



***We don't play games.....
We save lives!***

**The memory requirements for
clinicians differ from the general
public**



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Challenges Clinicians Face: What can you do to help us??

- 🕒 Not enough onboard memory and storage
- 🕒 Use external storage media to run “internal apps and programs”
- 🕒 Security against loss/violation of data (internal, external and cloud)



All Topics Adult Pediatric Patient

Management of hypertension in pregnant and postpartum women

Epidemiology, risk factors, and etiology of hypertension in children and adolescents

Obstetrical management of pregnancy complicated by pregestational diabetes mellitus

Infants with antenatal exposure to selective serotonin reuptake inhibitors (SSRIs) and serotonin-norepinephrine reuptake inhibitors (SNRIs)

Gestational hypertension

Risks of antidepressants during pregnancy

Management and outcome of atrioventricular (AV) canal defects

Neurofibromatosis type 1 (NF1): Management and prognosis

Preeclampsia: Clinical features and diagnosis

Overview of care of the adult kidney transplant recipient

Treatment of specific hypertensive emergencies

Prenatal care for incarcerated women

Preeclampsia: Management and prognosis

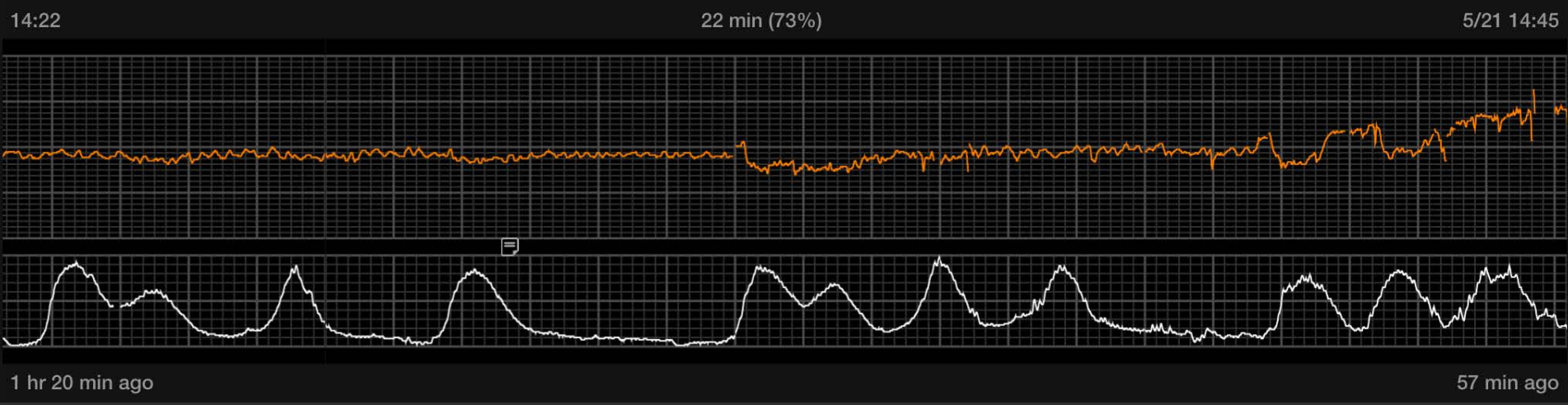
Small for gestational age infant

Twin pregnancy: Prenatal issues

Etiology, clinical manifestations, diagnosis and evaluation of pleural effusions in the neonate

● Ruptured | Epidural 39.2 · G3P2 · 10/100/3 @ 09:08

Live



CERVICAL EXAMS

14:55	9 / 100 / 2
13:25	8 / 100 / 2
12:43	8 / 100 / 2
12:01	8 / 100 / 1
10:52	7 / 90 / 1
09:43	7 / 90 / 1

PITOCIN

12:01	6 mL
10:52	5 mL
09:43	3 mL
07:11	2 mL
01:18	1 mL

MATERNAL VITALS

T (°F)	101.9 - 102.7 · 100.3
HR	50 - 90 · 90
SYS	110 - 118 · 111
DIA	67 - 79 · 72
RR	--- · 24
O2 Sat	80 - 99 · 98

ACTIVE MEDS 83

- pitocin
- ketorolac
- ondansetron

ECGs

2

LABS

3

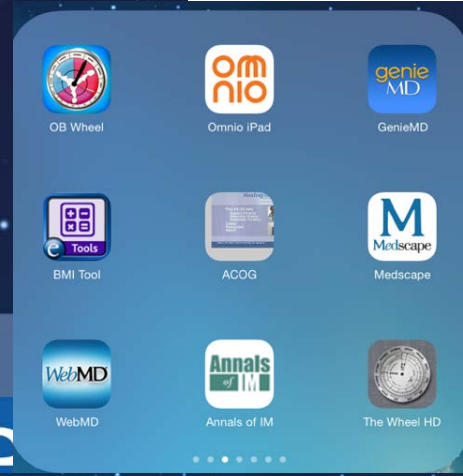
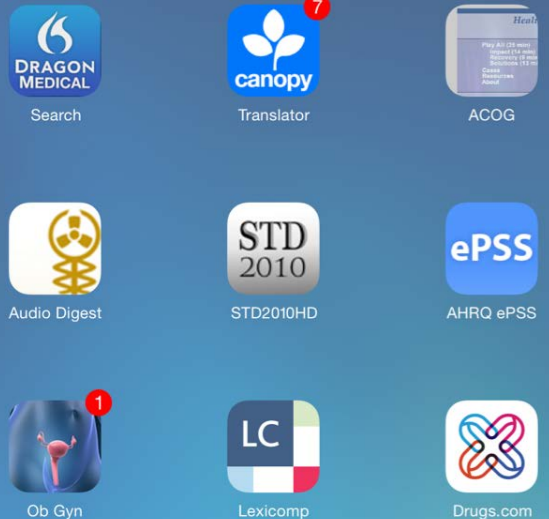
MONITOR

Active

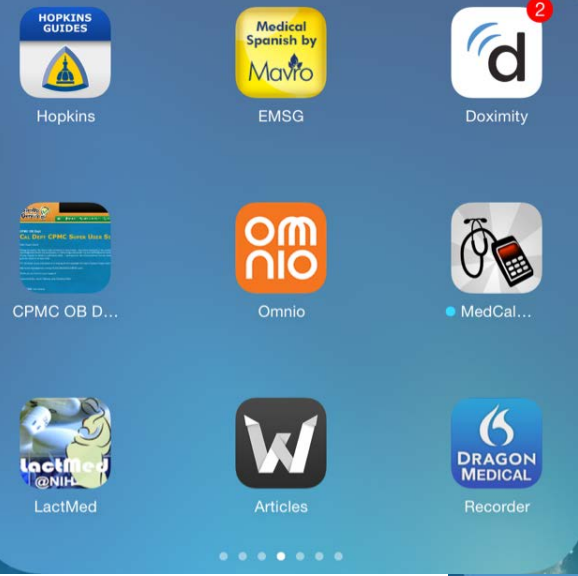
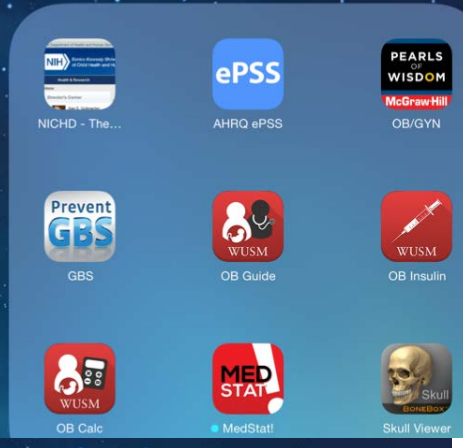
BRADY 09:55:22

- ANNOTATIONS**
- Recent
- 14:30 DR. KING AND NEO TEAM HERE FOR DELIVERY. PUSHING BEGU...
 - 14:05 DR. KING HERE 1/15/09 1:58 ZASLOW, STACY RN
- 1 hr ago
- 13:25 NICU TEAM HERE. 1/15/09 1:19 STARNES, JESSICA RN
 - 13:15 OFFICE CALLED AND DR. KING REQUESTED FOR DELIVERY. 1/1...
 - 13:11 DR. KING PAGED SECOND TIME 1/15/09 1:43 STARNES, JESSICA...
 - 13:02 DR. KING BEING NOTIFIED OF PT'S EXAM AND URGE TO PUSH 1...
- 2 hrs ago
- 12:45 Dilatation: 8, Effacement: 100, Station: -1, VE Done by: S.ZASLOW...
 - 12:30 Mon Mode A: Internal, Baseline A: No Baseline Changes, STV A: N...
 - 12:12 Pitocin Decrease milliunits/min @ 2 1/15/09 1:09 ZASLOW, STACY...
 - 11:59 PT. SLEEPING INTERMITTENTLY AFTER PAIN MEDS. 1/15/09 12:5...
 - 11:45 Mon Mode A: Internal, Baseline A: No Baseline Changes, STV A: N...
 - 11:33 Monitor Mode: External, Cont Qual: Strong, Rest Tone Toco: Relax...
 - 11:16 Pitocin Restarted milliunits/min @ 4 1/15/09 12:58 ZASLOW, STAC...
- 4 hrs ago
- 10:47 Mon Mode A: Internal, Baseline A: No Baseline Changes, STV A: N...
 - 10:35 Monitor Mode: External, Cont Qual: Strong, Rest Tone Toco: Relax...

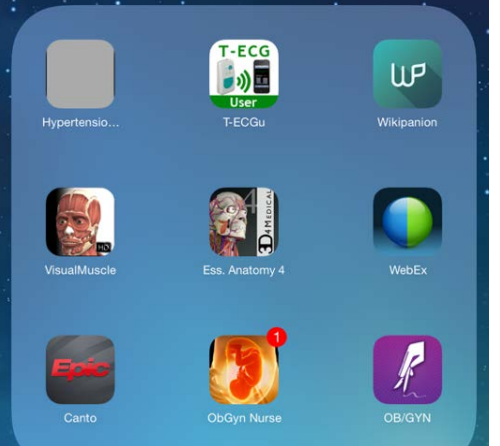
Medical Apps











So many apps



So little space and they all take up MEMORY!



Settings

-  Airplane Mode
-  Wi-Fi SHWireless4
-  Bluetooth On
-  Notification Center
-  Control Center
-  Do Not Disturb
-  **General**
-  Wallpapers & Brightness

1:37 AM 100%

Usage

STORAGE

3.8 GB Available 111 GB Used

ICLOUD

Total Storage	25.0 GB
Available	962 MB

Manage Storage >

BATTERY USAGE

Battery Percentage

TIME SINCE LAST FULL CHARGE

The 4 "P's" Plus

- 🕒 Price
- 🕒 Performance
- 🕒 Peripherals
- 🕒 Power
- 🕒 "Clinical Grade"



What Makes it “Clinical Grade”

- ⌚ Keep it “clean”-antimicrobial without degradation
- ⌚ Intel Core Processor
- ⌚ Functional Keyboard
- ⌚ Durable (drop test)
- ⌚ Secure (biometric), multiple login capable
- ⌚ Screen size and resolution
- ⌚ Ports, Connectivity, Peripherals
- ⌚ Able to deploy full versions of healthcare apps and EHRs
- ⌚ Stylus and Inking (Digital Signature)

Would You Ever Sit On a Cloud??



Clinicians need as much on board, usable, local, secure storage as possible!

Cloud services should be reserved for the institution's "Fortress System"

One day your life may depend on how your meet our needs!!

- 🕒 Not enough onboard memory and storage
- 🕒 Use external storage media to run “internal apps and programs”
- 🕒 Security against loss/violation of data (internal, external and cloud)

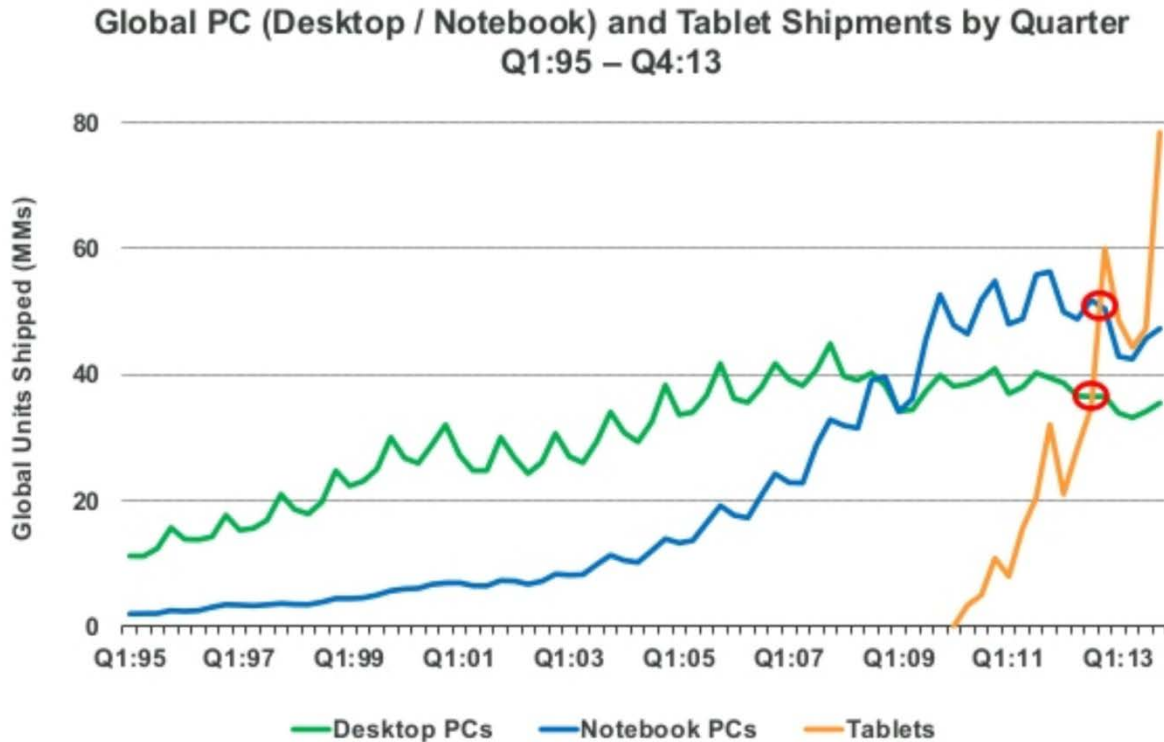
Panelists:

- 🕒 **Mark Blatt, M.D., MBA**, Worldwide Medical Director Sales and Marketing Group, **Intel**
- 🕒 **Chris Gough**, Lead Solutions Architect for Health & Life Sciences, **Intel**
- 🕒 **Alejandro Castillo**, Healthcare Solutions Marketing Strategist, **Dell**
- 🕒 **Ken Jarvis**, Healthcare Industry Practice Manager Printing & Personal Solutions, **Hewlett-Packard**
- 🕒 **Scott Glenn**, Senior manager of World Wide Partner and Business Development, **SanDisk**



Panelist slides to follow:

Tablet Units = Growing Faster Than PCs Ever Did...
+52%, 2013





Digitization is Happening *NOW*

- ⌚ 84% of Hospitals/ Academic Institutions/ Institutional Practices are using fully functioning EHR (electronic health records)
- ⌚ Incentives for Quality over Quantity Implemented, penalties now in place for non-compliance with EHR deployments
- ⌚ “Best Practices” require complete digitization
- ⌚ Digital Technology Enables Change (healthcare systems have traditionally relied on antiquated systems)
- ⌚ “Consumerization of Healthcare”-Majority of consumers want access to tools/websites/rankings for quality of hospitals and clinicians

Healthcare Realities

- 🕒 20% of GDP and rising with 27% of it being “waste”
- 🕒 25% of family income
- 🕒 Chronic Conditions: 75% of spending
- 🕒 Employers carry the biggest burden: 67% of CFO’s say healthcare costs=biggest concern

Intel



Internal Storage Options

Solid State Drive (SSD) encrypted, removable
Internal Mechanical Hard Drive

External Storage Options

Portable Hard Drive
USB Drives
SD Cards

Clinicians need as much on board usable local, secure storage as is economically possible

*Cloud services should be reserved for the institutions
“fortress file system”*

SanDisk

On Board Memory Variations with the Most Popular Devices



SanDisk

Note Pro 12.2 vs Surface Pro 3 vs iPad Air – design, build quality and form factor comparison

Design has nothing to do with operating systems and “ecosystems”, so theoretically enter the arena on even ground. Obviously, the latest **9.7-inch iPad has the portak edge**, thanks to its smaller footprint, whereas **the Surface Pro 3 wins the versatility** courtesy of a whole roster of optional accessories, keyboard docks and whatnot.

32-64GB



16-128GB



64-512GB





-Global mHealth Market will exceed 49.1B by 2020

-Mobile Health Devices Market to grow 8-fold to \$41.8 Billion in 2023

Product Offerings	Analog Device	FreeScale	Infineon	Intel	Renesas	STMicro	Toshiba Instruments
Cardio exercise machine			■	■			
Digital stethoscopes		■				■	■
Digital thermometer		■				■	■
Digital kiosk	■						
Digital weight scale		■				■	
ECG/EEG/EMG (Electrocardiogram devices)	■	■	■			■	■
Glucose meter		■	■		■	■	■
Insulin pump		■				■	■
MEMS	■	■				■	■
Point-of-care stations				■			
Pulse oximeter	■	■	■			■	■
Pulse/blood pressure monitor	■	■			■	■	■
Ultrasound and scanning devices	■					■	■



Manhattan Research

- one-third of responding doctors recommended a smartphone application to patients
- 1/2 used their own devices to show photos, images, teaching material and/or videos

BeckersHospitalReview.com (6/3/14)

Cloud “Insecurity”

- 🕒 95% of all networks have been compromised in some way
- 🕒 As mobile platforms grow, directed attacks *will* rise

Honeynet Project, 2014