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Solutions for your healthcare organization.

DECISION SUPPORT

SOLUTIONS

What are the Semedy solutions?

Our knowledge management software is designed for a number of the challenges facing the healthcare system. To better help you understand its wide range of benefits, we have designed a predetermined set of solutions for varying scenarios, or solutions. The solutions are designed for efficiency and scalability that provide significant competitive advantages. Each solution is available through our Clinical Knowlegde Management System (CKMS).

Who are the Decision Support solutions for?

The solutions provided through the CKMS software are suitable for advanced healthcare institutions, analytics and content engineering organizations, and precision medicine solution providers.

Where can I see how the solutions work?

Our team at Semedy will be providing live demonstrations of each solution during Virtual HIMSS20. If you are interested in seeing a solution in action, please sign up here:

himss20.semedy.com/solutions

Where can I find more information?

For more information on the Semedy knowledge management software, please visit semedy.com.

For inquiries, please contact himss20@semedy.com

PHARMACOGENOMIC INTERACTIONS

Semedy's pharmacogenomic interaction solution, available through the Clinical Knowledge Management System (CKMS), provides a centralized repository with all pharmacogenomic-related assets, including medications, genes, genotypes, alleles, and phenotypes. CKMS enables periodic updates to accommodate changes to reference sources providing users with notifications regarding updates. The system makes integration with other assets types such as pathways, order sets, and documentation templates possible. Through creation and management of pharmacogenomic interactions within CKMS, curation and governance are supported. Curated content can be extracted in a structured format for local system import. Ultimately, CKMS can also be a research tool for all pharmacogenomic-related information, assisting with the development of new data and knowledge assets.

IMPLEMENTATION

Implementation starts with installing the CKMS platform, and extract/transform/load (ETL) pipeline to periodically import pharmacogenomic-related content from various sources to create the comprehensive dictionary. Semedy's pharmacogenomic models can be extended to allow semantic connections to local or other reference sources such as FDA drug labeling, LOINC, RxNorm, NCI Thesaurus, and SNOMED CT. Presentation templates and queries can be customized to consolidate all information into a single view for local needs.

DEMONSTRATION

Demonstration of pharmacogenomic interactions solution includes content obtained from structured and unstructured files, and model representation for various reference sources. Using actual examples from Clinical Pharmacogenetics Implementation Consortium (CPIC) guidelines, authoring of pharmacogenomic interactions will be showcased, along with semantic connections between different sources and version history.

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CLINICAL DECISION SUPPORT

Semedy's clinical decision support (CDS) solution manages different kinds of CDS-related assets and their relationships to each other, all within a single repository. In addition to the CDS logical specifications, the CDS Solution can manage referenced medication, laboratory, procedure, observation, allergy, and diagnosis concepts; as well as associated synthetic patients, testing scripts, reference documents, clinical measures, patient cohorts (registries), order sets, queries, and reports. This allows an organization to:

- Create and maintain modularized CDS - by promoting re-use of components through increased transparency of what has been built previously
- Implement editorial policies and style guides - by creating queries, reports, and validation rules within CKMS that indicate when these policies and guides are not being followed
- Investigate, resolve, and even prevent CDS malfunctions - by exposing dependencies between CDS and other EHR components, semantic validation and continuous regression testing
- Implement a coordinated strategy for deploying related EHR functionalities, such as order sets, protocols, pathways, registries, and quality reporting - by linking the CDS to those other assets
- Share CDS - because the CKMS CDS catalog is mapped to industry standards, such as Fast Healthcare Interoperability Resources (FHIR), HL7 Knowledge Artifact (KNART), Object Management Group (OMG) Clinical Decision Support Service (CDSS), and HL7 Clinical Quality Language (CQL)
- Establish a continuous learning system - by making it easy to see how and why CDS has evolved, and implementing validation rules over time that prevent authoring errors

IMPLEMENTATION

Semedy's CDS solution includes preconfigured and extensible models, extract/transform/load (ETL) pipelines for input and/or export, convenient authoring templates, configurable views, queries, and reports. Source content is loaded and periodically refreshed using our ETL framework. With periodic refreshes from source repositories, or updates of target downstream clinical information systems, CKMS becomes the central repository for read-only or read-write CDS-related content activities.

DEMONSTRATION

The demonstration includes how CDS can be represented as narrative, structured, or executable specifications; how CDS can be searched, queried, and validated using the platform's built-in semantic reasoner; and how CDS-related interdependencies can be proactively monitored to detect, correct, and prevent content-related malfunctions.

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ELECTRONIC QUALITY MEASURES

A measure is the set of instructions to reproducibly and reliably report on a specific characteristic of a defined population. Electronic quality measures are characteristics computed from the electronic health records of a patient population that indicate how well the population is being cared for. Semedy's Electronic Quality Measures Solution allows an organization to:

- Create, validate, and share specifications of electronic quality measures, whether in narrative, structured, or computable format
- Specify measures with re-usable building blocks (e.g. cohorts) assembled into numerator or denominator inclusions, exclusions, and exceptions (see patient cohorts solution)
- Compute measures for simulated or test patients (see synthetic health data solution)
- Align quality measures with clinical decision support interventions (see CDS solution)

IMPLEMENTATION

Semedy's Electronic Quality Measure solution includes preconfigured and extensible models, extract/transform/load (ETL) pipelines for input and/or export, convenient authoring templates, configurable views, queries, and reports. Source content is loaded and periodically refreshed using our ETL framework. Electronic measures can be loaded from an external source, such as public or government repositories; cloned and modified from existing content; or created de novo.

DEMONSTRATION

The demonstration includes how measures can be represented as narrative, structured, or executable specifications; how measures can be searched, queried, and validated using the platform's built-in semantic reasoner; and how this solution seamlessly integrates with Semedy's patient cohorts, CDS, metadata management, and synthetic health data solutions.

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CONTACT US

Interested in learning more about Semedy?
Please contact us at **himss20@semedy.com**

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