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Making the most of big data no easy task

A trillion base pairs of sequence here, a trillion there. Pretty soon, you're talking about a lot of information—and it all needs to be managed. That's the dilemma facing Mayo Clinic and other health care organizations leading the personalized medicine revolution that relies on compiling and analyzing patients' genetic code to better diagnose, predict, and treat disease.

"We generated 90 trillion base pairs of sequence last year," says Eric Wieben, PhD, director of Mayo's Medical Genome Facility in Rochester, Minn. "Gathering big piles of data is the easy part. It's trying to transform the data into knowledge that's the hard part."

"Right now, the different research groups [within Mayo] all have their own solutions, ranging from fairly sophisticated database applications to Excel spreadsheets and things that are even less capable than that," Dr. Wieben says. "It's more in silos than what we'd like from an institutional perspective."

But that approach is about to change. To make sense of the morass of genomic information across Mayo's three sites—Rochester, Jacksonville, Fla., and Scottsdale, Ariz.—the health system is implementing Oracle's Oracle Health

Sciences Translational Research Center platform.

"We'd like to have all that data in one place, have metadata on it, and be able to query across the domains of users and expertise that we have scattered across the institution," Dr. Wieben says. "The idea is to integrate. Let's set some standards on the data that's in there and make it possible to learn from our collective experiences."

The Oracle solution encompasses a growing list of more than 1,200 entities and 11,000 attributes that cover clinical, operational, research, and omics domains. In addition to Mayo, it is being used or installed at several other health care institutions, including University of Pittsburgh Medical Center, MD Anderson Cancer Center, and Moffitt Cancer Center.

Implementing such a solution can be a lengthy multistep process. A health care institution must purchase the platform and then populate it with data. Next, the institution's information technology experts must run tests to ensure the information is loaded correctly and that the platform can be searched and the information retrieved without error. "We're just beginning to get it populated," Dr. Wieben says. "We've set up the architecture to meet what we needed to do and [now] we're trying to get all the information loaded into the system."

"Since these [data sets] ultimately will be used for lots of different purposes," he continues, "our IT folks want to go through lots of error-checking routines and do this in a way that preserves the integrity of the data." The hope, Dr. Wieben adds, is to have the solution available for general use by the end of the year—two years after the project began.

The process for installing, populating, and using the Oracle platform is based on an organization's strategic needs, explains Dave Watson, global vice president of health care strategy at Oracle Health Sciences. Some organizations opt for the longer-term project of building and populating the platform with all the patient data they would like to query, covering not just genomics but other laboratory data, radiology, pharmacy, and more. Others focus on building it area by area for a quicker return on investment.

"It's fundamentally a business decision," Watson says. "Neither approach is wrong. It's just predicated on business model considerations, and different considerations yield different choices. We support either one."

Leica introduces software for secondary case review Leica Biosystems, in collaboration with Dell, has launched Aperio ePathAccess, cloud-based software that promotes collaborative review and quality assurance review by providing physicians with direct access to subspecialty pathologists at renowned U.S. health care institutions.

Users of Aperio ePathAccess can upload scanned slides and send them to the appropriate specialists for review via a scalable and secure cloud network.
The software is backed by Dell's global information technology infrastructure of dedicated health care data centers.

***Leica Biosystems**, 800-248-0123*

McKesson offering manages mobile devices

McKesson has launched Managed Mobile Services to help hospitals and other health care providers streamline and secure their mobile device networks. The application management tools are designed to simplify the complexities of mobile device management while helping to ensure application integrity and providing security to safeguard protected health information.
Service subscribers can manage personal and corporate smartphones, tablets, laptops, and other devices using a single, real-time, Web-based console. Managed Mobile Services can be incorporated into a health care provider's bring-your-own-device strategy or a corporate-owned device strategy.

Organizations can choose from two subscription-based offerings: a standard package, which provides tools to manage the application catalog, native email, and mobile devices at the device level, or an advanced package, which includes all the features of the standard package plus application wrapping and reputation scanning, as well as a secure content container, secure email gateway, and secure browser.

The new service is part of McKesson's Better Health 2020 strategy, which is designed to help organizations reduce costs, improve performance, ensure quality, coordinate care, and navigate complex patient models.

***McKesson**, 415-983-8300*

GenoLogics releases new version of LIMS

GenoLogics Life Sciences Software has released version 3.0 of its Clarity laboratory information management system, which is designed specifically for genomics laboratories.

Version 3.0 includes cloud-based features that ensure system security and patient data privacy. It also provides reagent and lot tracking, allowing laboratories to track and manage each reagent and its associated lot numbers as part of a workflow and ensuring that expired reagents and nonvalidated reagents and lots are not being used with clinical samples.

***GenoLogics Life Sciences Software**, 866-457-5467*

SCC lab system meets EHR certification criteria

SCC Soft Computer has reported that its SoftLab version 4.5.4 has achieved ONC HIT 2014 Edition Modular EHR Certification, which designates that the software is capable of helping eligible hospitals meet stages one and two meaningful use measures. SoftLab version 4.5.4 was certified by ICSA Labs, an Office of the National Coordinator-Authorized Certification Body.

***SCC Soft Computer**, 727-789-0100*

Sunquest announces installations

Sunquest Information Systems has reported that it will implement numerous information technology systems at facilities owned by Boston-based Partners HealthCare System.

Six Partners HealthCare hospitals will consolidate lab operations using a single Sunquest enterprise system. Partners will consolidate its anatomic pathology operations on Sunquest CoPathPlus at three sites and on Sunquest PowerPath at two sites. In addition, three of the sites will move to Sunquest Blood Bank. All of the locations will use Sunquest Collection Manager, CallBack, GenLab, and specimen management routing and tracking and microbiology modules.

***Sunquest Information Systems**, 520-570-2000*

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