U.S. Department of Health and Human Services

Office of the National Coordinator for Health Information Technology

General Laboratory Orders

AHIC Extension/Gap

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1.0 Preface and Introduction

1.1 Background

In April and June of 2008, the American Health Information Community (AHIC) approved a recommendation to develop documents that address extensions/gaps from the use cases published between 2006 and 2008. One of the extensions/gaps prioritized for subsequent processing in the national health agenda activities in 2009 was General Laboratory Orders. AHIC specifically requested that the 2009 General Laboratory Orders Extension/Gap address the electronic exchange of general laboratory orders between Electronic Health Records (EHRs), Laboratory Information Systems (LISs), and other related systems, as well as the ability to link laboratory orders with laboratory results.

This extension/gap document is being developed by Office of the National Coordinator for Health Information Technology (ONC) to represent the AHIC priorities and provide context for the national health agenda activities, beginning with the selection of harmonized standards by the Healthcare Information Technology Standards Panel (HITSP). Components that need to be considered during the standards identification and harmonization activities include standardized vocabularies, data elements, datasets, and technical standards that support the information needs and processes of the clinician ordering the general laboratory test and the laboratory that is receiving and completing the general laboratory order. This document is the Final AHIC Extension/Gap. Feedback received on the AHIC Extension/Gap has been considered and incorporated into this document where applicable. HITSP has the opportunity to reuse standards, where applicable, from those previously recognized by the Secretary of Health and Human Services, to specify and constrain how they are to be used to advance interoperability and to work with standards development organizations to see that gaps in standards are filled.

1.2 Progress to Date

To date, the national health agenda, including the activities of AHIC and HITSP, has not formally addressed all of the interoperability considerations for the communication of general laboratory orders between clinicians and laboratories.

Previously published AHIC use cases incorporate several concepts that have been evaluated by HITSP and could be leveraged during standards harmonization for this extension/gap.

- The 2006 EHR – Laboratory Results Use Case includes the need for communicating laboratory results from an LIS to an EHR or other clinical system;
- The 2008 Personalized Healthcare Use Case includes the need for communicating clinician-initiated genetic/genomic laboratory orders from an EHR to an LIS;
- The 2007 Medication Management Use Case includes the need for communicating clinician-initiated medication orders from an EHR to a pharmacy;
- The 2006 Biosurveillance Use Case includes the need for communicating information about laboratory orders and results from laboratories to public health; and
- The 2008 Public Health Case Reporting Use Case includes the need for communicating and reporting laboratory test results to public health when specific reporting criteria are met. This use case also describes the need for communicating public health case reporting criteria for incorporation into EHR systems and utilization by clinicians.

2.0 Overview and Scope

2.1 Document/Request Overview

This extension/gap document is focused on the information needs to facilitate the electronic exchange of general laboratory orders. The 2009 General Laboratory Orders Extension/Gap Document is divided into the following sections:

- Section 1.0, Preface and Introduction, describes the progress to date, the additional priorities identified by the AHIC, the resulting extensions/gaps, and their purpose;
- Section 2.0, Overview and Scope, describes the sections of an extension/gap document, the request being made to HITSP, and the scope of that request;
- Section 3.0, Functional Needs, describes the combination of end-user needs and system behaviors that support interoperability and information exchange;
- Section 4.0, Stakeholder Communities, describes individuals and organizations that participate in activities described in this extension/gap;
- Section 5.0, Issues and Obstacles, describes issues and obstacles which may need to be planned for, addressed, or resolved to achieve the capabilities described in the extension/gap;
- Section 6.0, References to Use Case Scenarios, describes various scenarios and information exchanges that assist in the communication of information. Scenarios may re-used from previously published 2006 – 2008 Use Cases and/or new scenarios may be described;
- Section 7.0, Information Exchange, describes information exchange capabilities that are needed to support the scenarios and the high-level role of information exchange;
- Section 8.0, Dataset Considerations, identifies specific information opportunities relevant to this extension/gap document that may support future identification, development, and harmonization of standards;
- Appendix A, Glossary, provides contextual descriptions of key concepts and terms introduced in this extension/gap document; and
- Appendix B, Analysis and Examples, identifies specific data types, datasets, data elements, vocabularies, naming conventions, capabilities, and technical standards that may support future industry efforts in the identification, development, and harmonization of standards.

2.2 Scope

General laboratory orders includes the process whereby clinicians select and order laboratory tests and laboratories receive and process the order. The ordering clinicians, as well as the receiving laboratory staff may occupy inpatient, outpatient, private, public, or other settings. Placing and processing general laboratory orders may require information

regarding the patient, the laboratory order, and the specimen. Consumer-initiated ordering, also described as direct access to testing (DAT), the processing of specimens, and processes regarding prior-authorization (which are addressed in the 2009 Prior-Authorization Extension/Gap) are out of scope for this extension/gap. Also, as described in Section 1.2, this document describes the ordering of general laboratory tests. The completion and subsequent resulting of an order is described in the 2006 EHR – Laboratory Results Use Case.

Therefore, the requirements for the 2009 General Laboratory Orders Extension/Gap can be summarized as:

- The ordering clinician's ability to view, select, place, and communicate general laboratory orders; and The receiving laboratory's ability to receive, acknowledge, process, and communicate the status of a general laboratory order.

The identification, development, and harmonization of standards to support the interoperability associated with general laboratory orders has been preliminarily addressed. However, additional work with standards and professional organizations, care delivery organizations, and organizations providing information technology services and products to the healthcare industry is needed to support the interoperability needs associated with general laboratory orders. As mentioned in Section 1.0, the needs expressed here have not yet been fully addressed by the national health agenda's standardization efforts. Examples of gaps in industry standards are outlined in the upcoming sections of this extension/gap document.

3.0 Functional Needs

This section describes a combination of end-user needs and system behaviors to support the exchange of general laboratory orders. While all functions outlined in this section may not be relevant in today's information exchanges, standards that are identified, developed, and/or harmonized should support the functional needs outlined. Support for this exchange includes the development of interoperability standards for vocabularies, data elements, datasets, and other technical components that are implicit in these functional needs. Rather than an all-inclusive list of functional requirements, key capabilities are outlined below. The descriptions in this section are not intended to prescribe policy nor propose architectures required to implement capabilities.

A. The ability to review a listing of available general laboratory orders.

   i. When selecting orders, the clinician may need the ability to review a listing of the available general laboratory orders. These listings may be acquired through libraries of commonly used general laboratory orders. These listings of available general laboratory orders may be referred to as laboratory orders catalogues or compendiums of general laboratory orders. These catalogues or compendiums may be made available by the knowledge suppliers, the ordering entity, other healthcare entities, the receiving laboratory, other laboratories, laboratory associations, public health, or regulatory associations. A catalogue may simply include the names of available general laboratory orders and/or additional relevant information to assist both the ordering clinician and the receiving laboratory.

B. The ability to select a general laboratory order.

   i. Using the list of available general laboratory orders, the clinician may select and order general laboratory tests through an EHR or other clinical order entry system.

C. The ability to incorporate listings of available laboratory orders provided by external sources into an EHR or clinical order entry system.

   i. The listings of available orders, as described above, may be available through libraries of commonly used general laboratory orders. These libraries may also include ordering instructions and order requirements that may be specific to individual orders and/or groupings of orders. Depending on the source or the recipient of the catalogues or compendiums of tests, tests may be grouped using various methods. These groupings may provide information about a particular body system, a related bodily function, and/or the type of laboratory which may be capable of receiving the order and completing the test. Examples of these grouping may include, but are not limited to: anatomic pathology, microbiology, bio-chemistry, and hematology. In some settings, these groupings may be referred to as laboratory order types or laboratory order profiles.

ii. In addition, these groupings may also be based upon sets of specific individual tests and/or panels of tests which may be grouped by commonly ordered tests, order types, relevant pairings, and/or a combination. Panels may be composed of specific tests which are commonly grouped together in a set which assists in clinical practice (e.g., complete blood count (CBC).

D. The ability to uniquely identify: general laboratory order catalogues/compendiums, established groupings of general laboratory orders, and specific general laboratory orders. In addition, having the ability to appropriately associate these uniquely identified items with each other may be required.

i. Using the example of ordering a test for a CBC, the associated groupings may be available in the EHR, LIS, or other system. This grouping is not limited to but, may include a hematology order type, CBC panel, and red blood cell (RBC) count. The order type, panel, and specific test may all be individually and uniquely identified, as well as identified as being associated with each other.

E. The ability to receive information/instructions which may assist the clinician in ordering a general laboratory test and the laboratory processing the order.

i. As part of the ordering process, the clinician may receive instructions that may include information concerning indication for test, patient preparation, timing/sequence, and specimen collection. These instructions may be specific for an individual and/or may apply to a certain group of orders as discussed above in A.i. and D.i.

F. As part of the ordering process, the clinician may review information that is required and/or optional. The information may be furnished to the ordering clinician by the ordering, receiving, or accrediting organization. Information and instructional requirements may be established by the organization at any of the grouping levels discussed above (A.i. and D.i). As part of the ordering process, there may also be a need to obtain prior-authorization. This is addressed in the 2009 Prior-Authorization Extension/Gap.

G. The ability to provide required and optional order details by using pre-populated and/or manually populated fields within a general laboratory order.

i. Information requirements and instructions for laboratory orders in some cases may be referred to as “ask at order entry” and may be presented in various electronic formats including forms, templates, order entry formats, and requisitions. As described in A.i. and C.i. above, a listing of available general laboratory orders these forms/requisitions may be incorporated into EHRs.

ii. Depending on the system being used to place the general laboratory order, the information may be pre-populated, entered manually, and/or a combination of both, in order to complete the form/requisition. Examples of this information may include: patient demographics, test name, reason for test, order priority,

relevant clinical information, ordering clinician information, general specimen information, and billing or insurance information.

H. The ability to provide additional information regarding the general laboratory order.

   i. The laboratory may require additional information and may need to electronically request this information.

   ii. The clinician may also want to provide additional information to the laboratory. Depending on the system being used to place the general laboratory order, the additional information may be pre-populated, entered manually, and/or a combination of both. Examples of additional information may include instructions to the laboratory regarding a specified order or specimen.

I. The ability to modify and/or complete the general laboratory order.

   i. Intra-organizational policies and functionality will determine the exact steps an ordering clinician must follow to complete the placement or modification of a general laboratory order.

   ii. The ordering clinician may need to identify a specific laboratory which will process the laboratory test. This determination may be made based upon listings of available laboratory orders, insurance specifications, organizational policies or contracts, inter-organizational polices or contracts, local and/or state policies and regulations. The determination decisions may be made by the provider or others prior to reviewing and placing a laboratory order or may be a capability built into the process/system which is executed prior to or after a clinician places an order for a general laboratory test.

J. The ability to electronically communicate the general laboratory order or modified general laboratory order from the EHR or clinical order entry system to the appropriate laboratory.

   i. The laboratory order is communicated from the ordering clinician's system to the receiving laboratory. Depending on patient care needs, business needs, public health needs, and current regulations, the general laboratory order and accompanying information may also be communicated or forwarded to other recipients that may include but may not be limited to: other clinicians, reference laboratories, public health, personally controlled health records, and payors.

   ii. Depending on intra-organizational, local, and state policies and regulations, ordering clinicians may also benefit from the ability to sign or verify a general laboratory order before it is forwarded. Clinicians may also benefit from the ability to electronically notify and/or carbon copy (cc:) another clinician when ordering a general laboratory test.

   iii. Furthermore, during the ordering of a general laboratory test, clinicians may benefit from the ability to specify that the results of a general laboratory order be

forwarded to other clinicians. Specifics regarding the resulting and communication of results associated with lab orders are included in the 2006 EHR – Laboratory Results Use Case.

iv. During the placement or communication of the general laboratory order, clinicians may also benefit from the ability to perform duplicate checking. The clinician may be notified by the ordering system, or the receiving LIS, that a particular test has already been ordered.

v. Clinicians may also receive additional notifications. These notifications may be supported by decision support capabilities. While not the focus of this extension/gap, the use of decision support capabilities have been described in the 2007 Medication Management Use Case and the 2008 Personalized Healthcare Use Case.

K. The ability to electronically send an acknowledgement to the ordering clinician, communicating the receipt of the original or modified general laboratory order by the laboratory or LIS.

i. Intra-organizational policies and functionality will determine the exact steps a receiving laboratory will follow to acknowledge the receipt of a general laboratory order. This includes the laboratory and/or LIS having the ability to receive and acknowledge the general laboratory order, order modifications, and order cancellations. This acknowledgement should be communicated to the ordering clinician.

L. The ability to view patient or specimen information that is associated with the general laboratory order.

i. The laboratory receives the order along with any additional information provided by the clinician. The laboratory is able to associate an order, with the patient, specimen, and any additional general laboratory order information.

M. The ability to electronically communicate a modification to the general laboratory order.

i. As described, an ordering clinician may communicate a modification to a previously sent general laboratory order to the receiving laboratory. Similarly, there may be circumstances when the receiving laboratory may need to modify the general laboratory order. The modified general laboratory order along with any relevant information may be communicated to the ordering clinician.

ii. There may also be instances where the general laboratory order cannot be modified. In this case, the order for the general laboratory test may be cancelled by the ordering clinician and/or receiving laboratory and a new general laboratory order may be placed and communicated.

N. The ability to view the status of a general laboratory order.

i. A clinician and/or a laboratorian may need to view the status of a general laboratory order. This information could include status of specimen collection, status of processing, and a history of order modifications.

O. The ability to unambiguously associate an order to a test result.

i. A clinician and/or a laboratorian may need the ability to identify the specific test result associated with the general laboratory order. Specifics regarding the resulting and communication of results associated with lab orders are included in the 2006 EHR – Laboratory Results Use Case.

4.0 Stakeholder Communities

Examples of stakeholders who may be directly or indirectly involved in the exchange of general laboratory orders have been listed below. Specific descriptions of each type of stakeholder can be found in the previous 2006 – 2008 AHIC Use Cases.

Stakeholders that may be directly involved in the exchange of general laboratory orders may include: Ordering Clinicians, Clinical Support Staff, and Laboratories.

Stakeholders that may assist in laboratory order communication may include: EHR System Suppliers, Clinical Order System Suppliers, and LIS System Suppliers.

Stakeholders that may be sources or recipients of order information and/or order requirements may include: Patients, Consumers, Other Healthcare Providers, and Other Laboratories including Reference Laboratories, Suppliers of General Laboratory Catalogues/Compendiums, Knowledge Suppliers, Public Health, Government Agencies, Laboratory Organizations, and Healthcare Payors.

5.0 Issues and Obstacles

A number of issues in today's health information technology environment are obstacles to achieving the full potential of electronic health information exchange (HIE). Some general issues were described within the 2006 – 2008 AHIC Use Cases. Examples of specific issues and obstacles related to general laboratory orders are outlined below.

A. Order Names:

i. In order for clinicians, laboratories, and other entities to effectively exchange general laboratory orders, standard terminology, and naming conventions may be needed.

a. Without the ability to establish and utilize specific interoperable standards (e.g., LOINC, SNOMED, CPT, or other vocabularies identified by standard development organizations (SDOs)) it may be difficult to efficiently communicate general laboratory orders.

b. There may be instances, such as in research settings or settings that include evolving medical sciences (e.g., pharmacogenetics), where the laboratory order which is needed may not be available for selection. Without the ability to query for and include standardized orders, it may be difficult for healthcare entities to maintain and utilize standardized lists of laboratory orders.

B. Order Groupings:

i. In order to promote ordering efficiency, clinicians, laboratories, or other healthcare entities may categorize or group their orders using various methods. These groupings may provide information about a particular body system, related bodily functions, and/or the type of laboratory that may be capable of receiving the order and completing the test. Groupings may include the use of order types, profiles, panels, and other information.

a. Healthcare entities may differ on their groupings of orders. For example, while the category "microbiology" may be commonly used, there may be discrepancies on the classification of "virology" as a sub-classification under microbiology or as its own category. The classification and sub-classification of "immunology" is another example of this issue.

b. Information requirements concerning order details may be established by the organization at any of the grouping levels discussed above. While the groupings may be proprietary and/or highly specified to each organization, systems should have the ability to uniquely identify each grouping and appropriately associate groupings, as well as individual orders.

c. There may be groups of orders that require general or complex order details. The standardization of anatomic pathology (excluding cervical cytology/pap

smears and less complex derma-pathology) may be challenging because of its specialized information needs.

C. Order Details

i. In order for clinicians, laboratories, and other entities to effectively exchange general laboratory orders, standard order details and standard formats for the exchange of order details may be needed.

ii. Currently, there may be limitations in the information which an ordering or receiving organization/system can communicate, receive, or store.

iii. Without requirements regarding the electronic exchange of order details, it may be difficult to require organizations/systems to be able to communicate, receive, or store necessary general laboratory information.

D. Ordering Tests

i. In order for clinicians, laboratories, and other entities to electronically exchange general laboratory orders, systems which communicate the general laboratory order and systems which receive the general laboratory order for processing, the systems need to be able to communicate general laboratory information in a manner which complies with regulations.

a. If systems do not have capabilities to comply with regulations, specifically the ability to maintain privacy and security, it may be challenging to promote the electronic exchange of general laboratory orders and sensitive general laboratory orders.

E. Order Source and Identification:

i. For clinicians, laboratories, and entities to effectively exchange general laboratory orders, systems may need to be capable of generating unique order identifiers (e.g., order identifier, order update identifier, or date/time stamp).

a. If systems do not have capabilities to generate or utilize a combination of order identification information to uniquely identify an order, it may be difficult to effectively communicate general laboratory orders and link them to associated specimens and results.

b. If systems do not have the ability to denote the library/source from which the order name/code came, it may be difficult to effectively communicate laboratory orders across systems.

F. Order Communication and Forwarding:

i. The functional requirements expressed in this extension/gap document rely on the identification and utilization of appropriate information and triggers to complete the communication of general laboratory orders, notify or copy

clinicians in addition to the ordering clinician, and/or forward the general laboratory order to other appropriate entities or organizations.

a. Without the ability to determine, communicate, and incorporate general laboratory order requirements into EHRs, LISs, and other systems, it may be difficult to appropriately communicate, copy or, forward information to the correct clinician, clinical laboratory, reference laboratory, or public health.

b. There are regulations concerning the storage, transmission, or destruction of electronic health information. These regulations are inconsistent across federal, state, and local jurisdictions. Without consistent standards, the communication, copying, forwarding, or overall transmission of electronic health information may be inhibited

6.0 References to Prior Use Case Scenarios

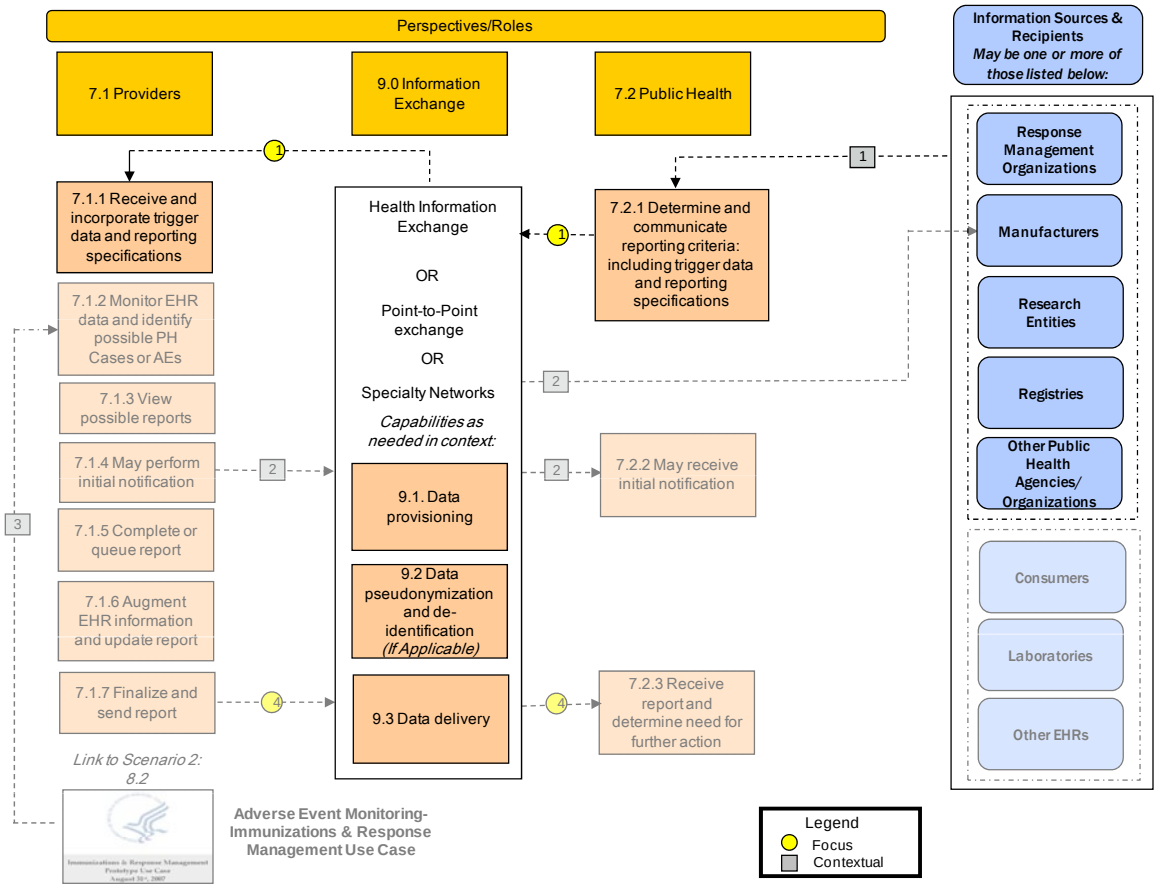
The 2009 General Laboratory Orders Extension/Gap Document focuses on the exchange of a core set of information between clinicians, care settings, and laboratories. Specific events and information exchanges have been selected from previous use cases for contextual purposes.

The 2008 Public Health Case Reporting Use Case contains a scenario that describes the communication of requirements by various sources and the incorporation of these requirements into EHRs. The 2008 Personalized Healthcare Use Case and the 2007 Medication Management Use Case contain scenarios that describe the communication of clinician-initiated orders. Included in this section are applicable copies of the scenarios and information flows from the Public Health Case Reporting, Medication Management, and Personalized Healthcare Use Cases.

The events and information flows in each of these use cases that are pertinent to the 2009 General Laboratory Orders Extension/Gap are shown in bold. All other events and information flows have been faded out.

6.1 Reference to Prior Use Case: 2008 Public Health Case Reporting (Scenario 1)

Figure 6-1. Reporting from EHRS

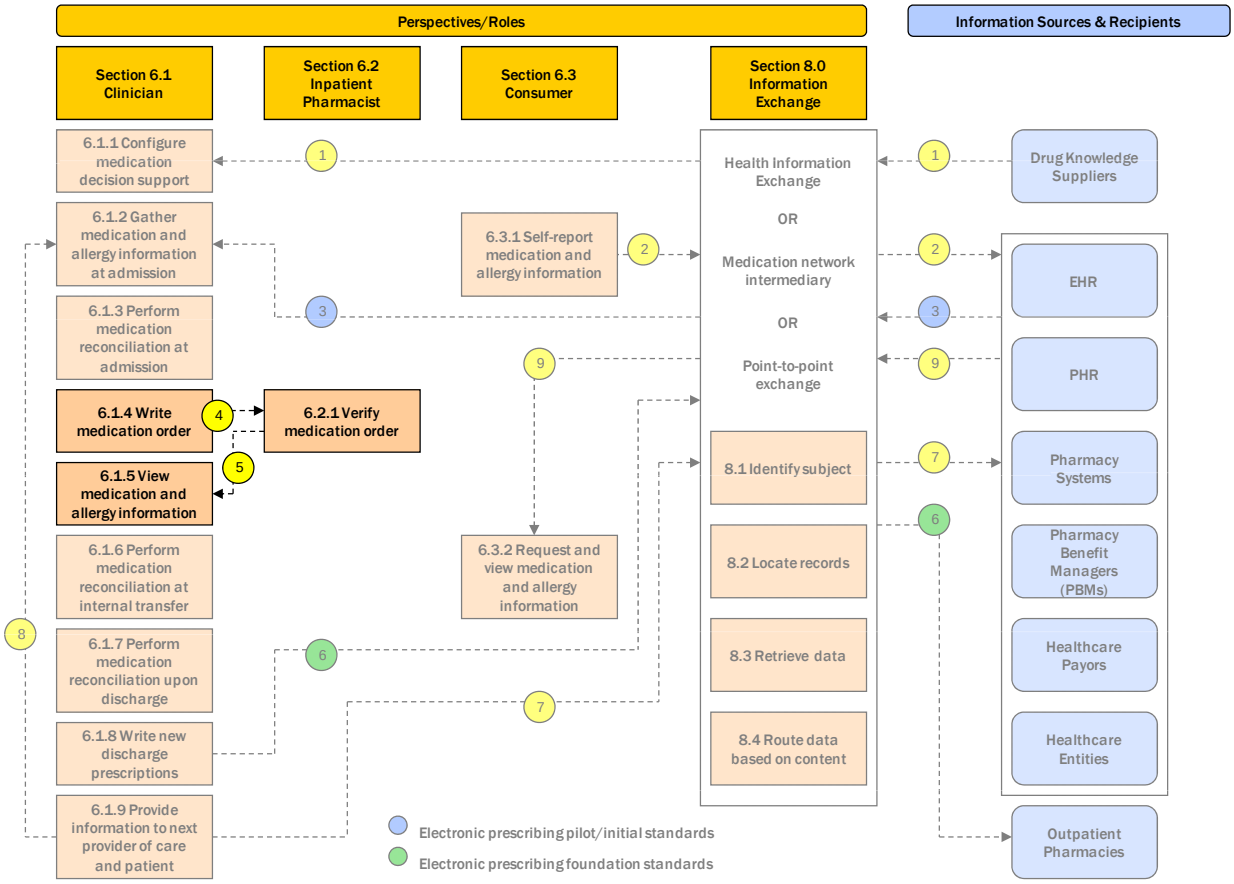


As expressed in the 2008 Public Health Case Reporting Use Case events 7.1.1, 7.2.1 and information flow 1, reporting criteria, including trigger data and reporting specifics, may be communicated via health information exchange activities and incorporated into provider systems (e.g., EHRs and/or public health systems).

In the case of general laboratory orders, Knowledge Suppliers/Sources may communicate order requirements via health information exchange activities. Order requirements may be incorporated from order systems (e.g., EHRs, laboratory systems, or LISs) Suppliers of order requirements may include healthcare entities, clinical laboratories, reference laboratories, laboratory associations, public health agencies, or public health associations. Therefore, information flow 1 should be referenced when addressing general laboratory orders.

6.2 Reference to Prior Use Case: 2007 Medication Management (Scenario 1)

Figure 6-2. Inpatient Medication Reconciliation

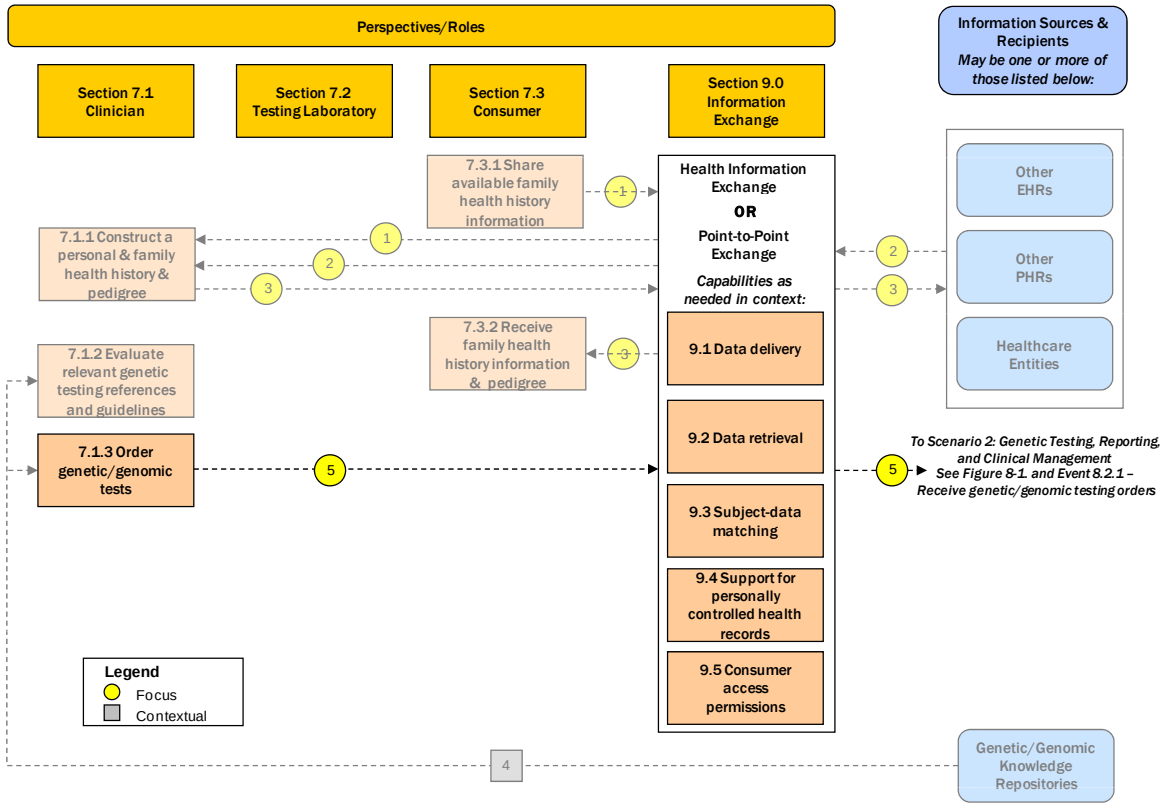


As expressed in the 2007 Medication Management Use Case Events 6.1.4, 6.1.5 and information flows 4 and 5, orders, including all order details, may be communicated directly between a clinician and an inpatient pharmacist.

In the case of general laboratory orders, in an inpatient setting a clinician may communicate general laboratory orders, including all order details, directly with an in-house laboratory. Therefore, information flows 4 and 5 should be referenced when addressing general laboratory orders.

6.3 Reference to Prior Use Case: 2008 Personalized Health Care (Scenario 1)

Figure 6-3. Clinical Assessment

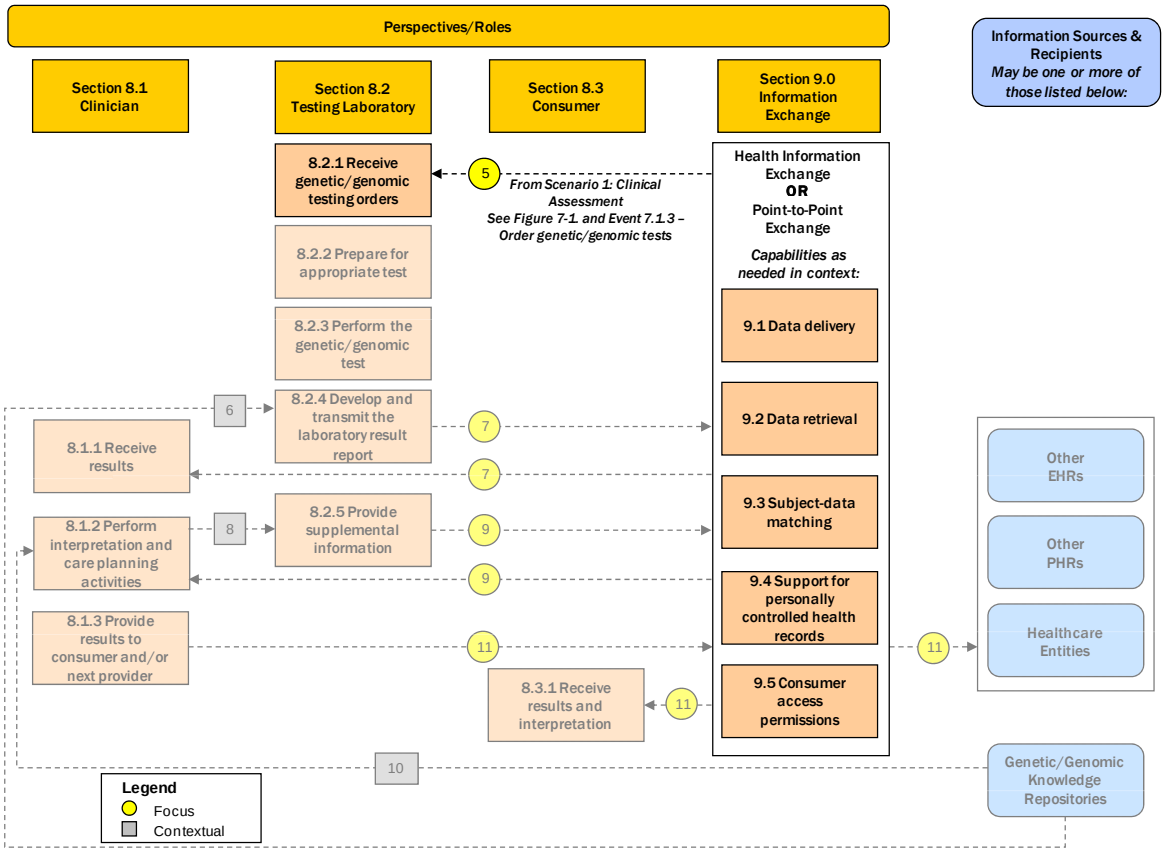


As expressed in the 2008 Personalized Healthcare Use Case Events 7.1.3 and information flow 5, orders, including all order details, may be communicated directly between a clinician and a testing laboratory using health information exchange activities.

In the case of general laboratory orders in an outpatient or public health setting, a clinician may communicate orders, including all general laboratory order details, using HIE activities to laboratories or public health. Therefore, information flow 5 should be referenced when addressing general laboratory orders.

6.4 Reference to Prior Use Case: 2008 Personalized Health Care (Scenario 2)

Figure 6-4. Genetic Testing, Reporting, and Clinical Management



As expressed in the 2008 Personalized Healthcare Use Case Events 8.2.1 and information flow 5, orders including all order details may be communicated directly between a clinician and a testing laboratory using health information exchange activities.

As described above in Figure 6-4, general laboratory orders, including all order details, using health information exchange activities may be communicated to laboratories or public health. Therefore, information flow 5 should be referenced when addressing general laboratory orders.

7.0 Information Exchange

The information exchange capabilities for the effective selection and communication of general laboratory orders may include:

- The ability to communicate general laboratory order requirements;
- The ability to generate, communicate, and/or translate a unique order identification number;
- The ability to route general laboratory orders appropriately;
- The ability to communicate general laboratory order status;
- The ability to communicate modifications to general laboratory order status; and
- The ability to unambiguously maintain a relationship between patients, specimens, general laboratory orders, and results.

Examples of information exchange capabilities described above and in Section 3.0 may include: Data Delivery, Routing, Data Retrieval, and Subject Data Matching. Descriptions of each of these are contained in the previous 2006 – 2008 AHIC Use Cases.

The functional capabilities may be provided fully or partially by a variety of organizations including: health information exchange organizations, integrated care delivery networks, provider organizations, health record banks, public health networks, specialty networks, and others.

While not described in this section, Health Information Exchange (HIE) and Point-to-Point exchanges assist in the completion of the processes described in this 2009 General Laboratory Orders Extension/Gap. Examples of HIEs and Point-to-Point exchanges can be found in the previous 2006 – 2008 AHIC Use Cases.

8.0 General Laboratory Orders Dataset Considerations

The following non-exhaustive information categories and limited examples illustrate some of the information needs outlined in this extension/gap document.

A. Laboratory Order Groupings – General laboratory orders may be categorized or grouped to support efficiency. Groupings may occur in various ways and may include the use of order catalogs, compendiums of orders, order types, order profiles, and order panels. Order types may include, but are not limited to: anatomic pathology, microbiology, bio-chemistry, and hematology. Order detail requirements may be determined for any of these order types and may include: order type classification, sub-classification, and/or specific order level. Determining standardized order details for complex anatomic pathology orders may be challenging. However, pap smear or general derma-pathology orders may be placed and communicated using standardized order details.

B. Laboratory Orders - Determining and standardizing all laboratory order names may not be practical. However, focusing on commonly used general laboratory orders such as those addressed by LOINC, CPT, SNOMED, the National Library of Medicine (NLM), or other SDOs may be valuable. Specific information that further describes the order should also be considered. This information may include:

i. Order Name

ii. Order Description

iii. Order Code

iv. Source of Order Code

v. Panel Test Inclusion

vi. Order Grouping

C. Laboratory Order Instructions – Various order groupings and specific orders may also include standard order instructions. Order instructions may have standard formatting and sequence and may include:

i. Ordering Indications

ii. Patient Preparation

iii. Specimen Collection

iv. Timing/Sequencing Information

v. Routing Instructions

D. Laboratory Order Details – Order detail requirements may be determined at the order grouping and/or specific order level. Standard order details may be required or optional depending on the order, the ordering entity, the needs of the receiving entity, or local, state, and federal regulations. Order details may include:

i. Patient – Identification Information

   a. Demographics
      (A) Gender
      (B) Age
      (C) Date of Birth
   b. Clinical History

ii. Patient – Clinically Relevant Information

   a. Chief Complaint/Reason for Visit
   b. Diagnosis or Preliminary Diagnosis
   c. Active Medications

iii. Order – Required and Optional Information

   a. Priority of Order
   b. Timing (frequency) of Order
   c. Source of Specimen
   d. Specimen Collection Method
   e. Date/Time Specimen was Collected
   f. Specific Public Health Information
   g. Ordering Clinician
   h. Instructions per Ordering Clinician

E. General Laboratory Order Communication and Status – Specific information that assists in the communication and tracking of a general laboratory order may be considered. This information may include:

i. System Generated Order Identification Information

ii. Order Grouping Identification Information

iii. Order Status

iv. Order Update, Modification, Cancellation

v. Associated Specimen & Result

Appendix A: Glossary

The 2006 – 2008 AHIC Use Cases contained general terms and their contextual descriptions. Listed below are the new terms that are specific to this extension/gap.

Clinical Order System Suppliers: Organizations that provide solutions which assist in the placing and receiving of general laboratory orders for clinicians and laboratories such as software applications and software services. These suppliers may include developers, providers, operators, and others who may provide these similar services.

Compendium of General Laboratory Orders: Listing of available general laboratory orders, or a collection of clinical laboratory orders and analyses, provided by or made available by the ordering entity, other healthcare entities, the receiving laboratory, other laboratories, laboratory associations, public health, or regulatory associations. The compendium may include the names of available general laboratory orders and/or additional relevant information that may assist both the ordering clinician and the receiving laboratory.

General Laboratory Order Catalogs: Libraries or collections of commonly used general laboratory orders.

General Laboratory Order Panels: Sets of tests that are grouped together to assist in ordering and clinical practice (e.g., Complete Blood Count (CBC)).

General Laboratory Order Profiles: Frequently ordered sets of individual tests and/or panels of tests in a variety of combinations, usually specified by a single laboratory or a commercial entity.

General Laboratory Order Types: Attributes of general laboratory orders that may help to specify the type of laboratory that will process the order.

General Order Details: Information that may be provided to more fully describe an order. These details may be used within an ordering template and may include data fields such as preliminary diagnosis, site of specimen collection, method of specimen collection, and testing instructions.

General Order Libraries: The listings of all possible general laboratory orders, including order types and order details that may be selected by a clinician and/or processed by a laboratory.

Knowledge Suppliers: Entities that use data, vocabulary, technology, and/or industry standards to provide information and tools that are made available to and executable by entities delivering health care.

Laboratory Accrediting Organizations: Organizations that may establish laboratory quality criteria and standards and may also use them to certify laboratory testing entities.

Laboratory Order Requisitions: Formal written order requests that can be paper or electronically generated. . They include self-adhesive labels that are put on the specimen tubes and may identify the following patient information: Patient's name, Date of order,

Patient's insurance, Patient's address, ICD-9-CM code, Test to be performed, Patient's Social Security Number, Patient's sex, Patient's date of birth, Review of ABN appropriateness, Review of Notices of Non-Coverage appropriateness, and Physician's signature.

LIS System Suppliers: Organizations that provide specific LIS solutions to clinicians and laboratories such as software applications and software services. These suppliers may include developers, providers, operators, and others who may provide these similar services.

Order Entry Format: The guidance that supports data entry related to the laboratory order and may be specific to an individual healthcare entity.