CancerLinQ: The Future of Quality Cancer Care
“We seek the development of a learning health system in which science, informatics, incentives, and culture are aligned for continuous improvement and innovation—with best practices seamlessly embedded in the delivery process and new knowledge captured as an integral by-product of the delivery experience.”
The HIT Revolution in Cancer Care

- Widespread adoption of EHRs by physicians and hospitals
- Improved data processing and storage capacities
- Rapid analysis tools
- Advances in natural language processing

2012: EHR/EMR Use in U.S. Oncology Practices

- 60.8% of practices already have advanced EHRs/EMRs
- 16.2% have basic EHR/EMR
- 14.9% are looking to implement EHR/EMR in next 6 months
- 8% have no EHR/EMR

What is CancerLinQ?
Oncologists are responsible for defining, measuring and improving quality of care. ASCO is best positioned to develop CancerLinQ

- CancerLinQ is designed to promote oncology quality.
- We can build off ASCO’s 10-year experience in QOPI.
- Leveraging ASCO’s long-standing work in guidelines.
- Will allow physicians to monitor their quality in real time; by their peers.
- Fill in the massive knowledge gaps.
- Avoid creating numerous overlapping, competing, and burdensome systems.
The primary purpose of CancerLinQ is to improve the QUALITY of care and to enhance outcomes

- Many other secondary benefits will be realized
  - For Patients:
    - Highest quality care with best outcomes for EVERY patient
    - Clinical Trial Matching
    - Safety Monitoring
    - Evidence based education materials
    - Real time side effect management
    - Patient Portals to interact with providers and provide patient reported outcomes (PROs)
The primary purpose of CancerLinQ is to improve the QUALITY of care and to enhance outcomes

- Many other secondary benefits will be realized
  - For Providers:
    - Ability to scan the system for real time “second opinions”
    - Observational Clinical Decision Support (CDS)
    - Guideline driven CDS
    - Effectiveness Monitoring
    - Ability to access research, literature, guidelines, etc. in real time at the point of care
    - Quality reporting and benchmarking to avoid prior authorizations
    - Many others
The primary purpose of CancerLinQ is to improve the QUALITY of care and to enhance outcomes

- Many other secondary benefits will be realized
  - For Research/Public Health:
    - Ability to mine “big data” for correlations that could never be identified without aggregate data
    - Comparative Effectiveness Research
    - Hypothesis generating exploration of data could lead to better use of current products
    - Identifying patients available for clinical trials
    - Identifying early signals for adverse events
    - Identifying early signals for effectiveness in “off label” use
    - Using “omics” to identify best treatment options
Safety Example: Vioxx

- Time from FDA approval to withdrawal due to a 2-fold increase in myocardial events – 61 months
- Time needed to see safety signal in Kaiser-type system (7-8 million patients) – 30 months
- Time to see signal if half the country were being tracked (~150M subjects) – 6 months
- Time to see signal if the entire country had their data recorded – 8-10 weeks
Laying the foundation by:

- Engaging the community
- Working on Key Issues for Success:
  - Ability to aggregate data
  - Developing rigorous Data Governance Policies
  - Enhancing Clinical Guidelines to support CDS
  - Developing a technology approach “Hybrid model”
  - Clear and transparent communications to all stakeholders
  - Sustainable financial model to allow CancerLinQ to deliver value into the future

And finally, building a prototype from which to learn, while demonstrating proof of principle.
Foundation

Laying the foundation by:

- **Dec 2010**: BOD Approves RLS Principles
- **Mar 2011**: BOD Authors Strategy Sketch
- **May 2011**: Formation of the Quality Department
- **Jul 2011**: PMO Established
- **Oct 2011**: RLS Feasibility Report Released
- **Sep 2011**: RLS Technology Summit Held
- **Dec 2011**: Business Plan RFP Released
Laying the foundation by:

- **Mar 2012**: BOD Approves Prototype
- **Apr 2012**: Prototype RFP Released
- **Jul 2012**: Prototype Build Begins

Jan 2012

- **Mar 2012**: RLS Vision Workshop
- **Apr 2012**: Business Plan Delivered

Sep 2012

- **Data Governance Kick-Off**
Foundation

Laying the foundation by:

Jan 2013
Prototype Delivered

Mar 2013
WSJ Article

Apr 2013
CancerLinQ Scope Workshop 1

Jun 2013
CancerLinQ at ASCO’s Annual Meeting

Jul 2013
CancerLinQ RFI

Sep 2013
CancerLinQ v1.0 Requirements Gathering Begins

Mar 2013
Prototype Lessons-Learned Start

Jul 2013
CancerLinQ Scope Workshop 2

Aug 2013
CancerLinQ v1.0 Receives BOD Approval

Dec 2013

ASCO
CANCER-LINQ
Learning Intelligence Network for Quality

ASCO INSTITUTE FOR QUALITY
Marketing & Communications Highlights

- Selection of CancerLinQ name/brand
- Careful messaging and positioning of vision & assessment phase
Marketing & Communications Highlights

- 600+ people experienced the March 27 stakeholder event
- 120+ news stories from top-tier and targeted HIT/oncology trade outlets
- Over 1 million Twitter impressions
ASCO/CancerLinQ being cited by others:

“Big data Initiatives, like the NCI’s Cancer Genome Atlas and the American Society of Clinical Oncology’s (ASCO) CancerLinQ, as well as joint ventures between top cancer centers and leading IT vendors, like IBM and Oracle, are already exploring this space to improve how we treat the disease.”

As a trusted source:

“….. it should be possible to create trusted Web tools, apps, and research services – validated by trusted intermediaries like the American Cancer Society, ASCO, NCI, etc.”

With descriptive Features and Benefits
CancerLinQ™ Major Supporters

Corporations:

AMGEN
Genentech
HELSINN
Lilly

Foundations/Non-Profits:

Chan Soon-Shiong Family Foundation

Individuals:

Raj Mantena, RPh
David R. Melin
Thomas G. Roberts, Jr., MD
and Susan M. DaSilva

as of September 20, 2013
Laying the foundation by:

- Defining Committee Structures
- Creating Project Description for IRB approval
- Providing oncologists perspective
- Evaluating all federal and state laws to lay the path to data aggregation for CLQ
- Contract management and negotiations
- Countless others...
Laying the foundation by:

- Opening doors at FDA, AHRQ, CMS, etc.
- Event planning for events at meetings
- Providing recruiting strategies and PD for 48 new hires
- Exploring opportunities to tie CLQ with educational programs
- Providing an avenue for us to communicate our program
- Tech support, Tech SME
- Budget Creation & Support, Space Planning
Laying the foundation by:

- Rapid Guideline Development
- Working towards eQOPI
- Creating “e”measures
- Enhancing Certification
- Launching PMO
- Prototype
The Prototype

Goals of the Prototype

- Quality Measurement Tool & Reports
- Clinical Decision Support
- Data Analytics & Reporting Tools
- EHR
- Batch File Processing
- Automated Processing
The Prototype

Processing:

Raw Data
- from Varian
- from Epic
- from Altos
- from Impac

Transformed Data
1. Understand
2. Standardize
3. Normalize
4. Make it Available
You need to sign in or sign up before continuing.
ASCO Rapid Learning System Module

Find Patient(s)

Patient Identifier or Patient Name: Enter patient name or id

or
The Prototype

Goals of the Prototype

- Demonstrate value-added tools, such as the ability to measure a clinician’s performance on a subset of QOPI measures in real-time.
- Demonstrate ASCO’s capability to develop rapid, real-time, clinical decision support based on clinical guidelines and integrate them into a demonstration EHR system.
- Provide “lessons learned” about the technological and logistical challenges involved in a full-scale CancerLinQ implementation.
- Demonstrate the ability to capture and aggregate complete longitudinal patient records from any source, in any format, and make use of the data.
- Create new ways of exploring clinical data and hypotheses generation.
Based on the success of the prototype and the solid foundation that has been built, the ASCO Board of Directors voted unanimously to begin the development of CancerLinQ V1.0.

V1.0 will focus exclusively on providing advance quality reporting.
## CancerLinQ Version 1.0

<table>
<thead>
<tr>
<th>Functionality</th>
<th>CLinQ 1.0</th>
<th>CLinQ 1.1</th>
<th>CLinQ 1.2</th>
<th>CLinQ 1.3</th>
<th>CLinQ 2.0 and beyond</th>
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<td>Payer/Insurance Co Researchers</td>
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<td>Customized Data Queries</td>
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ASCO will be developing the functional requirements beginning on Sept. 16 and working on this open collaborative process for 12-14 weeks.

Other Key projects are:
- Release of project charter, project plan and formally launching PMO
- Technology development
- Organizational readiness (hiring & structure)
- Defining roles & responsibilities of committees & work groups
- Defining milestones & success
- Rapid guideline creation
- Engagement of “beta” practice sites
Timeline to Begin Development

September 2013 – July 2014

RFP Prep
- Requirements: 12 weeks
- Analysis: 4 weeks
- Author & Release RFP: 6 weeks

Proposals
- Reviews: 8 weeks
- Presentations: 2 weeks
- Down-Selections: 2 weeks
- Negotiations: 4 weeks
- Prep to Start: 4 weeks

Implementation

22 weeks
16 weeks
Program Structure

**Project Owner/Sponsor**
ASCO BOD

**CancerLinQ PMO**

**Project Work Groups**
Legal, Tech, Mar/Comm, HR, Finance, Guidelines, Bus. Dev., Policy

**ASCO Committees:**
QCC, Clinical Practice, Guidelines, Ethics, etc.

**Corporate Leaders**
EVP, CancerLinQ Advisory Committee, Data Governance Oversight Committee
While there is much work to be done and many problems to solve, ASCO is moving forward with the development of CancerLinQ V1.0 and WILL be further improving the QUALITY of cancer care in the near future.

We are poised to make CancerLinQ a reality; but we need EACH and EVERY one of you to make this a success.