Challenges of Electronic Health Records Implementation

Mogli Goverdhan Das

HEARTCOM INC. Ohio, USA.

Abstract

The author wish to share with congress participants, the experience gained and progress made in eight nations, having served at the national level as Senior Medical Record Consultant Adviser and visiting WHO Consultant, in GCC Countries (Kuwait, Saudi Arabia, Bahrain, Qatar, UAE, and Oman), besides serving in Afghanistan and India. The dramatic transformation from only 5-10% of hospitals which had good medical records in GCC Countries had changed after implementation of electronic health records to 70-80% of them have shown dramatic progress and their effective and efficient functioning is remarkable.

Materials and Methods

In order to understand thoroughly the theme "Challenges of EHR implementation in Gulf Cooperation Council Countries (GCCC)" including the potential problems encountered before, during and after developing electronic health records, a study was undertaken.

Table 1- EHR implementation in the GCC Countries

Country	No. of hospitals	MRD* Well-equipped staff (un-trained)	MRD* Lack Policies & Proc. Poor Manage-ment	EHR Vendor Developed	EHR In- House Developed
Kuwait	13	Yes	Yes	Yes	Partially
S.Arabia	250	No	Yes	Yes	-
Bahrain	3	Yes	Yes	Part.	Yes
Qatar	5	Yes	Yes	Yes	Partially
UAE –A. - Dhabi	7	Yes	Yes	Yes	-
Sultanate of Oman	41	No	Yes	Partially	Yes

Road Map to develop good Medical Record System: The roadmap included four phases: surveyed the existing status of medical records, suggested appropriate systems, trained personnel and organized the MRDs and last the implementation of electronic health records. The problems with the implementation of EHR given below:

Team (Men): Lack of coordination between computer, medical/nursing and MR personnel; all the physicians and others were not trained before Live., users were not involved in any analysis and redesign of their workflow; users were not involved in the specification of the customizable portions of the EHR; some physician's especially senior staff were not willing to undertake training; physician felt that their time was consumed due to computerization; majority old staff avert to the new technology.

Tactics (Process): Demonstrations either by the Vendor or In-house IT staff was inadequate; feedback from end users acceptance was not confirmed; technology evaluation related to reliability, performance measures, standards and interoperability, usability, and usefulness were not clearly carried out; lack of instructions guides for end users; adoption of EHR is affected due to the vendor instability and support; contingency plan for system failure was missing; legislation on national EHR policies, and electronic auditing was not done; accreditation standards have not been incorporated; disease classification of disease list was not included.

Technical: High capacity servers were not used; poor network design created EHR problems; clinical decision making was not user friendly; adequate hardware were not forthcoming; alerts, reminders, medical errors were not effective.

Implementation of EHR in GCC Countries had witnessed dramatic changes (70-80%) hospitals had improved functioning,

Conclusion

While developing software, most important aspect is meticulous preparation of domain of all functions related to physician's office, outpatient, ER., inpatient, O.T., ICU, CCU, Lab, Radiology, other imaging sections, medication; e-prescription nursing, clinical reminders, programmers, incorporating EHR-related standards for example; HL7, ASTM, PACS, DICOM, NCPDP, SNOMED, ICD, CPT, HIPAA and JCAHO recommended accreditation standards,

The core capabilities that EHRs should possess: Some of them are as follows: Health information and data. Result management. Order management. Decision Support. Electronic communication and connectivity. Patient support. Administrative processes. Reporting. Alignment of Templates. Significant Templates in one screen (area).