Electronic Medical Records in the US

- What is an Electronic Medical Record?
- Why is being done in the US about them?
- What is slowing the progress down?
- What changes to the environment could help accelerate EMR adoption?

What are the care settings? Where do the patients go?

It would be ideal to have the information follow the patient.
What tasks are needed from an EHR?

- Viewing
  - See the information
- Documentation and care management
  - Recording the encounter
- Ordering
  - Prescriptions and tests
- Messaging & Reminding
  - Sharing information with others is critical to error reduction
- Analysis and Reporting
  - Part of a learning system with feedback
- Patient-directed functionality
- Visibility
- Education
- Billing
- One-stop shopping

What do we expect to gain from EMRs?

**Payers**
- Population health management
- Improvements in formulary compliance
- Decreased lost work days
- Increased employee productivity
- Measures of provider quality
- Reductions in unnecessary admissions
- Fewer specialist referrals

**Patients**
- Better quality
- Safer medicine
- Enhanced privacy
- Greater visibility on health records
- Faster and easier prescription renewals

**Providers**
- Information availability
- Less callbacks and rework (formulary coverage)
- Automated processes (Rx renewal)
- Lower risk of practicing
- Better communication with other providers
- Increased practice efficiency resulting in revenue cycle reduction
EMR Adoption Barriers

Attitudes
- Clinical Decision Support is not looked upon well by physicians
- Downtime during transitions

Technical
- Pad and Paper are a great way to collect information
- There is not a national standard for an EMR

Regulatory
- Stark Amendment limits payment options from the government
- HIPAA has privacy requirements

Financial
- Big price tags for practices and ongoing costs for hospitals
- How are the benefits shared?
But managers can come up with solutions

- **Attitude**
  - Change management processes: name an MD as the champion
  - Training and timing
  - Staged deployment

- **Technical**
  - Use existing global standards (HL7, SNOMED, DICOM)
  - Smart interface technology and clever interfaces

- **Regulatory**
  - Loosen the payment rules via Medicare reform
  - Federalize rules on medical licensing and practice (vs. state level)

- **Financial**
  - Make quality based rewards work
  - Underwrite loans for long-term investment in IT

Ideally we could detect all of these problems

<table>
<thead>
<tr>
<th>Case</th>
<th>Disease</th>
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<tbody>
<tr>
<td>Potential adverse medication interaction due to multiple providers</td>
<td>Treatment not according to evidence-based guidelines</td>
</tr>
<tr>
<td>and prescriptions</td>
<td>Potential medication error of omission</td>
</tr>
<tr>
<td>Failure of patient or provider follow through plan of care</td>
<td>Lack of appropriate patient monitoring or diagnostic testing</td>
</tr>
<tr>
<td>Unsafe home environment</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Utilization</th>
<th>Health System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delay in inpatient testing or treatment</td>
<td>Disease outbreaks</td>
</tr>
<tr>
<td>Failure of provider to deliver standardized treatment</td>
<td>Post-marketing drug surveillance of adverse events</td>
</tr>
<tr>
<td>A pattern of adverse events linked to a facility that cause extended length of stay</td>
<td>Underserved populations</td>
</tr>
<tr>
<td></td>
<td>Loose control of individual health information</td>
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</tbody>
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