

Information Systems in Healthcare – Michel Kana, PhD - Homework

Solution by Katarzyna Dunikowska

1. Make a component-based comparison of OpenEMR, GaiaEHR, OpenMRS and VistA

OpenEMR is a free, open-source electronic health records and medical practice management application. It is operable on Windows, Linux, Mac OS X and many other platforms.

OpenEMR features fully integrated electronic health records, practice management, scheduling, electronic billing, internationalization, free support and more. OpenEMR is one of the most popular open-source electronic medical records used today.

OpenMRS is a collaborative open source project to develop software to support the delivery of health care.

OpenMRS is founded on the principles of openness and sharing of ideas, software and strategies for deployment and use. The system is designed to be usable in very resource poor environments and can be modified with the addition of new data items, forms and reports without programming. It is intended as a platform that many organizations can adopt and modify avoiding the need to develop a system from scratch.

GaiaEHR is a Open source Web-Based Software for:

Medic Practice management

Electronic Medical Records

Prescription writing and medical billing application

And it can be installed on the following systems:

Unix-like systems (Linux, UNIX, and BSD systems)

Microsoft systems

Mac OS X

And other platforms that can run Apache Web server, MySQL

VistA is an enterprise-wide information system built around an Electronic Health Record (EHR). It consists of nearly 160 integrated software modules for clinical care, financial functions, and infrastructure.

Component-based comparison:

	OpenEMR	GaiaEHR	OpenMRS	VistA
Electronic Health Record	+	+	+	+
Computerized provider order entry	+	-	+	+
Clinical decision support system	+	-	+	+
Results management component	-	-	+	-
Medical practice management software	+	+	+	-
Electronic communication and connectivity	+	-	+	-
Administrative process component	+	+	+	+
Patient support	-	-	-	-
Reporting and population health management	+	+	+	-

2. Define at least 20 concepts found in clinical information systems.

- **HealthWatcher** - automates sending those easy-to-forget reminders to your patients with medical advice and health care best practices.
- **Patient Encounter** - Clinical information under physician control, productive time spent with patients, effective coding & billing.
- **ePrescribing** - Electronic Prescribing software strengthens the relationship between physicians, patients and pharmacies by automating the prescription management process, delivering improved care and convenience, as well as decreased risk for all parties.
- **Patient Population Reporting** - stores discrete patient data from visit notes.
- **Quality Reporting** - Capture quality data during routine visit documentation to support federal incentives or payer requirements.
- **Unified Messaging** - is a secure communications system within the EHR.
- **Single Sign-on** - Easily navigate between the ADP AdvancedMD PM and EHR systems without having to reselect your patient for business or clinical record interaction.
- **Patient Portal** - An effective and secure web-based communication system between you and your patients.
- **Interoperability** - Communicate with patients & referring/consulting physicians, receive results with comprehensive audit tracking performed on all transactions.
- **Physician Dashboard** - A customized view of personnel and facility scheduling, test results, correspondence alerts, and access to patient charts.

- **Data Timeliness** – batch patient information by clinical session for review before the start of session
- **Accessibility** – multiple user simultaneous access
- **End user customizations** – user customized built-in reminders of ticklers
- **Flexibility** – ability to add a new data field
- **Security and Confidentiality** – support flexible rules for secure encounters
- **Seamlessness** – support access to other desktop tools
- **User Interface/Ease of Use** – screen labels are clear and concise
- **Clinical Teamwork** – supports “forwarding” electronic notifications to covering team when needed
- **Test Results & Orders** - Gain the convenience of viewing new results and incorporating details automatically & electronically into the patient chart.
- **Document & Image Management** - Easily manage documents, images, audio and video files within your EHR system.

1. <http://www.advancedmd.com/>
2. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2233048/?page=2>
3. <http://www.findthebest.com/>