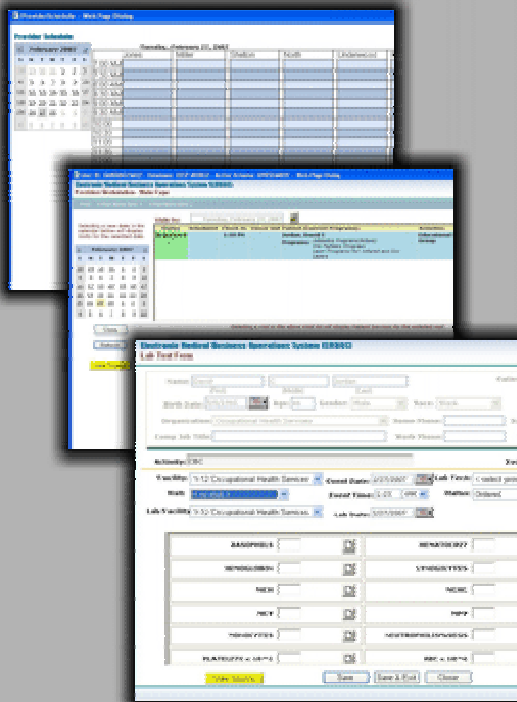


Electronic Medical Business Operations System (EMBOS)



A state-of-the-art web-enabled comprehensive electronic medical record (EMR) system that facilitates the capture of all patient data, workflow, access control, configuration management, and offers the medical provider a knowledge-based tool to support the health assessment process.



Electronic management of medical records has taken a back seat both in private industry and in the government. Record volumes continue to rise each day and management of these paper records is inefficient and very expensive. In 2005, the White House announced support for the development of electronic medical records across the federal government. In 2006, the DOE issued 10 CFR 851 requiring all medical records be electronically available by 2015.

The Y-12 National Security Complex is currently investing funds to develop a comprehensive EMR to incorporate the requirements of an occupational health facility which are common across the Nuclear Weapons Complex (NWC). Scheduling, workflow, and data capture from medical surveillance, certification, and qualification examinations are core pieces of the system. EMBOS will provide a comprehensive solution to 10 CFR 851 for Y-12 and can be leveraged to the NWC.

Data to be Tracked

- Patient Demographics – Current/Historical
- Physical examination data
- Employee Medical History
- Medical Surveillance Programs
- Patient and Provider schedules
- Medical Qualification/Certifications
- Laboratory data
- Standardized Abnormal Lab Notifications
- Prescription Medication tracking & dispensing
- Allergies
- Non-occupational Illness and Injury visits
- Occupational Recommendations (work restrictions)
- Diagnosis/Vital Signs/Blood Pressures
- Immunizations
- Return to Work Visits

Capabilities

- Patient Input capabilities for questionnaires
 - Medical Health History
 - Surveillance program
 - **Human Reliability Program**
- **Targeted Health Assessments**
- **Scheduling**
- **Automated Patient Check-in/Check-out**
- **Laboratory interface & device integration**
- **Patient flow through medical facility**
- **Human Reliability Program processing**
- **Coding: ICD-9/10**
- **Desktop integration**
- **Touch Screen Technology**
- **Voice Recognition (COTS)**
- **Ad-hoc reporting**
- **Credentialing**
- **Digital Radiography integration**
- **Interface/storage of digital x-rays (PACS)**
- **Scanning capabilities (paper & x-ray)**
- **Reference data management**

Status of Capabilities

- ◆ Phase 1 Production – EMBOS V1.0 SP3
- ◆ Phase 2 under development – EMBOS V2.0
- ◆ Phase 3 future development - EMBOS V3.0

Security

- Secure Socket Layer (SSL)
- Microsoft's Internet Information Services (IIS) authentication
- SecurID – Two factor authentication
- Oracle's Secure Application Roles

Hardware/Software Environment

- Software/Languages include ASP.NET, VB.Net, C#, PL/SQL
- Operating system – Windows 2003 Server
- Database – Oracle 9i moving to 10g



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