**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 completion episode of care/encounter.

This Use Case is focused on encounter. Other types of encounter (outpatient, long-term care and others) will be addressed in the future.

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 documents of the episode of care/encounter (See Use Case A1.2).

The episode of care/encounter may consist of the various functions with the correspondent records/ documents as shown in Table 1.

Table 1. Functions of the Episode of Care and Corresponding Documentation

|  |  |
| --- | --- |
| Episode of Care/Encounter’s Functions | Records/Document |
| Visit Registration/Admission | Patient and Facility Demographics |
| Triage | Triage Notes and Vital Signs |
| Assessment | Medical Summary |
| Laboratory and Diagnostic Testing | Test Orders and Test Result Reports |
| Diagnosis and Care Plan | Care Plan |
| Prescription | Medication Order and Dispense Report |
| Discharge/Transfer/Disposition (ADT) | ADT Record |

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 – To BE UPDATED

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. These representatives (policy makers) include:

* patient care providers
  + clinicians (MDs, PA, RNs, residents, other credentialed providers ) and
  + staff who supports ancillary services (laboratory, radiology, pharmacy, etc.)
* practice administrators (physician’s assistants, 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 developed by the Form Management Committee 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 for patient-generated data entered via web-portals and mobile/virtual technology (e.g., diabetes monitors).

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:**

**Record** (Definitions from the AHIMA Pocket Glossary will be provided)

1. Lifetime Record (-9mos, birth-death)
2. Record of Episode of Care (admission-discharge)
3. Record at the Function Level (one document for some functions, e.g., registration; several documents for other functions, e.g., testing: test order-test result)
4. Record at Entry Level (CRUDE) - Form/Document/ Screen Level
5. Record at Data Entry Level – completion of certain fields by various actors????

**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).

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, as an inpatient, are described under **Start and the End of the Episode of Care/Encounter** below.

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

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

**States of Interactions**

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 via Open and Closed documentation related to each of the states (see Use Case 2). HIS also must support the document flow across all states within the episode of care (Table 1). In the HIS the patient status is typically monitored in the **Patient Status** application**. – NEED TO GET BETTER DESCRIPTION OF THIS APPLICATION**. 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.

Please note that **Patient Status** (data element, field) was traditionally used for billing. Now this field may be used as a trigger to determine the corresponding documentation.

The **end** of the function as well as an episode of care/encounter, in general, is defined by providing capabilities to electronically sign the output document. This action is called “**Verified by Authentication**” and includes the time stamp (date and time) of verification for each output document. The completion of this capability is done by 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.

In this year, we will focus on inpatient facilities only, so the **end of the episode of care/encounter** is defined as **patient discharge** from this episode of care/encounter.

**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 – TO BE UPDATED

**Use Case A1.2: Record is closed as complete within a specific time period post completion of the episode of care/encounter.**

There are two states of the record/document - **Open and Closed** - that represent the state of therecord.

**Open Record**

**Open** **record** is the document that is created to begin a new function.

In the paper-based environment, **Open record** can be a synonym to the **incomplete record**. In some cases, **incomplete record** term was used for a **lost record,** i.e., the record 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.

An **Open record** has to be completed within defined timeframe for a specific function. The Form Management Committee defines policies on the processes and timeliness of the record completion, e.g.,US oint Commission and onditions of articipation.

**Delinquent** records are considered as **Open** records**.**

HIS must support capabilities to notify clinician (1) when the record is open; (2) when the record is outside of the time limits set for a specific function; (3) ready to be signed, i.e., verified by authentication; and (4) when the record is closed.

The record remains Open until all its parts are assembled and the appropriate documents are authenticated according to organizational policies. [[10]](#footnote-13)

**Record completion** is the process defined by the organizational policy. This process specifies activities of the authorized personnel to be able to

1. open (initiate the new record),
2. access existing record to contribute new information
3. access existing record to modify/correct existing information and
4. close (verify by authentication) a specific component of the record and/or the full record.[[11]](#footnote-14)

In the paper based environment, term **Retraction (go back)** was used to access the record for correcting information that was inaccurate, invalid, or made in error. Retraction is aimed to modify the Open record. [[12]](#footnote-15)Audit trail must capture all modifications done to the record.

The term **Retraction** is used in HIM to modify existing information in the record through record **amendment** or **addendum,** i.e., modification of the original record entry.

**Closed**the record that (1) contains all necessary clinical information to substantiate the care rendered, (2) verified by authentication by the authorized clinician, and (3) meets the requirements of the as defined by organizational policies.

In some cases, the function can be initiated but not completed. For example, the test was ordered but the procedure was never performed because patient did not show up.In this case, in the Open record (test order for this procedure) information about the reason why the procedure was not performed must be captured, so the record can be closed.

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

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



**Out of Scope**

Outpatient and Other Types of Episodes of Care

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.

**Recommendations:**

**HIM**

Standardizing Policies for Form Management Committees

1. Harmonize existing policies across healthcare organizations and
2. Develop a template organizational policy related to form development and management
3. Define policies on the Open and Closed Records and the processes and timeliness of the record completion. This includes finalizing definitions on
   * Open records - former terms must be harmonized and eliminated, e.g., Incomplete, Lost, Delinquent, Cancelled etc.)
   * **D** open and closed
     + Procedures ordered but not performed
     + M components
     + Missing
   * Define a minimum set of content to be analyzed for timeliness and completeness in the legal record

**Standards development organizations (SDOs)**

HL7

EHR Functional Model: normalize definitions for records/document lifecycle

Define: element, report level, record level

Is this Audit trail report?

*to capture*

EHR system will not define a minimum set of content prior to ROI. The Form Committee will.

1.Change define to capture.

2.Define a report of status?

Harmonize terms for Incomplete with Open and Closed records

HL7 Record Lifecycle Model

1. Record Amendment should be replaced with record Retraction that included record Amendment and Record Addendum

**Vendors**

**Policy Makers**

**International Community**

International Federation of Health Information Management Associations (IFHIMA)

Harmonize the terms Episode of Care/Encounter/Visit

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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)
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8. Health Information Management and Systems Society (HIMSS). Dictionary of Healthcare Information Technology Terms, Acronyms and Organizations. 2010. p. 49 [↑](#footnote-ref-8)
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10. AHIMA Pocket Glossary of Health Information Management and Technology. 2014. p. 32 [↑](#footnote-ref-13)
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12. AHIMA Pocket Glossary of Health Information Management and Technology. 2014. p. 130 [↑](#footnote-ref-15)