PREVENTION IN THE CLINICAL SETTING

Charles Beauchamp III, MD, PhD
Associate Professor, Dept. of Community Health
Wright State University Boonshoft School of Medicine

Prevention in the Clinical Setting

- Primary Care leadership
- “Like rolling off a log”
- Cost-savings
- Outcome improvement

Focus on RRR

- Risk ➔ Probability
- Resistance ➔ Exists ➔ Worse?
- Resilience ➔ Bounce Back

Community Resilience as a Metaphor: Theory, Set of Capacities, and Strategy for Disaster Readiness.
Fran H Norris, Susan P Stevens et. al.
Am J Community Psychol 2007 Dec 22 EPub
Person with Alzheimer's Disease

- What is Risk of Sundowning?
- How Resist serious perturbation in sleep/wake cycle?
- How Bounce Back from significant Sundowning causing agitation of the patient and stress on the care giver?

Primary Care Team

- Nurse
- Medical Assistant
- Community Health Worker
- Psychiatric Social Worker
- Physical Therapist
- Physician

How do we think of the Three R's at all times in all visits and then act independently and together?

The Essences of Prevention:

- Awareness
- Observation
- Imagination
- Hypothesis Testing
- Communication

PREVENTION occurs when an action takes place in a non acutely ill person to improve that individual’s and/or family’s life, usually in the future. Of course, the most important person to act is the person with the guidance of team members as necessary.
The **EGAD** visit

- **E** = Events
- **G** = Goals
- **A** = Assessment
- **D** = Documentation

YIKES this is complicated!

- As a team, we need to focus on GOALS (PLURAL) for every patient.
  1. We want to avoid hospitalization, avoid medication errors.....etc!
  2. We want to facilitate GREAT outcomes!!
  3. We want to make early diagnoses!!!
  4. We want to promote health and protect it!!!!!
  5. Oh yes, we need to see the patient in 15 minutes or less for the reason they came to see us!!!!!
How do WE do it?

An Answer:
Create a system (“microsystem” in the small office) focused on facilitating prevention
A practice guideline savvy computer, like it or not, has to be the engine of this “microsystem”.
Practice guidelines have to be restructured to work within the small office setting.
WE have to push this or else others (NHII et al) will do it for us without involving primary care.

The “Dream” is about to become our nightmare

Moving Forward On the Dream
The National Health Information Technology Agenda
The University of Utah, Department of Bioinformatics
September 14, 2007
Robert M. Kolodner, MD
National Coordinator
Office of the National Coordinator for Health Information Technology (ONC)

How Many Informaticists Do We Need?

- Safran’s Conjecture: 

  "There approximately 6,000 hospitals in the U.S.
  Each one needs a “cross-trained” physician and nurse
  Round it off to 10,000
  Clearly an underestimate: neglects office practices, industry needs, public health
  What about the additional 160,000 private practices and ??? other ambulatory care centers?"
Informatics Participants on AHIC Workgroup

<table>
<thead>
<tr>
<th>Name</th>
<th>Workgroup</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don Detmer</td>
<td>Confidentiality, Privacy and Security</td>
<td>American Medical Informatics Association</td>
</tr>
<tr>
<td>Eric S. Dentler</td>
<td>Population Health/Health Care Connections</td>
<td>Partners Healthcare</td>
</tr>
<tr>
<td>Peter Elkin</td>
<td>Electronic Health Records</td>
<td>Mayo Clinic</td>
</tr>
<tr>
<td>Linda Fischetti</td>
<td>Electronic Health Records</td>
<td>Veteran Health Administration</td>
</tr>
<tr>
<td>Betsy Humphreys</td>
<td>Personalized Healthcare</td>
<td>National Institutes of Health/National Library of Medicine</td>
</tr>
<tr>
<td>Blackford Middleton</td>
<td>Electronic Health Records</td>
<td>Partners Healthcare System</td>
</tr>
<tr>
<td>Jerry Osheroff</td>
<td>Quality</td>
<td>Thomson Healthcare</td>
</tr>
<tr>
<td>Charles Safran</td>
<td>Consumer Empowerment</td>
<td>American Medical Informatics Association</td>
</tr>
<tr>
<td>Paul Tang</td>
<td>Consumer Empowerment</td>
<td>Palo Alto Medical Foundation</td>
</tr>
<tr>
<td>Jonathan Teich</td>
<td>Quality</td>
<td>Brigham &amp; Women's Hospital</td>
</tr>
<tr>
<td>William M. Tierney</td>
<td>Quality</td>
<td>Regenstrief Institute, Inc.</td>
</tr>
</tbody>
</table>

We don’t have a dog in this hunt but who will be blamed if it does not work?

WE have no choice but to try to make it work with a focused effort to utilize existing Electronic Medical Record technology (i.e., Praxis EMR), incorporate Clinical Practice Guidelines that have been tweaked to facilitate their application within a small office setting with LIMITED PERSONNEL resources.

We should focus on:

1. Cardiovascular Disease
2. Diabetes Mellitus
3. Asthma
Wiley Science Evidence-Based Medicine Guidelines for Primary Care

Cardiology Guidelines

Acute Coronary Syndromes; Unstable Angina Pectoris and non-ST segment elevation myocardial infarction (NSTEMI)

Acute pulmonary edema

Ambulatory ECG Monitoring

Antihypertensive drug choice for different patient groups

Aortic aneurysm and dissection

Bradycardia

Bundle Branch blocks in ECG

CPAP treatment in pulmonary edema

Calf pain

Cardiac murmur in a child

Cardiac parameters: follow-up of patients and surveillance of parameter function

Characteristics of CHF

Chronic heart failure

Classification of hyperlipidemias

Computerized ECG Interpretation

Contraindications to physical exercise

Coronary heart disease (CHD): symptoms, diagnosis and treatment

Diabetic microangiopathy

Diagnoses of and initial investigations for hypertension

Diagnostic coronary angiography

...etc.

Literature Search Strategies

[@predict$ OR validate OR rules$ OR predictive value of tests] AND (coronary AND atherosclerosis AND noninvasive)

[@probability OR risk OR classification OR algorithm$ OR rules$ OR criteria OR question$ OR score$ OR characteristic$ OR risk factor$ OR finding$ OR factor$] AND (predict$ OR model$ OR decision$ OR prognosis$ AND foot)

[@ (clinical AND guideline) AND (criteria OR score$ OR characteristic$ OR finding$ OR factor$) OR characteristic$ OR finding$ OR factor$] AND (predict$ OR model$ OR decision$ OR prognosis$) AND congestive heart failure

[@Randomized controlled trial AND (ramipril AND ARB)]

[@Randomized controlled trial AND (stroke AND risk factors AND recurrence)]

Brief efficacious interventions - “like rolling off a log”

Decrease Risk

Increase Resistance

Increase Resilience
Knowledgebase
TheBrain™ www.thebrain.com - Desktop + Enterprise

EMR
Praxis™ (www.infor-med.com)

Move from Treat to Prevent to Predict

© Designed for Kodekr, Inc. All Rights Reserved 2007. Kodekr, Inc. Technology: Knowledge Management Systems. All rights reserved.
Contact Information:
Chuck Beauchamp, MD, PhD
charles.beauchamp@wright.edu
937-258-5555