SMARxT: A Pilot Media Literacy Program to Improve Evidence-Based Prescribing among Medical Residents
Authors

• Bethany Corbin, BS
• Jason Colditz, MEd
• Allison Raithel
• Galen E. Switzer, PhD
• Jaime Sidani, PhD, CHES
• Patricia Klatt, PharmD
• Brian Primack, MD, PhD
Disclosures

• None
Death and Disease from Prescription Drugs

- One death every 19 minutes
- Fourth leading cause of death in U.S.
- U.S. is 5% of world population but takes 80% of world’s pills
- Among teens, prescription drug deaths eclipsing alcohol deaths
Costs

Health Care Spending as Percentage of GDP

OECD Average in 2011 = 9.3% of GDP

Source: OECD Health Data 2013.
Produced by Veronique de Rugy, Mercatus Center at George Mason University.
Prescription Drug Prices

• Skyrocketed in the 1990s and 2000s
• U.S. has highest per capita drug prices in the world
• One of the most profitable industries in the U.S.
Industry Forces Driving Physicians

“I want you out there every day selling Neurontin ... We all know Neurontin's not growing for [seizures], besides that's not where the money is. Pain management, now that's money ... We need to be holding their hand and whispering in their ear, Neurontin for pain, Neurontin for monotherapy, Neurontin for bipolar, Neurontin for everything. I don't want to see a single patient coming off Neurontin before they've been up to at least 4800 mg/day. I don't want to hear that safety crap either.”

New England Journal of Medicine, January 2009
MD Mindset is a data-driven company that uses sophisticated analytics to help Life Sciences Companies understand the unique factors that influence Health Care Professionals (HCPs) in their clinical and prescribing behaviors. We take a proactive approach to develop and deliver sales and marketing solutions proven to increase HCP access and grow market share.

**Case Studies**
Read our Case Studies to see how we have helped other companies realize their full potential.

**A Leader In Developing SFE Solutions**
Learn more about our approach to developing and delivering Sales Force Effectiveness (SFE) solutions.

**Satisfied Clients**
"Overall, the course exceeded my expectations. I applied what I learned earlier that day and found the length of my calls grew by 300%.... I'm not even kidding."
Drug App Comes Free, Ads Included

By DUFF WILSON
Published: July 28, 2011

Epocrates has won over nearly half of the nation’s doctors for its free smartphone apps that let them look up information on drug dosing, interactions and insurance coverage while seeing a patient.

But like so much else on the Web, “free” comes with a price: doctors must wade through marketing messages on Epocrates that try to sway their choices of which drugs to prescribe.

The apps can select messages based on each doctor’s search and prescription histories, and the company has ambitious plans for expanded smartphone offerings. One possibility is a virtual sales rep that would help drug makers get their wares in front of physicians who decline to see human sales representatives.

The marketing messages are difficult to ignore. For example, a psychiatrist in Massachusetts who recently opened Epocrates (pronounced ee-POC-ra-teez) on his iPhone said that before he could look up any drugs, he had to click past “DocAlert” messages on hypertension, bipolar...
“More than 3 in 4 physician users CHANGE PREScribing DECISIONS based on Epocrates engagements” (caps theirs)
In the CAPRIE study

Patients get better fast

Significantly more CAP patients taking AVELOX® recovered at days 3 to 5 vs Levaquin®

AVELOX®
(n=141)

97.9%

Levaquin
(n=140)

90.0%

% of patients who achieved recovery

*Community Acquired Pneumonia Recovery in the Elderly (CAPRIE): To determine the efficacy and safety of AVELOX® vs Levaquin in community acquired pneumonia (CAP) among hospitalized elderly patients (age ≥ 65 years), the authors conducted a prospective, double-blind, randomized, controlled trial. The primary end point was cardiac safety. This study was designed to assess non-inferiority. The safety population (N=394) received IV/PO AVELOX® (400 mg daily, n=195) or IV/PO Levaquin (500 mg daily, n=199) for 7 to 14 days. The efficacy valid population included 281 patients (AVELOX®, n=141; Levaquin, n=140). Secondary efficacy end point – Clinical response during therapy visits at days 5 to 5 was defined as recovery: a disappearance of acute signs and symptoms related to the infection or reduction in the severity and/or number of signs and symptoms of infection, failure or indeterminate.
Patients Get What They Ask For

- Control
- Asked About Ad

Received Unnecessary Prescription
Program Structure

• Six 15-minute modules
• Each module consists of an intern and a resident discussing patient-provider experiences related to pharmaceutical marketing
DEMOGRAPHIC DATA

PREVENTION

SCREENING TESTS
PREVENTIVE TREATMENTS
RECOMMENDATIONS
LINKS TO INFORMATION
RESOURCES FOR RECOMMENDATIONS
SMARxT

• Simplify
• Master marketing
• Ally with your patients
• Read critically
• Tools
Site
Publisher
Audience
Timeliness
URL
Profit .com
Non-Profit .org .gov
Non-Profit
Drug Company
Who the site is intended for:
Heartburn
Non-erosive Gastroesophageal Reflux Disease
Date of Publication
Relieve Sinus Pressure
1781
KRAVITZ STUDY

10% INAPPROPRIATE PRESCRIPTIONS GIVEN

I'M A LITTLE SAD AND I WANT A PILL FROM AN AD.
Purpose

• Pilot test ~20 medical students to inform implementation
Procedures

• Medical students recruited by email to class
• Enrolled first 30 responses
• $40 for completing pretest, 6 modules, and post-test
Sample

- N = 21/30 (70%) completed
- 38% female
- Majority (74%) second-year students, but some representation from each year
Video Content Watched

• Average self-reported: 89%
Self-Reported Attention

- Very Distracted
- Somewhat Distracted
- Somewhat Attentive
- Very Attentive
Satisfaction Measures

- Entertaining
- Informative
- New Information
- Test Questions OK
- Recommend

Scores range from -5 to 5.
Correct Items

• Basline: 24 (IQR 22-27) items out of 62 correct
• Follow-up: 47 (IQR 43-50) items out of 62 correct
Positive: Format

• “Occasional jokes in the videos helped me pay attention.”
• “Extremely clever and entertaining!”
Negative: Format

• “It might be a little too cheesy.”
• “The jokes were not funny.”
Positive: Interesting

• “I found the program to be very eye-opening. It provided good information and historical data to promote a greater awareness of how pharmaceutical companies operate and influence the drug market.”

• “I learned valuable information about pharmaceutical companies and their marketing practices.”
Positive: Real Examples

- “The use of real life examples to highlight important concepts”
- “Citing specific examples ...”
- “... historical data ...”
- “Fosamax and the medicalization of osteopenia.”
Negative: Too Slow

• The information is valuable. I don’t deny that. But the videos were incredibly slow and boring. It was like watching paint dry. I kept on looking for an 1.5x or 2x speed button.”
• “Some of the videos were kind of long.”
• “The videos could be run at 1.5 speed.”
• “Speed it up!! Your audience is used to podcasts at 1.5x or 2.0x speed.”
Summary

• In general, satisfaction was good and information was new
• However, audience is hard to please and impatient
  – More professional production values
  – Consider high speed button
Pharma Marketing

Physician Preference/Willingness

Media Literacy

Patient Preference/Request

Non-EB Prescribing
Thank You!

bprimack@pitt.edu

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Center for Research on Media, Technology, and Health

@CRMTH_Pitt