ORACLE HEALTHCARE DATA REPOSITORY

Oracle Healthcare Data Repository helps healthcare organizations reduce costs and improve outcomes by making patient information interoperable, accessible, and reusable. It enables health information exchange, clinical decision support, quality measurements, and new application development for authorized users.

“Making Healthcare Data Useful”

Oracle Healthcare Data Repository is the foundation of a healthcare information exchange platform to “make healthcare data useful” by supporting the integration and operation of a full spectrum of applications. With Oracle Healthcare Data Repository, the complete continuum of healthcare organizations – from care providers and insurers to national and regional health initiatives, government bodies, and public health agencies – can more effectively integrate, manage, deliver, and display information to improve the planning, provision, and financing of care. The platform couples a comprehensive standards-based data repository with a robust set of integrated services for data normalization, customer-defined security and auditing, and business process enablement. This powerful combination makes meaningful data consolidation, rapid application development on Web services, and genuine system interoperability possible.

Integrated, Interoperable, Comprehensive, Standards-Based Data Model

Oracle Healthcare Data Repository unlocks data from isolated systems by serving as the platform for data consolidation and for building custom healthcare applications. It enables integrated views of patient healthcare information that result in improved care. Oracle Healthcare Data Repository supports discrete clinical data such as lab results, inpatient encounters or ambulatory visits, as well as more complex structures required for computerized physician order entry applications and patient summary documents (e.g. Continuity of Care Documents (CCD), Discharge Summaries).

Internal Healthcare Organization Data Sharing

Healthcare organizations have multiple operational systems and numerous interfaces between them. In many instances, clinical, administrative, and financial systems operate independently of other systems and data is collected in silos. Different operational systems may result in disparities within a healthcare setting when collecting the following types of data:

- Patient medical history
- Patient medications – prescriptions, history, administrations, dispenses
- Patient allergy – drug, food, environmental
- Patient concerns/problems
- Consolidated patient documents – Discharge Summary, CCD, other summary documents
- Provider work list
The information within these listings is essential to providing patient care. Yet current systems in the market are limited in their abilities to adequately provide these details due to disparities in the data and difficulties in pulling together combined healthcare data views. The challenges include differences in the discrete data due to multiple coding terminologies, brand vs. generic drug names, test mnemonics, abbreviations, transcribed documents, and other information unique to care delivery sources. The challenges of accessing, assembling, normalizing, cross-referencing, and presenting this data is overwhelming for most healthcare organizations.

Oracle Healthcare Data Repository provides a complete, centralized and normalized data source for viewing this information via a portal or other healthcare application. In addition, it can also serve as a robust platform for developing transactional applications. The “normalization” features of Oracle Healthcare Data Repository can simplify the challenges of data aggregation at both a discrete and an aggregate level.

Oracle Healthcare Information Exchange

Healthcare organizations are exchanging information on a daily basis with affiliates ranging from referral provider networks, public health agencies, and evolving regional healthcare organizations. Increased attention to bio-surveillance, pay-for-performance initiatives, and disaster preparedness all require some level of healthcare information sharing with external organizations. These maturing efforts can take on many forms, from newly formed national Electronic Health Record (EHR) initiatives to existing or evolving public health reporting relationships. Oracle Healthcare Data Repository, in conjunction with other Oracle Healthcare Information Exchange technologies, can be used to address these requirements. Oracle Healthcare Data Repository may be used with any master person index, portal product, or integration service to deliver key healthcare information to other organizations. The use of Oracle Healthcare Data Repository’s interoperability features will assure that the data can be both delivered and understood by the other systems within the network.

Secondary Use of Data

There are many use cases for data that has been aggregated, consolidated, and normalized. Oracle Healthcare Data Repository serves as a multi-use repository that can provide a single source of truth for many healthcare business purposes. The most common data reuse scenarios are in enterprise healthcare analytics and patient recruitment.

Oracle Healthcare Data Repository can serve as a repository for consents, specimen, or other associated biobank clinical data. It can support the storage of clinical information that would be used in the development of screening tests for biomarkers, aid in identifying and validating drug targets, identify patient populations for conducting research via direct use of its query features, or as an operational store that can be integrated with analytic tools to build systems that support research efforts.

Oracle Healthcare Data Repository can serve as the single normalized store for data that can be used to identify candidates for research by aggregating and normalizing patient consent and detailed clinical data related to the patient’s condition, diagnosis, symptoms, medication profile, etc. Aggregating this data streamlines the patient recruitment process.

In addition, Oracle Healthcare Data Repository serves as an operational data store to manage the detailed source data from disparate sources with diverse terminologies. It normalizes the source data and terminologies prior to building a data warehouse, producing reports, and using analytical tools. This will result in streamlining the process of data capture, integration and data transformation.
XDS Document Repository

Oracle Healthcare Data Repository is a Certified IHE XDS Document Repository and can perform in that role as part of an IHE architectured solution. It includes web services for creating, storing, sharing, and registering documents within the IHE architecture. These services include the ability to query discrete data in Oracle Healthcare Data Repository and to create new documents (e.g. CCD). In each instance, it uses IHE-specified web services for sharing documents between systems. An important advantage of the document repository is the unique features that support parsing data from structured documents and then storing this detailed data in Oracle Healthcare Data Repository. These services are unique to Oracle Healthcare Data Repository, but are often required when customers want to reuse the data within the document for analytic or other healthcare business purposes.

Fast Healthcare Interoperability Resources (FHIR)

Oracle Healthcare Data Repository supports Fast Healthcare Interoperability Resources (HL7® FHIR® standard), release 4. It includes support of new instances of FHIR® data persistence, querying of persisted FHIR® resources by Object ID, versions and standard search criteria, updates and deletions of previously persisted FHIR resources all through REST APIs as well as ingestion of resources through the FHIR® Bundle.