Electronic Medical Records: What does it mean for Small Internal Medicine Practices?

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Focus of Research

- Use a case study to determine reasons why EMR implementation has a 30-40% failure rate (The Center for Health Policy and Research)

- Studied at 2-physician practice
  - 80% of practices in the US have one or two physicians (Hing 2007)

Prior to EMR Implementation

- Appointment scheduling / billing program in use from 1998

- Cannot be utilized / upgraded to electronic charting / e-prescribing

- Office selected Practice Fusion
  - Touted on website as Number 1 in Overall Customer Satisfaction in Primary Care

Failures Identified by Previous Studies

- Adapted from The Center for Health Policy and Research
  1. Lack of Implementation Planning
  2. Inadequate research and expectations of technology
  3. Incomplete Training of Staff
  4. Mismanagement of workflow and staffing changes as a result of technology
  5. Reluctance of providers to take on additional burden

Failures Observed during Trial Period

Learning Barriers / Lack of Simplicity

- Idea of "start charting in minutes" does not work in reality
  - Need records transferred to new system
  - e-prescribing
- Not enough time allotted
- *NEED:* Transition development plans for practices

GUI over Speed

- Interface graphically rich, load times slow even with high speed internet
- Unacceptable if an ER for example worked with such a technology
- Peak times would see further slowdown
- *NEED:* Lightly coded applications that are responsive

Input Fields versus Blank Paper

- Information has to be in fields which the computer can use to aggregate the data
- Physician does not have time to be the aggregator
  - Chart notes are pen and paper, this is a paradigm philosophy shift
- *NEED:* Innovative solutions and input technology development

Relevance

- 1 or 2 Physician practices comprise 80% in the country

- Dewey versus Truman (1948)
  - Chicago Tribune printed paper with incorrect victory
    - Part of the blame: overreliance on telephone polls

- If these practices are not properly represented in the sample, aggregate data will have diminished usability

- Not every practice is created equal

Future Research

- Survey other internal medicine practices
  - Determine failure rate for implementation
  - Determine main failure reasons
  - Isolate particular and unique ways successes are achieved
  - Correlate success rates among different EMR providers

EMR – Importance with Growing Baby Boomer Population

- Seniors are the fastest growing population in the world
- Every day 10K people in the U.S. turn 65
- About 1 in 3 U.S. adults has high blood pressure – an estimated 68 million
- 1 of every 2 adults have at least 1 chronic condition
- $1.1 trillion is spent annually in U.S. on unnecessary medical tests, treatments, & doctors' visits

RPM EMR with Baby Boomers

- Shortage of doctors thus telehealth increasingly becoming necessity

- Remote Patient Monitoring (RPM) growing in popularity

- RPM generates big data

- Doctors do not have time or some feel need for all the data

RPM Empowers & Awareness Raised

- RPM data empowers patient

- Helps patient self-manage chronic diseases

- Raises awareness of their own health in terms of nutrition, exercise, etc.

- Can see history of their data to see trends & remember talking points to physician

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RPM Helps Avoid Harmful Drug Interactions

- Several Case Studies with RPM where multiple doctors prescribed drugs without each others knowledge

- Patient's health was increasingly declining

- Ultimately found out through RPM by third doctor that drugs interactions were counteracting in a negative way

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