare CoP)

In-progress-never heard of but perhaps in an electronic world could mean discharge record and not all residual paper documents are scanned and /or viewable?

Table To be discussed:

Table 1. Relationship between Episode of Care/Encounter’s Flow of Events and Documents

|  |  |  |
| --- | --- | --- |
| Episode of Care/Encounter | | |
| Clinical Pathway for Function <Registration, Assessment, Testing, etc.> | | |
| Workflow Activities or Flow of Events | Records/Documents | Document Type/  Data Set |
|  | Initial interaction with healthcare facility (present at the facility, e-mail, phone) |  |
| Step 1 Registration | Document 1 – output for Step 1 and input /trigger for Step 2 | Patient Registration |
| Step 2 Assessment | Document 2 – output for Step 2 and input/trigger for Step 3 | Medical Notes |
| Step 3 Testing | Document 3 – output for Step 3 and input/trigger for Step 4 | Test Order  Test Results |
| Step 4 Diagnosis and Care Plan | Document 4 – output for Step 4 and input/trigger for Step 5 | Care Plan |
| Step 5 Medication Prescription | Document 5 – output for Step 5 | Prescription |

1. Grzybowski, D. (2014). Strategies for electronic document and health record management. Chicago, IL: AHIMA. p.40 [↑](#footnote-ref-1)
2. Forms Management. Hospital Policy. University of Vanderbilt, Nashville TN. June 12, 2000 [↑](#footnote-ref-2)
3. Quinsey CA. Managing forms and legal electronic health records. JAHIMA, July 2007, p.58-59 [↑](#footnote-ref-3)
4. Forms Management. Hospital Policy. University of Vanderbilt, Nashville TN. June 12, 2000 [↑](#footnote-ref-4)
5. McGraw Hill Dictionary of Scientific and Technical Terms. 2003 [↑](#footnote-ref-5)
6. AHIMA Pocket Glossary of Health Information Management and Technology. 2014. p. 49 [↑](#footnote-ref-6)
7. AHIMA Pocket Glossary of Health Information Management and Technology. 2014. p. 133 [↑](#footnote-ref-7)
8. Health Information Management and Systems Society (HIMSS). Dictionary of Healthcare Information Technology Terms, Acronyms and Organizations. 2010. p. 49 [↑](#footnote-ref-8)
9. AHIMA Pocket Glossary of Health Information Management and Technology. 2014. p. 28 [↑](#footnote-ref-9)
10. AHIMA Pocket Glossary of Health Information Management and Technology. 2014. p. 32 [↑](#footnote-ref-10)
11. AHIMA Pocket Glossary of Health Information Management and Technology. 2014. p. 32 [↑](#footnote-ref-11)
12. AHIMA Pocket Glossary of Health Information Management and Technology. 2014. p. 126 [↑](#footnote-ref-12)
13. AHIMA Pocket Glossary of Health Information Management and Technology. 2014. p.77 [↑](#footnote-ref-13)
14. AHIMA Pocket Glossary of Health Information Management and Technology. 2014. p. 130 [↑](#footnote-ref-14)
15. ISO/HL7 10781 - Electronic Health Record System Functional Model, Release 2. 2014 [↑](#footnote-ref-15)
16. ISO/HL7 10781 - Electronic Health Record System Functional Model, Release 2. 2014 [↑](#footnote-ref-16)