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BioMarketing Insight Newsletter

Creating Markets and Marketing Strategies

Dear Regina,

Welcome to BioMarketing Insight's monthly newsletter.

Last month I posted Pharm IQ interview of yours truly (me) on "Medical Device Unique Device Identification: What you need to know." If you missed last month's article, click here to read it.

This month's newsletter will cover some of the highlights of the Medical Informatics World Conference held May 4-5, 2015 at the Renaissance Hotel in Boston.

Read on to learn more about this topic and other current news. On the right are quick links to the topics covered in this month's newsletter. The next newsletter will be published on July 15th.

We encourage you to share this newsletter with your colleagues by using the social media icons at the top left, or by simply forwarding the newsletter via email.

Please email me. Regina Au, if you have any questions, comments, or suggestions.

Sincerely,
Regina Au
Principal, Strategic Marketing Consultant
BioMarketing Insight

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Product Development

Developing a Product?

If you are developing a product and have not conducted the business due diligence to determine commercial viability or success, contact me for an appointment. For successful commercial adoption of your product, contact me for an appointment.

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Guest Lecturer at MIT

I'll be a guest lecturer at the Martin Trust Center for Entrepreneurship at MIT in July 2015. I will be speaking on "How to Develop a Successful Product: Where Do You Start?" from a commercial perspective.

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From Genetic Engineering to Genome Engineering: What Impact Has it Made on Science and Society?

I am pleased to announce that my article "From Genetic Engineering to Genome Engineering: What Impact Has it Made on Science and Society?" was published in May 2015 in the Advanced Biology, Biotechnology and Genetics Journal. To read an electronic version, click here.

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Medical Informatics World Conference Highlights

Keynote speakers (seated L-R): Phil Polakoff, Jonathan Weiner, Dr. Steven Stack, and Jason Burke.
Courtesy of: Cambridge Healthtech Institute

Since the implementation of electronic medical records (EMRs), we all knew that there would be a ramping-up period needed to get everyone on board and experiencing the benefits of the EMR system making the process of healthcare easier, while saving time and facilitating improved and more efficient care for patients.

Last year, the focus was on two themes: 1) patient - centric care in terms of sharing information with the core team of healthcare professionals, the patient/family and caregivers through EMRs and 2) interoperability not only within the institutions, but also with external institutions. Work still needs to be done to accomplish these goals.

This year, with goals still not accomplished, the physician is caught in the middle, as described by two of the keynote speakers.

Steven Stack, MD, President-elect of the American Medical Association (AMA), talked about "How Recent Regulatory Changes Are Impacting Physicians".

Dr. Stack said that in order to improve the quality of healthcare delivered by a physician's practice, consideration of physician satisfaction must be included, to foster their morale. Currently physicians

feel like there are 50 people shouting at them, demanding that they fulfill not only the requirements (such as insurance billing codes) for the practice, but also EMR requirements. If they don't do all of the above, they get blamed.

In fact, physicians hate EMRs, but they do not want to return to paper. They feel that EMRs are frustrating and that the system needs to be simplified, streamlined and in general made easier. More time is spent filling out EMR notes than was spent completing hard copy records, to the point where they feel as if they're record-keeping 24/hours a day.

Furthermore, when trying to capitalize on electronic technology such as telemedicine, where patients don't have to travel to the doctors' office, physicians are not reimbursed. This is yet another disincentive that drives physicians away from using advanced technology.

Dr. Stack believes that the appropriate use of EMRs must be part of the medical school curriculum, so that up-and-coming physicians will be knowledgeable, proficient and primed to optimize the EMR system, rather than dwelling on its comparative shortcomings, as practicing physicians do now. However, in order to accomplish this, the federal government must allocate money, so that medical schools can fund the upgrade.

The same applies to data breach prevention and cybersecurity. These must also be taught in medical school, because the healthcare industry has been targeted by hackers trolling for personal information for identity theft. In order to block hackers, medical personnel must be trained on how hackers infiltrate a computer or mobile device and what can be done to defeat them. More on cybersecurity coming up.

Jason Burke, PhD, Senior Advisor for Innovation and Advanced Analytics, University. of North. Carolina Health Care and School of Medicine, spoke on "The Coming Era of High Performance Medicine."

Can medicine truly become a high performance-driven industry? Dr. Burke started out with the analogy of a high performance race car. There are 87 gauges on his dashboard, but not one of them is a speedometer. All 87 gauges are performance metrics, the requirements for EMRs that measure outcomes for patient care.

According to Dr. Burke, there are five (5) things that need to be considered before one can achieve high performance medicine:

1) Exceeds expectations (quality)
2) Reliable (consistency)
3) On-demand (capability)
4) Acceptable cost (economics)
5) Effective despite uncontrolled variables

Currently, physicians document notes in EMRs for reimbursement only and not for patient care, as was done with old school paper records. But when reading electronic notes, quick access to the critical info that makes possible timely delivery of the best patient care is a challenge. Pouring over fat patient files is way too slow and inefficient. Pertinent information should be at the top of the page, so that effective care can be given ASAP.

According to Dr. Burke, three things need to change: First, notes in the EMR need to reflect important information for care and not reimbursement; Second, improve the quality and not the quantity of metrics and let physicians ask the questions that they want answered, which typically go beyond the collection of data to see what one can find; and Third, use patient reported outcomes to measure and transform care.

Cybersecurity and HIPPA

Steven Warren, Executive-in-Charge and Chief Information Officer, Office of IT, US Dept. of Veterans Affairs (VA) was another keynote speaker on May 5th and he spoke on cybersecurity to avoid data breaches. If you think healthcare is not a prime target for data breach and that only banks and financial institutions are, think again.

Steven started his talk by showing us a slide depicting the number of data breaches for the VA in a graph and there was a noticeable increase from January to March,. But what was so astonishing were the numbers that corresponded to the data points. In the month of March 2015, there were over 1.2 million attempted data breaches. Fortunately for the VA and thanks to Steven's supervision, there were no actual data breaches. As mentioned previously, the healthcare industry is a prime target for hackers because of the personal patient information that may be used for identity theft. Patient information could also be used for filing fraudulent tax returns, where just a name and a social security number are needed.

The reason why hackers are focusing on the healthcare industry is because this industry is lagging behind when it comes to IT and implementing security measures; and the recent transition from paper to EMRs is a magnet. According to Steven, there are a number of vulnerabilities that make healthcare an easy target for data breaches:

1) Outdated operating systems - some institutions still use Windows XP and Microsoft is not supporting XP in terms of security updates.
2) Assets are too costly to clean - feels won't happen to them and haven't allocated the budget, or don't want to spend the money.
3) Antivirus and antispyware programs are not certified.
4) Mobile devices security programs are not regularly updated.
5) Employees check personal emails on the network, or connect personal mobile devices to the network. A hacker can infiltrate a secure network through an employee's device, which may not be secure and can function as a portal to the secure network. Or the employee might click on a non-secure website (yahoo or gmail account) and the breach will happen there.

The one thing Steven didn't cover in great detail was employee training to help prevent data breaches, but the subject was covered in one of the breakout sessions. Employee training and continuous training is key. In a panel discussion, Intermountain Healthcare announced that their employees are sent phishing emails and if they click on the link, they are told why they shouldn't have done so and they're referred to the training module on security breaches.

HIPPA, the patient privacy regulations, was also discussed. At Union Hospital in Elkton, Maryland, to ensure patient privacy, employees are limited to what they can have access to based on their jobs. To have access to your own medical records if you work at the hospital, you have to sign a consent form. They also monitor who accesses patient records and verify whether this person has a legitimate reason. They will even question if a physician accesses a patient's record if that person is not a patient. There has been a case where a physician accessed an ex-wife's records to use that information against her in court.

Medical Informatics Reception and Poster Session. Yours truly is in the middle.
Courtesy of: Cambridge Healthtech Institute

In addition to the keynote speakers, there were six (6) concurrent tracks to choose from ranging in topics as indicated below. All topics were interesting and it was tough to decide which sessions to attend.

1. Provider-Payer-Pharma Cross-Industry Data Collaboration
2. Coordinated Patient Care, Engagement and Empowerment
3. Population Health Management and Quality Improvement
4. Security and Access of Healthcare Data
5. Leveraging mHealth, Telehealth and the Cloud
6. Building Enterprise Architecture and Hospital Information Systems

On May 5th, my presentation was on "Designing Your Wearable Technology with Mobile Apps: What is Needed for Successful Product Adoption and Impact," as part of Track 5, Leveraging mHealth, Telehealth and the Cloud. I identified the decision - making stakeholders involved and discussed each stakeholders' needs (each stakeholders is different) that must be satisfied in order to achieve product adoption. When all stakeholders are satisfied, one can achieve successful product adoption and market access for the patient. If any stakeholder is not satisfied, it will be very difficult to get product adoption.

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Closing Thoughts

Courtesy of Cambridge Healthtech Institute.

On the afternoon of May 4th, there was an interactive breakout session with 6 six tables hosted by a facilitator or set of co-facilitators, to discuss some of the key issues presented earlier in the day's sessions.

I was at Table 1 with the topic "Near and Far Future Wireless Technology Use and Deployment in Health IT and Beyond." Our facilitator was Donald Witters, Biomedical Engineer, Center for Devices and Radiological Health, Food and Drug Administration.

Wireless technology has lead us to the "Internet of All Things (IoT)" and it is here to stay. As technology becomes more advanced both in science and high tech, these advances in medical devices and healthcare will either cure diseases, improve patients' quality of life, or improve patient care. High tech devices will make our lives easier and more convenient, allowing one to connect to anyone, or control things anywhere around the world from one's own mobile device.

But like everything else, there is always a flip side. The more we are connected to our devices and the internet, the easier it is for hackers to steal our identity, take control of our devices and even worse, compromise our safety, especially with medical devices. Security measures must be in place and updated at all times, as discussed at this conference. Hackers are very intelligent and they never sleep. They will find a way to breach your security programs sooner or later and that is why we must all take measures to make it harder for them to infiltrate our computers and devices.

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New Technology - Vein-Identifying Device

Imprivata, a Lexington, MA-based medical device company purchased HT Systems, a Tampa, FL-based medical device company that developed a device that scans the veins from a patient's palm to identify and retrieve

the patient's medical records in the hospital or clinic. "HT Systems uses infrared light to scan veins in the palm below the skin, identifying hundreds of nodes that are unique to an individual in order to prevent things like duplicate medical records and overlays, as well as to guard against identity theft and insurance fraud, said Imprivata CEO Omar Hussain.

To read the full article in *Xconomy*, click here.

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Source: *Xconomy*.

About BioMarketing Insight

We help companies de-risk their product development process by conducting the business due diligence to ensure that it is the right product for the right market and the market opportunity for the product meets the business goals of the company. We can then develop marketing strategies to drive adoption for the product.

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BioMarketing Insight | 39 Kilby Street | Woburn | MA | 01801