


VANDERBILT  School of Nursing

**SINI 2019**

*Can We Stop the Perpetual Growth and Complexity of the EHR and Give Nurses Time Back with Their Patients?*

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**Headlines, Cartoons and Memes**

**ELECTRONIC MEDICAL RECORD?**  
**MORE MEANINGLESS CLICKING**  
<https://imgflip.com/115u437>

**I WENT INTO MEDICINE TO WORK WITH PEOPLE AND NOT TO BE A DATA ENTRY CLERK**  
<https://www.mdnmap.com/medical-news/why-do-ems-so-terrible/>

"I hear there's a new ICD-10 code for carpal tunnel syndrome caused by clicking too many times in an EMR system."  
<https://www.ahronest.com/2016/10/16/12120245061>

**Death By 1,000 Clicks: Where Electronic Health Records Went Wrong**

BOTCHED OPERATION

The U.S. government claimed that turning American medical charts into electronic records would make health care better, safer and cheaper. Ten years and \$36 billion later, the system is an unholy mess. Inside a digital revolution that took a bad turn.

By Fred Schulte and Erika Fry, Fortune • MARCH 1A, 2018

Source: <https://khn.org/news/death-by-a-thousand-clicks/>

11/9/2018 Why Doctors Hate Their Computers | The New Yorker

THE NEW YORKER

**WHY DOCTORS HATE THEIR COMPUTERS**

*Digitization promises to make medical care easier and more efficient. But are screens coming between doctors and patients?*

By Anil Gawande

<https://www.newyorker.com/magazine/2018/11/12/why-doctors-hate-their-computer>

**Agenda**

- ▶ Review current issues related to the burden of clinical documentation in the electronic health record
- ▶ Share emerging data and tools measuring EHR satisfaction and use
- ▶ Propose a framework to address the "Burden"
- ▶ Identify organizational strategies to help reduce documentation burden for nurses – aka – what you can do today!

AAMC Association of American Medical Colleges

ABOUT MISSIONS ADVOCACY DATA

**AAMC NEWS**

PATIENT CARE

Tuesday, March 27, 2018 | by Gregg Breining, special to AAMCNews

**Reducing the Stress Associated With Electronic Health Records**

Physicians cite electronic health records (EHRs) as a leading contributor to burnout. Learn about solutions academic medicine could employ to help eliminate the stress EHRs cause.

<https://www.aamc.org/press-releases/2018/03/27/reducing-stress-associated-with-electronic-health-records/>

Google Search: "Stress, depression and burnout related to use of an EHR" 880,000 results

**Innovative approaches to solve physician burnout - KevinMD.com**  
<https://www.kevinmd.com/blog/innovative-approaches-to-solve-physician-burnout.html> •  
 Apr 8, 2017 - Burnout is associated with higher rates of major medical errors... factors, such as untreated depression, stress about medical school debt, the... or hiring IT technicians to work with clinicians to streamline use of the EHR. 4.

**Physician Burnout Costs The U.S. Health Care System Billions Each ...**  
<https://www.fpg.jhu.edu/healthcare/2018/06/14/physician-burnout-costing-america>  
 May 11, 2018 - "Everybody who gives me medicine knows that it's a stressful career... "Sundowning, inefficient" electronic health record systems... "Burnout is highly, highly associated with major depression," she says... This site is protected by reCAPTCHA and the Google Privacy Policy and Terms of Service apply.

**Handout 2018 Physician Burnout Crisis - The Doctors Company**  
<https://www.thedoctors.com/wp-content/uploads/2018/06/2018-Physician-Burnout-Crisis.pdf>  
 2018 Medscape National Physician Burnout and Depression Report... associated with clinician stress by sharing information... Full EHR Use with Feedback.


**5 Ways to Reduce Physician Burnout Caused by EHRs**  
<https://www.aetna.com/resources/reduce-physician-burnout/> •  
 Find out how you can reduce physician burnout resulting from EHR usage... Need advice on how you can reduce physician stress to help them provide better... This can result in severe breach of patient data confidentiality, because multiple...

**Electronic Health Records Contribute To Major Burnout And Stress For ...**  
<https://www.techonians.com/home/health/public-health/> •  
 Jun 30, 2018 - Having to deal with electronic health records may be contributing to the... Electronic Health Records Contribute To Major Burnout And Stress For Doctors... who use older entry software and electronic health records (EHR) tend to become... How to make the tools more clinically relevant...

**NAM - What Is Driving Burnout Among Health Care Professionals?**

- ▶ **Work-Related Stress – fueling burnout and job dissatisfaction**
  - Excessive workload
    - work hours
    - overnight call frequency
    - nurse-patient ratios
  - Moral distress
    - perceived powerlessness
    - Unnecessary/futile care
    - inadequate informed consent
  - **Work process inefficiencies – CPOE and documentation**

<https://nam.edu/burnout-among-health-care-professionals-a-call-to-action-and-address-the-underrecognized-threat-to-safe-high-quality-care/>



**NATIONAL ACADEMY OF MEDICINE**

HOME ABOUT PROGRAMS - PUBLICATIONS - NEWS EVENTS - MEMBER HOME

**Burnout Among Health Care Professionals: A Call to Explore and Address This Underrecognized Threat to Safe, High-Quality Care**

By Lotte N. Dyrbye, Tait D. Shanafelt, Christine A. Sinsky, Pamela F. Cpriano, Jay Bhatt, Alexander Ommaya, Colin P. West, and David Meyers

July 5, 2017 | Discussion Paper


<https://nam.edu/burnout-among-health-care-professionals-a-call-to-explore-and-address-the-underrecognized-threat-to-safe-high-quality-care/>

**NAM - Why Should We Be Concerned About Burnout Among Health Care Professionals?**

- ▶ Medical Errors
- ▶ Malpractice Suits
- ▶ Depressive Symptoms
- ▶ Decrease in Quality of Life
- ▶ Average burnout levels among hospital nurses are an independent predictor of **health care-associated infection**
- ▶ **Emotional Exhaustion** – as mean emotional exhaustion levels of physicians and nurses working in intensive care units rose, so did standardized **patient mortality ratios** - and perceived quality of **interpersonal teamwork** deteriorated

<https://nam.edu/burnout-among-health-care-professionals-a-call-to-explore-and-address-the-underrecognized-threat-to-safe-high-quality-care/>

**Some Stats from the National Academy of Medicine**



**400%** Increase in EHR use by hospitals and ambulatory care settings from 2008 to 2014

**2X** Increase in physician burnout from 2011 to 2014

**39%** of physicians report burnout

**23-31%** of patients report dissatisfaction with care

**24%** of EHR systems have usability issues that affect patient care

**How can we protect the health of the people who protect our own?**

National Academy of Medicine  
 Action Collaborative on Clinician Well-Being and Resilience

Learn more at [nam.edu/ClinicianWellBeing](http://nam.edu/ClinicianWellBeing)

**Google Search: "Stress, depression and burnout related to use of an EHR"**

- ▶ **880,000 results**
- ▶ Page 1: 10 results – 8 with the word "physician or doctor" in the title
- ▶ Page 2: 10 results – 9 with the word "physician or doctor" in the title
- ▶ Page 3: 10 results – 9 with the word "physician or doctor" in the title
- ▶ Page 4: 10 results – 9 with the word "physician or doctor" in the title
- ▶ Page 5: 10 results – 6 with the word "physician or doctor" in the title
  - One that was APRN focused!!

Applied Nursing Research 43 (2018) 36–41

Contents lists available at ScienceDirect

Applied Nursing Research

ELSEVIER

journal homepage: [www.elsevier.com/locate/apnr](http://www.elsevier.com/locate/apnr)

Original article

**Estimating the association between burnout and electronic health record-related stress among advanced practice registered nurses**

Daniel A. Harris, MPH<sup>a,\*</sup>, Jacqueline Haskell, MS<sup>a</sup>, Emily Cooper, MPH<sup>a,c</sup>, Nancy Crouse, CNS<sup>a</sup>, Rebekah Gardner, MD<sup>b,c</sup>

- Administered by the Rhode Island Department of Health
- A state-wide electronic survey was sent to all 1,197 APRNs licensed and in practice in Rhode Island
- The survey period was from May 8th, 2017 to June 12th, 2017
- A total of 371 APRNs contributed data for a response rate of 31.0%

Harris, D.A., Haskell, J., Cooper, E., Crouse, N. & Gardner, R. (2018). Estimating the association between burnout and electronic health record-related stress among advanced practice registered nurses. Applied Nursing Research, 43(2018), 36-41.

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**KLAS Report: The Nurse EHR Experience**

**THE NURSE EHR EXPERIENCE**

Since nurses work widely with the EHR, it is crucial to measure their experience with it so that opportunities for improvement can be found. And since, on average, nurses report significantly higher EHR satisfaction than physicians, it is also important to understand their successes, doing so provides vital information about how to improve EHR satisfaction for all clinicians.

**Nurse Net EHR Experience Score: 48.2**

**Physician Net EHR Experience Score: 44.8**

Source: KLAS, 2018. THE NURSE EHR EXPERIENCE IMPACT REPORT <https://www.klasreport.com/press/the-nurse-ehr-experience-impact-report/>

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**Harris, et. al. - Article Highlights**

- ▶ Almost one in five APRNs are experiencing at least one burnout symptom
- ▶ Insufficient time for documentation was the strongest predictor of burnout among APRNs
- ▶ 64 (19.3%) reported spending a moderately high to excessive amount of time on their EHR at home
- ▶ 165 (50.1%) agreed or strongly agreed EHRs add to their daily frustration
- ▶ 97 (32.8%) reported insufficient time for documentation

Harris, D.A., Haskell, J., Cooper, E., Crouse, N. & Gardner, R. (2018). Estimating the association between burnout and electronic health record-related stress among advanced practice registered nurses. Applied Nursing Research, 43(2018), 36-41.

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**KLAS Report: The Nurse EHR Experience**

**Agreement That the EHR:**


Keeps Patients Safe (n=18,536): Nurses 47%, Physicians 57% (n=24,947)

Enables Quality Care (n=24,471): Nurses 53%, Physicians 62% (n=27,211)

Helps Deliver Patient-Centered Care (n=18,579): Nurses 42%, Physicians 50% (n=24,957)

Source: KLAS, 2018. THE NURSE EHR EXPERIENCE IMPACT REPORT <https://www.klasreport.com/press/the-nurse-ehr-experience-impact-report/>

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**On the Brighter Side**

- ▶ KLAS Report
- ▶ Vendor Data

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**Vendor supplied data**

**MEDICAL KEY**

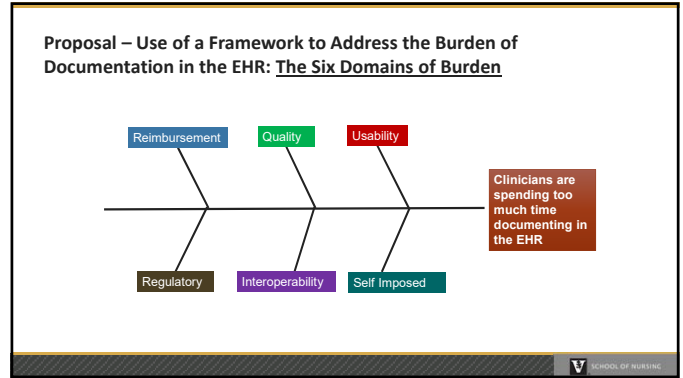
Average usage per facility: 115

**NEURO KEY**

Average usage per facility: 124

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**FEATURE ARTICLE**

**Changes in Efficiency and Quality of Nursing Electronic Health Record Documentation After Implementation of an Admission Patient History Essential Data Set**

Eva L. Karp, DHA, MBA, RN-C, FAACN, SVT; Rebecca Freeman, PhD, RN, KR N. Simpson, DPH, Anne N. Simpson, PhD

"Clinical informatics professionals should consider the use of EHR event files and timers to gain insight into process and workflow changes. The use of system data can substantiate the transformational value of informatics practice and inform future optimization efforts"

Karp, E., Freeman, R., Simpson, R., & Simpson, A. (2018). Changes in efficiency and quality of nursing electronic health record documentation after implementation of an admission patient history essential data set. *Clinical Informatics, Nursing*, 31(5),260-265, MAY 2018

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**Reimbursement/Billing**

- Documentation, coding and other administrative data entry tasks required for payment
- Examples:
  - Evaluation and management (E & M) documentation
  - Prior authorization documentation
  - New payment models: Merit-based Incentive Payment System (MIPS) and the Advanced Alternate Payment Models (Advanced APMs) – require use of certified EHR technology to exchange information across providers and with patients to support improved care delivery, including patient engagement and care coordination. All requiring documentation.

**Billing and Coding \$\$\$**

**CMS.gov**  
Centers for Medicare & Medicaid Services

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**What is "Burden"?**

- We are hearing this term often – in the literature, blogs, social media
- Merriam-Webster: Duty or responsibility, something oppressive or worrisome
- The problem – no definition for burden related to health IT and documentation in the EHR.
- Need to look at burden more holistically
- Need to address the various domains of causation to help focus improvement efforts as work is conducted, evaluated, categorized and reported

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**ONC/CMS Reducing Documentation Burden for Reimbursement**

**Burden Reduction Initiatives**

Centers for Medicare & Medicaid Services  
Dr. Katherine G. Seabrook, Medicare Coverage Expert

**PATIENTS OVER PAPERWORK**

Source: Handout from ONC/CMS Meeting on Clinician Burden, February 22, 2018, Hubert Humpfrey Building Auditorium, Washington, DC 20001. <https://www.cms.gov/medicare/medicare-coverage-database/medicare-coverage>

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## Regulatory

### ► Accreditation agency documentation requirements

- The Joint Commission
- Healthcare Facilities Accreditation Program
- State Regulatory Agencies



## CMS's Meaningful Measures initiative

- “Meaningful Measures” framework is the Centers for Medicare and Medicaid Services’ new initiative which identifies the highest priorities for quality measurement and improvement. It involves only assessing those core issues that are the most critical to providing high-quality care and improving individual outcomes.
- Its purpose is to improve outcomes for patients, their families and providers while also reducing burden on clinicians and providers.



## TJC's Project Refresh

- Multi-phased effort to modernize and streamline Joint Commission requirements by deleting non-value-added requirements and consolidating redundant requirements. Throughout 2016 and 2017, almost 300 hospital elements of performance (EPs) were removed

### What is Project Refresh?

- A series of inter-related and/or inter-dependent process improvement initiatives underway at The Joint Commission
  - Guiding principles: **Simplification, Relevancy, Innovation, Transparency**
- Refresh projects are implemented in a phased and coordinated approach, that began in June 2016 and continue.

## Usability

- **Limited and insufficient use of human factors engineering and human-computer interface principles resulting in extra time spent entering data, scrolling, clicking and searching for pertinent information in the record**
  - Support of optimal workflows
  - Appropriate use of clinical decision support tools
  - Vendor use of human factors engineering principles and usability standards
  - Appropriate use of copy and paste functionality

## Quality

- **Documentation required to demonstrate that quality patient care has been provided. This includes documentation requirements by the healthcare organization itself, as well as by governmental and regulatory agencies**
  - The Hospital Inpatient Quality Reporting (IQR) Program,
  - The Hospital Outpatient Quality Reporting (OQR) Program,
  - The Physician Quality Reporting System (PQRS)
  - National Database of Nursing Quality Indicators (NDNQI)

## National Institute on Standards and Technology (NIST)

- The NIST Health IT Usability Initiative:
  - Focused on establishing a framework that defines and assesses health IT usability.
  - Conducted (in collaboration with ONC) and the Agency for Healthcare Research and Quality (AHRQ)
  - <https://www.nist.gov/programs-projects/health-it-usability>

NISTIR 7804-1

Technical Evaluation, Testing, and Validation of the Usability of Electronic Health Records: Empirically Based Use Cases for Validating Safety-Enhanced Usability and Guidelines for Standardization

### Interoperability

- ▶ **Insufficient configuration standards resulting in duplication and re-entry of data even though it resides elsewhere, either internal to the organization or in an external system.**
  - Duplication of documentation that's already in an organization's electronic system – somewhere
  - Duplication of documentation due to inability to integrate external patient data into workflow of clinician.



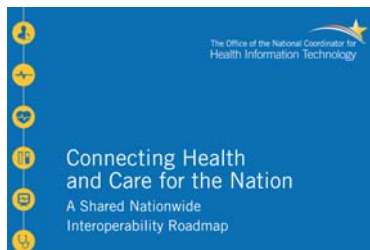
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### **Self Imposed - Examples**

- ▶ “Squeaky wheel” or powerful special interest groups want added documentation by clinicians to meet their needs.
- ▶ Excessive documentation on admission to the hospital or an initial visit to a clinic
- ▶ End users oftentimes are not aware that the functionality to improve effectiveness is available. It was not taught during initial system use training.
- ▶ Extra “CYA” charting (fear of litigation)
- ▶ The nature of nursing and the desire to capture more than necessary to provide and communicate the essentials of care

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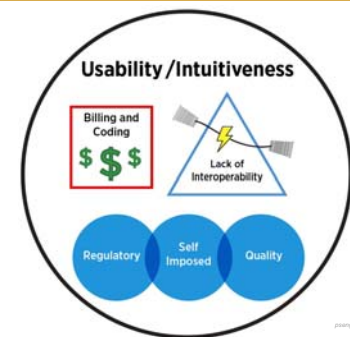
### **ONC's Interoperability Roadmap**



<https://www.healthit.gov/sites/default/files/2016-06/interoperability-roadmap-interoperability-roadmap-final-version-7-0.pdf>

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### **Domain Relationships**



pragmatics

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### Self Imposed

- ▶ **Organizational culture's influence on what should be documented can exceed what is needed for patient care, including:**
  - “We've always done it this way” mentality
  - Misinterpretation of regulatory standards
  - Over zealous risk managers
  - Outdated organizational policies



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***Can We Stop the Perpetual Growth and Complexity of the EHR and Give Nurses Time Back with Their Patients?***

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### Improve What We Can Control Today

- ▶ Review patient care policies and procedures
  - Search for the word “document” and determine value and continued need
- ▶ Review documentation needed for accreditation agencies
  - Does the standard say – must be documented?
  - TJC’s Project REFRESH (2016 – today)
    - Phases I and II resulted in the deletion of ~300 hospital elements of performance.



### Analyze the Nursing Admission Assessment Data Elements

- ▶ Is it documented elsewhere in the chart?
- ▶ Is an RN required to document?
- ▶ Is it required in the first 8 - 12 hours of admission?
- ▶ Is it something that EVERY patient must be asked?
- ▶ Is it pulled into the patient header?
- ▶ Is it needed for a report?

### Evaluate What’s Currently in the System

ADMISSION ASSESSMENT	Required regulatory field?	If yes, list agency	"RN" required: Yes/No	Ask EVERY patient?	Required in first 12 hours?	Needed for discharge planning?	Displayed in patient header?
	Yes/No						
Would you like information (required if answer to 33 is "no")	N		Y	Y	N	N	N
Pamphlet given to patient (required if answer to 34 is "no")	N		N	N	N	N	N
If advance directive: Has your AD info changed since we last saw you (required if answer to 33 is "yes")	N		N	Y	Y	Y	N
Type of advance directive (required if answer to 34 is "yes")	Y		Y	Y	Y	Y	N
Medical durable power of attorney name and phone number (required if answer to 34 is "yes" - free text)	N		N	Y	Y	N	N
Where is your advance directive	Y		Y	N	N	N	N
Reason copy cannot be obtained (free text)	N		N	N	N	Y	Y
<b>Health History</b>							
Admitted with IV	N		N	N	N	Y	Y
Date and time of insertion (required if answer to 42 is "yes")	Y		Y	N	N	N	Y
RN reviewed health history via:	Y		Y	Y	Y	Y	Y

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### Analyze the Nursing Admission Assessment Data Elements

- ▶ Of the 127 admission assessment elements evaluated
  - 30 (24%) assessment elements were recommended for retaining
  - 40 (31%) assessment elements were recommended for removal
  - 57 (45%) assessment elements were recommended for further review
- ▶ Of the forty elements recommended for removal:
  - Their scores fell below a pre-determined threshold of 15
  - Ten of the 40 had total scores of ZERO - and they are documented elsewhere in the EHR
  - None of the 40 identified were required by a regulatory agency
  - Removing all 40 items recommended for removal decreases the admission assessment by 31%.

Source: Sawicki, M. (2019). Vanderbilt University School of Nursing. DNP Scholarship Project: A Decision Support Tool to Evaluate Nursing Documentation for Burden Reduction Opportunities. Committee Chair: Sangstad, P.

### Analysis of the Nursing Admission Assessment Data Elements

Is it imperative or required to document the data element for:

- ▶ Clinical care of the patient?
- ▶ Communication of patient information to the care team?
- ▶ A regulatory agency? (TJC, CMS, MU, Core Measure – that requires documentation)
- ▶ Does it trigger an alert?

### Use Data to Make Informed Decisions

- ▶ Ask for vendor provided data
  - Nursing time in chart
    - Time spent in various areas of the chart
    - With ability to compare across nurses/departments
  - Flowsheet row data
    - Are there any flowsheets we do not use?
    - Are there any flowsheet row elements that have not been used?

## Use Data to Make Informed Decisions

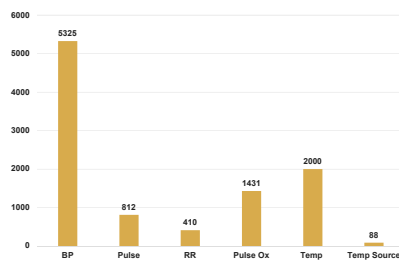
- ▶ Flowsheet Usage by Department
- ▶ Flowsheet Row Comments
  - Example: Blood Pressure Comments



## Call to Action

- ▶ Stay informed of changes by federal and regulatory agencies. If we don't know - we can't capitalize on their efforts to streamline and reduce the documentation burden
  - TIC efforts – Project REFRESH
  - CMS – Patients over Paperwork
  - University of Minnesota's - Nursing Knowledge: Big Data Science Initiative
- ▶ Re-evaluate interpretation of regulations
- ▶ Review and revise our own written policies and procedures as appropriate
- ▶ Clean up the clutter (using data available)
- ▶ Work with our vendor to improve usability and increase efficiencies
- ▶ Continue to standardize where possible
- ▶ Innovate – Mobile technologies, Voice recognition, Device integration
- ▶ Publish!
- ▶ Develop guiding principles for improving/enhancing clinical documentation. Such as.....

## Number of Comments Added to Documentation of Vital Signs 2/20/18 - 3/20/18



## Ideas for Guiding Principles

- ▶ No new documentation
- ▶ Unless:
  - Mandated
  - Based on data/evidence
  - Identified how the data entered into the new fields will be used and what actions will be taken (and by whom) based on what is entered
  - The requesting or responsible party for the addition reports out on the outcomes achieved by adding the documentation - at specified time intervals (ie – 3 months, 6 months, 9 months, etc)
  - The addition is vetted and approved via a governance process
  - If adding something – need to remove something

## Blood Pressure Comments

- ▶ pt states he felt dizzy when he leaned back his head
- ▶ MD paged
- ▶ nurse notified
- ▶ 100ml bolus of ns given
- ▶ Paged Phy. Gave pain med. Awaiting pharm. to send Catopril.
- ▶ will re-check.
- ▶ appears to be sleeping.
- ▶ Pt screaming and crying about headache. Will recheck
- ▶ MD notified, no new orders received at this time.
- ▶ NP notified; no HA, no worsening chest pressure c papcid adm
- ▶ I went in to assess the pt's BP and realized the BP cuff was on the pt's left arm which had a fistula. I placed the BP cuff on the pt's right arm and reassessed the BP.
- ▶ pre-nitroglycerin paste administration
- ▶ Cuff adjusted
- ▶ right arm sitting
- ▶ manual recheck after auto read 162/105, pt refusing BP med

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