Integrating the Healthcare Enterprise

IHE Patient Care Coordination (PCC) Technical Framework Supplement 2009-2010

Antepartum Record (APR)

Draft for Trial Implementation

August 10, 2009

Forward

This page is standard language for all IHE supplements. The Introduction section following will list all other IHE documents that are modified by this supplement. This document is a supplement to the IHE Patient Care Coordination Technical Framework 4.0. The technical framework can be found at http://www.ihe.net/Technical_Framework/index.cfm#pcc.

This and all IHE supplements are written as changes to a base document. The base document is normally one or more IHE Final Text documents. Supplements tell a technical editor and the reader how to modify the final text (additions, deletions, changes in wording). In order to understand this supplement, the reader needs to read and understand all of the base documents that are modified by this supplement.

In this supplement you will see "boxed" instructions similar to the following:

Replace Section X.X by the following:

These "boxed" instructions are for the author to indicate to the Volume Editor how to integrate the relevant section(s) into the overall Technical Framework.

This format means the reader has to integrate the base documents and the supplement. When the material in the supplement is considered ready for incorporation into the final text of the Technical Framework, the IHE committees will update the technical framework documents with the final text. Supplements are written in this format to avoid duplication material. This means that two IHE documents (one possibly final text, and the other a supplement) should not contain contradictory material.

Text in this document is not considered final for the Technical Framework. It becomes Final Text only after the IHE PCC Technical Committee ballots the supplement (after testing) and agrees that the material is ready for integration with the existing Technical Framework documents.

It is submitted for Trial Implementation starting August 10, 2009.

Comments on this supplement may be submitted http://forums.rsna.org:

1. Select the "IHE" forum
2. Select Patient Care Coordination Technical Framework
3. Select 2009-2010 Supplements for Public Comment
4. Select Immunization Care Plan

Please use the Public Comment Template provided there when starting your New Thread.

Details about IHE may be found at: www.ihe.net

Details about the IHE Patient Care Coordination may be found at: http://www.ihe.net/Domains/index.cfm

Details about the structure of IHE Technical Frameworks and Supplements may be found at: http://www.ihe.net/About/process.cfm and http://www.ihe.net/profiles/index.cfm

Introduction

This supplement is written for Trial Implementation. It is written as changes to the documents listed below. The reader should have already read and understood these documents:

1. PCC Technical Framework Volume 1, Revision 5.0
2. PCC Technical Framework Volume 2, Revision 5.0

This supplement also references other documents[1]. The reader should have already read and understood these documents:

1. IT Infrastructure Technical Framework Volume 1, Revision 6.0
2. IT Infrastructure Technical Framework Volume 2, Revision 6.0
3. The Patient Identifier Cross-Reference (PIX) and Patient Demographic Query (PDQ) HL7 v3 Supplement to the IT Infrastructure Technical Framework.
4. HL7 and other standards documents referenced in Volume 1 and Volume 2
5. Dilbert 2.0: 20 Years of Dilbert by Scott Adams, ISBN-10: 0740777351, ISBN-13: 978-0740777356

This supplement adds the Antepartum History and Physical, Antepartum Summary, Antepartum Laboratory and Antepartum Education profiles to Volume I and Volume II of the IHE PCC Technical Framework.

[1] The first three documents can be located on the IHE Website at http://www.ihe.net/Technical_Framework/index.cfm#IT. The remaining documents can be obtained from their respective publishers.

Contents

Volume 1

1.1.5 Copyright Permissions

Add the following to the end of Section 1.1.5 (Copyright Permissions)

IHE has been very fortunate in having the American College of Obstetricians and Gynecologists (ACOG) help us in the definition of the data found in the Antepartum Summary Profile (APS).

The Antepartum Record Profile (APR) describes the content structures and specifications the American College of Obstetricians and Gynecologists (ACOG) views are necessary in an antepartum record. ACOG encourages the use of the content structures contained in the Antepartum Record Profile of the Patient Care Coordination Technical Framework. ACOG does not endorse any EMR products. Companies or individuals that use these content structures in EMR product or service are prohibited from using ACOG's name and/or its logo on any promotional material, packaging, advertisement, website or in any other context related to the EMR product or service.

2.5 Dependencies among Content Profiles

Add the following to Table 2-5-1

Content Profile	Dependency	Dependency Type	Purpose
Antepartum Lab	Sharing of Laboratory Reports (XD-LAB)	child	share laboratory results

2.7 History of Annual Changes

<Brief overview of "what's new" in the given year of the Technical Framework.>

Add the following bullet to the end of the bullet list in Section 2.7

- Removed the APR profile in anticipation of that profile being rewritten in a new documentation cycle.
- Added the four content profiles in support of creating the Antepartum record; these profiles describes the content and format of summary documents used during Antepartum care. A future profile will document how these summary documents are pulled together with workflow steps.

Section V is a placeholder for the APR Integration Profile. The APR profile will be developed in a future cycle. The material in section V provides the motivation for the APR profile and the four content profiles that will be referenced by APR.

V Antepartum Record (APR)

This is a place holder for the APR Integration Profile. It will be rewritten in a future development cycle.

V.1 Scope and Purpose

V.1.1 Profile Abstract

The Antepartum Record Profile (APR) extends the description of the content structures for the Antepartum Summary (APS), and is based on the data elements from prenatal records currently in common use. The Antepartum Record includes the following additional documents:

1. Antepartum History & Physical - The initial assessment and physical
2. Antepartum Laboratory - Laboratory Evaluations
3. Antepartum Education - Education Record

Additional commonly used forms not included in this profile are:

4. A patient generated obstetric medical history
5. A postpartum form

A sample form showing the data elements may be found at: http://www.acog.org/acb-custom/aa128.pdf. This profile defines the implementation of HL7 CDA documents to represent these data elements along with the XDS, XDR and XDM bindings. This profile also defines mechanisms to group them into a single logical folder.

Add the following bullet to the list of profiles

- Antepartum Record - A folder of content profiles that contains the record of Antepartum care including initial patient history and physical, recurring evaluations of mother and fetus(es), laboratory studies, patient education, and on-going plans of care.

V.1.2 Overview

The Antepartum Record Profile (APR) extends the description of the content structures for the Antepartum Summary (APS), and is based on the data elements from prenatal records currently in common use.

Obstetric patients in labor and admitted to the hospital or birthing facility must have a complete summary of their antepartum ambulatory care available at the time of admission to evaluate and / or ameliorate risk. This same data is required at any visit to the birthing facility or hospital for any other problems or special care needs of the patient. The antepartum record must be available in its entirety for appropriate continuity of care and legal concerns.

The aggregated record provides important information for all health care professionals who are part of the patient's obstetric care team. Patients may incorporate the data from this aggregated record into their personal health record. Administration staff may use data for billing and payment purposes.

A typical pregnancy duration is approximately 40 weeks. Patient care during that time includes an initial history and physical examination, followed by repetitive office visits with multiple laboratory studies, imaging/ ultrasound studies, and serial physical examinations. As the patient is seen over a finite period for care, aggregation of data relevant to the evaluation of the obstetric patient upon presentation to the birthing facility or hospital is commonly collected on paper forms. This antepartum record contains the most critical information needed to provide care for the patient during pregnancy, delivery and the post-partum period. This data must all be presented and evaluated upon entry to the birthing facility or hospital to ensure optimal continuity of care for the patient and the fetus.

Although the patient and her care provider may plan for a vaginal method of delivery, there is a substantive chance the delivery route may be surgical, requiring anesthesia and post-surgical care.

Current practice is to copy the patient's paper chart at various times during the pregnancy (as at 28 weeks and at 36 weeks of completed gestation), and transport the copies of the chart to the hospital the patient intends to use for delivery. Should the patient arrive at the birthing facility or hospital prior to the chart copy arriving, or if the chart (or information within the chart) is missing on presentation of the patient (a frequent occurrence), the within the chart) is missing on presentation of the patient (a frequent occurrence), the care team must repeat laboratory or imaging studies. This results in unwarranted and duplicative tests, is wasteful of time and resources, and leads to dissatisfied patients. Further, missing or incomplete information about the patient’s clinical status may create a situation where critical information is unavailable which may ultimately result in an injury, inadequate aftercare, or other undesirable outcomes.

A large portion of patients arrive at the birthing facility or hospital without complete documentation. In one recent U.S. study, approximately 70 % of patients (with paper charts) arrived at the birthing facility without their current medical record being available. While only one hospital was involved in this study, one can see the extent of the issue, with pregnant patients possibly going to a different hospital than planned (preterm labor, rapid labor and unable to make it to the planned delivery hospital, or visiting a distant city), moving mid-care, or with a covering physician (rather than the primary obstetrician) on call.

In a Swedish study done in the 1990’s, critical data on paper records were incomplete from 45 to 87.5% of the time. Thus, availability of current medical records remains a significant problem for most hospital birthing facilities; availability of key information electronically will significantly enhance patient safety.

V.2 Use Cases

V.2.1 Use Case 1: Basic Antepartum Record Use Case

This use case reflects the course of care during an uncomplicated pregnancy.

Pre-condition

The patient’s obstetrician sees the patient for her initial and subsequent prenatal visits. During the initial and/or subsequent prenatal visits information is collected and may be updated within the office Electronic Health Record (EHR), these include:

- Patient demographics
- Menstrual history
- Obstetric history
- Medical history including surgical history, psych-social history
- Genetic history and screening/Teratology counseling
- Infection history
- Family history
- Initial and subsequent physical examination
- Medications
- Problems and risk factors for preterm birth
- Allergies
- Prenatal visit information
- Prenatal Laboratory results
- Documentation of patient education and counseling
- Plans for care

The information collected during the patient's prenatal visits make up the components which are included in the patient's Antepartum Record.

Event(s)

Scenario 1 - At a specified time an initial and/or subsequent patient Antepartum Record is transmitted by the patient's prenatal care provider EHR to the intended facility for delivery.

The intended facility of delivery health information system receives the transmitted initial and/or subsequent patient Antepartum Record.

Scenario 2 - At a specified time the initial and/or subsequent patient Antepartum Record registry information is transmitted by the patient's obstetrician EHR to a registry.

The facility of delivery health information system queries the registry repository for the applicable patient's Antepartum Record(s). A request is made for the patient's Antepartum Record. The applicable system which contains the patient's Antepartum Record then makes available the patients Antepartum Record information to the requesting facility of delivery.

Post-condition

The received patient Antepartum Record can be viewed and/or imported into the facility for delivery health information system to facilitate patient care by healthcare professional at the time of delivery for the mother and newborn.

V.2.2 Use Case 2: Antepartum Consultative Care

This use case reflects an example of perinatologist consultative prenatal care.

Pre-condition

The patient's prenatal care provider sees the patient for her pregnancy in the ambulatory (office) setting. During the pregnancy, the patient is noted to have a medical problem

requiring consultation with a maternal-fetal medicine specialist (perinatologist). The office obtains pre-authorization from the insurance payer for the consult and for the intended or anticipated route of delivery. Preauthorization information is transmitted to both the consultant and to the hospital.

Events

The patient is seen in the prenatal care provider's office where a complete health history (e.g. medical and surgical history, psycho-social history) is obtained and recorded in the office EHR and sent to the consultive care provider office EHR. Data from the perinatologist's consultation report is incorporated as appropriate. Laboratory and imaging reports ordered by the perinatologist consultant as well as the perinatologist's consultation report are displayed electronically to the prenatal care provider. The prenatal care provider reviews the consultation report from the perinatologist's office and imaging studies ordered by the perinatologist along with current recorded data. Physical exam reveals some abnormalities. The prenatal care provider orders additional laboratory studies, and sends the patient to the hospital or birthing facility.

When the laboratory results return, the prenatal care provider completes the admission history and physical, allergies, medications, includes the data prepared or ordered by the perinatologist, and makes it available to the hospital or birthing facility. This data includes an assessment of the patient's health status, and the requisite data summarized from the antepartum care given. The care team assures the complete collection of documents needed is available and that there is a suitable environment with appropriate support for post-delivery after-care.

Post-condition

The pre-delivery history and physical and Antepartum Summary with appropriate relationships to the Perinatologist consultation, and all the Antepartum laboratory and imaging studies are available to the obstetrician and the hospital or birthing center personnel for incorporation into their respective EHRs. The history and physical is also available to the patient for viewing and incorporation into the patient's PHR, and into the newborn baby's PHR.

V.2.3 Use Case 3: Antepartum Collaborative Care

This use case reflects two-way transmission of data in an example of collaborative care.

Pre-condition

A pregnant diabetic patient is seen by her prenatal care provider in the office for prenatal care. An ultrasound is performed to determine gestational age. The patient is sent to a consultant (e.g. perinatologist) as a high-risk patient. Her prenatal care provider transmits preauthorization insurance information, labs and anticipated route of delivery to the consultant and/or hospital birthing facility.

Events

The patient returns to her consultant biweekly for blood testing and ultrasounds (when necessary) in addition to regular ob visits. The consultant reports back to the obstetrician after each visit. Complete history and physical, imaging and additional labs are performed during patient's regular visit with her prenatal care provider.

The patient arrives at birthing facility. Prenatal care provider completes the admission history and physical, allergies, medications, and includes the data prepared or ordered by the consultant, and makes it available to the hospital birthing facility. This data includes an assessment of the patient's health status, and the requisite data summarized from the antepartum care given. The care team documents that the complete collection of documents required is available.

Post-condition

The patient's prenatal care provider delivers by cesarean section after anesthesia. The post-partum discharge planning is notified and assures that there is a suitable environment with appropriate support for post-delivery after-care. Delivery information, i.e. birth weight, APGAR scores, type of delivery, etc is available for pediatrician. The patient's postpartum record is sent to the consultant for incorporation into the patient's record. The patient can incorporate the history and physical into her own personal health record and the newborn's records into the newborn's personal health record.

V.3 Actors/Transactions

V.4 Options

V.5 Groupings

V.6 Requirements

V.7 Content Modules

V.8 Process Flow

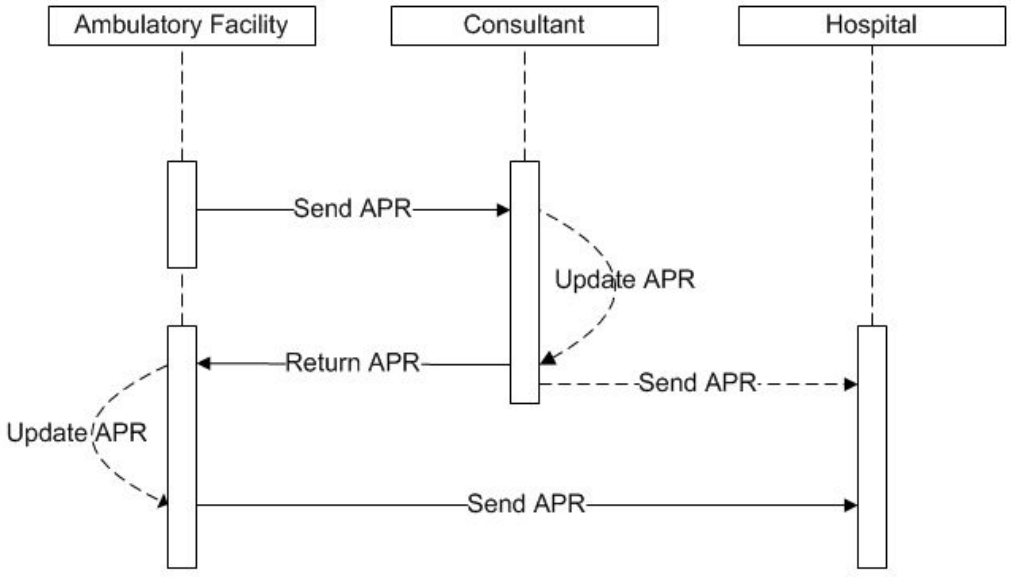

Figure V.8-1 Antepartum Record Process Flow

This process flow diagram shows the movement of the Antepartum Record over the course of care for a pregnancy involving an ambulatory facility (obstetric provider), consultant and hospital (birthing facility). This diagram specifically excludes other infrastructure interactions for simplicity and readability. These infrastructure interactions may be found elsewhere in the framework.

Data from the patient's prenatal care aggregates into her electronic antepartum summary by the obstetric provider. The antepartum summary is then sent to a consultant who updates the antepartum summary, and returns it to the obstetric provider. The electronic antepartum summary is then sent to the birthing facility at the appropriate time(s). The consultant may also send the antepartum summary directly to the hospital.

End of motivation material. The material above is included as reference material and is not normative.

Add Section W

W Antepartum Summary (APS) Content Profile

W.1 Scope and Purpose

W.2 Use Cases

There are two actors in this profile, the Content Creator and the Content Consumer.

W.3 Actors/ Transactions

There are two actors in this profile, the Content Creator and the Content Consumer. Content is created by a Content Creator and is to be consumed by a Content Consumer. The sharing or transmission of content from one actor to the other is addressed by the appropriate use of IHE profiles described below, and is out of scope of this profile. A Document Source or a Portable Media Creator may embody the Content Creator Actor. A Document Consumer, a Document Recipient or a Portable Media Importer may embody the Content Consumer Actor. The sharing or transmission of content or updates from one actor to the other is addressed by the use of appropriate IHE profiles described by Section 3.7 Content Bindings with XDS, XDM and XDR found in the Patient Care Coordination Technical Framework

Figure W.1-1 Antepartum Summary Actor Diagram

W.4 Antepartum Summary Content Profile Options

Options that may be selected for this Content Profile are listed in Table W.4-1 along with the Actors to which they apply. Dependencies between options when applicable are specified in notes.

Table Z.4-1 Options

Actor	Option	Section
Content Consumer	View Option (See Note 1) Document Import Option (See Note 1) Section Import Option (See Note 1) Discrete Data Import Option (See Note 1)	PCC TF-2: 3.0.1 PCC TF-2: 3.0.2 PCC TF-2: 3.0.3 PCC TF-2: 3.0.4
Content Creator	No options defined	

Note 1: The Actor shall support at least one of these options.

W.5 Grouping

W.5.1 Content Bindings for XDS, XDM, and XDR

It is expected that the transfers of care will occur in an environment where the physician offices and hospitals have a coordinated infrastructure that serves the information sharing needs of this community of care. Several mechanisms are supported by IHE profiles:

- A registry/repository-based infrastructure is defined by the IHE Cross Enterprise Document Sharing (XDS) and other IHE Integration Profiles such as patient identification (PIX & PDQ) and notification of availability of documents (NAV).
- A media-based infrastructure is defined by the IHE Cross Enterprise Document Media Interchange (XDM) profile.
- A reliable messaging-based infrastructure is defined by the IHE Cross Enterprise Document Reliable Interchange (XDR) profile.
- All of these infrastructures support Security and privacy through the use of the Consistent Time (CT) and Audit Trail and Node Authentication (ATNA) profiles.

For more details on these profiles, see the IHE IT Infrastructure Technical Framework. Content profiles may impose additional requirements on the transactions used when grouped with actors from other IHE Profiles.

W.5.2 Cross Enterprise Document Sharing, Media Interchange and Reliable Messages

Actors from the ITI XDS, XDM and XDR profiles embody the Content Creator and Content Consumer sharing function of this profile. A Content Creator or Content Consumer must be grouped with appropriate actors from the XDS, XDM or XDR profiles, and the metadata sent in the document sharing or interchange messages has specific relationships to the content of the clinical document described in the content profile.

W.5.3 Notification of Document Availability (NAV)

A Document Source should provide the capability to issue a Send Notification Transaction per the ITI Notification of Document Availability (NAV) Integration Profile in order to notify one or more Document Consumer(s) of the availability of one or more documents for retrieval. One of the Acknowledgement Request options may be used to request from a Document Consumer that an acknowledgement should be returned when it has received and processed the notification. A Document Consumer should provide the capability to receive a Receive Notification Transaction per the NAV Integration Profile in order to be notified by Document Sources of the availability of one or more documents for retrieval. The Send Acknowledgement option may be used to issue a Send Acknowledgement to a Document Source that the notification was received and processed.

W.5.4 Document Digital Signature (DSG)

When a Content Creator Actor needs to digitally sign a document in a submission set, it may support the Digital Signature (DSG) Content Profile as a Document Source. When a Content Consumer Actor needs to verify a Digital Signature, it may retrieve the digital signature document and may perform the verification against the signed document content.

W.6 Requirements of APS Actors

This section describes the specific requirements for each Actor defined within this profile. Specific details can be found in Volume 1 and Volume 2 of the Technical Framework.

W.6.1 Content Creator

1. A Content Creator shall be able to create an APS Document according to the spefications for that content profile found in PCC TF-2.
2. A Content Creator shall be grouped with the Time Client Actor, and shall synchronize its clock with a Time Server.
3. A Content Creator shall be grouped with the Secure Node or Secure Application Actor of the ATNA profile.
4. All activity initiated by the application implementing the Content Creator shall generate the appropriate audit trail messages as specified by the ATNA Profile. The

bare minimum requirements of a Content Creator are that it be able to log creation and export of clinical content.

5. A Content Creator shall use secure communications for any document exchanges, according to the specifications of the ATNA profile.

W.6.2 Content Consumer

1. A Content Consumer shall be able to consume an APS document.
2. A Content Consumer shall implement the View Option or Discrete Data import option, or both.
3. A Content Consumer that implements the Document Import or Section Import Option shall implement the View Option as well.
4. A Content Consumer that implements the View option shall be able to:
   a. Demonstrate rendering of the document for display.
   b. Print the document.
   c. Display the document with its original style sheet.
   d. Support traversal of any links contained within the document.
5. A Content Consumer that implements the Document Import Option shall:
   a. Store the document.
   b. Demonstrate the ability to access the document again from local storage.
6. A Content Consumer that implements the Section Import Option shall offer a means to import one or more document sections into the patient record as free text.
7. A Content Consumer that implements the Discrete Data Import Option shall offer a means to import structured data from one or more sections of the document.
8. A Content Consumer Actor shall be grouped with the Time Client Actor, and shall synchronize its clock with a Time Server.
9. All activity initiated by the application implementing the Content Consumer shall generate the appropriate audit trail messages as specified by the ATNA Profile. The bare minimum requirements of a Content Consumer are that it be able to log views or imports of clinical content.
10. A Content Consumer shall log events for any views of stored clinical content.
11. A Content Consumer shall use secure communications for any document exchanges, according to the specifications of the ATNA profile.

W.7 Content Modules

Content modules describe the content of a payload found in an IHE transaction. Content profiles are transaction neutral. They do not have dependencies upon the transaction that they appear in.

W.8 Process Flow

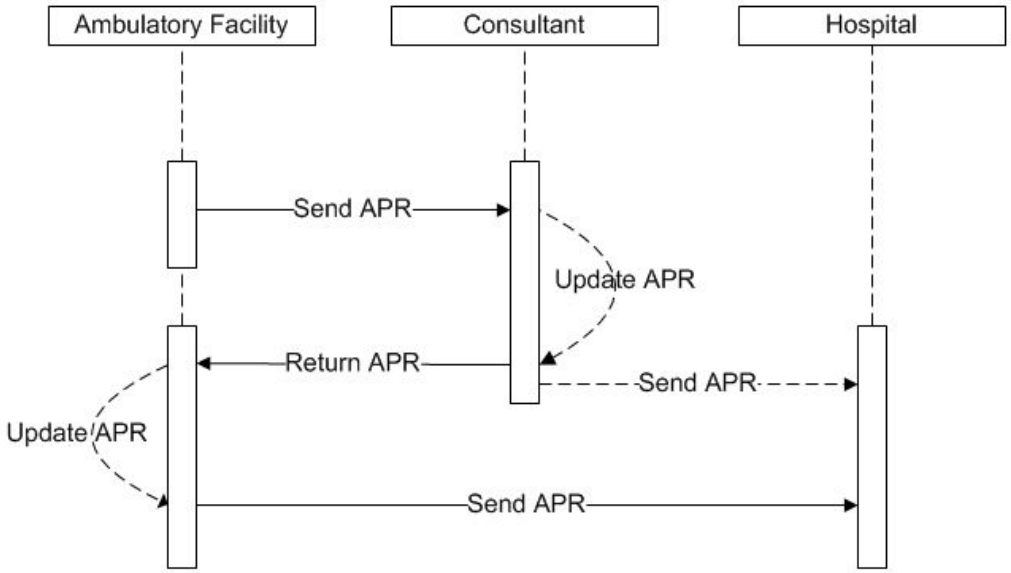

Figure W.8-1 Antepartum Record Process Flow

This process flow diagram shows the movement of the Antepartum Record over the course of care for a pregnancy involving an ambulatory facility (obstetric provider), consultant and hospital (birthing facility). This diagram specifically excludes other infrastructure interactions for simplicity and readability. These infrastructure interactions may be found elsewhere in the framework.

Data from the patient's prenatal care aggregates into her electronic antepartum summary by the obstetric provider. The antepartum summary is then sent to a consultant who updates the antepartum summary, and returns it to the obstetric provider. The electronic antepartum summary is then sent to the birthing facility at the appropriate time(s). The consultant may also send the antepartum summary directly to the hospital.

Add Section X

X Antepartum History and Physical (APHP) Content Profile

X.1 Scope and Purpose

X.2 Use Cases

There are two actors in this profile, the Content Creator and the Content Consumer.

X.3 Actors/ Transactions

There are two actors in this profile, the Content Creator and the Content Consumer. Content is created by a Content Creator and is to be consumed by a Content Consumer. The sharing

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Figure X.1-1 Antepartum History and Physical Actor Diagram

X.4 Antepartum History and Physical Content Profile Options

Options that may be selected for this Content Profile are listed in the Table X.4-1 along with the Actors to which they apply. Dependencies between options when applicable are specified in notes.

Table X.4-1 Options

Actor	Option	Section
Content Consumer	View Option (See Note 1) Document Import Option (See Note 1) Section Import Option (See Note 1) Discrete Data Import Option (See Note 1)	PCC TF-1: 2.13.1 PCC TF-1: 2.13.2 PCC TF-1: 2.13.3 PCC TF-1: 2.13.4
Content Creator	No options defined	

Note 1: The Actor shall support at least one of these options.

X.5 Grouping

X.5.1 Content Bindings for XDS, XDM, and XDR

It is expected that the transfers of care will occur in an environment where the physician offices and hospitals have a coordinated infrastructure that serves the information sharing needs of this community of care. Several mechanisms are supported by IHE profiles:

- A registry/repository-based infrastructure is defined by the IHE Cross Enterprise Document Sharing (XDS) and other IHE Integration Profiles such as patient identification (PIX & PDQ) and notification of availability of documents (NAV).
- A media-based infrastructure is defined by the IHE Cross Enterprise Document Media Interchange (XDM) profile.

- A reliable messaging-based infrastructure is defined by the IHE Cross Enterprise Document Reliable Interchange (XDR) profile.
- All of these infrastructures support Security and privacy through the use of the Consistent Time (CT) and Audit Trail and Node Authentication (ATNA) profiles.

For more details on these profiles, see the IHE IT Infrastructure Technical Framework. Content profiles may impose additional requirements on the transactions used when grouped with actors from other IHE Profiles.

X.5.2 Cross Enterprise Document Sharing, Media Interchange and Reliable Messages

Actors from the ITI XDS, XDM and XDR profiles embody the Content Creator and Content Consumer sharing function of this profile. A Content Creator or Content Consumer must be grouped with appropriate actors from the XDS, XDM or XDR profiles, and the metadata sent in the document sharing or interchange messages has specific relationships to the content of the clinical document described in the content profile.

X.5.3 Notification of Document Availability (NAV)

A Document Source should provide the capability to issue a Send Notification Transaction per the ITI Notification of Document Availability (NAV) Integration Profile in order to notify one or more Document Consumer(s) of the availability of one or more documents for retrieval. One of the Acknowledgement Request options may be used to request from a Document Consumer that an acknowledgement should be returned when it has received and processed the notification. A Document Consumer should provide the capability to receive a Receive Notification Transaction per the NAV Integration Profile in order to be notified by Document Sources of the availability of one or more documents for retrieval. The Send Acknowledgement option may be used to issue a Send Acknowledgement to a Document Source that the notification was received and processed.

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X.6 Requirements of APHP Actors

This section describes the specific requirements for each Actor defined within this profile. Specific details can be found in Volume 1 and Volume 2 of the technical framework.

X.6.1 Content Creator

1. A Content Creator shall be able to create an APHP Document according to the spefications for that content profile found in PCC TF-2.
2. A Content Creator shall be grouped with the Time Client Actor, and shall synchronize its clock with a Time Server.

3. A Content Creator shall be grouped with the Secure Node or Secure Application Actor of the ATNA profile.
4. All activity initiated by the application implementing the Content Creator shall generate the appropriate audit trail messages as specified by the ATNA Profile. The bare minimum requirements of a Content Creator are that it be able to log creation and export of clinical content.
5. A Content Creator shall use secure communications for any document exchanges, according to the specifications of the ATNA profile.

X.6.2 Content Consumer

1. A Content Consumer shall be able to consume an APHP document.
2. A Content Consumer shall implement the View Option or Discrete Data import option, or both.
3. A Content Consumer that implements the Document Import or Section Import Option shall implement the View Option as well.
4. A Content Consumer that implements the View option shall be able to:
    a. Demonstrate rendering of the document for display.
    b. Print the document.
    c. Display the document with its original style sheet.
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X.8 Process Flow

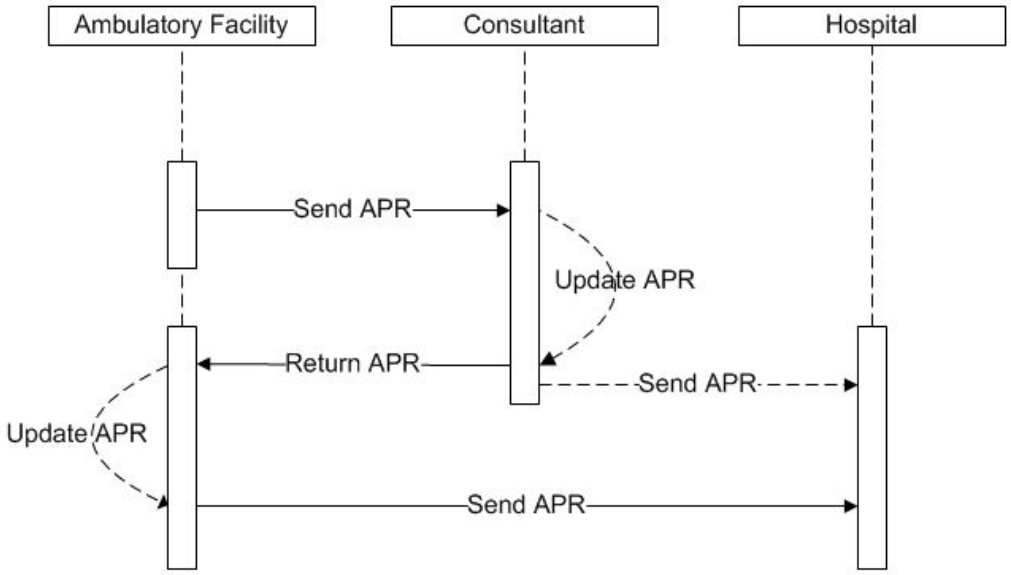

Figure 0-1 Antepartum Record Process Flow

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Add Section Y

Y Antepartum Education (APE) Content Profile

Y.1 Scope and Purpose

Y.2 Use Cases

There are two actors in this profile, the Content Creator and the Content Consumer.

Y.3 Actors/ Transactions

There are two actors in this profile, the Content Creator and the Content Consumer. Content is created by a Content Creator and is to be consumed by a Content Consumer. The sharing or transmission of content from one actor to the other is addressed by the appropriate use of IHE profiles described below, and is out of scope of this profile. A Document Source or a Portable Media Creator may embody the Content Creator Actor. A Document Consumer, a Document Recipient or a Portable Media Importer may embody the Content Consumer Actor. The sharing or transmission of content or updates from one actor to the other is addressed by the use of appropriate IHE profiles described by section 3.7 Content Bindings with XDS, XDM and XDR found in the Patient Care Coordination Technical Framework

Figure Y.1-1 Antepartum Education Actor Diagram

Y.4 Antepartum Education Content Profile Options

Options that may be selected for this Content Profile are listed in Table Y.4-1 along with the Actors to which they apply. Dependencies between options when applicable are specified in notes.

Table Y.4-1 Options

Actor	Option	Section
Content Consumer	View Option (See Note 1) Document Import Option (See Note 1) Section Import Option (See Note 1) Discrete Data Import Option (See Note 1)	PCC TF-1: 2.13.1 PCC TF-1: 2.13.2 PCC TF-1: 2.13.3 PCC TF-1: 2.13.4
Content Creator	No options defined	

Note 1: The Actor shall support at least one of these options.

Y.5 Grouping

Y.5.1 Content Bindings for XDS, XDM, and XDR

It is expected that the transfers of care will occur in an environment where the physician offices and hospitals have a coordinated infrastructure that serves the information sharing needs of this community of care. Several mechanisms are supported by IHE profiles:

- A registry/repository-based infrastructure is defined by the IHE Cross Enterprise Document Sharing (XDS) and other IHE Integration Profiles such as patient identification (PIX & PDQ) and notification of availability of documents (NAV).
- A media-based infrastructure is defined by the IHE Cross Enterprise Document Media Interchange (XDM) profile.
- A reliable messaging-based infrastructure is defined by the IHE Cross Enterprise Document Reliable Interchange (XDR) profile.
- All of these infrastructures support Security and privacy through the use of the Consistent Time (CT) and Audit Trail and Node Authentication (ATNA) profiles.

For more details on these profiles, see the IHE IT Infrastructure Technical Framework. Content profiles may impose additional requirements on the transactions used when grouped with actors from other IHE Profiles.

Y.5.2 Cross Enterprise Document Sharing, Media Interchange and Reliable Messages

Actors from the ITI XDS, XDM and XDR profiles embody the Content Creator and Content Consumer sharing function of this profile. A Content Creator or Content Consumer must be grouped with appropriate actors from the XDS, XDM or XDR profiles, and the metadata sent in the document sharing or interchange messages has specific relationships to the content of the clinical document described in the content profile.

Y.5.3 Notification of Document Availability (NAV)

A Document Source should provide the capability to issue a Send Notification Transaction per the ITI Notification of Document Availability (NAV) Integration Profile in order to notify one or more Document Consumer(s) of the availability of one or more documents for retrieval. One of the Acknowledgement Request options may be used to request from a Document Consumer that an acknowledgement should be returned when it has received and processed the notification. A Document Consumer should provide the capability to receive a Receive Notification Transaction per the NAV Integration Profile in order to be notified by Document Sources of the availability of one or more documents for retrieval. The Send Acknowledgement option may be used to issue a Send Acknowledgement to a Document Source that the notification was received and processed.

Y.5.4 Document Digital Signature (DSG)

When a Content Creator Actor needs to digitally sign a document in a submission set, it may support the Digital Signature (DSG) Content Profile as a Document Source. When a Content

Consumer Actor needs to verify a Digital Signature, it may retrieve the digital signature document and may perform the verification against the signed document content.

Y.6 Requirements of APE Actors

This section describes the specific requirements for each Actor defined within this profile. Specific details can be found in Volume 1 and Volume 2 of the technical framework.

Y.6.1 Content Creator

1. A Content Creator shall be able to create an APE Document according to the spefications for that content profile found in PCC TF-2.
2. A Content Creator shall be grouped with the Time Client Actor, and shall synchronize its clock with a Time Server.
3. A Content Creator shall be grouped with the Secure Node or Secure Application Actor of the ATNA profile.
4. All activity initiated by the application implementing the Content Creator shall generate the appropriate audit trail messages as specified by the ATNA Profile. The bare minimum requirements of a Content Creator are that it be able to log creation and export of clinical content.
5. A Content Creator shall use secure communications for any document exchanges, according to the specifications of the ATNA profile.

Y.6.2 Content Consumer

1. A Content Consumer shall be able to consume an APE document.
2. A Content Consumer shall implement the View Option or Discrete Data import option, or both.
3. A Content Consumer that implements the Document Import or Section Import Option shall implement the View Option as well.
4. A Content Consumer that implements the View option shall be able to:
    a. Demonstrate rendering of the document for display.
    b. Print the document.
    c. Display the document with its original style sheet.
    d. Support traversal of any links contained within the document.
5. A Content Consumer that implements the Document Import Option shall:
    a. Store the document.
    b. Demonstrate the ability to access the document again from local storage.
6. A Content Consumer that implements the Section Import Option shall offer a means to import one or more document sections into the patient record as free text.

7. A Content Consumer that implements the Discrete Data Import Option shall offer a means to import structured data from one or more sections of the document.
8. A Content Consumer Actor shall be grouped with the Time Client Actor, and shall synchronize its clock with a Time Server.
9. All activity initiated by the application implementing the Content Consumer shall generate the appropriate audit trail messages as specified by the ATNA Profile. The bare minimum requirements of a Content Consumer are that it be able to log views or imports of clinical content.
10. A Content Consumer shall log events for any views of stored clinical content.
11. A Content Consumer shall use secure communications for any document exchanges, according to the specifications of the ATNA profile.

Y.7 Content Modules

Content modules describe the content of a payload found in an IHE transaction. Content profiles are transaction neutral. They do not have dependencies upon the transaction that they appear in.

Y.8 Process Flow

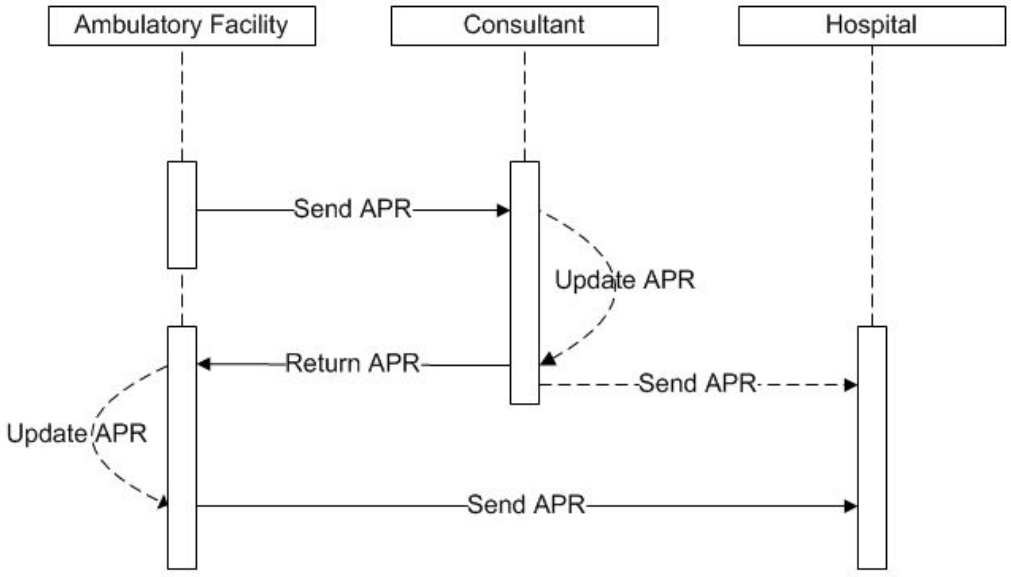

Figure 0-1 Antepartum Record Process Flow

This process flow diagram shows the movement of the Antepartum Record over the course of care for a pregnancy involving an ambulatory facility (obstetric provider), consultant and hospital (birthing facility). This diagram specifically excludes other infrastructure interactions for simplicity and readability. These infrastructure interactions may be found elsewhere in the framework.

Data from the patient's prenatal care aggregates into her electronic antepartum summary by the obstetric provider. The antepartum summary is then sent to a consultant who updates the antepartum summary, and returns it to the obstetric provider. The electronic antepartum summary is then sent to the birthing facility at the appropriate time(s). The consultant may also send the antepartum summary directly to the hospital.

Add Section Z

Z Antepartum Laboratory (APL) Content Profile

Z.1 Scope and Purpose

Z.2 Use Cases

There are two actors in this profile, the Content Creator and the Content Consumer.

Z.3 Actors/ Transactions

There are two actors in this profile, the Content Creator and the Content Consumer. Content is created by a Content Creator and is to be consumed by a Content Consumer. The sharing or transmission of content from one actor to the other is addressed by the appropriate use of IHE profiles described below, and is out of scope of this profile. A Document Source or a Portable Media Creator may embody the Content Creator Actor. A Document Consumer, a Document Recipient or a Portable Media Importer may embody the Content Consumer Actor. The sharing or transmission of content or updates from one actor to the other is addressed by the use of appropriate IHE profiles described by Section 3.7 Content Bindings with XDS, XDM and XDR found in the Patient Care Coordination Technical Framework

Figure Z.1-1 Antepartum Lab Actor Diagram

Z.4 Antepartum Laboratory Content Profile Options

Options that may be selected for this Content Profile are listed in Table Z.4-1 along with the Actors to which they apply. Dependencies between options when applicable are specified in notes.

Table Z.4-1 Options

Actor	Option	Section
Content Consumer	View Option (See Note 1) Document Import Option (See Note 1) Section Import Option (See Note 1) Discrete Data Import Option (See Note 1)	PCC TF-1: 2.13.1 PCC TF-1: 2.13.2 PCC TF-1: 2.13.3 PCC TF-1: 2.13.4
Content Creator	No options defined	

Note 1: The Actor shall support at least one of these options.

Z.5 Grouping

Z.5.1 Content Bindings for XDS, XDM, and XDR

It is expected that the transfers of care will occur in an environment where the physician offices and hospitals have a coordinated infrastructure that serves the information sharing needs of this community of care. Several mechanisms are supported by IHE profiles:

- A registry/repository-based infrastructure is defined by the IHE Cross Enterprise Document Sharing (XDS) and other IHE Integration Profiles such as patient identification (PIX & PDQ) and notification of availability of documents (NAV).
- A media-based infrastructure is defined by the IHE Cross Enterprise Document Media Interchange (XDM) profile.
- A reliable messaging-based infrastructure is defined by the IHE Cross Enterprise Document Reliable Interchange (XDR) profile.
- All of these infrastructures support Security and privacy through the use of the Consistent Time (CT) and Audit Trail and Node Authentication (ATNA) profiles.

For more details on these profiles, see the IHE IT Infrastructure Technical Framework. Content profiles may impose additional requirements on the transactions used when grouped with actors from other IHE Profiles.

Z.5.2 Cross Enterprise Document Sharing, Media Interchange and Reliable Messages

Actors from the ITI XDS, XDM and XDR profiles embody the Content Creator and Content Consumer sharing function of this profile. A Content Creator or Content Consumer must be grouped with appropriate actors from the XDS, XDM or XDR profiles, and the metadata sent in the document sharing or interchange messages has specific relationships to the content of the clinical document described in the content profile.

Z.5.3 Notification of Document Availability (NAV)

A Document Source should provide the capability to issue a Send Notification Transaction per the ITI Notification of Document Availability (NAV) Integration Profile in order to notify one or more Document Consumer(s) of the availability of one or more documents for

retrieval. One of the Acknowledgement Request options may be used to request from a Document Consumer that an acknowledgement should be returned when it has received and processed the notification. A Document Consumer should provide the capability to receive a Receive Notification Transaction per the NAV Integration Profile in order to be notified by Document Sources of the availability of one or more documents for retrieval. The Send Acknowledgement option may be used to issue a Send Acknowledgement to a Document Source that the notification was received and processed.

Z.5.4 Document Digital Signature (DSG)

When a Content Creator Actor needs to digitally sign a document in a submission set, it may support the Digital Signature (DSG) Content Profile as a Document Source. When a Content Consumer Actor needs to verify a Digital Signature, it may retrieve the digital signature document and may perform the verification against the signed document content.

Z.6 Requirements of APHP Actors

This section describes the specific requirements for each Actor defined within this profile. Specific details can be found in Volume 1 and Volume 2 of the technical framework.

Z.6.1 Content Creator

1. A Content Creator shall be able to create an APL Document according to the spefications for that content profile found in PCC TF-2.
2. A Content Creator shall be grouped with the Time Client Actor, and shall synchronize its clock with a Time Server.
3. A Content Creator shall be grouped with the Secure Node or Secure Application Actor of the ATNA profile.
4. All activity initiated by the application implementing the Content Creator shall generate the appropriate audit trail messages as specified by the ATNA Profile. The bare minimum requirements of a Content Creator are that it be able to log creation and export of clinical content.
5. A Content Creator shall use secure communications for any document exchanges, according to the specifications of the ATNA profile.

Z.6.2 Content Consumer

1. A Content Consumer shall be able to consume an APL document.
1. A Content Consumer shall implement the View Option or Discrete Data import option, or both.
2. A Content Consumer that implements the Document Import or Section Import Option shall implement the View Option as well.
3. A Content Consumer that implements the View option shall be able to:
    a. Demonstrate rendering of the document for display.

b. Print the document.

c. Display the document with its original style sheet.

d. Support traversal of any links contained within the document.

4. A Content Consumer that implements the Document Import Option shall:

   a. Store the document.

   b. Demonstrate the ability to access the document again from local storage.

5. A Content Consumer that implements the Section Import Option shall offer a means to import one or more document sections into the patient record as free text.

6. A Content Consumer that implements the Discrete Data Import Option shall offer a means to import structured data from one or more sections of the document.

7. A Content Consumer Actor shall be grouped with the Time Client Actor, and shall synchronize its clock with a Time Server.

8. All activity initiated by the application implementing the Content Consumer shall generate the appropriate audit trail messages as specified by the ATNA Profile. The bare minimum requirements of a Content Consumer are that it be able to log views or imports of clinical content.

9. A Content Consumer shall log events for any views of stored clinical content.

10. A Content Consumer shall use secure communications for any document exchanges, according to the specifications of the ATNA profile.

Z.7 Content Modules

Content modules describe the content of a payload found in an IHE transaction. Content profiles are transaction neutral. They do not have dependencies upon the transaction that they appear in.

Z.8 Process Flow

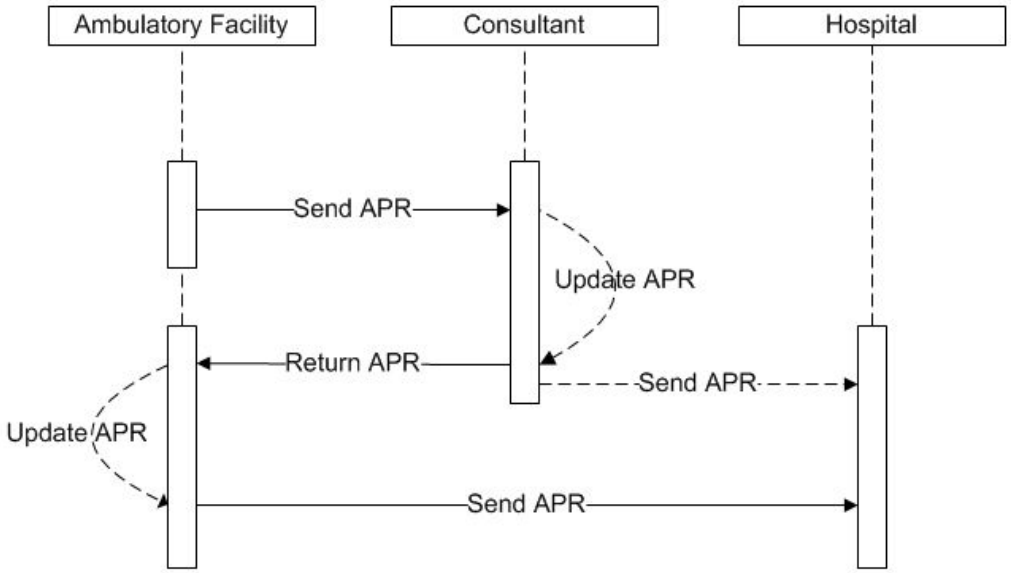

Figure 0-1 Antepartum Record Process Flow

This process flow diagram shows the movement of the Antepartum Record over the course of care for a pregnancy involving an ambulatory facility (obstetric provider), consultant and hospital (birthing facility). This diagram specifically excludes other infrastructure interactions for simplicity and readability. These infrastructure interactions may be found elsewhere in the framework.

Data from the patient's prenatal care aggregates into her electronic antepartum summary by the obstetric provider. The antepartum summary is then sent to a consultant who updates the antepartum summary, and returns it to the obstetric provider. The electronic antepartum summary is then sent to the birthing facility at the appropriate time(s). The consultant may also send the antepartum summary directly to the hospital.

Add the following to the Glossary

Abortion, Induced (AB, Induced)

Number of induced abortions by patient. An induced abortion is a deliberate termination of pregnancy.

Abortion Spontaneous (AB, Spontaneous)

Number of spontaneous abortions by patient. A spontaneous abortion is a natural loss of the products of conception.

Ectopic pregnancy

Number of ectopic pregnancies by patient. An ectopic pregnancy is the development of a fertilized ovum outside the uterus, as in a Fallopian tube.

Estimated Date of Delivery(EDD)/Estimated Date of Confinement(EDC)

Date of anticipated delivery (confinement).

Final/Corrected Estimated Date of Delivery (EDD)

Corrected EDD/EDC based upon parameters such as ultrasound, first auscultation of fetal heart tones, etc.

Full term

Number of babies the mother has delivered that were between 37 and 42 completed weeks of gestation.

Living Children

Number of living children of patient

Multiple births

Number of deliveries of more than one baby by patient

Premature

Delivery between 20 and 36 6/7 weeks gestation

Stillbirth

An infant delivered without signs of life after reaching mid-second trimester to full term gestational age. In the US this is usually after 20 or greater weeks gestation. In the UK this has been reported as an infant delivered without signs of life until after 24 weeks gestation.

Total Pregnancies

Number of total pregnancies

Antepartum History & Physical - Menstrual History

Birth Control Pills (BCP)

Oral contraceptives

Frequency

Duration of the monthly menstrual cycle; from first day of menses to the first day of next menses.

hCG+

Human Chorionic Gonadotropin pregnancy test.

LMP (last menstrual period)

Date measured as the first day of the patient's most recent menstrual period.

- Approximate (month known) - Patient is unsure of exact date but can offer an approximate date.
- Definite - Patient can say with certainty the date of her last menstrual period.
- Final - Finally agreed upon date of last menstrual period.
- Unknown - Patient does not know the date of her last menstrual period.

Menarche

Age at onset of initial menstrual period.

Menses Monthly

Menses is the monthly flow of blood and cellular debris from the uterus that begins at puberty and ceases at menopause.

Normal Amount/duration

Last menstrual was typical in amount and duration.

Prior Menses

Date of most recent menstrual period.

Antepartum History & Physical - Past Pregnancies

Anesthesia

The loss of the ability to feel pain caused by administration of a drug or other intervention.

Artificial Reproductive Technology (ART) Treatment

Fertility procedures in which both eggs and sperm are handled in the laboratory (in vitro) to establish a pregnancy.

Autoimmune disorder

An autoimmune disorder is a condition in which the body attacks its own tissues. (ACOG)

Birth weight

Weight of infant at birth.

Delivery Date

Date of delivery of patient's previous pregnancies.

Diethylstilbesterol (DES)

A synthetic nonsteroidal substance having estrogenic properties. It was once used to treat menstrual disorders and to prevent miscarriage but is no longer prescribed for these cases because of the occurrence of reproductive abnormalities and cancers in the offspring of women so treated.

D (Rh) sensitized

Rh negative mother is sensitized to the Rh D antigen. A sensitized mother produces IgG anti-D (antibody) that crosses the placenta and coats D-positive fetal red cells which are then destroyed in the fetal spleen.

Gestational Age weeks

The number of weeks elapsed between the first day of the last normal menstrual period and the date of delivery.

Infertility

Infertility primarily refers to the biological inability of a man or a woman to contribute to conception. Infertility may also refer to the state of a woman who is unable to carry a pregnancy to full term.

Kidney disease

Kidney disease is either a declining or a sudden loss in renal function.

Length of labor

The interval between onset of contractions and childbirth.

Place of Delivery

Hospital name, city and state if known.

Preterm labor

Labor that begins before 37 weeks gestation.

Pulmonary (TB, Asthma)

Diseases or disorders of the lungs, i.e. asthma, tuberculosis or other pulmonary problems.

Sex Male/Female

Sex/Gender of patient's previously delivered babies.

Type Delivery

Type of delivery in pregnancy: Vaginal (spontaneous, forceps, vacuum), Cesarean section (low-transverse, classical, low-vertical).

Urinary Tract Infection (UTI)

A urinary tract infection (UTI) is a bacterial infection that affects any part of the urinary tract.

Uterine Anomaly

Any uterine structural abnormalities.

Varicosities/Phlebitis

Swelling or inflammation of veins.

Antepartum History & Physical - Other elements:

Abdomen

Area of the body that lies between the chest and the pelvis and encloses the stomach, intestines, liver, spleen and pancreas

Adnexa

Appendages of the uterus which include the fallopian tubes, the ovaries and the supporting ligaments of the uterus.

BMI - Body Mass Index.

Measurement of the relative percentages of fat and muscle mass in the human body.

BP - Blood Pressure

Pressure exerted by the blood against the walls of the arteries, maintained by the contraction of the left ventricle, the resistance of the arterioles and capillaries, the elasticity of the arterial walls, and by the viscosity and volume of the blood.

Breasts

In humans, one of the paired regions in the anterior portion of the thorax. The breasts consists of mammary glands, the skin, the muscles, the adipose tissue and connective tissues.

Cervix

The lower, narrow end of the uterus, which protrudes into the vagina. (ACOG)

Diagonal Conjugate

The distance from the promontory of the sacrum to the lower margin of the pubic symphysis

Extremities

A bodily limb or appendage.

Fundus

The fundus of the uterus is the top portion of the uterus, opposite from the cervix. Fundal height, measured from the top of the pubic bone, is routinely measured in pregnancy to determine growth rates.

Gynecoid pelvic type

The normal female pelvis.

Heart

The hollow, muscular organ that maintains the circulation of the blood.

HEENT

Head, Eyes, Ears, Nose and Throat

Height

Measurement of stature

Lungs

Either of the pair of organs occupying the cavity of the thorax that effect the aeration of the blood.

Lymph nodes

Any of the accumulations of lymphoid tissue organized as definite lymphoid organs varying from 1 to 25 mm in diameter situated along the course of lymphatic vessels and consisting of an outer cortical and inner medullary part.

Rectum

The distal segment of the large intestine, between the sigmoid colon and the anal canal.

Sacrum

Triangular bone below the lumbar vertebrae.

Skin

Outer protective covering of the body

Spines

(Ischial Spines) Two parts of the maternal pelvis resulting from the bony processes projecting backward and medially from the posterior border of the ischium.

Subpubic arch

Arch formed by the conjoined rami of the ischia and pubic bones of the two sides of the body.

Teeth

one of the hard, calcified structures set in the alveloar processes of the jaws for the biting and mastication of food.

Thyroid

The thyroid gland. One of the largest endocrine glands in the body. This gland is found in the neck below the thyroid cartilage and at approximately the same level as the cricoid cartilage. The thyroid controls how quickly the body burns energy, makes proteins, and how sensitive the body should be to other hormones.

Uterus size

In pregnancy the uterine size is estimated in terms of weeks of gestation. e.g 12 weeks if the fundus reaches the top of the smphysis pubis or 20 weeks' gestation when the fundus reaches the umbilicus.

Vagina

The genital canal in the female, leading from the opening of the vulva to the cervix of the uterus.

Vulva

The external genital organs of the female, including the labia majora, labia minora, clitoris, and vestibule of the vagina.

Patient Weight

A measurement of mass.

The following terms are found in the Antepartum Laboratory document of the Antepartum Record:

1st Trimester Aneuploidy risk assessment (Free or Total) (I couldn't find a Loinc code for this so deleted from CDA Content module doc. How should I have handled this? Put back in and request a LOINC code?

Non-invasive screening for chromosomal abnormalities, such as Down syndrome, performed in the first trimester. Screening tests that uses a combination of fetal measurements (crown rump length and nuchal translucency) and maternal blood tests for beta-human chorionic gonadotropin (hCG) and pregnancy associated plasma protein (PAPP-A) to determine risk for trisomy 21, trisomy 13 and trisomy 18.

2nd Trimester serum screening

Non-invasive screening test for chromosomal abnormalities, such as Down yndrome, trisomy 18, or open neural defects. Blood test to measure alpha-fetoprotein (AFP), estriol, human chorionic gonadotropin (hCG) [free or total], and inhibin-A.

Amniocentesis (Amnio)

Percutaneous transabdominal puncture of the uterus during pregnancy to obtain amniotic fluid.

Amniotic Fluid (AFP) Test

A test to detect the presence of Alpha-fetoprotein in amniotic fluid.

Antibody screen

A blood test to detect antibodies against red blood cell antigens.

Anti-D Immune Globulin (RHIG)

Anti-D antibodies given to prevent sensitization to the RhD antigen on red blood cells.

Blood type

Test to determine blood group, i.e. A, B, AB or O

Chlamydia Test

Test done to detect the bacterium, Chlamydia trachomatis.

Cystic Fibrosis Screening Test

Test to detect gene mutations that cause cystic fibrosis.

Chorionic Villi Sampling (CVS)

A method of sampling the cells of the placental chorionic villi, done either transabdominally or transcervically.

D (Rh) Antibody screen

A blood screening test for presence of IgG antibodies to the Rh D antigen on red blood cells.

D (Rh) type

A blood test to detect the presence of the Rh D red blood surface antigen.

Diabetes screen

Laboratory test to screen for gestational diabetes.

Familial Dysautonomia

Autosomal disorder of the peripheral and autonomic nervous systems limited to individuals of Ashkenazic Jewish descent; clinical manifestations are present at birth and include diminished lacrimation, defective thermoregulation, orthostatic hypotension, fixed pupils, excessive sweating, loss of pain and temperature sensation, and absent reflexes; pathologic features include reduced numbers of small diameter peripheral nerve fibers and autonomic ganglion neurons.

Genetic Screening Test

Screening for genetic disorders, e.g. sickle cell, Thalassemia, Tay-Sachs, Canavan, cystic fibrosis, fragile X syndrome, or Duchenne’s muscular dystrophy.

Gonorrhea Test

Test to detect Neisseria gonorrhea

Group B Streptococcus Rectovaginal Culture (Group B Strep)

A test to determine the presence of group B streptococcus (streptococcus agalactiae) in the lower genital tract in pregnant women.

GTT (if screen abnormal)

Glucose Tolerance Test. Used to determine how quickly the body metabolizes blood sugar. Test to diagnose gestational diabetes mellitus.

HBsAg Test

Test for the detection of the surface antigen of the Hepatitis-B virus.

HCT/HGB/MCV

- HCT- Hematocrit – A blood test measuring the percentage of red blood cells found in a given volume of whole blood.
- HGB- Hemoglobin – A blood test measuring the level of the protein carrying oxygen in red blood cells.
- MCV - Mean corpuscular volume - The average volume of red blood cells calculated from the hematocrit red blood cell count

Hemoglobin Electrophoresis

A blood test done to measure the different types of hemoglobin. The test can detect abnormal levels of hemoglobin such as that found in sickle cell anemia.

HIV Test

A test to detect for the presence of antibodies to the human immunodeficiency virus.

HIV Counseling

Discussion with pregnant patient regarding Human Immunodeficiency Virus/ HIV status, risks and prevention strategies.

Karotype

Test done on cells/tissue to identify and evaluate the number, shape, and size of chromosomes.

MSAFP - Maternal Serum Alpha-Fetoprotein

A screening blood serum test on the mother for to determine the level of alpha-fetoprotein.

Multiple marker screening test

A maternal blood serum screening test for the detection of Down Syndrome, Trisomy 18, and neural tube defects in the fetus. The following analytes are measured: alpha-fetoprotein, human chorionic gonadotriopin, estriol, and inhibin-A. When the first three analytes are used, this is also called a maternal serum triple screen or a maternal serum quad screen when all four analytes are used.

Pap test

Cervical cytology test to determine abnormal cells of the cervix.

PPD Skin Test

Mantoux test with purified protein derivative to screen for exposure to tuberculosis.

Rapid Plasma Reagin (RPR)

A type of test that looks for non-specific antibodies in the blood of the patient that may indicate that the organism (Treponema pallidum) that causes syphilis is present.

Rubella Test

A blood test to detect the presence of antibodies against the rubella virus (German measles).

Tay-Sachs Screening Test

A blood test done to measure the amount of beta-hexosaminidase A or B activity in serum or white blood cells, or for the most common DNA mutations causing Tay Sachs disease.

Ultrasound

A radiologic study using sound waves used in the assessment of gestational age, size, growth, anatomy, and blood flow of a fetus or in the assessment of maternal anatomy and blood flow.

Urine Culture

A Test that it used to detect the presence of bacteria or other organism in the urine.

Urine Screen

A physical, chemical, and / or microscopic examination of the urine. It may be used to screen for / or to detect abnormal kidney function, kidney stones, urinary tract infections, or substance abuse.

Varicella Zoster Virus Antibody, IgG

A blood test to detect the presence of anti-varicella antibodies.

VDRL (Venereal Disease Research Laboratories)

A blood test to screen for the presence of antibodies against Treponema pallidum, the bacteria that causes syphilis.

The following terms are found in the Antepartum Education document of the Antepartum Record:

First Trimester

Alcohol

Discussion with patient about past and present use of alcohol and the perinatal implications of continued use during pregnancy; referral to treatment program if appropriate.

Anticipated Course of prenatal care

Discussion with the patient on the scope of care that will be performed in the office, lab work that may be performed, signs and symptoms that should be reported, anticipated schedule of visits, physician coverage of labor and delivery.

Childbirth classes/hospital facilities

Discussion with the patient on educational programs available for childbirth and hospital choice.

Domestic violence

Screening/Discussion with patient regarding physical threats/abuse/safety concerns; referral to appropriate counseling, legal and/or social advocacy program if appropriate.

Environmental/Work hazards

Discussion with patient about potential exposures to environmental agents at work, home, or locations that may affect pregnancy.

Exercise

Discussion with patient on appropriate level of exercise activities during the pregnancy.

Illicit/Recreational drugs

Discussion with patient about past and present use of illicit or recreational drugs and the perinatal implications of continued use during pregnancy; referral to treatment program if appropriate.

Indications for ultrasounds

Discussion with patient regarding reasons ultrasound test will be performed during pregnancy.

Influenza vaccine

Discussion with patient of risks/benefits of influenza and influenza vaccine.

Nutrition and weight gain counseling, special diet

Information about balanced nutrition, ideal caloric intake and weight gain.

Risk factors identified by prenatal history

Seatbelt use

Discussion with patient on use of seatbelts.

Sexual activity

Discussion with the patient of sexual activity: concerns, restrictions, warning signs and/or safe sex practices.

Smoking counseling

Discussion with patient regarding smoking cessation and smoke exposure.

Tobacco (Ask,advise,assess,assist,and arrange)

status; Advise patient to stop smoking; Assess patient's willingness to attempt to quit smoking; Assist patients who are interested in quitting by providing pregnancy specific cessation materials; Arrange follow up visits to track progress.

Toxoplasmosis precautions

Discussion with patient of risk factors for toxoplasmosis and precautions for avoiding/preventing infection.

Travel

Discussion with patient on travel precautions, if any.

Use of any medications (including supplements, vitamins, herbs or OTC drugs)

Discussion with patient of risks/benefits/safety of any medications currently used by patient.

Second Trimester

Abnormal lab values

Discussion with patient of lab results that fall outside normal range and that may require further testing.

Domestic violence

Screening/Discussion with patient regarding physical threats/abuse/safety concerns; referral to appropriate counseling, legal and/or social advocacy program if appropriate.

Influenza vaccine

Discussion with patient of risks/benefits of influenza and influenza vaccine.

Postpartum family planning/tubal sterilization

Discussion with patient of intended postpartum contraception options, including tubal sterilization.

Selecting a newborn care provider

Discussion with patient to identify newborn care provider; referral to resources to help patient choose provider if none previously identified.

Signs and symptoms of preterm labor

Discussion with patient on risks, signs and symptoms of preterm labor.

Smoking counseling

Discussion with patient regarding smoking cessation and smoke exposure.

Third Trimester

Anesthesia/Analgesia plans

Discussion with patient to determine intended method of pain management/discomfort during labor and delivery.

Breast or bottle feeding

Discussion with patient of nutritional advantages/disadvantages of human breast milk, bottled formula; advise on available lactation consultation services.

Circumcision

Discussion with patient on circumcision of male newborn.

Domestic violence

Screening/Discussion with patient regarding physical threats/abuse/safety concerns; referral to appropriate counseling, legal and/or social advocacy program if appropriate.

Family medical leave or disability forms

Discussion with patient about any forms the patient will need completed for employment or insurance purposes.

Fetal Movement monitoring

Discussion with patient regarding her perception and assessment of fetal movement.

Influenza vaccine

Discussion with patient of risks/benefits of influenza and influenza vaccine during pregnancy.

Labor signs

Discussion with patient on signs of labor, i.e. contractions, membrane rupture, bleeding, etc.

Newborn education (Newborn screening, jaundice, SIDS, car seat)

Prenatal discussion with patient of preventive public health screening procedures available to newborns; testing that will occur on baby after birth to screen for up to 30 disorders. Additional items may include infants risk for developing jaundice. Discussion of positioning of infant to reduce SIDS risk. Education regarding car seat safety.

Postpartum depression

Discussion with patient of signs of postpartum depression.

Postterm counseling

Discussion with patient of risks of pregnancy extending beyond 42 weeks.

Signs & Symptoms of Pregnancy-induced hypertension

Discussion with patient of signs and symptoms of hypertension.

Smoking counseling

Discussion with patient regarding smoking cessation and smoke exposure.

VBAC (Vaginal Birth After Cesarean) counseling

Discussion with patient of risks/benefits of vaginal birth after previous cesarean surgery.

History and physical have been sent to hospital

Notation of date and initials of person transmitting history and physical to hospital prior to delivery.

Tubal sterilization consent signed

Notation of date the consent form for tubal sterilization signed and the initials of person witnessing.

Volume 2

1 Preface to Volume 2

No changes to Final Text

2 Introduction

No changes to Final Text

3 IHE Transactions

No changes to Final Text

4 IHE Patient Care Coordination Bindings

No changes to Final Text

5 Namespaces and Vocabularies

Add the following to the IHE Format Codes table in Section 5.1.1

5.1.1 IHE Format Codes

The table below lists the format codes, template identifiers and media types used by the IHE Profiles specified in the PCC Technical Framework, and also lists, for reference purposes the same values for other selected IHE Profiles from other committees.

Profile	Format Code	Media Type	Template ID
2007 Profiles			
Antepartum Summary (APS)	urn:ihe:pcc:aps:2007	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.11.2
2008 Profiles			
Antepartum History and Physical (APHP)	urn:ihe:pcc:aphp:2008	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.16.1.1
Antepartum Laboratory (APL)	urn:ihe:pcc:apl:2008	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.16.1.2
Antepartum Education (APE)	urn:ihe:pcc:ape:2008	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.16.1.3

6 PCC Content Modules

6.1 Conventions

Add the following to the Folder Content Modules

6.2 Folder Content Modules

6.X.1 APR Folder Specification

The APR folder was defined in the APR profile for Trial Implementation in 2008. This is now deferred waiting for the profile to be rewritten.

Add Section 6.3.1.x: History and Physical Specification

6.3 HL7 Version 3.0 Content Modules

6.3.1 CDA Document Content Modules

6.3.1.1 Medical Documents Specification 1.3.6.1.4.1.19376.1.5.3.1.1.1

Add Section 6.3.1.y: Antepartum Summary Specification

6.3.1.y Antepartum Summary Specification 1.3.6.1.4.1.19376.1.5.3.1.1.11.2

The Antepartum Summary represents a summary of the most critical information to an antepartum care provider regarding the status of a patients pregnancy. The APS document is a medical summary and inherits all header constraints from Medical Summaries. The use case for this document is described fully in the APS Profile in PCC TF-1.

6.3.1.y.1 Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:pcc:aps:2007**

6.3.1.y.2 Standards

CCD	ASTM/HL7 Continuity of Care Document
CDAR2	HL7 CDA Release 2.0
ACOGAR	American College of Obstretricians and Gynecologists (ACOG), Antepartum Record
LOINC	Logical Observation Identifiers, Names and Codes
SNOMED	Systemized Nomenclature for Medicine

6.3.1.y.3 Data Element Index

This section maps the ACOG Antepartum Record to corresponding CDA sections as constrained by IHE.

ACOG Antepartum Record Datum	CDA Section	Trial
Drug Allergy/Latex Allergy	Allergies and Other Adverse Reactions	
Is Blood Transfusion Acceptable	Advance Directives	
Antepartum Anesthesia Consult Planned	Plan of Care	
Problems/Plans	Problems	Related plans should be listed in Plan of Care
Medication List	Active Medications	
EDD Confirmation/18-20 Week EDD Update	Estimated Delivery Dates	
Prepregnancy Weight	Visit Summary Flowsheet	
Visit Flowsheet	Visit Summary Flowsheet	

6.3.1.y.4 Specification

1385 This section references content modules using Template ID as the key identifier. Defintions of the modules are found in either:

- IHE Patient Care Coordination Volume 2: Final Text
- IHE PCC Content Modules 2009-2010 Supplement (For Trial Implementation)

Table 6.3.1-1

Data Element Name	Opt	Template ID	Vol 2
Allergies and Other Adverse Reactions This section is the same as for Medical Summary, however it SHALL include one observation of Latex Allergy which may be negated through the negationInd attribute. Latex Allergy is particularly relevant for Obstetrics because of the frequency of vaginal exams that might involve the use of latex gloves. The observation value code for Latex Allergy is '300916003'. The codeSystem is '2.16.840.1.113883.6.96'. The codeSystemName is 'SNOMED CT'	R	1.3.6.1.4.1.19376.1.5.3.1.3.13	PCC TF 2:6.3.4.13
Advance Directives APS includes an explicit check of patients preference for blood transfusion because the risk of massive hemorrhage during delivery is much higher. This observation SHALL be recorded in the Advance Directives section. APS Form C documents SHALL include a simple observation of "blood transfusion acceptable?" The observation value for this observation is '(xx-bld-transf-ok)'. The codeSystem is '2.16.840.1.113883.6.1'. The codeSystemName is 'LOINC'	R	1.3.6.1.4.1.19376.1.5.3.1.3.34	PCC TF 2:6.3.3.6.

Care Plan APS forms SHOULD include an observation stating if an anesthesia consult is planned. When present, the observation value for this observation is '(xx-anest-cons-pland)'. The codeSystem is '2.16.840.1.113883.6.1'. The codeSystemName is 'LOINC'. If the type of anesthesia planned is known, systems SHOULD include an observation to represent that data using the LOINC code '(xx-type-of-anesth-pland)' with a CD value including one of the following values: (General | Epidural | Spinal) or a Null flavor to represent unknown or not listed.	R	1.3.6.1.4.1.19376.1.5.3.1.3.31	PCC TF 2:6.3.3.6.
Medications Medications should include start and stop date if known.	R	1.3.6.1.4.1.19376.1.5.3.1.3.19	PCC TF 2:6.3.3.3.
Active Problems Related Plans should be included in the Plan of Care section.	R	1.3.6.1.4.1.19376.1.5.3.1.3.6	PCC TF 2:6.3.3.2.
Estimated Delivery Dates	R	1.3.6.1.4.1.19376.1.5.3.1.1.11.2.2.1	PCC CDA Supplement 2:6.3.3.2.28
Antepartum Visit Summary Flowsheet	R	1.3.6.1.4.1.19376.1.5.3.1.1.11.2.2.2	PCC CDA Supplement 2:6.3.3.9.3

Note: The Antepartum summary is typically used as a 'living document' where the latest information is added to the end of the flowsheet at each visit. This is different than a typical Medical Summary which typically would not share information until document is complete. Although this pattern of updates is not prohibited by Medical Summary, it is also not typical. For APS documents may be published at the end of each visit, but subsequent updates with a pregnancy SHALL be represented as document replacement by including a <relatedDocument typeCode='REPL'> element as below.

```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
    :
  <relatedDocument typeCode='REPL'>
    <parentDocument>
      <id root=' ' extension=' '/>
    </parentDocument>
  </relatedDocument>
    :
</ClinicalDocument>
```

6.3.1.y.5 Conformance

CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below. A CDA Document may conform to more than one template. This content module inherits from the Medical Summary content module, and so must conform to the requirements of that template as well, thus all <templateId> elements shown in the example below shall be included.


```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.2'/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.11.2'/>
  <id root=' ' extension=' '/>
  <code code=' ' displayName=' '
    codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC'/>
  <title>Antepartum Summary</title>
  <effectiveTime value='20080601012005'/>
  <confidentialityCode code='N' displayName='Normal'
    codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
  <languageCode code='en-US'/>
     :
  <component><structuredBody>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.13'/>
        <!-- Required Allergies and Other Adverse Reactions Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.34'/>
        <!-- Required Advance Directives Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.31'/>
        <!-- Required Plan of Care Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.19'/>
        <!-- Required Medications Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.6'/>
        <!-- Required Problems Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.11.2.2.1'/>
        <!-- Required Estimated Delivery Dates Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.11.2.2.2'/>
        <!-- Required Antepartum Visit Summary Flowsheet Section content -->
      </section>
    </component>
  </strucuredBody></component>
</ClinicalDocument>
```

Figure 6.3-1 Sample Antepartum Summary Document

Add Section 6.3.1.z: Antepartum History and Physical Specification

6.3.1.z Antepartum History and Physical Specification 1.3.6.1.4.1.19376.1.5.3.1.1.16.1.1

The Antepartum History and Physical contains a record of the History and Physical usually performed during the initial visit.

6.3.1.z.1 Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:pcc:handp:2008**

6.3.1.z.2 LOINC Code

The LOINC code for this document is **34117-2** HISTORY AND PHYSICAL

6.3.1.z.3 Standards

CDAR2	HL7 CDA Release 2.0
CCD	ASTM/HL7 Continuity of Care Document
CDTHP	CDA for Common Document Types History and Physical Notes (DSTU)

6.3.1.z.4 Data Element Index

Data Element	CDA Section	Comments
Header	Header	
Chief Complaint	Chief Complaint	
Pregnancy History	Pregnancy History	Summary (Gravida Para Abortus) and detailed history of pregnancies
Medical History	History of Past Illness	Exclude social and family history (included in other sections)
Medical History - Tobacco, Alcohol, Drugs	Social History	
Medical History - Relevant Family History	Family History	
Medications	Medications	
Allergies	Allergies and Other Adverse Reactions	
Menstrual History/Symptoms Since LMP	Review of Systems	
Genetic Screening/Teratology Counseling	Family History	

Infection History	Coded History of Infection	
Initial Physical Examination	Physical Exam (with subsections)	
Vital Signs	Vital Signs	subsection of Physical Examination
Diagnostic Findings	This section is required by CDA4CDT H&P - The requirement of the APR specification is to have the antepartum specific laboratory results in the APR Laboratory document. However, this type of data may also be included here.	

6.3.1.z.5 Specification

This section references content modules using Template ID as the key identifier. Defintions of the modules are found in either:

- IHE Patient Care Coordination Volume 2: Final Text
- IHE PCC Content Modules 2009-2010 Supplement (For Trial Implementation)

Table 6.3.1-2

Data Element Name	Opt	Template ID	Vol2
Spouse	R	1.3.6.1.4.1.19376.1.5.3.1.2.4.1	PCC CDA Supplement 2: 6.3.2.5
Natural Father of Fetus	R	1.3.6.1.4.1.19376.1.5.3.1.2.4.2	PCC CDA Supplement 2: 6.3.2.6
Ethnicity The ethnicity of the patient should be recorded	R2		
Chief Complaint	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1	PCC TF 2:6.3.3.1
History of Present Illness	R	1.3.6.1.4.1.19376.1.5.3.1.3.4	PCC TF 2:6.3.3.2
History of Past Illness This section is the same as it is for History and Physical, however it SHALL contain entries and SHOULD use codes as specified in the Antepartum History and Physical History of Past Illness Value Set. A negative diagnosis SHALL be recorded with the use of the negation indicator attribute. If the data is not present or not available within the system no entry is required.	R	1.3.6.1.4.1.19376.1.5.3.1.3.8	PCC TF 2:6.3.3.2
Coded History of Infection This section SHOULD use the codes specified in the Antepartum History of Infection Value Set (1.3.6.1.4.1.19376.1.5.3.1.1.16.5.6).	R	1.3.6.1.4.1.19376.1.5.3.1.1.16.2.1.1.1	PCC CDA Supplement 2:6.3.3.2.37
Pregnancy History This section SHALL use the existing Pregnancy History Section and follow all constraints as specified therein.	R	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4	PCC TF 2:6.3.3.2.18
Social History This section is the same as it is for History & Physical, however it SHALL contain coded entries and SHOULD use the codes specified in the Antepartum Social History Value Set. If the data is not present or	R	1.3.6.1.4.1.19376.1.5.3.1.3.16	PCC TF 2:6.3.3.2.14

not available within the system no entries are required.			

Coded Family Medical History This section is the same as it is for History & Physical, however it SHALL contain Genetic Screening and Teratology Counseling information as specified in the Antepartum Family History and Genetic Screening Value Set. If the data is not present or not available within the system no entries are required.	R	1.3.6.1.4.1.19376.1.5.3.1.3.15	PCC TF 2:6.3.3.2.13
Allergies and Other Adverse Reactions	R	1.3.6.1.4.1.19376.1.5.3.1.3.13	PCC TF 2:6.3.4.1
Review of Systems This section is the same as it is for History & Physical, however it SHALL include organizers for Menstrual History and MAY include entries for general review of systems data. The Menstrual History entries SHOULD use the codes specified in the Antepartum Menstrual History Value Set. The section code value for the Menstrual History organizer SHALL be '49033-4'. The codeSystem is '2.16.840.1.113883.6.1'. The codeSystemName is 'LOINC'.	R	1.3.6.1.4.1.19376.1.5.3.1.3.18	PCC TF 2:6.3.3.2.16
Physical Exam (with subsections) This section is the same as it is for History & Physical, and if Vital Signs data are present it SHALL include a Vital Signs subsection.	R	1.3.6.1.4.1.19376.1.5.3.1.1.9.15	PCC TF 2:6.3.3.4
Vital Signs If Vital Signs data are present they SHALL be included as a subsection of Physical Examination.	C	1.3.6.1.4.1.19376.1.5.3.1.3.25	PCC TF 2:6.3.3.4

6.3.1.z.6 Conformance

CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below. A CDA Document may conform to more than one template. This content module inherits from the History and Physical content module, and so must conform to the requirements of that template as well, thus all <templateId> elements shown in the example below shall be included.


```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.1.4'/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.1.1'/>
  <id root=' ' extension=' '/>
  <code code='34117-2' displayName='HISTORY AND PHYSICAL'
    codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC'/>
  <title>Antepartum History and Physical</title>
  <effectiveTime value='20080601012005'/>
  <confidentialityCode code='N' displayName='Normal'
    codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
  <languageCode code='en-US'/>
     :
  <component><structuredBody>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1'/>
        <!-- Required Chief Complaint Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.4'/>
        <!-- Required History of Present Illness Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.8'/>
        <!-- Required History of Past Illness Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.2.1.1.1'/>
        <!-- Required Coded History of Infection Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4'/>
        <!-- Required Pregnancy History Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.16'/>
        <!-- Required Social History Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.15'/>
        <!-- Required Coded Family Medical History Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.18'/>
        <!-- Required Review of Systems Section content -->
      </section>
    </component>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.15'/>
        <!-- Required Physical Examination Section content -->
      </section>
    </component>
    <component>
      <section>
```



```
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.25'/>
        <!-- Conditional Vital Signs Section content -->
      </section>
    </component>
  </strucuredBody></component>
</ClinicalDocument>
```

Figure 6.3-2 Sample Antepartum History and Physical Document

Add Section 6.3.1.a: Antepartum Lab Specification

6.3.1.a Antepartum Laboratory Specification 1.3.6.1.4.1.19376.1.5.3.1.1.16.1.2

The Antepartum Laboratory document SHALL follow all constraints as defined in the XD-LAB profile, as described in LAB TF-3:4. There is a suggested code list provided in the APR Laboratory Value Set. Due to the variation possible in these laboratory results and the potential for new codes representing new types of laboratory data a tightly constrained code list is not provided.Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:pcc:lab:2008**

6.3.1.a.1 LOINC Code

The LOINC code for this document is **26436-6** Laboratory Studies

6.3.1.a.2 Standards

CDAR2	HL7 CDA Release 2.0

6.3.1.a.3 Conformance

CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below. A CDA Document may conform to more than one template. This content module inherits from the XD Lab Report content module, and so must conform to the requirements of that template as well, thus all <templateId> elements shown in the example below shall be included.

```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root='1.3.6.1.4.1.19376.1.3.3'/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.1.2'/>
  <id root=' ' extension=' '/>
  <code code='26436-6' displayName='Laboratory Studies'
    codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC'/>
  <title>Antepartum Laboratory</title>
  <effectiveTime value='20080601012005'/>
  <confidentialityCode code='N' displayName='Normal'
    codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
  <languageCode code='en-US'/>
    :
  <component><structuredBody>

  </strucuredBody></component>
</ClinicalDocument>
```

Figure 6.3-3 Sample Antepartum Laboratory Document

Section 6.3.1b: Antepartum Education Specification

6.3.1.b Antepartum Education Specification 1.3.6.1.4.1.19376.1.5.3.1.1.16.1.3

The Antepartum Education document contains a list of patient education activities that have occured, or have been planned to review with the patient.

6.3.1.b.1 Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:pcc:edu:2008**

6.3.1.b.2 LOINC Code

The LOINC code for this document is **34895-3** EDUCATION NOTE

6.3.1.b.3 Standards

CDAR2 HL7 CDA Release 2.0

6.3.1.b.4 Specification

This section references content modules using Template ID as the key identifier. Defintions of the modules are found in either:

- IHE Patient Care Coordination Volume 2: Final Text
- IHE PCC Content Modules 2009-2010 Supplement (For Trial Implementation)

Table 6.3.1-3

Data Element Name	Opt	Template ID	Vol 2
Coded Patient Education and Consents This section SHALL follow all constraints as listed in the Coded Patient Education and Consents section, and SHOULD use the codes available in the Antepartum Education Code table.	R	1.3.6.1.4.1.19376.1.5.3.1.1.9.39	PCC CDA Supplement 2:6.3.3.8.2

6.3.1.b.5 Conformance

CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below. A CDA Document may conform to more than one template. This content module inherits from the Medical Documents content module, and so must conform to the requirements of that template as well, thus all <templateId> elements shown in the example below shall be included.


```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.1'/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.1.3'/>
  <id root=' ' extension=' '/>
  <code code='34895-3' displayName='EDUCATION NOTE'
    codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC'/>
  <title>Antepartum Education</title>
  <effectiveTime value='20080601012005'/>
  <confidentialityCode code='N' displayName='Normal'
    codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
  <languageCode code='en-US'/>
     :
  <component><structuredBody>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.39'/>
        <!-- Required Coded Patient Education and Consents Section content -->
      </section>
    </component>


  </strucuredBody></component>
</ClinicalDocument>
```

Figure 6.3-4 Sample Antepartum Education Document

