## RSNA and Regenstrief Institute launch effort to unify radiology procedure naming — LOINC

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by Daniel Vreeman - last modified 2013-11-26 13:40

OAK BROOK, III. and INDIANAPOLIS (Nov. 26, 2013) -- Under a contract awarded by the National Institute of Biomedical Imaging and Bioengineering, the developers of two advanced medical terminologies have begun work to harmonize and unify terms for radiology procedures.



Creating standardized radiology procedure names will improve the quality, consistency and interoperability of radiology test results in electronic medical record systems and health information exchange.

The Radiological Society of North America (RSNA), which owns and maintains the RadLex™ medical terminology for radiology, and the Regenstrief Institute Inc., which owns and maintains the Logical Observation Identifiers Names and Codes, or LOINC®, terminology standard for medical tests and measurements, share the National Institute of Biomedical Imaging and Bioengineering award and are collaborating on the endeavor. The goal of the project is to produce a single unified source of names and codes for radiology procedures with a cooperative governance process. Today, each radiology practice typically creates and maintains its own list of procedure names and descriptions to use in ordering, performing, reporting and billing for services. The absence of shared names makes it difficult to compare radiology data between sites.

For example, one radiology group may call a procedure a thorax CT angiogram, while another may call the same procedure a chest CTA scan. Health information exchange requires a common terminology to ensure that medical data can be recorded, transferred and ultimately used when and where the patient needs it.

Widespread adoption of standard procedure names will promote a common understanding of procedures across care sites, simplify clinical and business processes, improve communications among providers, and enhance the quality and consistency of clinical data produced by radiology. Consistent naming will also facilitate decision support, outcomes analysis and other quality improvement initiatives.

The unification effort will be led by Curtis Langlotz, M.D., of the University of Pennsylvania and Daniel Rubin, M.D., of Stanford University, who have chaired the RSNA RadLex committees; and by Daniel Vreeman, D.P.T., of the Regenstrief Institute and Indiana University School of Medicine, who directs the development of LOINC.

"We welcome this opportunity to develop a common terminology for radiology procedure names and a single governance structure to manage future development," Dr. Langlotz said.

"This harmonization project is a crucial step to bringing the benefits of the RadLex standardized radiology terminology to all hospitals nationally and to enabling national initiatives relying on standardized names for radiology procedures," Dr. Rubin said.

"Regenstrief is eager to undertake this collaborative work because a comprehensive and widely adopted vocabulary standard will help make radiology procedure data available to clinicians when and where they need it," Dr. Vreeman said. "We believe that LOINC and RadLex complement each other and that a unified model will be mutually beneficial."

LOINC is a broader standard that covers tests and measurements in many medical domains. It is also more widely adopted, with users in more than 157 countries. RadLex has developed a more detailed information model that is tailored for radiology orders and results and that integrates

seamlessly with other terms in RadLex such as anatomy and visual features.

Unifying these two terminology systems will improve the content of LOINC and will facilitate adoption of RadLex in electronic medical records systems, national repositories and radiology reporting applications. Within the unified model being developed under this agreement, LOINC codes will be used as the primary identifiers for radiology procedures, with all attributes of the procedure names being linked to RadLex identifiers.

The 18-month National Institute of Biomedical Imaging and Bioengineering contract runs through March 2015, by which time the two organizations will have unified names for computed tomography procedures.

## About the Regenstrief Institute and LOINC

The <u>Regenstrief Institute</u> is a distinguished medical research organization dedicated to improving the quality and effectiveness of health care. The institute is the home of The Regenstrief Institute is a distinguished medical research organization dedicated to improving the quality and effectiveness of health care. The institute is the home of internationally recognized centers of excellence in biomedical and public health informatics, aging, and health services and health systems research. Institute investigators are faculty members of the Indiana University School of Medicine, other schools at Indiana University-Purdue University Indianapolis, or Purdue University.

LOINC was initiated in 1994 by the Regenstrief Institute and developed by Regenstrief and the LOINC committee as a response to the demand for electronic movement of clinical data from laboratories that produce the data to hospitals, physician's offices, and payers who use the data for clinical care and management purposes. LOINC's initial scope included laboratory and other clinical observations, and expanded to include radiology procedures in 2000. The current version of LOINC includes more than 72,000 terms, including laboratory tests, clinical measures like vital signs and anthropomorphic measures, clinical document titles, standardized survey instruments and more.



## About the Radiological Society of North America and RadLex

RSNA is an association of more than 53,000 radiologists, radiation oncologists, medical physicists and related scientists, promoting excellence in patient care and health care delivery through education, research and technologic innovation. The Society is based in Oak Brook, III. (RSNA.org) RSNA initiated work on RadLex in 2005 by bringing together representatives of more than 30 radiology professional and standards organizations. RadLex is a comprehensive medical lexicon (or ontology) for radiology, containing more than 30,000 terms.

The <u>Playbook</u> is a discrete component of RadLex, with procedure names organized by modality groupings. Each procedure name is composed of individual RadLex terms and follows a prescribed grammar for assembling these components and their attributes. The first comprehensive release of the Playbook was made earlier this year.



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