A Day in the Life
Healthcare 2020

AHCA 2013
Monday, October 7, 2013
3:30 – 4:30 p.m.
Ted Hood
BArch

- Chief Operating Officer at GBA
- 14 years’ project experience
- Emphasis on interoperability between medical equipment, the EMR and building systems
Terry Miller
BSEE

- EVP and Project Manager at GBA
- 100+ project experience
- 40+ years of technology experience
- Member - Healthcare Guidelines Revision Committee - 2014
Learning Objectives

• Derive an understanding of healthcare technology evolution – a 7 year perspective
• Project the path of change into the future – Bob’s Story
• Examine how facilities will evolve as the future unfolds – how does the building change?
• Compare planning, design and construction practices of today with PDC of the future.
7 Years Ago
iPad 7 years ago
7 Years From Now
Bob’s Story
My ACO Monitors Me at Home
E-Visit to My Nurse Practitioner
Testing Center Directions on My Smartphone
My Blood Work done with Lab on a Chip
Bob’s Physician, Dr. James
We Conducted a Remote Consult Between Teams
Orders Include a Diagnostic 3D Scan
Bob’s New Pancreas
Team Meets for CAVE Virtual Reality Surgical Preparation
Holography Simulation for Surgery and Room Set-up
I Guided the Robot Performing NOTES
Bob’s Smart Sutures Will Monitoring Healing and Function
Teleconference to Coordinate with San Francisco Care Team
Microchip Will Ensure Bob Takes His Pills
A Happy Ending for Bob
Technology Trends
Bio-printers for printing bone, skin, cartilage, and other body parts
3D Bone Printing
Brain Pacemaker for Depression, Parkinson’s, and Dementia
Robotic Snake
Decision Support Apps
Increase in Mobile Diagnostics
Simulation Training Needs
Technology Training
Nonin 4100
Wireless SPO2

More Equipment at Home
Philips Telehealth Continuum

Patient at home
Takes vital signs and customized surveys with Philips monitoring devices.

Multi-Disciplinary Care Team
Management by exception and fully integrated medical record streamlines operations, improves efficiencies, and increases patient throughput.

Improved clinical outcomes
Reduced acute care hospitalizations

Philips Data Server
With specialized algorithms, Philips data server processes clinical data into manageable information with bi-directional data communication with electronic health records (EHR).

Telehealth Nurse
Specialized clinical software streamlines workflow, improves efficiencies, and allows for earlier patient intervention.
At Home / Remote
Monitoring / Chronic Care
Remote Medication Monitoring
Mobile Devices

The world's first cellular-enabled Blood Glucose Meter.
The ACO
Hospital is the HUB
Higher Acuity Patients
Retail Healthcare

2006: 1.48M Patient Visits to Retail Clinics

2009: 5.97M
Patient Empowerment
eVisits / Healthcare Call Centers
Call Centers – Video and HIPPA Impact
Access Anywhere
Access to Information / Communications
Wireless Demands

802.11ac
Data Centers
7 Years Ago
Technology the is driver for PDC of the Future
Sources

Point of Care Lab Testing: Lab on a chip:
Smartglass displays:
http://www.psfk.com/2012/02/future-of-smart-glass.html
Organ growing:
http://www.dailymail.co.uk/sciencetech/article-1325632/Scientists-grow-miniature-human-livers-lab.html
CAVE virtual reality:
Pancreatic surgery using NOTES: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2873646/
Smart sutures:
Microchip on a pill:
http://healthland.time.com/2010/04/14/a-pill-that-can-tell-if-its-been-taken/
Bio-printers:
http://www.zeitnews.org/node/974
Sources

Decision support:

Bone printing:

Future ICU:

Retail healthcare:

Call center, patient portals:
Questions?

Ted Hood, BArch
Sr. VP, COO - GBA
Ted.Hood@gbainc.com

Terry Miller, BS EE
EVP - GBA
Terry.Miller@gbainc.com