



Challenges in EMR

MK Manavalan
Sankara Nethralaya
Chennai



EMR?



- When an EMR is demonstrated, what could be the typical comment from a doctor?

"My Surgery is much more simpler..."



Challenges & Issues in EMR?

- Financial Challenges
- Development Challenges
- Training Challenges
- Implementation Challenges
- Real Time Challenges



EMR – Financial Challenges

- Heavy Investments
 - On Infrastructure
 - Primary Infrastructure
 - Servers
 - Switches
 - Fiber Networking
 - Uninterrupted Power
 - Tablet PC's
 - Redundant Infrastructure
 - All the above has to be redundant again
 - On Software
 - In house team or Outsourced...
 - IT Persons Salaries are always high..



EMR - Development Challenges



- Developer says
 - Consultants Does not say clearly about what they wanted
 - They change their perspective
 - Periodically
 - At Each trial or Demo being given
- Consultant says
 - Developer is not understanding his requirements

EMR - Development Challenges



- Gathering Master Data
 - OP Master
 - Drug Reference Master
 - Generic & Brand Names
 - Drug to Drug Interactions
 - Side effects
 - Contraindications
 - Dosage
 - Age, Sex, Weight
 - Intravenous, Oral, Topical
 - Allergies Master
 - Parameter Master
 - Question & Answer Masters (for Patient history)

EMR - Development Challenges



- Gathering Drawing Templates
 - of various physiological conditions
 - of various clinical process
- Attrition level of Programmers
 - To Sustain the same Programmer group
 - Including the Leader
 - Affects Continuity
 - Perspectives keep changing
- Medical Terminologies
 - Could not be understood by the programmer
 - Need of a Doctor as a Programmer



EMR - Training Challenges

- Training the Consultants
 - Identifying IT Savvy Consultants as Super users or Champion users
 - Involvement of Consultants
 - When trained after a long consultation / OT day
 - When no proper drive from Management
 - Availability of Training Time
 - Commitment
 - Drawing Training



EMR - Training Challenges

- Training the Optometrists
 - Identifying the champions
 - Availability of time
 - Involvement
 - When trained after office hour's ?
 - When trained by a non team member



EMR - Implementation challenges





When you have completed Development and Training as planned

- EMR is a very cool & attractive option at the beginning
- Is that continues till the end?



Implementation

Fine Tuning

Development

User Requirement Specs

Feasibility

Analysis

- **It could be the other way!**

EMR - Implementation Challenges



- Front office stage
 - Integration with HMS
 - With Billing,
 - Appointments
 - Surgery
 - Laboratory Services
- Preliminary workup stage
 - Optometrists workup
 - Takes 20 minutes per patient
 - This Avg Time would increase
 - Consultant Secretaries workup

EMR - Implementation Challenges



- Consultation stage
 - Could not start in a Phased Manner
 - Specialty wise implementation warrants double work
 - When to Start the Pilot run?
 - New Change requests being raised
 - Affecting the base logic of the application



EMR – Real Time Challenges

- Do not Expect increase
 - In the productivity of Optometrists
 - In the productivity of Consultants

Until the System Stabilizes by itself

Perhaps, it may work other way around.



Result

- When you overcome all these challenges successfully?



What we get after Implementing EMR Successfully?



- Medical Errors would reduce drastically
 - From the News Mc.Kensey: The high price of medical error
 - “A recent report found that medication errors harm 1.5 million people a year in the United States alone and kill thousands. One way to reduce the number of these errors would be to ensure that complete records on patients were always available online. This article from the archive explains what it would take to create such a system. “
- Medical Data Mining
 - Getting us to Event Based Medicine

Thank You

SANKARA
NETHRALAYA

