Ophthalmology, IRIS® Registry and Meaningful Use

Putting EHRs to Meaningful Uses
National Health Policy Forum
12/4/2015

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AAO Medical Director Health Policy
Chair, IRIS Executive Committee
Gaps in Current Care

- No easy way to track performance and patient outcomes
- No feedback loop to improve performance
- No national benchmarks for comparison
- EHRs not targeting performance improvement
- Quality of care defines our culture
Solution: IRIS Registry

- Captures performance rates on accepted quality measures
- Provides real-time feedback
- Drives true improvements in quality and outcomes
- Informs public policy
- Meet Federal quality reporting requirements
Introduction to IRIS Registry

IRIS Registry (Intelligent Research In Sight) is the nation’s first comprehensive eye disease clinical database

• Enables ophthalmologists to use clinical data to improve care delivery and patient outcomes
• Uses HIPAA-compliant methods to collect data from patient records directly from electronic health record (EHR) systems
• Utilizes an EHR agnostic systems integrator
IRIS Chronology

- November 2011-registry task force formed
- February 2012-development plan presented to Board
- November 2012- Board approved funding
- December 2012-December 2013-measures selected and tested, communication strategy delineated, data dictionary established
Launch March 2014

- Goal: 2200 ophthalmologists by 2017 with 18 million patients
Current Stats (November 15)

Contracted
• 10,180 physicians from 3,555 practices

Total for EHR Integration
• 7,088 physicians from 1,703 practices

Number of patient visits
• 61 million, representing 17.58 million unique patients
Integrated with 39 EHRs

- Amazing Charts
- ChartMaker Medical Suite
- Compulink
- Cybax
- DoctorSoft
- eClinicalWorks
- EyeDoc EMR
- Eyefinity ExamWRITER
- EyeMD EMR
- GE Centricity EMR
- Greenway Intergy
- Greenway/Primesuite
- HCIT EHR
- ifa systems EMR
- iMedicWare
- Integrity EMR for Eyes
- IO Practiceware
- KeyChart EMR
- Lytec
- ManagementPlus
- MaximEyes by First Insight
- Mastermind EHR
- MDIntelleSys
- MDoffice
- MedEvolve
- Medent
- Medflow
- Medinformatix EHR
- My Vision Express
- NexTech
- NextGen
- Origin
- Prime Clinical System
- PrognoCIS
- SRS
- TriMed EHR
- VersaSuite
- Vitera EHR
- WebChart by MIE
Unique Patients and Visits

Timeline

Patient Visits

Unique Patients

Millions

0 10 20 30 40 50 60 70


61 17.58
Advantages

- Real world
- Big data
  - Estimated 49% of national visit volume (2013-present)
  - World’s largest clinical registry
- Current data
- Clinical data: outcomes, VA, IOP, free text
- Across all payers
Quality Reporting Requirements

IRIS Registry submits on behalf of members:

- **Meaningful Use**-
  - Meaningful Use Clinical Quality Measures
  - Meaningful Use Objective 10 - Public Health Reporting: Specialized Registry Reporting

- **PQRS** -
  - Physician Quality Reporting System (PQRS) and PQRS reporting for the Value-Based Modifier
  - Includes Patient Reported Outcome Measures for Cataract Measures Group
<table>
<thead>
<tr>
<th>ID</th>
<th>Measure</th>
<th>Performance</th>
<th>Registry Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRIS 1</td>
<td>Primary Open Angle Glaucoma (POAG): Optic Nerve Evaluation</td>
<td>94.17%</td>
<td>79.42%</td>
</tr>
<tr>
<td>IRIS 2</td>
<td>Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy</td>
<td>13.72%</td>
<td>38.91%</td>
</tr>
<tr>
<td>IRIS 3</td>
<td>Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care</td>
<td>0.00%</td>
<td>27.17%</td>
</tr>
<tr>
<td>IRIS 4</td>
<td>Cataracts: 20/40 or Better Visual Acuity within 90 Days Following Cataract Surgery</td>
<td>79.51%</td>
<td>86.28%</td>
</tr>
<tr>
<td>IRIS 5</td>
<td>Complications within 30 Days Following Cataract Surgery Requiring Additional Surgical Procedures</td>
<td>0.00%</td>
<td>0.62%</td>
</tr>
<tr>
<td>IRIS 6</td>
<td>Diabetes: Eye Exam</td>
<td>80.92%</td>
<td>87.05%</td>
</tr>
<tr>
<td>IRIS 14</td>
<td>Preventive Care and Screening Tobacco Use: Screening and Cessation Intervention</td>
<td>87.96%</td>
<td>82.20%</td>
</tr>
<tr>
<td>IRIS 15-1</td>
<td>Use of High-Risk Medications in the Elderly</td>
<td>0.00%</td>
<td>1.71%</td>
</tr>
<tr>
<td>IRIS 15-2</td>
<td>Use of High-Risk Medications in the Elderly</td>
<td>0.00%</td>
<td>0.28%</td>
</tr>
<tr>
<td>IRIS 16</td>
<td>Falls: Screening for Future Fall Risk</td>
<td>0.00%</td>
<td>2.38%</td>
</tr>
<tr>
<td>IRIS 17</td>
<td>Documentation of Current Medications in the Medical Record</td>
<td>94.69%</td>
<td>88.57%</td>
</tr>
<tr>
<td>IRIS 18</td>
<td>Controlling High Blood Pressure</td>
<td>0.00%</td>
<td>19.41%</td>
</tr>
<tr>
<td>IRIS 19</td>
<td>Closing the referral loop: receipt of specialist report</td>
<td>0.00%</td>
<td>21.00%</td>
</tr>
<tr>
<td>IRIS 20</td>
<td>Use of Intraocular Pressure Monitoring Instruments: Delivery and Warning System</td>
<td>0.00%</td>
<td>26.56%</td>
</tr>
</tbody>
</table>
IRIS 3: Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care

PERFORMANCE TREND

PERFORMANCE TRENDS

<table>
<thead>
<tr>
<th>QUARTER</th>
<th>ALL</th>
<th>(+)</th>
<th>(-)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015Q3</td>
<td>2533</td>
<td>491</td>
<td>2042</td>
<td>19.38%</td>
</tr>
<tr>
<td>2015Q2</td>
<td>2363</td>
<td>382</td>
<td>1981</td>
<td>16.17%</td>
</tr>
<tr>
<td>2015Q1</td>
<td>2212</td>
<td>251</td>
<td>1961</td>
<td>11.35%</td>
</tr>
<tr>
<td>2014Q4</td>
<td>2058</td>
<td>57</td>
<td>2001</td>
<td>2.77%</td>
</tr>
</tbody>
</table>
Anti-VEGF Agents

- 2013-2014
- 1,084,306 injections provided to 174,891 unique patients
- Average age = 75.7 years
- Male = 41.9% ; Female = 58.1%
### Endophthalmitis Rates

<table>
<thead>
<tr>
<th>Anti-VEGF Agents</th>
<th>Injections</th>
<th>Unique Patients</th>
<th>Endophthalmitis at 30 days</th>
<th>Rates (30 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bevacizumab</td>
<td>490,799</td>
<td>95,651</td>
<td>391</td>
<td>0.080%</td>
</tr>
<tr>
<td>Ranibizumab</td>
<td>295,025</td>
<td>44,868</td>
<td>212</td>
<td>0.072%</td>
</tr>
<tr>
<td>Afibercept</td>
<td>298,482</td>
<td>34,372</td>
<td>202</td>
<td>0.068%</td>
</tr>
</tbody>
</table>
## Retinal Detachment Surgery

<table>
<thead>
<tr>
<th>Surgery</th>
<th>Frequency</th>
<th>% of RD Surgeries</th>
</tr>
</thead>
<tbody>
<tr>
<td>67101</td>
<td>1,038</td>
<td>1.74%</td>
</tr>
<tr>
<td>67104</td>
<td>6,116</td>
<td>10.23%</td>
</tr>
<tr>
<td>67107</td>
<td>2,690</td>
<td>4.50%</td>
</tr>
<tr>
<td>67108</td>
<td>12,581</td>
<td>21.05%</td>
</tr>
<tr>
<td>67112</td>
<td>192</td>
<td>0.32%</td>
</tr>
<tr>
<td>67113</td>
<td>8,624</td>
<td>14.43%</td>
</tr>
<tr>
<td>67141</td>
<td>1,726</td>
<td>2.89%</td>
</tr>
<tr>
<td>67145</td>
<td>26,797</td>
<td>44.84%</td>
</tr>
</tbody>
</table>
# Return to OR in 90 Days

<table>
<thead>
<tr>
<th>Surgery</th>
<th>% return within 90 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>67101</td>
<td>0.76%</td>
</tr>
<tr>
<td>67108</td>
<td>14.66%</td>
</tr>
<tr>
<td>67107</td>
<td>2.06%</td>
</tr>
<tr>
<td>67108</td>
<td>29.15%</td>
</tr>
<tr>
<td>67112</td>
<td>31.30%</td>
</tr>
<tr>
<td>67113</td>
<td>30.29%</td>
</tr>
<tr>
<td>67141</td>
<td>0.92%</td>
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<tr>
<td>67145</td>
<td>19.00%</td>
</tr>
</tbody>
</table>
Ophthalmology and Meaningful Use

- About half of ophthalmologists are receiving the 1 percent penalty this year (about 8,500)
- About 55 percent expected to receive 2 percent penalty in 2016
- Only about 8 percent (1,400) of ophthalmologists have succeeded in Stage 2 (and only 15 percent of all physicians)
Northern Virginia Ophthalmology Associates

- 34,000 patients since portal installed
- 23,400 created a portal
- 4,416 accessed clinical summaries
- 290 sent a secure message
Ophthalmology and Meaningful Use

- 2014 AHRQ / National Center for Health Statistics report:
  - Physician practices with older physicians, smaller practices, practices owned by physicians, and surgical specialty practices were all less likely to have an EHR system
  - Practices with 11 or more physicians implemented EHRs at rate 35% higher than solo practitioners
- 35 percent of ophthalmologists are solo practitioners
- The average ophthalmology practice has 5 physicians
Meaningful Use Challenges

- Lack of flexibility:
  - “All or Nothing” structure of program
  - Impact physician-patient relationship: the repercussions of “missing a box” can be severe, and physicians must focus their attention on checking off the Meaningful Use criteria on the computer screen, instead of the patient

- Full year reporting period:
  - Administratively burdensome, even for dedicated EHR users
Meaningful Use Challenges

Patient engagement measures:

• Hold physicians accountable for things outside of their control

Misaligned with workflows for specialty physicians:

• Ex) CPOE Measure includes low risk, in office imaging tests, and staff must be certified – very high volume in ophthalmology

Evidence of improved outcomes?
Meaningful Use: Changes Needed

- Modify the program to do away with the “all or nothing” structure
- Reduce reporting period from one year to 90 days
- Eliminate measures that hold physicians accountable for aspects of care that are out of their control
- Additional hardship exceptions for older physicians and solo practitioners
- Full MU credit physicians participating in an EHR-based clinical data registry, such as IRIS
- Eliminate data blocking by Epic/Cerner
Improved Outcomes:
The goal of Meaningful Use

- Physician participation in a national specialty registry using an EHR achieves the ultimate goal of the Meaningful Use program – improved patient outcomes.