LOINC Content Change Highlights

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Overview

- New terms
- Term edits
  - Deprecated & Undeprecated terms
- Other project updates and content work

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1491 New LOINC terms for 2.61

- 772 lab
- 369 clinical
- 5 attachments
- 345 survey

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772 new laboratory terms

- 500+ in the MICRO class
  - Includes 260 Streptococcus pneumoniae Danish serotype terms (more on this later)
  - Veterinary terms
- 70+ in the PATH class
  - CAP Colorectal cancer panel
  - CAP Breast cancer panel
- 45 in ABXBACT
  - Bacterial resistance gene terms
- Additional new terms in CHEM, DRUG/TOX, HEME, BLDBNK, etc.

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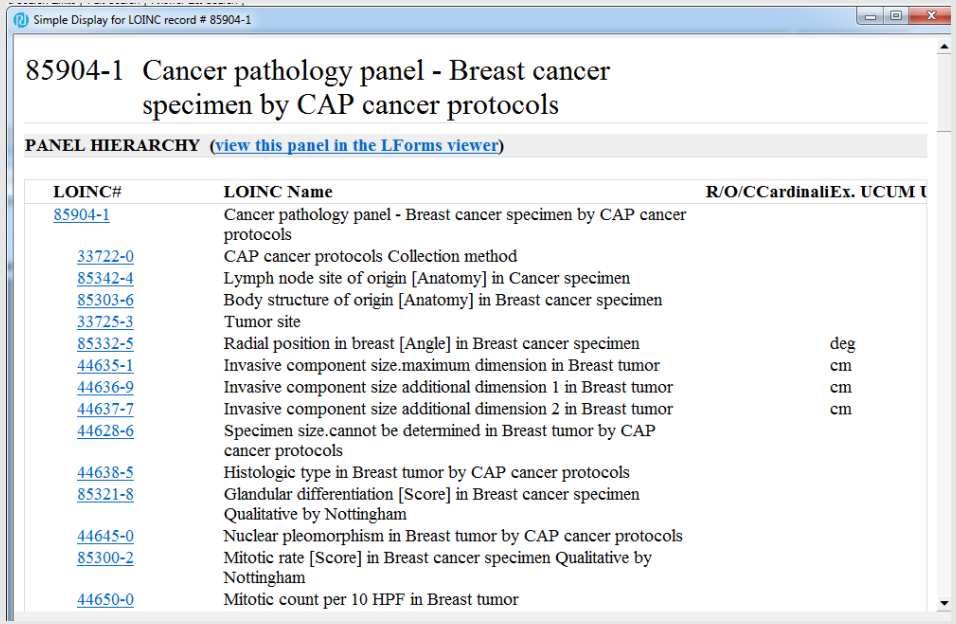
Laboratory term highlights

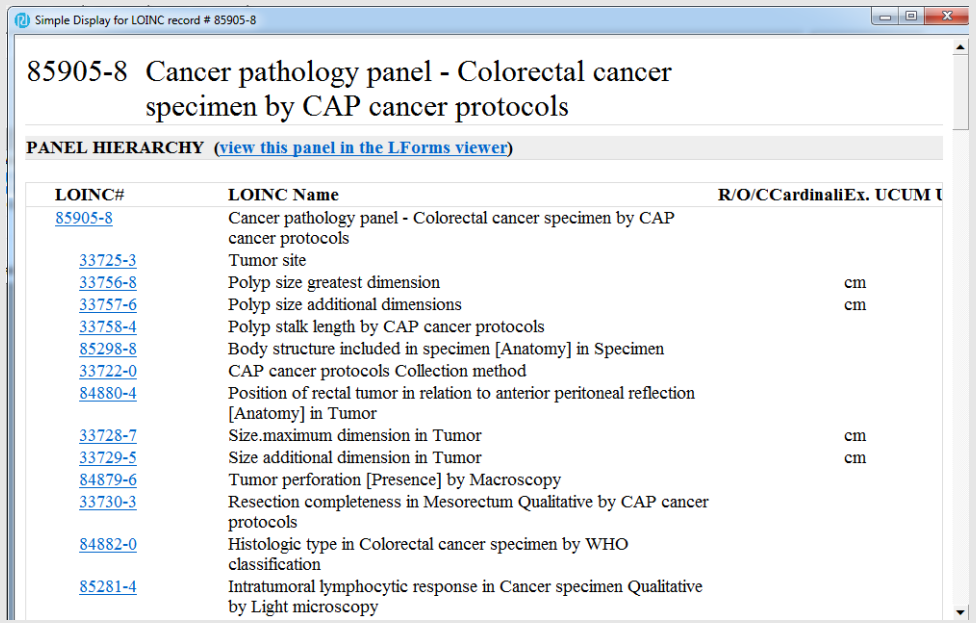
- CAP Colorectal and breast cancer panels


Simple Display for LOINC record # 85904-1

85904-1 Cancer pathology panel - Breast cancer specimen by CAP cancer protocols

PANEL HIERARCHY (view this panel in the LForms viewer)

LOINC#	LOINC Name	R/O/C	Cardinali	Ex.	UCUM U
85904-1	Cancer pathology panel - Breast cancer specimen by CAP cancer protocols				
33722-0	CAP cancer protocols Collection method				
85342-4	Lymph node site of origin [Anatomy] in Cancer specimen				
85303-6	Body structure of origin [Anatomy] in Breast cancer specimen				
33725-3	Tumor site				
85332-5	Radial position in breast [Angle] in Breast cancer specimen				deg
44635-1	Invasive component size.maximum dimension in Breast tumor				cm
44636-9	Invasive component size additional dimension 1 in Breast tumor				cm
44637-7	Invasive component size additional dimension 2 in Breast tumor				cm
44628-6	Specimen size.cannot be determined in Breast tumor by CAP cancer protocols				
44638-5	Histologic type in Breast tumor by CAP cancer protocols				
85321-8	Glandular differentiation [Score] in Breast cancer specimen Qualitative by Nottingham				
44645-0	Nuclear pleomorphism in Breast tumor by CAP cancer protocols				
85300-2	Mitotic rate [Score] in Breast cancer specimen Qualitative by Nottingham				
44650-0	Mitotic count per 10 HPF in Breast tumor				


Simple Display for LOINC record # 85905-8

85905-8 Cancer pathology panel - Colorectal cancer specimen by CAP cancer protocols

PANEL HIERARCHY (view this panel in the LForms viewer)

LOINC#	LOINC Name	R/O/C	Cardinali	Ex.	UCUM U
85905-8	Cancer pathology panel - Colorectal cancer specimen by CAP cancer protocols				
33725-3	Tumor site				
33756-8	Polyp size greatest dimension				cm
33757-6	Polyp size additional dimensions				cm
33758-4	Polyp stalk length by CAP cancer protocols				
85298-8	Body structure included in specimen [Anatomy] in Specimen				
33722-0	CAP cancer protocols Collection method				
84880-4	Position of rectal tumor in relation to anterior peritoneal reflection [Anatomy] in Tumor				
33728-7	Size.maximum dimension in Tumor				cm
33729-5	Size additional dimension in Tumor				cm
84879-6	Tumor perforation [Presence] by Macroscopy				
33730-3	Resection completeness in Mesorectum Qualitative by CAP cancer protocols				
84882-0	Histologic type in Colorectal cancer specimen by WHO classification				
85281-4	Intratumoral lymphocytic response in Cancer specimen Qualitative by Light microscopy				

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Laboratory term highlights (cont.)

- Veterinary terms

Mycoplasma flocculare

Mycoplasma hyopneumoniae DNA

Porcine reproductive and respiratory syndrome virus North American strain RNA

Porcine reproductive and respiratory syndrome virus European strain RNA

Porcine reproductive and respiratory syndrome virus Ingelvac MLV strain ORF5 gene

Porcine reproductive and respiratory syndrome virus Ingelvac ATP strain ORF5 gene

Porcine epidemic diarrhea virus S INDEL strain S gene

Porcine epidemic diarrhea virus prototype strain S gene

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369 new clinical terms

- 110 new RAD terms to match Fluoroscopy and Mammography terms in the RSNA Playbook
- 100 document ontology terms
- ~50 new terms for clinical history concepts related to CDC case reporting
  - Rubella
  - STDs
- Family Planning Report v2.0 (FPAR)
- Renal replacement therapy goals panel (in collaboration with NIDDK)
- Retinal nerve fiber layer thickness panel

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Clinical term highlights

86636-8 Family planning report - FPAR 2.0 set

PANEL HIERARCHY (view this panel in the LForms viewer)

LOINC#	LOINC Name	R/O/C	Cardinality	Ex. UCUM Units
86636-8	Family planning report - FPAR 2.0 set			
75524-9	Facility identifier			
68468-8	Attending physician NPI Provider			
86637-6	Provider role			
76427-4	Visit date			
86638-4	Patient demographic and administrative information pan			
76435-7	Patient identifier			
46098-0	Sex			
21112-8	Birth date			
69490-1	Ethnicity OMB.1997			
32624-9	Race			
77244-2	Which category represents the total combined income of the past 12 months?			
86639-2	Household size [#]			
52556-8	Payment sources			
76437-3	Primary insurance			
86640-0	Limited English proficiency Qualitative			
72166-2	Tobacco smoking status NHIS			
86641-8	Height, weight and blood pressure panel [FPAR]			
8302-2	Body height			
29463-7	Body weight			
8480-6	Systolic blood pressure			
8462-4	Diastolic blood pressure			mm[Hg]
86642-6	Pregnancy and contraception panel [FPAR]			
11977-6	[#] Parity			{#}
11996-6	[#] Pregnancies			{#}
82810-3	Pregnancy status			
86643-4	Information source for pregnancy status			
86645-9	Future pregnancy intention Reported			
86646-7	Ever had sex - Reported			
86647-5	Sex in the last 3 months - Reported			
86648-3	Sex in the last year - Reported			
86649-1	Birth control method at intake Reported --at intake			
86650-9	Reason for no birth control use Reported --at intake			

86635-0 Family planning report Document

NAME

Fully-Specified Name:

Component	Property	Time	System	Scale	Method
Family planning report	Find	Pt	{Setting}	Doc	{Role}

TERM DEFINITION/DESCRIPTION(S)

A family planning report contains demographic and social characteristics of individuals participating in a specific family planning program, such as the Title X National Family Planning Program administered by the U.S. Department of Health and Human Services, Office of Population Affairs (OPA). A family planning report may contain information on use of family planning and related preventive health services as well as staffing and revenue. Family planning data may be used to monitor site-specific performance and compliance with legal requirements and to guide future strategic and financial planning.

Source: Regenstrief LOINC

Clinical term highlights

85701-1 Rubella surveillance panel

PANEL HIERARCHY

LOINC#	LOINC Name
85701-1	Rubella surveillance
85694-8	Documentation of pre
85692-2	Year previously teste
85693-0	Previous rubella viru
85702-9	Mother Received vac
30952-6	Date and time of vac
30956-7	Type [Identifier] Vac
30957-5	Manufacturer name [
30959-1	Lot number [Identifie
30960-9	Number of previous
85714-4	Reason vaccine not r
77995-9	Date of first report to
77979-3	Case investigation sta
77980-1	Case is associated wi
77981-9	Case outbreak name
81267-7	Setting of exposure t
85700-3	Age and setting of ex
85719-3	Gestational age in we

85735-9 Congenital rubella case report panel

PANEL HIERARCHY (view this panel in the LForms viewer)

LOINC#	LOINC Name	R/O/C	Cardinality	Ex. UCUM Units
85735-9	Congenital rubella case report panel			
79378-6	Cause of death			
85699-7	Autopsy was performed			
85691-4	Autopsy result Narrative			
85724-3	Age of Mother --at delivery			a
85723-5	Mother attended a family planning clinic prior to conception			
75204-8	Prenatal care indicator [CDC.CS]			
75200-6	Mother's Date first prenatal visit			{mm/dd/yyyy}
85718-5	Prenatal care location from Mother			
85716-9	Rubella-like illness during the pregnancy in Mother			
85715-1	Month of pregnancy when rubella-like symptoms appeared in Mother			mo
85711-0	Rubella was serologically confirmed at time of illness in Mother			
85710-2	Mother Knows location of exposure to illness			
77984-3	Country of exposure to illness [Location]			
77985-0	State or province of exposure to illness			
77987-6	County of exposure to illness [Location]			
77986-8	City of exposure to illness			
85709-4	Traveled outside the U.S. during first trimester of pregnancy of Mother			
82764-2	Country of travel outside the U.S. [Location] 2 years			
85708-6	Mother Directly exposed to a confirmed case			
85707-8	Mother's Relationship to individual with confirmed illness			

345 new survey terms

- Primarily for CMS Assessments
  - Long-Term Care Hospital (LTCH) Continuity Assessment Record and Evaluation (CARE) Data Set (LCDS) - Planned Discharge - version 3.00
  - Inpatient Rehabilitation Facility – Patient Assessment Instrument (IRF-PAI) – version 1.4
- Minnesota Living with Heart Failure Questionnaire (MLHFQ)
- Kansas City Cardiomyopathy Questionnaire (KCCQ)
- Hip dysfunction and Osteoarthritis Outcome Score for Joint Replacement (HOOSJR)
- Knee injury and Osteoarthritis Outcome Score for Joint Replacement (KOOSJR)

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Survey term highlights

85654-2 Long-Term Care Hospital (LTCH) Continuity Assessment Record and Evaluation (CARE) Data Set (LCDS) - version 3.00 [CMS Assessment]

PANEL HIERARCHY (view this panel in the LForms viewer)

LOINC#	LOINC Name	R/O/C	Cardinality	Ex. UCUM Units
85654-2	Long-Term Care Hospital (LTCH) Continuity Assessment Record and Evaluation (CARE) Data Set (LCDS) - version 3.00 [CMS Assessment]			
85645-0	Long-Term Care Hospital (LTCH) Continuity Assessment Record and Evaluation (CARE) Data Set (LCDS) - Admission - version 3.00 [CMS Assessment]			
85636-9	Administrative Information			
58198-3	Type of Record			
54581-4	Facility Provider Numbers			
76468-8	National Provider Identifier (NPI)			
69417-4	CMS Certification Number (CCN)			
45398-5	State Medicaid Provider Number			
85632-8	Type of Provider			
54593-9	Assessment Reference Date			{mm/dd/yyyy}
52455-3	Admission Date			
52454-6	Reason for Assessment			
85816-7	Patient Demographic Information			
54503-8	Legal Name of Patient			
45392-8	First name			
45393-6	Middle initial			
45394-4	Last name			
45395-1	Suffix			
45966-9	Social Security and Medicare Numbers			
45396-9	Social Security Number			
45397-7	Medicare number (or comparable railroad insurance number)			
45400-9	Medicaid Number			
46098-0	Gender			
21112-8	Birth Date			{mm/dd/yyyy}
59362-4	Race/Ethnicity		1..6	
54505-3	Language			
54588-9	Does the patient need or want an interpreter to communicate with a doctor or health care staff?			
54899-0	Preferred language			
45404-1	Marital Status			

83265-9 Inpatient Rehabilitation Facility - Patient Assessment Instrument (IRF-PAI) - version 1.4 [CMS Assessment]

PANEL HIERARCHY (view this panel in the LForms viewer)

LOINC#	LOINC Name	R/O/C	Cardinality	Ex. UCUM Units
83265-9	Inpatient Rehabilitation Facility - Patient Assessment Instrument - version 1.4			
85395-2	Identification Information			
85396-0	Facility Information			
76696-4	Facility Name			
69417-4	Facility Medicare Provider Number			
45397-7	Patient Medicare Number			
45400-9	Patient Medicaid Number			
45392-8	Patient First Name			
45394-4	Patient Last Name			
52463-7	Patient Identification Number			
21112-8	Birth Date			{mm/dd/yyyy}
45396-9	Social Security Number			
46098-0	Gender			
59362-4	Race/Ethnicity		0..6	
45404-1	Marital status			
52539-4	Zip Code of Patient's Pre-Hospital Residence			
52455-3	Admission Date			
52456-1	Assessment Reference Date			
85397-8	Admission Class			
85398-6	Admit From			
85399-4	Pre-hospital Living Setting			
85400-0	Pre-hospital Living With			
85401-8	Payer information			
85813-4	Payment Source			
85402-6	Primary Source			
85403-4	Secondary Source			
85404-2	Medical Information			
85405-9	Impairment Group - Admission			
85845-6	Impairment Group			
85406-7	Impairment Group - Discharge			
85845-6	Impairment Group			
52797-8	Etiologic Diagnosis		1..3	
85585-8	Date of Onset of Impairment			{mm/dd/yyyy}
75618-9	Comorbid Conditions		0..25	

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Term edits for v2.61

- ~1200 updates to one of 6 major axes
  - Component
  - One of other major LOINC axes
- ~6000 updates to other fields such as long and short names, description, class, copyright

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Component edits

- 530 terms – even distribution across types
- Lab - mainly Strep pneumoniae terms
- Clinical - mainly to make the “lookback period” representation consistent
- Survey - mainly CMS

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Other major axis edits

- 650+ edits in 3 major categories
- ~45% radiology terms
- ~45% CMS terms
- ~10% pathology terms

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Other edits

- Descriptions, public change reason, class, copyright, etc.
- 5000 RAD name updates (moved modality to the beginning of the name) to align with RSNA naming model
- Name updates outside of RAD
  - Effort to shorten Long Common Names
    - FISH, DBS, removed “Bacterial” from Bacterial resistance gene term names
  - Removed parentheses around gene names (work in progress)

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Deprecated & Undeprecated terms

- 265 terms deprecated
  - Nearly all are Strep pneumo terms
- 12 California encephalitis virus terms undeprecated
  - Had been deprecated a few years ago because thought to be the same as La Crosse Virus
  - Upon further review, confirmed to be a distinct species in the CAL serogroup along with LaCrosse virus (LACV), Jamestown Canyon virus (JCV), Snowshoe Hare virus, and Trivitattus virus

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Streptococcus pneumoniae project

- Last fall, it was brought to our attention that Strep pneumo terms were ambiguous as to serotype designations
- Two serotype numbering systems – U.S. and Danish
- Serotype naming system (or the word “serotype”) not specified in Component
- Some information in term descriptions and related names, but not consistent

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Examples:

- Ambiguous
  - Streptococcus pneumoniae 9
    - Serogroup 9?
    - U.S. serotype 9/Danish serotype 9N?
  - Streptococcus pneumoniae 33
    - Serogroup 33?
    - U.S. serotype 33/Danish serotype 9A?
- Unambiguous
  - Streptococcus pneumoniae 51
    - Only possibility is U.S. serotype 51/Danish serotype 7F

Serogroup	Danish serotype	U.S. serotype
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6A	6
	6B	26
	6C	6C
	6D	6D
	6Eb	NDc
	6F	6F
	6G	6G
	6H	6H
7	7F	51
	7A	7
	7B	48
	7C	50
8	8	8
9	9A	33
	9L	49
	9N	9
	9V	68
33	33F	70

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Streptococcus pneumoniae project (cont.)

- Reviewed all Streptococcus pneumoniae terms in LOINC
  - Determined which terms are ambiguous
  - Which ones are not ambiguous
- Updated unambiguous terms to reflect Danish serotype (~80)
- Deprecated ambiguous terms and mapped to a set of new terms that reflect Danish serotype (~230)

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Streptococcus pneumoniae project (cont.)

- Added Technical Brief regarding Strep pneumo naming in the LOINC Users' Guide
- Added part description
- Added U.S. serotype number as a related name
- Added vaccines to related names for relevant serotypes ("PCV7", "PCV13", "PPSV23")
- Component: "Streptococcus pneumoniae Danish serotype {#}…"

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IEEE Collaboration update

- No updates since last release
- LOINC-IEEE mapping freely available with login on:
  - LOINC website as accessory file (https://loinc.org/downloads/accessory-files/)
  - NIST RTMMS site (https://rtmms.nist.gov/rtmms/index.htm#!hrosetta)
- Also can search in RELMA or http://search.loinc.org for:
  - `relatedcodes:IEEE* or relatedcodes:MDC_REL_HUMIDITY_MICROENV`
- Planning to work on remaining concepts in 11073-10101a before 2.62
- AMIA presentation in November
- Working closely with the HL7/IEEE workgroup on 10101b and 10101c content…will likely be balloted in 2017-2018, then added to LOINC

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RSNA Collaboration update

- As of 2.61…Completed mapping for all modalities in the RSNA Core Playbook other than RP (modality-agnostic radiology procedures)
- 9/2017…RSNA Core Playbook fully represented in LOINC!
- Most of LOINC radiology codes have been updated per the LOINC/RSNA unified model
- LoincRsnaRadiologyPlaybook file available as an independent download (https://loinc.org/downloads/accessory-files/)
  - Includes mappings between the LOINC radiology parts and RadLex codes for all LOINC radiology terms as well as the Core Playbook maps where relevant
- Can search for Core Playbook maps using “coreplaybook:true”

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CMS Assessment project update

- LCDS AND IRF-PAI completed and in version 2.61 release
  - 85654-2 Long-Term Care Hospital (LTCH) Continuity Assessment Record and Evaluation (CARE) Data Set (LCDS) - version 3.00 [CMS Assessment]
    - Admission
    - Planned discharge
    - Unplanned discharge
    - Expired
  - Inpatient Rehabilitation Facility – Patient Assessment Instrument (IRF-PAI) – version 1.4
- 9/2017
  - Outcome and Assessment Information set (OASIS) - pre-released
  - Minimum Data Set (MDS) – undergoing final review, will be pre-released in November

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Other content work

- Agreement with CAP to represent all of CAP cancer protocols in LOINC
- Beginning work with ICCR (International Collaboration on Cancer Reporting) on representing ICCR cancer protocols in LOINC
- Preliminary discussion with AJCC (American Joint Committee on Cancer)
- Work with NIDDK on terms related to chronic kidney disease
- Mapping answer strings to SNOMED CT
- Groups project
- Special topics workgroups
  - Spring 2017: System for genetic testing, Naming of PCR-based Methods, Gene targets for microorganism identification
  - Fall 2017: Cell marker terms, High-sensitivity troponin, Document ontology, Better names

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