Author(s): Andrew Rosenberg

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Clinical Medicine As An Information Science
The Role of Information Gathering & Displaying in the Health Record

HMP 668- SI 542
Introduction to Health Informatics
9-9-2013

Andrew Rosenberg MD
Chief Medical Information Officer, UMHS
Associate Professor, Anesthesiology & Internal Medicine
The need for organized medical records

“I am fain to sum up with an urgent appeal for adopting ... some uniform system of publishing the statistical records of hospitals. There is a growing conviction that in all hospitals, even in those which are best conducted, there is a great and unnecessary waste of life ... 

In attempting to arrive at the truth, I have applied everywhere for information, but in scarcely an instance have I been able to obtain hospital records fit for any purposes of comparison ... 

If wisely used, these improved statistics would tell us more of the relative value of particular operations and modes of treatment than we have means of ascertaining at present.”
The first Informatician?

Florence Nightingale

*Notes on Hospitals*, London. 1863
Medicine as an Information Science

- Collection of data
- Organization into structured elements
  - History (Present, past, family, social)
  - Review of Systems
  - Allergies & Medications,
  - Physical exam
  - Test results
  - Assessment (what is going on)
  - Plan
- Storage
- Analyses (individual, populations)
- Dissemination
- Creation of knowledge
Other sources of information: Imaging, Molecular diagnostics
Allergies:
- Avandia
- Actoretel
- Sulfa
- Lovastatin
- Glypizide
- Celebrex
- Theophylline
- Serenvent
- Flonaso
- Allegra

- Singular
- Allegra
- Flovent
- Flonase
- Effexor
- Spironolactone
- Clonadine
- Verapamil

Bilateral Mastectomies with Left 10LM SLN Biopsy and Bilateral Tissue Expanders
<table>
<thead>
<tr>
<th>ORDER</th>
<th>LOCATION</th>
<th>DR. #</th>
<th>Date Verbal Order Signed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin K 10 mg SQ x 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peripheral heplock: 3 cc of 0.9 NS irrigation Q 8 if no continuous infusion and pm for intermittent medication administration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D5W/0.45 NS at TKO (Cordis) after chest x-ray for Catheter placement Verification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.9 NS for transducer pressure bags</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Rise of Electronic Health Record Adoption Among Family Physicians

Amer, Fam Med, 2013