Non Kaiser dosage error

• In Dec 1999, Betsy Lehman, health reporter for the Boston Globe, died of heart failure 3 weeks after receiving chemotherapy at the Dana Farber Cancer Center in Boston.
• Two months later a clinical trials data manager discovered that Betsy and 2 other patients had received an erroneously high dose of cyclophosphamide ... a dose well known to result in cardiotoxicity.
Evidence-Based Protocols

- National collaborative build group: Inter-Regional group of oncologists, nurses, and pharmacists
- Over 300 adult chemotherapy and clinical trial protocol templates created for use within KP HealthConnect Oncology Module
- Pediatric protocol work in progress
- Future work with other specialties: Rheum, etc

BEACON STORY:

- Review of the literature, use of Phase III clinical trials where available. Evidence based.
  The Functionality allows clinician to modify the protocol to create a patient specific treatment plan.
- For a given protocol, orders are written to deliver chemotherapy to maximum safety. Best Practices.

Accomplishments

- Beacon has created a cross-regional environment for Oncology for the promotion of:
  - Clinical excellence
  - Safe practice
  - Superior outcomes
Current Implementation
Time Lines

- NCAL 5 ambulatory sites live.
- SCAL March 2009 go live - WLA
- HI, GA, OH 2010
- CO June 2009
- NW Between July - Sept 2009
- MAS 2009?

Quality and Safety

- Shared legible record
- Common pathology staging system
- Treatment plan and information for patient
- Tracking of treatment harm
- Assessment of practice patterns
- Easier referral to clinical trials
- Quality reporting and improvement
- Model for all clinic administered drugs
- Ability to handle shortages and recalls

Safe Administration of Medications

- Nursing documentation with use of Medication Administration Record is quick and clear

- Requires dual signature on the MAR for high-risk medications expanding existing safeguards

- Interface with bar-coding systems for added safety to ensure right medication given to right patient at the right time and in the right sequence
Oversite:

National Governance Group:
- Chiefs of Oncology from each region
- formed by The Permanente Federation to oversee all future protocol creation and maintenance.

Corrections as well as formulary changes in the protocols are ongoing, and out of date protocols are retired. All oncologists have the opportunity to recommend additional protocols to be built.

CASE HISTORY

Madarine Orange
65 yo woman with a history of T1N0, ERPR (-) Her2 (-) breast cancer, 2005
Treated with adjuvant FAC x 6
Presented with lung mets in 2008
Treated with Taxol/Avastin with response
Now in 2/09: has progression of disease

Open schedule
**Naming convention**

ONCA = adult oncology  
ONCAT = adult oncology, clinical trials  
ONCP = pediatric oncology  
ONCPT = pediatric oncology, clinical trials  

**Disease state**

**Protocol name**

**Suffixes : adjuvant, with radiation**

---

**Descriptor convention**

ONCA Breast AC adjuvant  
CTX(600) DOXO(60)q21d x 4 cycles  

Cyclophosphamide 600 mg/m2  
Doxorubicin 60 mg/m2 ,  
every 21 days for 4 cycles  

(x) = presumes mg/m2

---

**Searching function**

- Any term in Protocol name is searchable  
- Can search by generic and trade names  
- Added synonyms : testicular cancer, germ cell, seminoma, non seminoma  
- By protocol number : PRL200
Renaming, Adjusting start date

Date change is propagation

Intent and Consent, Lab parameters
New Order: during visit

Order Ativan

Add orders: select days of tx
Add order group:

<table>
<thead>
<tr>
<th>Order Group name</th>
<th>Order Group ID</th>
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<tbody>
<tr>
<td>UMC OVERALL INTRAPERITONAL CHEM, NS - ANC</td>
<td>1079</td>
</tr>
<tr>
<td>UMC FACIAL (EVOLVE) PREMEDICATION 1.0</td>
<td>202</td>
</tr>
<tr>
<td>UMC FACIAL (EVOLVE) 1.0 DOSE (BASE)</td>
<td>13483</td>
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<tr>
<td>UMC FACIAL (EVOLVE) PREMEDICATION 1.0</td>
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</table>

Right click: options

- Stage I breast cancer, 60G dose
- Stage II breast cancer, 60G dose
- Stage III breast cancer, 60G dose
- Stage IV breast cancer, 60G dose
- Cycle 1: 100G dose
- Cycle 2: 100G dose
- Cycle 3: 100G dose
- Cycle 4: 100G dose
- Cycle 5: 100G dose
New cycle added:

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<thead>
<tr>
<th>Cycle</th>
<th>Date/Time</th>
<th>Status</th>
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<tbody>
<tr>
<td>4</td>
<td>24/02/2020</td>
<td>Open</td>
</tr>
<tr>
<td>5</td>
<td>28/02/2020</td>
<td>Open</td>
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</table>

Chemotherapy banner

BEACON preparations:
Department Specific Key Success Factors

- Identify existing workflows and optimize problematic workflows prior to go live
- Providers using paper protocols 2-3 months in advance
- Department Leadership actively problem solves issues
  - Owning department workflows and change management
- Lunch and Learn Sessions (post go-live) facilitate department communication, emphasize key training points and workflow discussion
- Communicate, Communicate, Communicate

Orange you glad it's over?

Appendix

- SCAL BEACON WEB SITE: PROTOCOL LIST, BEACON STORY, CONTENT CHANGE REQUEST FORM, CONTACT LIST
  
  http://kpnet.kp.org/kphealthconnect/deploy/prodlac/oncology.htm

- NCAL Beacon What's New / How To Web Site
  

- Sample Training Schedule
- Sample Planning & Implementation Strategy
Sample Training Schedule

<table>
<thead>
<tr>
<th>Training Track</th>
<th>Attendees</th>
<th>Coordinated by</th>
<th>Training Location</th>
<th>Target Completion Date</th>
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</thead>
<tbody>
<tr>
<td>Event Training</td>
<td>All Staff Nurses</td>
<td>Facility KPHC PM</td>
<td>Training Rooms</td>
<td>Training should be completed before go-live date.</td>
</tr>
<tr>
<td>Beacon Training</td>
<td>All Staff Pharmacists</td>
<td>Facility KPHC PM</td>
<td>Training Rooms</td>
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<td>Clinical Trail Training</td>
<td>All Staff Clinical Trail Nurses</td>
<td>Facility KPHC PM</td>
<td>Training Rooms</td>
<td>Training should be completed before go-live date.</td>
</tr>
</tbody>
</table>

Sample Planning & Implementation Strategy

- **Meeting structure**
  - Meeting #1 – Kick Off, Orientation and Action Items & Provider Workflows
  - Meeting #2 – Nursing Workflows
  - Meeting #3 – Clinical Trial & Pharmacy Workflows
  - Meeting #4 – Workflow Validation Session

- Each meeting must include an identified Physician, Nursing, and Pharmacy Leads as well as the Department Manager
  - This group is responsible for championing workflows and communication to the entire department.
  - P&I Team should begin making process changes as soon as possible, do not wait for go live

- Department attendees should review generic workflows prior to go live and return their department specific workflows

- Validation session should be completed 2+ weeks before go live
  - Allows time for department attendees to bring workflows to department meetings for review