

# **Computer Technology Club Agenda**

## **for May 20, 2015 Meeting**

### **Topic – Technology and Medicine**

Microsoft Band Update

Electronic Medical Records

Patient Portal

Technology Advancements for Healthcare

Medical Gadgets

Technology Changing the Future of Medicine

The Patient Will See You Now

View of Healthcare Today

# Microsoft Band Update



Microsoft  
Health  
Record

# Electronic Medical Records

- Paper Charts VS Digital Charts
- Sample chart / With Images
- Input Methods / Illustration
- Integration Critical to Success
- Benefits



# Digital Charts



# Clinical Documentation

The screenshot shows a software window titled "Logician - Harry S. Winston MD @ Southside Clinic (LOCAL) - 03/09/2005 10:39 PM - [Chart]". The main window is for "OB-Initial-Intake-CCC: Mrs. Monica C. Obear". The patient is identified as "Mrs. Monica C. Obear, 30 Year Old Female (DOB: 01/14/19...)" with "Doc ID: 8".

The "OB Initial Intake Information" form includes the following fields and sections:

- OB Initial Intake Information** (Items in dark blue can be updated in Registration module)
- Positive HCG by: self
- Race: White
- Marital status: Married
- Occupation: Mortgage Broker
- Education (last grade completed): BA
- # children at home: 3
- Hospital of delivery: Mercy Hospital
- Newborn's physician: Dr. John Janas
- FOB Info**
  - Husband/Father of baby: Steven Obear
  - FOB occupation: Carpenter
  - Phone: 603-777-8888
- Comments:
- Note: Remember to include VMC and/or YPN enrollment if appropriate. (on OB Prenatal Ed form)
- Menstrual History**
  - Previous Best Working EDC: [ ]
  - LMP (date): 12/02/2002
  - EDC by LMP: [ ]
  - New Best Working EDC: [ ]
  - LMP - Character: Normal
  - LMP - Reliable? Yes (selected), approximate (month known), No
  - Menarche (age onset): 12 years
  - Menses interval: 28 days
  - Menstrual flow (days): 4 days
  - On BCP's at conception: no
  - Date of + home preg. test: 01/16/2004
- Enter Pre-Pregnancy Weight Below!**
  - Pre Pregnancy Weight (lbs): [ ]
  - Symptoms since LMP:
    - amenorrhea
    - nausea
    - vomiting
    - fatigue
    - irritability
    - bloating
    - tender breasts
    - urinary frequency
  - Other symptoms: [ ]

Navigation buttons include: Intake, Prenatal Visit, Past Preg Hx, PMH, FH/SH, ROS, Risk-General, OB Problems, Genetic, Flowsheet, PE, Lab, Prenatal Ed, A.P, Ultrasound, PAP Entry, Instructions/Plan, Copyright, Prev Form (Ctrl+PgUp), Next Form (Ctrl+PgDn), and Close.

At the bottom, there is a section for "Prenatal Education Provided:" with the text: "1) Hazards of smoking and pregnancy reviewed; smoking cessation strongly encouraged and smoking cessation techniques reviewed." Below this are links for "[OB-Gyn Problems-CCC]" and "[OB-Gyn CPOE A&P-CCC-1]".

Full ACOG OB/GYN Set of Documentation



# Image Enabled

Logician - Harry S. Winston MD @ Southside Clinic (LOCAL) - 03/10/2005 12:11 AM - [Chart]

Go Actions Options Help

Desktop Chart Appts Reg Reports New View Print Internet Help EXIT

**Marilyn A. Stone** *CHECK PROTOCOLS* Home: 503-693-6588 Work: None Receipt of Privacy Notice: None  
 78 Year Old Female (DOB: 04/23/1926) Patient ID: 107-TEST011 Insurance: CHC (Gold Plan) ROI Restrictions: None

Find Pt. Protocols Graph Handouts Update Phone Nt. Refills Edit Sign Append Route Organize

Summary Problems Medications Alerts Flowsheet Org

Document View: All

	Date	Summary
02/16/2004 1:30	Lab Rpt	
02/16/2004 1:30	Lab Rpt	
02/16/2004 1:30	Lab Rpt	
02/16/2004 1:30	Lab Rpt	
02/16/2004 1:30	Lab Rpt: Dexa Scan	
11/03/1998 12:00	Phone: Discussed lab results	
11/02/1998 12:00	Imag Rpt: Bilateral Mammography	
11/01/1998 6:00	Lab Rpt: PT	

Doc ID: 9 Properties: Lab Report at SOUTH on 02/16/2004 1:30 PM by Harry S. Winston

! Left Femur Shaft BMD	113 % (C)
! Left Femur Shaft BMC	1.302 g/cm2 (C)
! Left Femur Shaft Area	17.38 g (C)
Left Femur Total BMD	13.36 cm2 (C)
! Left Femur Total BMC	1.107 g/cm2 (C)
! Left Femur Total Area	33.37 g (C)
Left Femur Total T-Score	30.15 cm2 (C)
! Left Femur Total %YA	0.8 (C)
Left Femur Total Z-Score	110 % (C)
! Left Femur Total %AM	1.3 (C)
Right Femur Neck BMD	117 % (C)
! Right Femur Neck BMC	1.030 g/cm2 (C)
! Right Femur Neck Area	4.47 g (C)
Right Femur Neck T-Score	4.34 cm2 (C)
	-0.1 (C)

Centricity Clinical Information View 7.0.0 - Microsoft Internet Explorer

GE Medical Systems Bishop, Caroline 46 yo F Jul 18 1956 12:00AM MRN: 10006 Unit: ICU: MSS-08: P  
 Admit: 1/9/2003 Allergies: Peni >>> Weight: Weighed (kg) 81.5 POD: Visit#: 999999999

Census Face Daily Sm Visit Sm Flow Labs Notes Orders MAR RAD EKG Cardio MDN Asmt AD MD Doc Ops Utils LogOff

MITCHELL logged in on Wednesday, October 29, 2003 7:34:37 PM

BISHOP, CAROLINE  
 CT HEAD W/VO CONTRAST  
 1/18/2003 8:48:07 PM  
 POST HEAD

Se: 3 Im: 22 [AH]

BISHOP, CAROLINE  
 Study Date: 1/18/2003  
 Study Time: 4:04:07 PM  
 MRN: 10006

POST HEAD  
 300 OMNIP90CC

Viewport Series Study All C42 W155

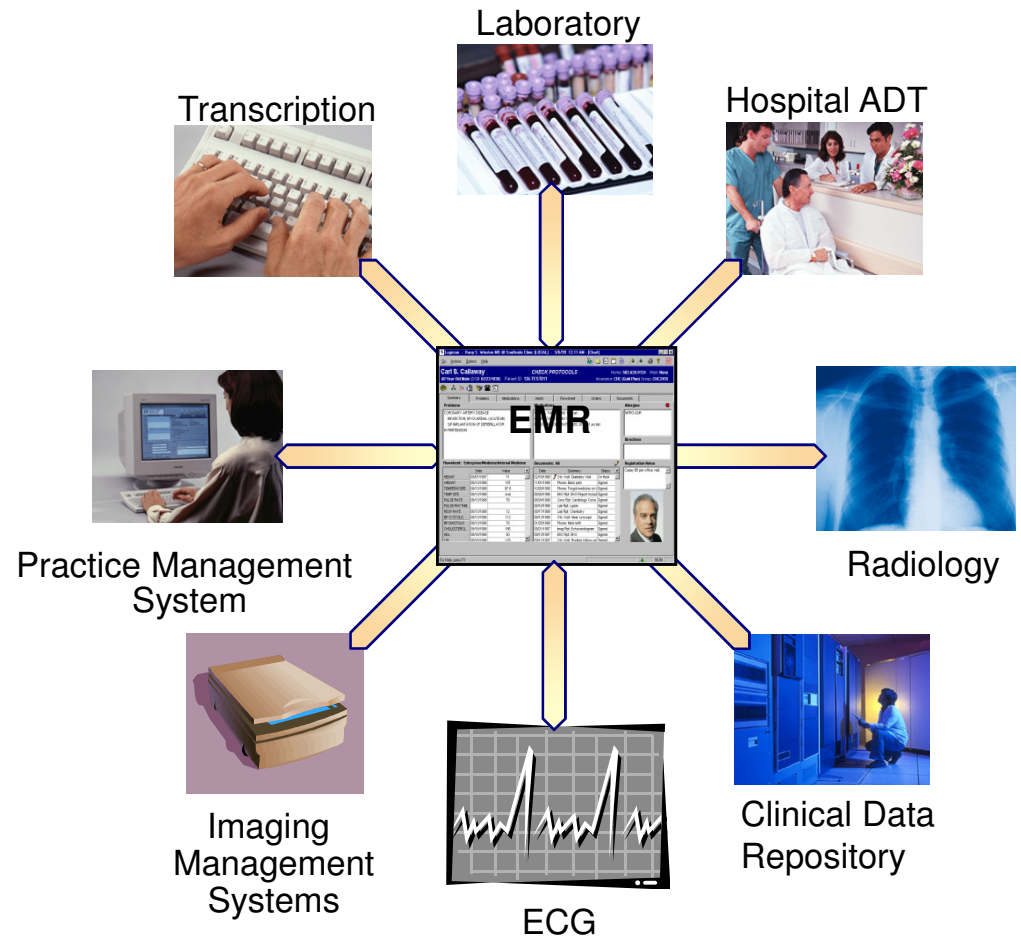
Default Compression

Patient info Exam info Report Muse CV Web Muse W Worklist

For Help, press F1

# Integration Critical to Success

- Most Information is Generation outside of your EMR.
  - Transcription Systems
  - Laboratory Information Systems
  - Hospital ADT systems
  - Radiology Systems
  - Enterprise-wide Clinical Data Repositories
  - EKG Systems
  - Imaging Management Systems
  - Other Practice Management Systems
  - Other EMRs





# TRADITIONAL PAPER RECORDS **VS.** Electronic Health Records

## Time Benefits



**SPECIALISTS** spend **50 hours** or more in direct patient care per week.



**PRIMARY CARE PHYSICIANS** only spend **30-40 hours** a week in direct patient care because of heavy paperwork and admin duties.

**NURSES** using EHR have seen reductions in documentation time by up to **45%**



**USING COMPUTERS** to enter patient data increases the **completeness of the information**, so staff time spent searching for missing data decreases.

**EACH PATIENT VISIT** requires approximately **10-13 pieces of paper**.

And a large percentage of physicians see **50-99 patients a week**.



So each physician accumulates around **975 new pages** of paper work each week.

**1000s** of tons of paper are consumed by the healthcare industry each year, causing storage issues and environmental harm.



## Environmental Benefits

## ORGANIZATION

Paper-based records dispersed across different medical facilities are often incomplete, contributing to unnecessary, repeat testing and treatment. Dispersed records are also inefficient because new providers have to retrieve a patient's charts and notes from multiple offices.

EHR reduces the redundancies across healthcare providers and allows the assembly of a complete record of patient history in one easily accessible file. A complete patient record in digital format makes it easier to generate longitudinal reports that can improve extended care.

## SHARING RECORDS

Paper record systems waste valuable time because office staff has to transfer records by fax or mail. Because a patient's paper records across healthcare providers aren't stored in a centralized location, it's often difficult to put together a complete history.

With EHR, exchanging information is faster because office staff can skip the retrieval and faxing process and transfer records electronically. EHR provides access to complete medical information about a patient, so other providers don't have to fill in partial records.

## ACCESSIBILITY

Doctors' access to medical records is limited by location and office hours. This can impact your patients' health in unusual circumstances, such as in an emergency procedure or when vital medication is misplaced.

Web-based EHR provides 24/7 access to patient records and lab results from any location with internet access. Using mobile applications, physicians can access records on-the-go, between appointments or while on rounds.

## Financial Benefits



**OUTPATIENT** facilities that adopt and use an EHR over 15 years could have net savings of **\$142BILLION**



**INPATIENT** settings that adopt and use EHR over the same time period experience net savings of **\$371BILLION**

**IN 2009**, independent physician practices using EHR had almost **\$50,000 greater total revenue** per full-time physician than practices using paper-based systems.

**AFTER 5 years** of using EHR, practices reported an operating margin **10.1% higher** than practices in their first year of EHR use.



**APPROXIMATELY 4.5MILLION** ambulatory visits related to adverse drug events occur annually in the U.S.

**ABOUT 400,000** of these instances result in hospitalization.

These adverse drug events could be avoided by using EHR to **track patient medication history** and to **flag patients** prescribed to several medications



## Health Benefits

# Patient Portal



# Technology Advancements for Healthcare

- [10 Biggest Technology Advancements for Healthcare in the last decade](#)
- [6 Ways Technology is Improving Healthcare](#)

# Medical Gadgets

- [Medical Technology News](#)  
[MedGadget](#)

# Technology Changing the Future of Medicine

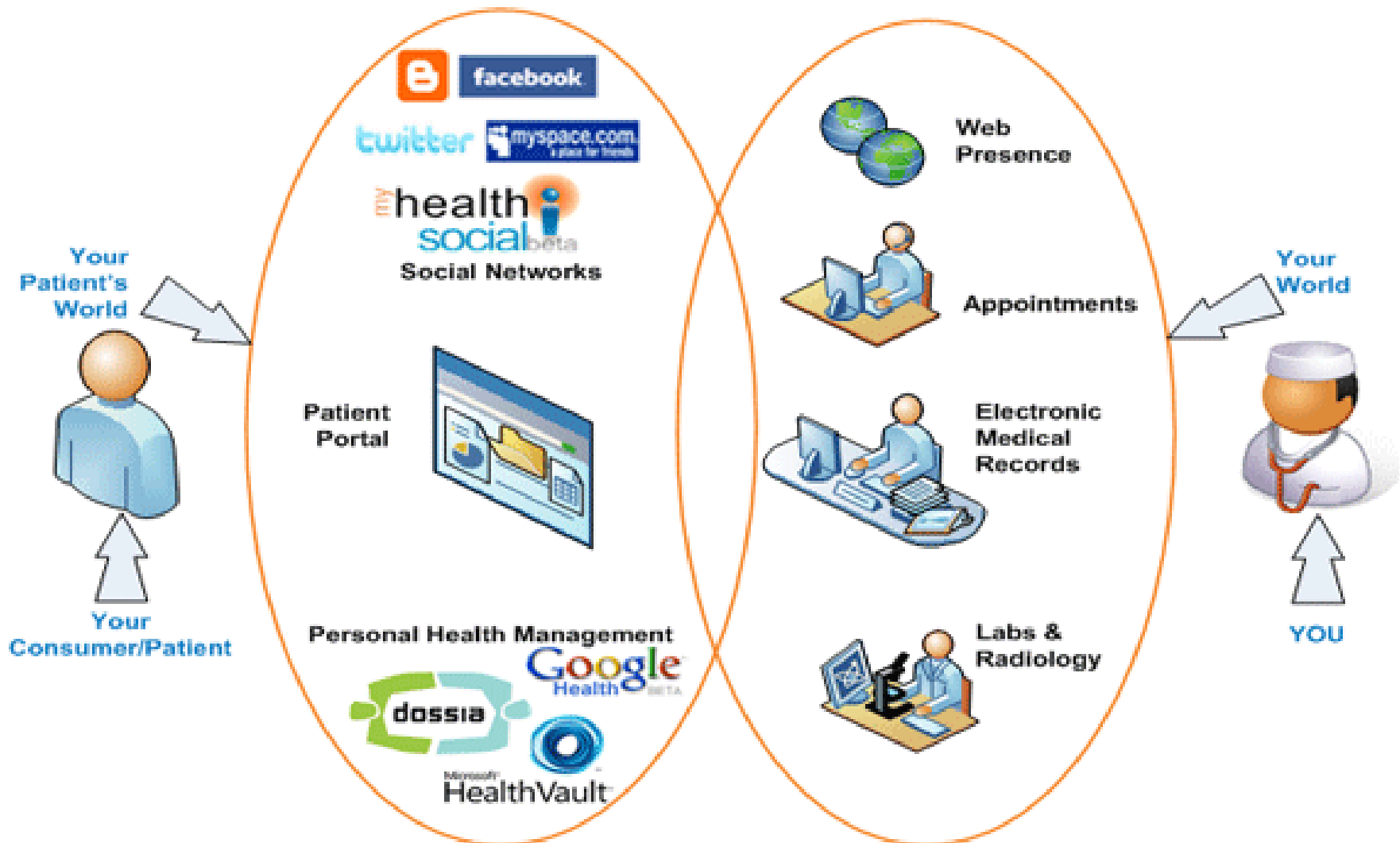
- [The 7 Biggest Innovations in Health Care Technology](#)
- [10 Emerging Healthcare Technologies](#)
- [Brave new worlds in Diagnosing Diseases](#)

# The Patient will see you now

- [Patient, Heal Thyself](#) By NY TIMES
- [Doctor Android](#) BY WS JOURNAL



# View of Healthcare Today



# Conclusion

## Patient Centric Healthcare

- Population Health - Caradigm
- Wearable Technology
- Smart Phones