Improving Eye Care Delivery Through Data Sharing Technology

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Presentation Outline

- Introduce the IQP
- Needs Statement
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- Electronic Medical Record System
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- Teleconsultation System
  - Infrastructure
  - Consultation Protocol
  - Steps for Implementation
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- Change Management
- Conclusion
- Acknowledgements
- Comments/Questions
Data Storage and Sharing

Paper Booklets
- Unshareable
- Insecure
- Inconsistent

Unstructured Teleconsultation
- Inefficient
- Expensive
- Untapped Potential

Needs Statement
Project Description

To develop recommendations for the implementation of an **Electronic Medical Record (EMR)** and a **Teleconsultation System** to be used throughout all of the AECP’s facilities.
What is an EMR?

Vendor-Provided

Core Patient Database
- Patient Portal
- Eye Exam
- Clinical Calendar
- Pharmacy Dispensary
- Clinical Messaging

Open-Source

Core Patient Database
- Eye Exam Module
- Patient Portal Module
- Clinical Calendar Module
- Clinical Messaging Module
- Pharmacy Dispensary Module
EMR Methods and Selection
Recommendation: OpenEMR
Local Servers
EMR Implementation

Technical Pre-Requirements

Staff Structure

Post-Implementation Updates

Costs

Development: ~$5000

IT Services: ~$150/mo (+$50)

Servers: ~$500 Per site

Chromebooks: $150-$250 Per laptop

TOTAL: $7,630 +$150 monthly
Implementation Timeline

<table>
<thead>
<tr>
<th>Item</th>
<th>Start</th>
<th>Duration</th>
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<tbody>
<tr>
<td>EMR Installation</td>
<td>1</td>
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<tr>
<td>Primary Modification</td>
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<tr>
<td>Spitak Hardware</td>
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<td>3</td>
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<tr>
<td>Train Spitak</td>
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<td>7</td>
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<tr>
<td>Igvean Training at Spitak</td>
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<tr>
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<td>58</td>
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<tr>
<td>Post Implementation Modification</td>
<td>58</td>
<td>56</td>
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Teleconsultation Recommendation
Technical Infrastructure
Methods and Findings

- Teleconsultation system best practices research
- Polycom system/setup research
- Polycom setup at COE, Malayan, Spitak
- Synthesized requirements and best practices
Teleconsultation Operations Methods and Findings

- Interviewed Dr. Sardaryan
- Spoke with AECP
- Conducted Research
- Synthesized Protocol

Flowchart:
1. Doctor available?
   - Yes
     - Satisfactory diagnosis?
       - Yes
         - Call next doctor on list
       - No
         - Doctor available?
           - Yes
             - Call next doctor on list
           - No
             - Refer to Yerevan
     - No
       - Call next doctor on list
   - No
     - Doctor available?
       - Yes
         - Call next doctor
       - No
         - Satisfactory diagnosis?
           - Yes
             - Call next doctor
           - No
             - Treat patient
Deliverables

- System Setup
- Teleconsultation Guide
- Email Template
- Use Cases
- Cost Breakdown

Recommendations

- Utilize Polycom Technology
- Utilize Teleconsultation Guide
- Schedule All Calls Possible
- Utilize Peer and IT Training
- Invest in RealPresence 700 Systems
Other Considerations for Implementation
Coordination with Ministry of Justice

Written and Informed Consent

Patient Trust and Understanding

Patient Protection and Privacy
Resistance

Passiveness

Convince Me

Hope

Involvement

Advocacy

Change Management
To Improve Eye Care Delivery Through Data Sharing Technologies
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Questions and Comments