The Future of Precision Healthcare at HIMSS 2017

Feb. 19, 2017 – At HIMSS 2017, Intel is showcasing the latest technologies developed to enable healthcare providers to deliver more personalized diagnosis and treatment plans, employ analytics to enable better outcomes, and improve patient satisfaction by engaging them in their own care. The technology will be on display in the Intel booth (#2661) Feb. 19-23.

Solving the Healthcare Puzzle: A Virtual Reality Experience
HIMSS attendees are invited to complete a set of three puzzle experiences using a virtual reality headset and controller to navigate Intel's amazing technological transformations, including:

- **Enabling Precision Health:** Intel and QIAGEN*, a leading provider of molecular diagnostic solutions, are enabling clinical genomic solutions that help hospitals accelerate the adoption of precision medicine. Doctors can pinpoint clinically significant mutations driving diseases and open the door for targeted treatment plans including novel clinical trials. This also empowers patients and may give them new hope. In this puzzle, participants create a double helix, the structure of DNA.
- **Creating Smart Connected Hospitals:** Intel's partnerships with DocBox*, Ergotron*, Oneview* and ProKarma* are creating the smart connected hospital of the future, improving both the physician and patient experience throughout the cycle of care. In this puzzle, participants assemble the building blocks of a hospital that is embracing digital transformation.
- **Optimizing Care Everywhere:** Intel is partnering with Big Cloud Analytics* to capture patient data outside of the hospital, transform that data into actionable insights, and ultimately can improve patient wellness wherever they are. In this puzzle, participants rebuild a jigsaw puzzle to reveal what healthcare transformation looks like when it is data driven.

QIAGEN Clinical Insight for Genomic Testing and Analytics
Leveraging the [Intel® Scalable System Framework](#) and QIAGEN's bioinformatics software, QIAGEN Clinical Insight (QCI) enables next-generation sequencing (NGS) genetic testing across a range of cancer, hereditary and rare diseases in an instrument-, platform-, assay- and pipeline-agnostic fashion. QCI "dry lab" bioinformatics capabilities are being utilized for:

- Accurate, cost-effective and high-volume clinical testing workflows across a broad range of disease indications, assays, and NGS platforms.
- Developing and deploying NGS testing at production scales for CLIA-CAP labs.
- Evidence-based clinical reporting with lab-specific testing policies, including easy and scalable implementation of recommended NGS interpretation guidelines from ACMG and AMP.
- Scalable NGS testing across sequencing, analysis, interpretation and reporting of screening, diagnostic and monitoring test offerings in provider settings.

Bedside Analytics with DocBox
Using an example patient, the Intel and DocBox bedside system and analytics platform demonstrates how clinicians and nurses can use real-time data to make better decisions. By actively collecting data from medical devices, the bedside system can be used to:

- Admit and discharge a patient to and from the DocBox system
- Add and remove connected devices
- Record clinical data and notes for a patient in the DICES Flowsheet Application

In addition to demonstrating data collection and visualization for a single patient, the DocBox bedside system enables broader data analysis capabilities with interactive clinical dashboards for both individual patients and hospital units, as well as an interactive hospital operations and logistics dashboard for analyzing hospital bed utilization, clinical operator tracking, and medical device utilization and health.

Enhancing Mobility for Better Clinical Workflows with Ergotron
Intel and Ergotron are collaborating on industrial designs to improve the user experience of mobile devices to streamline clinical workflows. Using wireless docking with Ergotron mobile carts, clinicians stay connected throughout the facility and shared workstations. Additionally, the Intel Unite® solution powers secure and wireless sharing for improved communication between patients and care providers.

Patient Engagement Solutions with Oneview
Intel and Oneview are developing a roadmap of joint solutions for best-in-class patient engagement across acute, elder care and community care environments. Using an Intel mini-PC to manage patient content and services, the bedside tablet used by both patients and clinicians enables:
- Wireless screen sharing with the patient from physician devices
- Access to infotainment, meal ordering and patient satisfaction services
- Sharing of care team information and care planning

Advanced Analytics to Manage Population Health with ProKarma
Healthcare organizations worldwide are shifting to value-based care models. To do this, predictive analytics are becoming a core component of population health programs. In many cases, this means having the ability to predict target events within a population, such as when a patient is at risk for developing a chronic condition, co-morbidity or unnecessary readmission. When risks are accurately identified, practitioners can apply appropriate interventions to improve clinical outcomes. Advanced analytics solutions utilizing machine learning and deep learning technology allow healthcare providers and payers to harness large and growing data sets in predicting risk and outcome probabilities for individual patients. Intel and ProKarma will walk through development of an analytics solution to predict risk of readmission and show how this and other solutions can be developed and deployed using the Intel-supported open source analytics initiatives.

End-to-End Healthcare Solutions with Big Cloud Analytics
The Intel-powered Health 360 Platform from Big Cloud Analytics extends care beyond the clinical or provider setting by leveraging wearable and connected devices, advanced analytics capabilities, and data visualization to better understand the impact of treatment plans and improve patient engagement overall with deployments across:
- **Clinical Trials:** The Health 360 Platform helps improve patient retention by extending the trial setting with wearables, enabling fraud detection and management of patient data.
- **Insurance and Healthcare:** Securely use connected devices – such as glucometers, scales, blood pressure cuffs – to engage or monitor participant populations.
- **Corporate Wellness:** Anonymously manage wellness to increase productivity, reduce absenteeism, lower insurance costs and engage with employees.

For more information about Intel Healthcare, visit https://newsroom.intel.com/healthcare/