# How to Make the EMR Your BFF

0

### CHP Office of Faculty Development Session October 18, 2017

Evelyn Reis, MD General Academic Pediatrics





# **Poll Everywhere**

- How does the EMR <u>help</u> you care for patients?
- How does the EMR <u>challenge</u> you?





### Overview

- I. EMR: both a blessing and a curse
  - How does the EMR <u>help</u> you care for patients?
  - How does the EMR <u>challenge</u> you?
- 2. Benefits (blessings) of EMR
- 3. Challenges (curses) of EMR
- 4. How can we improve the EMR experience for <u>patients</u>?
- 5. How can we improve the EMR experience for <u>providers</u>?
- 6. What changes will you make? Share with colleagues? Model for trainees?



# **EMR: A Blessing and a Curse**







# **Poll Everywhere**

• Word cloud:

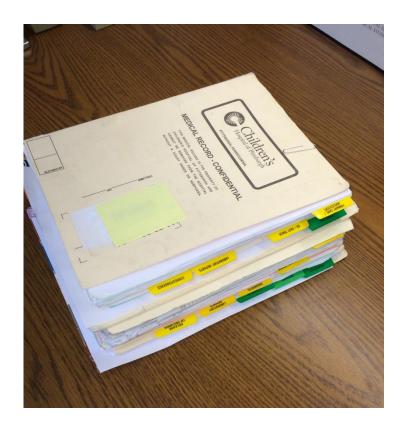
How does the EMR <u>help</u> you care for patients?







### • The good ol' days??







### Advantages of EMR

- Remote access to patient data
- Data is legible



- Data available to multiple users simultaneously
- Enhances communication and coordination of care among providers
- Enhances safety through built-in checks
  - Ex: medication allergies
- Best practice reminders
  - Ex: immunizations due
- Increases participation of patients/parents in care



#### PERSPECTIVE



#### Harnessing the Healing Power of Big Data and Health Care Technology

At Children's Hospital of Pittsburgh of UPMC, we are leading the way in the application of technology to improve patient quality, safety, and outcomes. Recently, our efforts were recognized with the prestigious HIMSS Enterprise Davies Award for health care technology innovations (see page 1).

But we're not stopping there: Here are insights into a handful of related projects we are now developing.

#### **Reducing hospital readmissions**

Our innovative SHARP Project (System for Hospital Adaptive Readmission Prediction and Management) is the country's first pediatric decision support system to help clinicians and patient care teams identify and manage patients who are at high risk for 30-day readmission. SHARP uses data to create real-time risk estimates from the moment a patient enters the hospital, allowing staff to focus on personalized patient education and prevention measures. The system will be operational by July 2016.

#### **Standardizing best practices**

We're developing standardized protocols for the management and treatment of specific conditions. Integrated into the EMR, these clinical pathways will provide step-by-step decision algorithms to guide care from admission through discharge for all specialists.

> most common illnesses , with 27 more pathways

launched Children's

hat is changing how

ies. New equipment

nusic, or watch

#### 

for an appointment. During a five-month pilot with Children's Community Pediatrics, our schedulers proactively handled 2,347 appointments from 20 pediatricians, resulting in more timely and efficient care.

#### Supporting at-risk patients

We are pioneering the first pediatric version of the Rothman Index — a predictive warning system that evaluates a patient's condition in real time with an easy-to-understand composite score. Software gathers data from the patient's EMR, along with live data from continuous monitoring systems (vital signs, nursing assessments, and lab results), to ensure closer monitoring for our sickest patients. television shows or movies. It also provides parents convenient access to information about treatment, their care team, and hospital resources.

These are challenging but exciting times in health care. At Children's, we're proud to be at the vanguard in harnessing the power of "big data," and we look forward to our continued partnerships with you to maximize their value and impact for your patients.

Andy Urbach, MD, is associate chief medical officer at Children's Hospital. He welcomes your comments and questions. Please send an email to mdrelations@chp.edu. •

#### Pediatric INSIGHTS Spring 2016





#### NEWS YOU NEED

#### Children's Hospital Lauded for Health Information Technology

Children's Hospital of Pittsburgh of UPMC has been named a 2015 Healthcare Information and Management Systems Society (HIMSS) Enterprise Davies Award recipient. Children's representatives accepted the award at the 2016 Annual HIMSS Conference &

Exhibition in March in Las Vegas.

Since 1994, the award has recognized outstanding achievement by organizations that have used health information technology to substantially improve patient outcomes while achieving



return on investment. The Davies Awards program promotes electronic health record (EHR)-enabled improvement in patient outcomes through sharing of case studies and lessons learned across a wide range of efforts, including implementation strategies, workflow design, best practice development and adherence, and patient engagement that have improved outcomes for patients.

#### Pediatric INSIGHTS Spring 2016

#### Telemedicine Extends Care to Newborns at Community Hospitals

Modern technology is bridging the distance between neonates and neonatology at Children's Hospital of Pittsburgh of UPMC and Magee-Womens Hospital of UPMC.

Telemedicine brings the Neonatal Intensive Care Unit (NICU) to the patient's bedside to help newborns get the care they need in their home communities and facilitate transfer to Children's for the sickest infants.

"The UPMC Newborn Medicine Program's telemedicine initiative utilizes specialized state-of-the-art video conferencing technology



**Participating Hospitals** 

- > ACMH Hospital, Kittanning
- > Cole Memorial, Coudersport
- Excela Westmoreland Hospital, Greensburg
- Indiana Regional Medical Center, Indiana



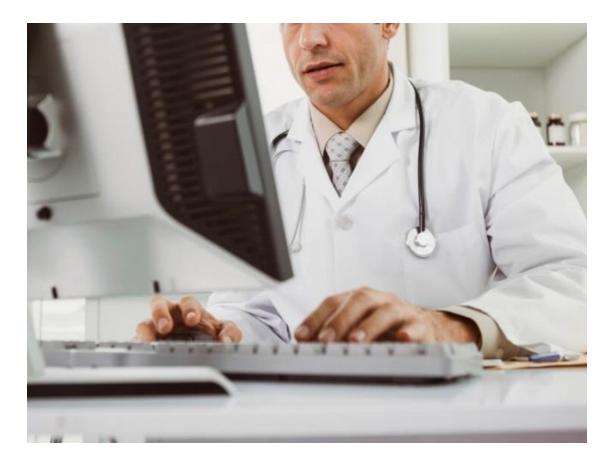


- CHP EHR-enabled patient outcomes
  - Reduced hospital-acquired infections
  - Reduced ICU admissions
  - Improved on-time delivery of medications
  - Lowered medication errors





### **EMR: A Curse**







# **Poll Everywhere**

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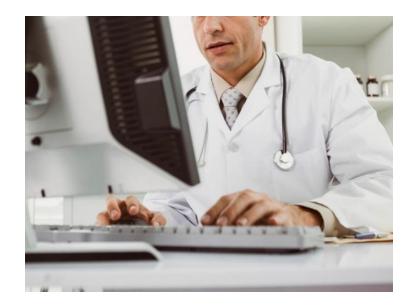
How does the EMR <u>challenge</u> you?





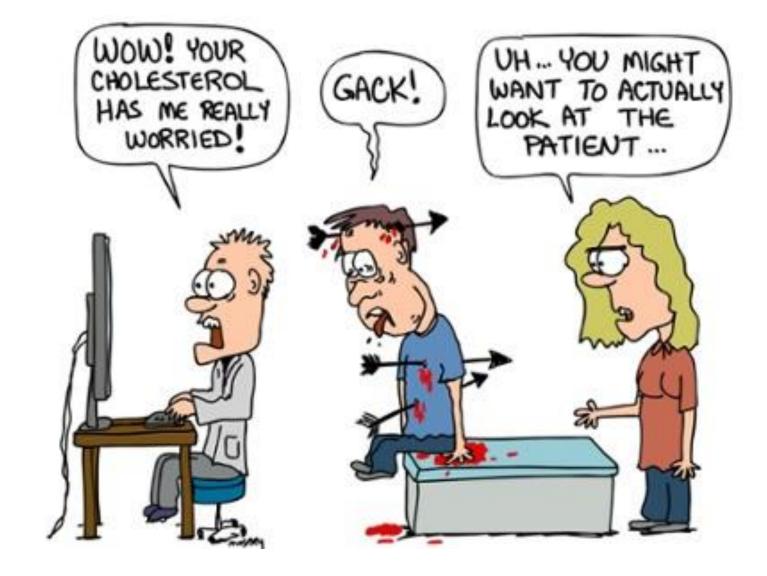
### **EMR: A Curse**

- Time-consuming
- Intrusive
- EMR-led agenda
- Distracted doctors



- Decreased communication skills and eye contact
- Decreased perceived empathy
- Doctor as data entry clerk









From: Improving Patient-Centered Technology Use (iPaCT) Education and Evaluation Toolkit, AAMC MedEd Portal











### **Observations?**



### IDEAS AND OPINIONS

### **Texting While Doctoring: A Patient Safety Hazard**

Christine A. Sinsky, MD, and John W. Beasley, MD

"Texting while driving is associated with a 23-fold increased risk for crashing and is illegal in most states... Multitasking is dangerous – cognitive scientists have shown the engaging in a secondary task disrupts primary task performance.

Might physician typing into electronic health records pose similar risks? As when driving, physicians also need to be alert to environmental cues and unexpected turns."

Annals of Internal Medicine 2013

Medical Economics > EHR

8+

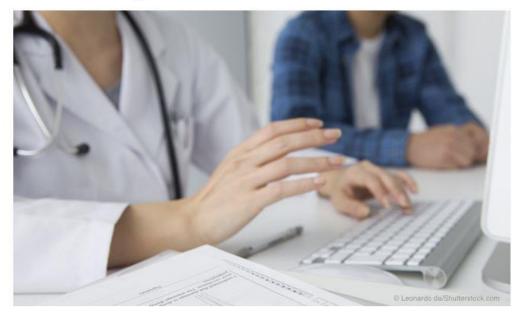
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Log in to bookmark

# EHRs are ruining the physician-patient relationship



April 16, 2016

By Cheryl L. Branche, MD, MLS

On February 17, 2009, President Obama, to stimulate the adoption of the electronic health record (EHRs) and supporting technology in the Unites States, signed the Health Information Technology for Economics and Clinical Health (HITECH) Act into law, as part of the American Recovery and Reinvestment Act of 2009.

### The Cost of Technology



#### Elizabeth Toll. JAMA. 2012



# Physician communication skills

- EMR can negatively impact verbal and nonverbal communication skills
  - Physicians who had poor communication skills during paper chart visits performed less well after the introduction of EMR
  - Doctors with better communication skills at baseline were able to better integrate the EMR into visits

R Frankel, et al. J Gen Int Med. 2005



# Eye contact

- Eye contact is directly associated with patient-perceived physician empathy
- Impact of eye contact on perceived empathy increases when visits are short E Montague, et al. J Particip Med. 2013
- Compared to paper chart visits, physicians using EMR make less eye contact with patients (1/3 visit looking at screen)

• E Montague, A Asan. Int J Med Inform. 2014

"Eye contact is a really good surrogate for where attention is ...." -- Enid Montague, MD



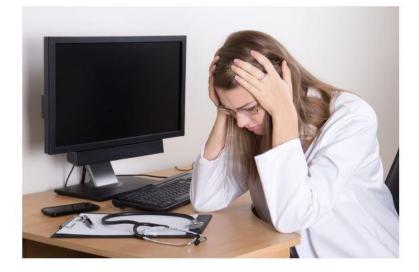
### Data Entry





### Pay doctors and nurses for the time they spend charting

EDWIN LEAP, MD | PHYSICIAN | MARCH 9, 2015





"Well told and eye opening . . . I kept thinking, 'Exactly!' while reading it." —Atul Gawande, author of *Being Mortal* 

### THE DIGITAL DOCTOR

Hope, Hype, and Harm at the Dawn of Medicine's Computer Age "...the physician can feel like a slave to the record and pay more attention to making the record look pretty than making the patient feel heard and be well."

ROBERT WACHTER

"Well told and eye opening . . . I kept thinking, 'Exactly!' while reading it." —Atul Gawande, author of *Being Mortal* 

### THE DIGITAL DOCTOR

Hope, Hype, and Harm at the Dawn of Medicine's Computer Age "...'I went into this business to connect with patients, to listen to them, to focus on them, and now I've turned into a rather unglorified, and pretty expensive, typist.""

ROBERT WACHTER

# How can we improve the EMR experience for our patients?





### Suggested changes?



### Improve patient experience



### Introduction: Eye contact, Smile, Social touch, Names



### Improve patient experience

- Social touch (therapeutic/healing touch)
  - Hand shake, touch on arm, pat on back
  - Touch in caring context, with social meaning
  - Vs.Task/Diagnostic touch: clinical purpose, necessary maneuver (e.g., physical exam)
- Better patient-perceived empathy in physicians who use social touch
  - 2-4 touches/visit ideal

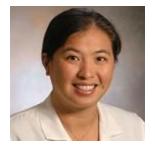
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HUMAN <sup>1</sup> LEVEL <sup>2</sup> - 10 Tips to Enhance Patient-	
Centered EMR Use	

н	Honor the "Golden Minute"	Make the start of the visit completely <b>technology</b> <b>free</b> . Greet the patient, start with <b>their</b> concerns and establish an <b>agenda</b> for the visit before engaging technology.
U	Use the "Triangle of Trust"	Create a <b>triangle configuration</b> that puts you, the patient and the computer screen at each of the three comers. This allows you to look at both the patient and screen without shifting your body.
M	<u>M</u> aximize patient interaction	Encourage patient interaction. Pause for questions and clarification. Allow time for questions and to verify understanding.
Α	<u>A</u> cquaint yourself with chart	Review the chart before you enter the room to prepare, inform and contextualize your visit.
Ν	<u>N</u> ix the screen	When discussing sensitive information, completely disengage from the EMR (look at the patient, turn away from screen, take hands off keyboard, etc.)
L	Let the patient look on	Share things on the screen with your patients.
E	<u>E</u> ye contact	Maintain eye contact with patients as much as possible. Treat patient encounters as you would a conversation with friends or family members.
V	<u>V</u> alue the computer	Praise the benefits of the EMR and take advantage of opportunities to use technology as a tool to engage patients (pull up lab result to review together, utilize graphics, etc.).
E	Explain what you're doing	Be transparent about everything you do. Avoid long silences and aim for conversational EMR use by explaining what you are doing as you are doing it.
L	Logoff	At the end of the visit, <b>log off</b> of the patient's chart while they are <u>still</u> in the exam room. This reassures the patient that their medical information is <b>secure</b> .
1. H	HUMAN - Alkureishi, Lee 2013	2. LEVEL - The Permanente Federation©2004



Dr. Wei Wei Lee

Improving Patient-Centered Technology Use (iPaCT) Education and Evaluation Toolkit

Lee WW, Alkureishi MA, Farnan J, Arora VM. University of Chicago © 2014

#### AAMC MedEd Portal



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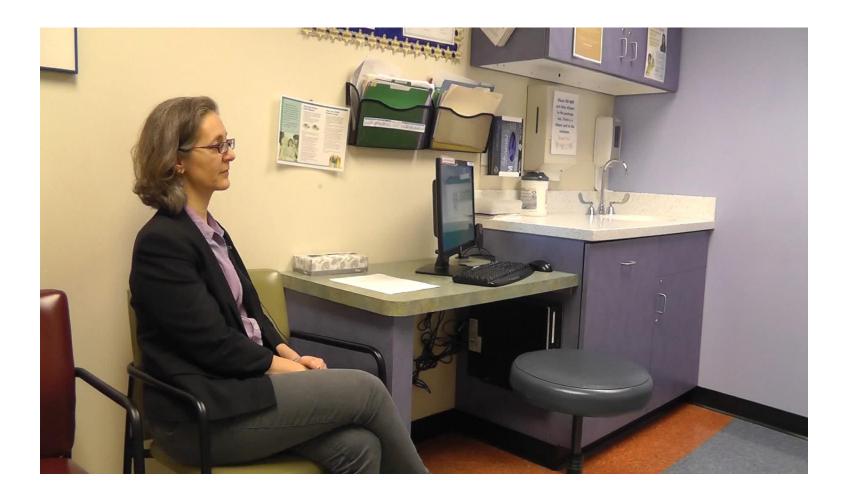




### "Golden Minute" + "Triangle of Trust"

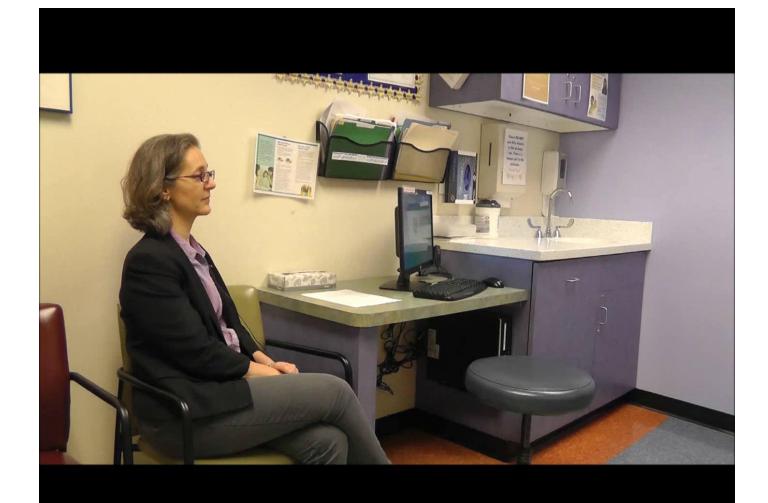


### Golden Minute + Triangle of Trust





### Golden Minute + Triangle of Trust





### Improve patient experience

### **Observations?**

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E	<u>E</u> xplain what you're doing	Be <b>transparent</b> about everything you do. Avoid long silences and aim for conversational EMR use by explaining what you are doing as you are doing it.
L	Logoff	At the end of the visit, <b>log off</b> of the patient's chart while they are <u>still</u> in the exam room. This reassures the patient that their medical information is secure.

1. HUMAN - Alkureishi, Lee 2013 2. LEVEL - The Permanente Federation@2004



### Improve patient experience

### **Observations**?

### How long before Dr. Moss logged on to EMR?

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### Improve patient experience

### **Observations**?

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56 seconds

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### Improve patient experience

### Observations

- Golden Minute
- Triangle of Trust
- Nix the screen
- Eye contact

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### Improve patient experience



### Other tips

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### Staying Connected: Eight Tips for Mindful Office Visits With an EHR

Carla Jardim, MD

- I. Focus on the patient when you enter the room.
- 2. Get the chief complaint from the patient, not the EHR.
- 3. Know when to put away the keyboard.
- 4. Inform the patient when you need to use the computer.
- 5. Sit so the patient can see the computer screen.
- 6. Admit if you are not comfortable with your EHR.
- 7. Engage the patient in the use of the EHR.
- 8. Look things up with the patient.

Jardim C. Family Practice Management. 2015



#### iPATIENT<sup>1</sup> - Tips to Enhance Patient-Centered Tablet Use with Hospitalized Patients

+

į	Infection control	Observe infection control measures when using tablet with patients (i.e. use instant hand sanitizer before and after using device with patients, regularly disinfect devices with approved cleaning agents).
Р	<u>P</u> roper device handling	Carry tablets using appropriate straps and ensure secure handling when using with patients (i.e. avoid positioning tablet in precarious positions in the patient room and ensure that the patient can see and interact with device).
Α	<u>A</u> ttention to the patient	Attention should be focused primarily on the patient at the beginning of the encounter, maintain eye contact with the patient as much as possible, use the tablet as a communication-enhancing tool.
Т	Teach the patient using the tablet	Use the tablet as an interactive tool to explain diagnoses, discuss treatment plans, consent patients etc. Pull up appropriate radiology images, patient education websites and other useful tools to promote patient understanding.
Ι	Integrate into clinical care	Integrate tablet use into <b>bedside interactions</b> with patients. Look up pertinent labs, vitals and other data with patients and encourage patient interaction. Allow time for questions and to verify understanding.
Ε	Explain what you are doing	Be transparent about everything you do. Avoid long silences and aim for conversational tablet use by explaining what you are doing as you are doing it.
Ν	<u>N</u> ever leave unaccompanied	Never leave tablet unaccompanied. This ensures that your patients' protected health information remains secure.
Т	<u>T</u> um off during sensitive discussions	When discussing sensitive information, <b>completely</b> <b>disengage</b> from the tablet (look at the patient, <u>tum</u> away from screen, etc.)

1. Arora V, Lee WW, Farnan J, Alkureishi L 2013

For more information, please email wlee6@uchicago.edu



### Time at the Bedside (Computing)

"Do we truly spend less time with our patient since the spread of EHRs?"

### Three time studies of residents:

- 2012 (Block): 40% with computer; 12% with patients: 10-24 min - admission; 7 min - follow up days
- 1988 (Parenti, Lurie): 42-45% charting; 20% with patients:
  17-28 min admission; 3.5 minutes follow up days
- 1959 (Payson): 13-16% with patients: <10 min follow up

Despite dramatic changes in medicine, time spent with patients is relatively unchanged

Czernik Z. JAMA. 2016





Time at the Bedside (Computing)

Most resident time is spent in "indirect patient care"

Now, with EHR, some indirect care can become opportunities for patient education and shared decision making.

• Example: Rather than sitting in radiology reading rooms, residents can review studies with patients at the bedside.

A PIECE OF MY



### Time at the Bedside (Computing)





# "In 75 years, I have never had the chance to see my own lungs before."

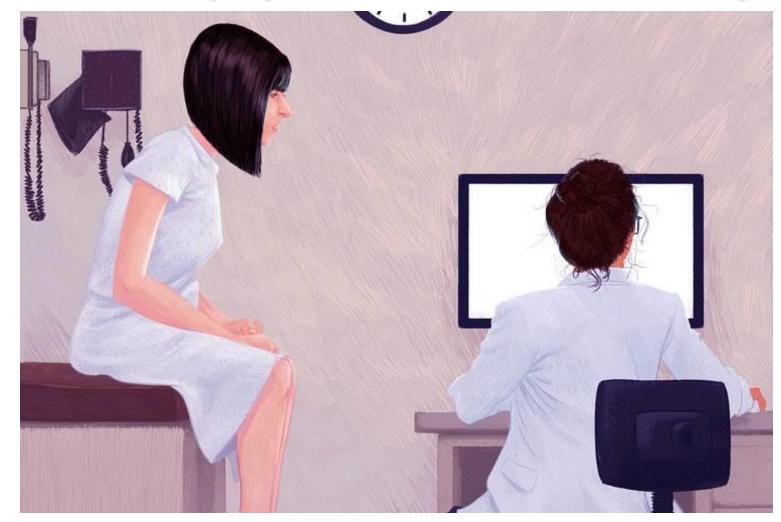
Czernik Z. JAMA. 2016



# How can we improve the EMR experience for providers?



# Relieve physicians of data entry



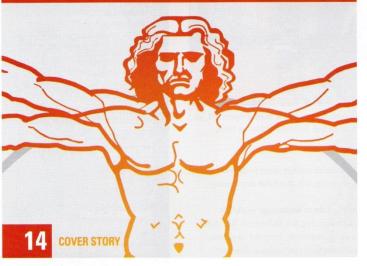








#### FEATURES



**LIFE IN THE BALANCE** Experts and doctors in the trenches offer advice on recognizing signs of stress and burnout, and ways to mitigate their effects.

#### PENNSYLVANIA PHYSICIAN Spring 2016



**THE FUTURE IS NOW** Recent innovations in health care technology are helping Pennsylvania physicians slash costs while guaranteeing quality care in a variety of environments.









#### FEATURES





LIFE IN THE BALA Experts and doctors in th and burnout, and ways to

"The use of scribes in our office has revolutionized our practice of medicine. Our scribes ... allow us to devote our time to patient care. We touch patients, not keyboards." -- Sidney Lipman, MD ENT Specialists of Northwest Pennsylvania

PENNSYLVANIA PHYSICIAN Spring 2016













SCRIBEAMERICA	-			
JUNIBEAMERICA	Scribe	America		
Overview	202 Reviews	193 Salaries	86 Interviews	60 Benefits

#### Scribe America Salaries

193 employee salaries (for 16 job titles)

Job Title	US - All Cities	
Salaries in \$ (USD)		Average
Medical Scribe - Hourly 85 Scribe America Salaries		\$9.81/hr
ER SCRIBE - Hourly 34 Scribe America Salaries		\$9.99/hr
Scribe - Hourly 27 Scribe America Salaries		\$9.35/hr
Chief Scribe - Hourly 19 Scribe America Salaries		\$13.24/hr



# Improve providers' experience

- Patient Reported Outcomes (PROs)
  - Patients complete symptom and function assessments prior to the visit
  - Responses automatically populate EMR
  - Allow MD "to be a doctor again" because no longer forced to wade through verbal check lists.
  - Being implemented in CCP (e.g., MCHAT, depression screens)

Rotenstein LS. NEJM. 2017



# Improve providers' experience

- Voice recognition software
- Other ideas?
- Wish list?



# Skill Summary

- To improve EMR experience
  - Introduction: Eye contact, smile, social touch
  - HUMAN LEVEL:
    - Golden Minute (tech free for 60 seconds)
    - Triangle of Trust, Let the patient look on
    - Maximize interaction, Engage the patient
    - Nix the screen, Eye contact (sensitive topics)
    - Value the computer
    - Explain what you are doing
    - Log off to protect privacy





What changes will you make?

Share with colleagues?

# Model for trainees?

Write your plans on the CME form and take a pic with your smart phone!



HUMAN <sup>1</sup> LEVEL <sup>2</sup> - 10 Tips to Enhance Patient- Centered EMR Use				
Н	Honor the "Golden Minute"	Make the start of the visit completely <b>technology</b> <b>free</b> . Greet the patient, start with <b>their</b> concerns and establish an <b>agenda</b> for the visit before engaging technology.		
U	Use the "Triangle of Trust"	Create a <b>triangle configuration</b> that puts you, the patient and the computer screen at each of the three comers. This allows you to look at both the patient and screen without shifting your body.		
Μ	<u>Maximize patient</u> interaction	Encourage patient interaction. Pause for questions and clarification. Allow time for questions and to verify understanding.		
Α	Acquaint yourself with chart	Review the chart before you enter the room to prepare, inform and contextualize your visit.		
Ν	<u>N</u> ix the screen	When discussing sensitive information, completely disengage from the EMR (look at the patient, turn away from screen, take hands off keyboard, etc.)		
L	$\underline{\mathbf{L}}$ et the patient look on	Share things on the screen with your patients.		
E	<u>E</u> ye contact	Maintain eye contact with patients as much as possible. Treat patient encounters as you would a conversation with friends or family members.		
V	<u>V</u> alue the computer	Praise the benefits of the EMR and take advantage of opportunities to use technology as a tool to engage patients (pull up lab result to review together, utilize graphics, etc.).		
E	Explain what you're doing	Be <b>transparent</b> about everything you do. Avoid long silences and aim for conversational EMR use by explaining what you are doing as you are doing it.		
L	<u>L</u> og off	At the end of the visit, <b>log off</b> of the patient's chart while they are <u>still</u> in the exam room. This reassures the patient that their medical information is <b>secure</b> .		

#### iPATIENT<sup>1</sup> - Tips to Enhance Patient-Centered Tablet Use with Hospitalized Patients

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į	Infection control	Observe infection control measures when using tablet with patients (i.e. use instant hand sanitizer before and after using device with patients, regularly disinfect devices with approved cleaning agents).
Р	<u>P</u> roper device handling	Cany tablets using appropriate straps and ensure secure handling when using with patients (i.e. avoid positioning tablet in precarious positions in the patient room and ensure that the patient can see and interact with device).
Α	<u>A</u> ttention to the patient	Attention should be focused primarily on the patient at the beginning of the encounter, maintain eye contact with the patient as much as possible, use the tablet as a communication-enhancing tool.
Т	Teach the patient using the tablet	Use the tablet as an interactive tool to explain diagnoses, discuss treatment plans, consent patients etc. Pull up appropriate radiology images, patient education websites and other useful tools to promote patient understanding.
Ι	Integrate into clinical care	Integrate tablet use into <b>bedside interactions</b> with patients. Look up pertinent labs, vitals and other data with patients and encourage patient interaction. Allow time for questions and to verify understanding.
E	Explain what you are doing	Be transparent about everything you do. Avoid long silences and aim for conversational tablet use by explaining what you are doing as you are doing it.
Ν	<u>N</u> ever leave unaccompanied	Never leave tablet unaccompanied. This ensures that your patients' protected health information remains secure.
Τ	<u>T</u> um off during sensitive discussions	When discussing sensitive information, <b>completely</b> <b>disengage</b> from the tablet (look at the patient, <u>tum</u> away from screen, etc.)

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### Thank you!





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