
Choosing Wisely National APRN Collaborative

- ▶ Ruth M. Kleinpell PhD AG-ACNP FAANP FCCM
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Vanderbilt University Medical Center; Vanderbilt University School of Nursing



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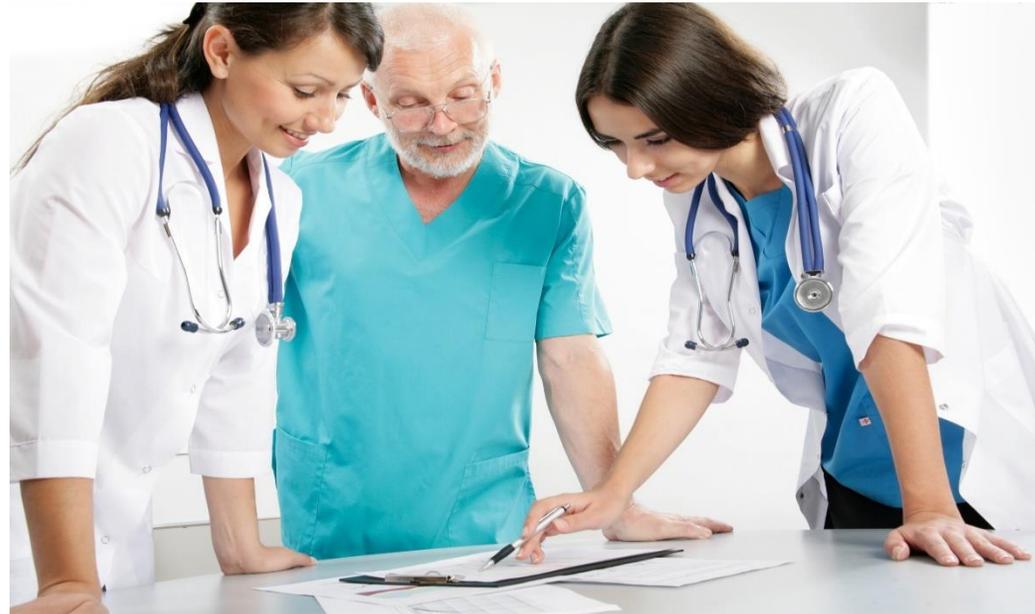
Objectives

- ▶ Identify strategies for implementing APRN-led initiatives to demonstrate outcomes.
- ▶ Highlight results from a national collaborative to showcase APRN contributions to high-value healthcare.



Overview

- APRN models of care are expanding as new role opportunities evolve.
- Identifying outcomes of APRN care remains essential to advancing the role in the future healthcare agenda.



APRN Roles Add Value: Identifying the Specific Ways Becomes Essential



- ▶ The literature highlights the various ways that APRN practice has showcased outcomes
- ▶ This session highlights strategies that APRNs can use to demonstrate impact of APRN led initiatives.



1019 licensed
beds

Level 1 trauma
center

6 Adult ICUs:

MICU 34 beds

CVICU 27 beds

SICU 22 beds

Neuro 22 beds

Trauma 12 beds

Burn 9 beds

Over 1300 APP



Identifying Opportunities for APRNs to Demonstrate Outcomes



SPECIAL ISSUE ARTICLE

Quality measures for nurse practitioner practice evaluation

Ruth Kleinpell,  PhD, RN, AG-ACNP-BC, FAANP (Director, Professor)^{1,2} & April N. Kapu,  DNP, APRN, ACNP-BC, FAANP (Associate Chief Nursing Officer, Advanced Practice, Associate Professor)²

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Developing nurse practitioner associated metrics for outcomes assessment

April N. Kapu, MSN, RN, ACNP-BC (Assistant Director)¹ & Ruth Kleinpell, PhD, RN, ACNP-BC, FAANP (Director)^{2,3,4}

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Outcomes of Nurse Practitioner-Delivered Critical Care

A Prospective Cohort Study



Janna S. Landsperger, ACNP-BC; Matthew W. Semler, MD; Li Wang, MS; Daniel W. Byrne, MS; and Arthur P. Wheeler, MD

BACKGROUND: Acute care nurse practitioners (ACNPs) are increasingly being employed in ICUs to offset physician shortages, but no data exist about outcomes of critically ill patients continuously cared for by ACNPs.

METHODS: Prospective cohort study of all admissions to an adult medical ICU in an academic, tertiary-care center between January 1, 2011, and December 31, 2013. The primary end point of 90-day survival was compared between patients cared for by ACNP and resident teams using Cox proportional hazards regression. Secondary end points included ICU and hospital mortality and ICU and hospital length of stay.

RESULTS: Among 9,066 admissions, there was no difference in 90-day survival for patients cared for by ACNP or resident teams (adjusted hazard ratio [HR], 0.94; 95% CI, 0.85-1.04; $P = .21$). Although patients cared for by ACNPs had lower ICU mortality (6.3%) than resident team patients (11.6%; adjusted OR, 0.77; 95% CI, 0.63-0.94; $P = .01$), hospital mortality was not different (10.0% vs 15.9%; adjusted OR, 0.87; 95% CI, 0.73-1.03; $P = .11$). ICU length of stay was similar between the ACNP and resident teams (3.4 ± 3.5 days vs 3.7 ± 3.9 days [adjusted OR, 1.01; 95% CI, 0.93-1.1; $P = .81$]), but hospital length of stay was shorter for patients cared for by ACNPs (7.9 ± 11.2 days) than for resident patients (9.1 ± 11.2 days) (adjusted OR, 0.87; 95% CI, 0.80-0.95; $P = .001$).

CONCLUSION: Outcomes are comparable for critically ill patients cared for by ACNP and resident teams.

CHEST 2016; 149(5):1146-1154

TABLE 2 | Patient Outcomes by Admitting Service

	ACNP (n = 2,366)	Resident (n = 6,700)	P Value	Adjusted OR	95% CI	P Value
Mortality						
ICU mortality	6.3% (149)	11.6% (777)	< .001	0.77	0.63-0.94	.01
Hospital mortality	10.0% (236)	15.9% (1,065)	< .001	0.87	0.73-1.03	.11
UHC expected mortality	10.4%	15.5%				
Observed in-hospital deaths	235	1,048				
Expected in-hospital deaths	239.5	1,021.7				
O:E ratio, in-hospital deaths	0.981	1.026				
90-d mortality	21.6% (510)	28.3% (1,896)	< .001	0.94	0.83-1.07	.36
Longer term mortality	38.3% (906)	43.0% (2,881)	< .001	1.03	0.92-1.14	.65
Length of stay						
ICU length of stay, d	3.4 (3.2-3.5)	3.7 (3.6-3.8)	< .001	1.01	0.93-1.1	.81
Hospital length of stay, d	7.9 (7.4-8.4)	9.1 (8.8-9.3)	< .001	0.87	0.8-0.95	< .001
UHC expected length of stay, d	7.6	9.0				
ICU disposition						
Transfer to hospital ward	56.3% (1,250)	69.7% (4,126)	< .001			
Discharge from hospital	43.6% (967)	30.3% (1,797)	< .001			
ICU readmission						
Before hospital discharge	3.5% (83)	4.4% (297)	.06	0.92	0.72-1.19	.53
Within 30 d of hospital discharge	5.5% (129)	5.3% (352)	.75	1.04	0.84-1.28	.75

Outcomes of Nurse Practitioner Delivered Critical Care



- No difference in 90 day survival rate
- Similar ICU length of stay
- Lower risk-adjusted hospital length of stay
- Lower ICU mortality rate
- Lower ICU readmissions

The Journal of

Trauma and Acute Care Surgery[®]

Journal of Trauma and Acute Care Surgery:

February 2014 - Volume 76 - Issue 2 - p 353–357

doi: 10.1097/TA.0000000000000097

WTA 2013 Plenary Paper

Outcomes of adding acute care nurse practitioners to a Level I trauma service with the goal of decreased length of stay and improved physician and nursing satisfaction

Collins, Nina MSN, RN, ACNP-BC; Miller, Richard MD; Kapu, April DNP, RN, ACNP-BC; Martin, Rita MSN, RN, ACNP-BC; Morton, Melissa MSN, RN, ACNP-BC; Forrester, Mary MSN, RN, ACNP-BC; Atkinson, Shelley MSN, RN, ACNP-BC, ANP-BC; Evans, Bethany MSN, RN, ACNP-BC; Wilkinson, Linda MSN, RN, ACNP-BC



Adding Nurse Practitioners to Level 1 Trauma Service

- Increased volume of cases by 14.3%
- 1.0 reduction in ALOS for entire trauma service
- 27.8 million reduction in hospital charges.
- Increased direct discharges by 21%.
- MD/RNs found the addition of ACNPs beneficial, improved patient care, improved workflow, improved communication and throughput.

Dedicated Rapid Response Team

- Decreased hospital LOS from 12.4 days to 9.36 days (O:E 1.1)
- Decreased ICU LOS from 5.16 days to 3.72 days
- Decreased mortality - relative reduction of 42.% over the year before
- Increased throughput (increased both contribution and operating margin secondary to ICU bed day utilization)
- Increased ICU bed days saved (312 ICU days saved during the pilot period)
- Increased nursing, patient and primary team satisfaction



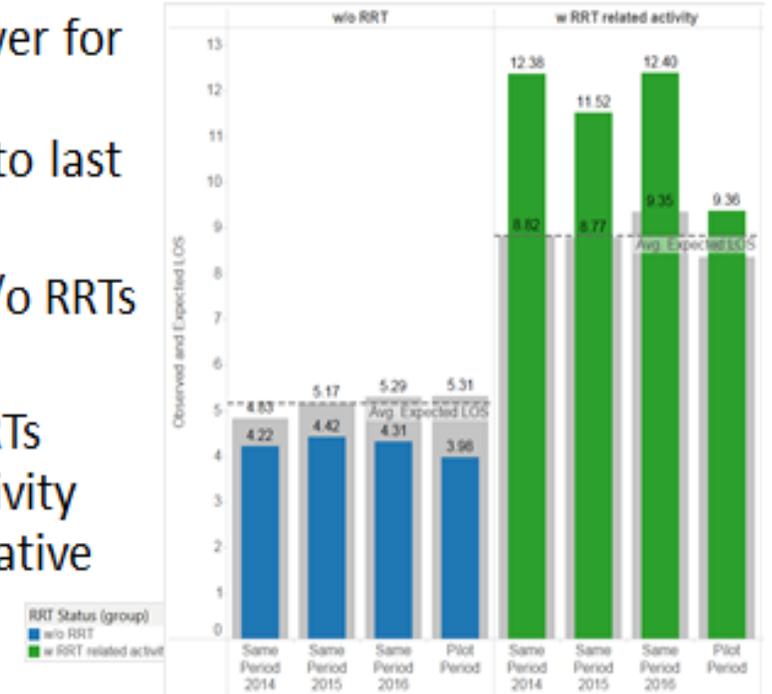
RRT 90 Day Pilot – QSRP Data

- ICU LOS is lower for RRT patients →
- Average ICU LOS -28%
- Total ICU Patients days →
 - **312** ICU bed days saved
 - Equivalent of adding 1 ICU bed



RRT 90 Day Pilot – QSRP Data

- ALOS is lower for all patients compared to last year.
- Patients w/o RRTs -7.7%
- Patients RRTs related activity -24.5% (relative reduction)





A Scoping Review of Acupuncture and Acupressure as a Potential Intervention for Neonatal Abstinence Syndrome”

Study summary:

The NADA (National Acupuncture Detoxification Association) Protocol is a standardized acupuncture technique in which five designated points in the ear are needled (+/- beads/seeds at points for home acupressure therapy in between treatments). The NADA Protocol is indicated for treatment of the following conditions: detoxification, withdrawal, emotional trauma, craving, stress syndromes, relapse prevention, rehabilitation & recovery maintenance. It is also commonly used for PTSD and addiction; however it has not been studied as an adjunct to outpatient opioid weaning protocols for pain. It is cited in the literature as yielding improvements in engagement, retention, decreased cravings, anxiety, and physical symptoms. Given these documented results, it seems feasible the outpatient opioid weaning patient would likely benefit from this procedure.

Midwifery and Women's Primary Care

Melrose Midwifery in Nashville
adds Womens Health Primary
Care to continue to serve
patients post partum and
beyond.





Advanced Practice Leaders

Day to day organization, scheduling, protocols

Recruitment, orientation, onboarding

Representing advanced practice on clinic, organization and system committees, boards

Incorporation of shared governance specific to advanced practice

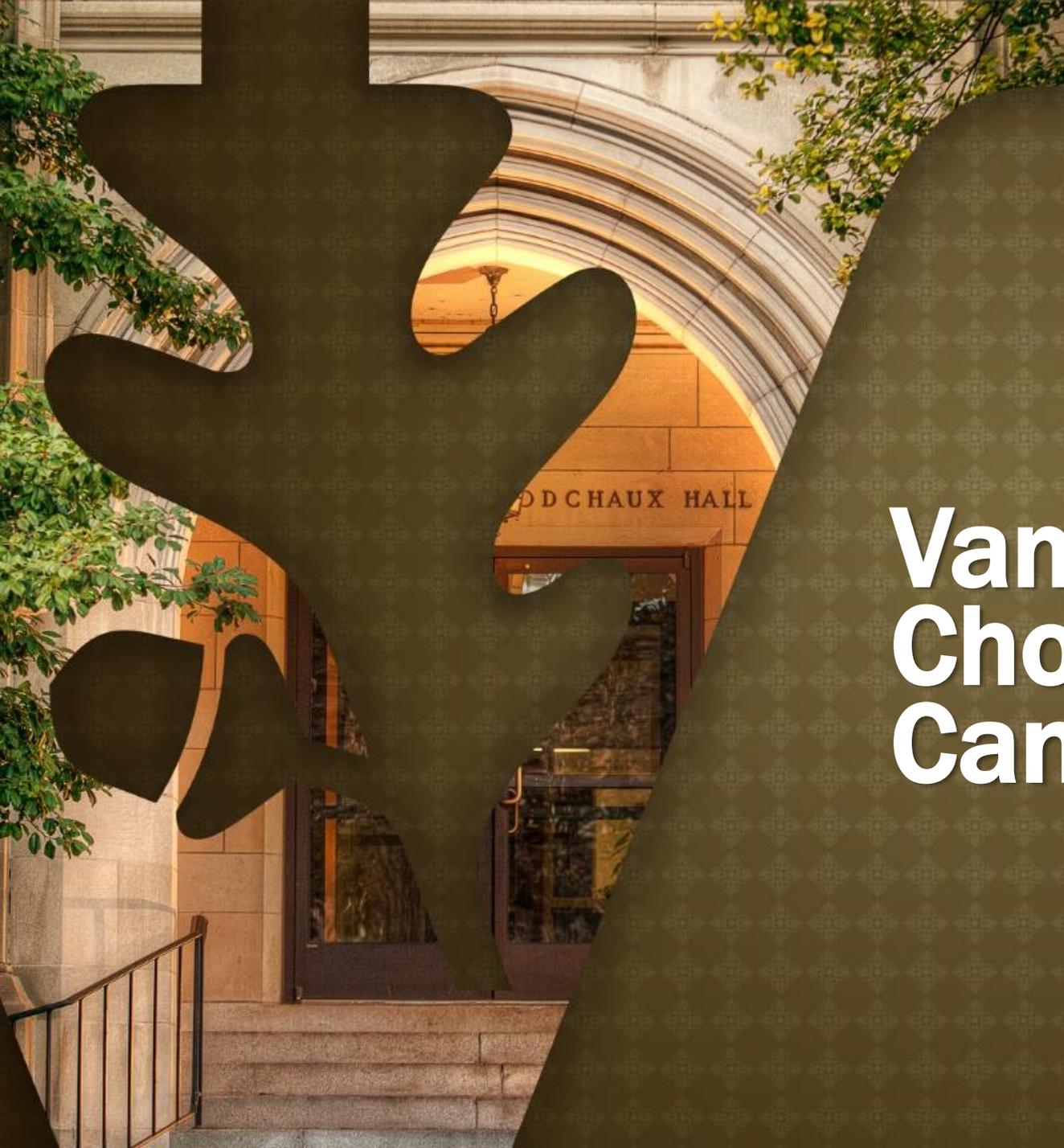
Bridging nursing and medicine

Regulatory expertise and processes

Quality messaging and practice evaluation

Organizational initiatives

Representation to external associations, organizations, research studies, publications, workgroups



Vanderbilt APRN Choosing Wisely Campaign



An initiative of the ABIM Foundation

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About

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Choosing Wisely



Choosing Wisely

Doctors often order tests and recommend treatments when they shouldn't—sometimes even when they know it. The problem has become so serious that more than 70 professional medical societies have joined forces in a project called [Choosing Wisely](#). In this effort, each society has identified at least five tests or treatments that are done too often.

Consumer Reports is participating by producing reports, brochures, and videos to help you talk with your doctor about avoiding this needless healthcare. Many of the most popular topics are listed below. (And here is our complete list of [Choosing Wisely materials](#).)

HARES
81



CONSUMER REPORTS' ARTICLES

ALLERGIES, ASTHMA & RESPIRATORY DISEASES

ALZHEIMER'S DISEASE

ANTIBIOTICS

CANCER

HEART DISEASE

PAIN

PRE-SURGERY TESTS

WOMEN'S HEALTH

OTHER

POSTERS AND OTHER CONSUMER RESOURCES



An initiative of the ABIM Foundation

Critical Care Societies Collaborative - **Critical Care**



We help the world breathe
PULMONARY • CRITICAL CARE • SLEEP



Five Things Physicians and Patients Should Question

1 Don't order diagnostic tests at regular intervals (such as every day), but rather in response to specific clinical questions.

Many diagnostic studies (including chest radiographs, arterial blood gases, blood chemistries and counts and electrocardiograms) are ordered at regular intervals (e.g., daily). Compared with a practice of ordering tests only to help answer clinical questions, or when doing so will affect management, the routine ordering of tests increases health care costs, does not benefit patients and may in fact harm them. Potential harms include anemia due to unnecessary phlebotomy, which may necessitate risky and costly transfusion, and the aggressive work-up of incidental and non-pathological results found on routine studies.



An initiative of the ABIM Foundation

Society of Hospital Medicine – **Adult Hospital Medicine**



Five Things Physicians and Patients Should Question

5 Don't perform repetitive CBC and chemistry testing in the face of clinical and lab stability.

Hospitalized patients frequently have considerable volumes of blood drawn (phlebotomy) for diagnostic testing during short periods of time. Phlebotomy is highly associated with changes in hemoglobin and hematocrit levels for patients and can contribute to anemia. This anemia, in turn, may have significant consequences, especially for patients with cardiorespiratory diseases. Additionally, reducing the frequency of daily unnecessary phlebotomy can result in significant cost savings for hospitals.

REDUCE UNNECESSARY LABS IMPROVE PATIENT CARE

GET TO KNOW THESE NUMBERS:

250	Estimated charge for "routine" daily labs (per patient, per day) at VUMC
100	Volume (mL) of phlebotomized blood leading to a 2 point drop in a patient's hematocrit ²
50	The average volume (mL) of blood removed by phlebotomy per day in an ICU patient ³
	The volume (mL) of phlebotomized blood required to increase a patient's risk for moderate to severe hospital acquired anemia by 20% ⁴
5	The five most common "routine" labs ordered on a recurring basis are: CBC, BMP, calcium, magnesium, phosphorous ⁵
	An intervention aimed at reducing unnecessary ordering of these labs achieved the following results: ⁵ <ul style="list-style-type: none"> • 12% fewer inpatient tests • 21% fewer inpatient phlebotomies • A decrease in the average number of patients requiring blood draws during morning phlebotomy rounds from 127 to 84 • An estimated yearly savings of \$73,000 just by reducing the amount of chemical reagents needed to perform these five tests
2	Estimated number of weeks it takes for high-risk ICU patients receiving frequent lab draws to require a blood transfusion due to phlebotomy ³
1	The number of people it takes to make a difference by ordering fewer unnecessary labs

WHAT'S YOUR DEFAULT?



Brought to you by the Vanderbilt Choosing Wisely House Staff Steering Committee *

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1. Stuebgen EA, Miner TJ. Surgical vampires and rising health care expenditure: reducing the cost of daily phlebotomy. Arch Surg. 2011 May;146(5):524-7. [PMID: 21576605] | 2. Havendranathan P, Bagal A, Ebidia A, Detsky AS, Choudhry NK. Do blood tests cause anemia in hospitalized patients? Gen Intern Med. 2005 Jun;20(6):520-524. [PMID: 15987227] | 3. Lyon AD et al. Simulation of repetitive diagnostic blood loss and onset of febrile anemia in critical care patients with a mathematical model. Computers in Biology and Medicine. 2013;43:94-90. [PMID: 23229481] | 4. Salisbury AC, et al. Diagnostic blood loss from phlebotomy and hospital-acquired anemia during Acute Myocardial Infarction. Arch Intern Med. 2011 Oct 10;171(18):1646-1653. [PMID: 21824940] | 5. May TA, et al. Reducing unnecessary inpatient laboratory testing in a teaching hospital. Am J Clin Pathol. 2006;126(2):200-6. [PMID: 16891194] | 6. ChoosingWisely.org, top five lists by the Society of Hospital Medicine and the Critical Care Societies Collaborative.

* Choosing Wisely® is an initiative of the ABIM Foundation. We are not affiliated, authorized, endorsed by, or in any way officially connected with the ABIM Foundation.

REPETITIVE LAB TESTING: FREQUENTLY HELD MISCONCEPTIONS AND ASKED QUESTIONS

- ### What if I miss something important?

You won't. Multiple studies looking at both ICU and floor patients have demonstrated significant (up to 42%) reductions in blood tests without any negative impact on mortality, length of stay, transfer to ICU, readmission rates or ventilator days.¹⁻⁵ If their clinical status unexpectedly changes you can always order labs at that time.
- ### What will my attending think if I don't have labs?

They will be impressed with your commitment to evidence based, cost-effective care. They may even give you an "Aspirational" ranking on your ACGME Milestone evaluation (MK2 and SBP3 – "recognize and address common barriers to cost-effective care and actively participates in initiatives").
- ### What's the harm in just ordering the labs?

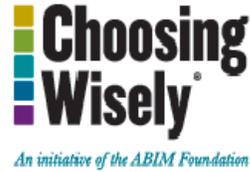
Unnecessary testing can result in several types of harm to the patient: technical errors, injuries, pain, hospital acquired anemia, and risks associated with working up incidental or erroneous abnormal results.¹ Hospital acquired anemia due to excessive phlebotomy has been associated with increased morbidity and mortality.⁶
- ### More labs = better patient care.

Not necessarily. Sometimes these labs will result in unnecessary harm as discussed in *Misconception 3*. In addition, excessive labs can significantly increase the patient's bill, interrupt sleep, increase suffering due to needle sticks, decrease patient satisfaction and increase the overall cost of healthcare.
- ### What can I do?

Discuss lab results on rounds with your team. Mention them explicitly when making a plan for the patient. Ask if they are really needed. If in doubt, try not getting labs. You can always order them later. Do you have to have the labs in the morning for rounds? Or can it wait until you have a specific concern based on clinical findings? It is possible to make a difference. Other institutions have successfully demonstrated 20 – 40% drops in the number of tests ordered.¹⁻⁶

1. Fibouris A, Bishop S, Williams L, Cunningham M. Routine blood test ordering for patients in intensive care. Anaesth Intensive Care. 2000;18(5):562-5. [PMID: 11094676] | 2. Roberts DE, Bell DD, Ostzynski T, et al. Eliminating needless testing in intensive care—an information-based team management approach. Crit Care Med. 1993;21(10):1452-8. [PMID: 8409952] | 3. Wang TJ, Mort EA, Nordberg P, et al. A utilization management intervention to reduce unnecessary testing in the coronary care unit. Arch Intern Med. 2002;162(16):1855-90. [PMID: 12196088] | 4. Nelson EG, Johnson KB, Rosenbloom ST, et al. The impact of peer management on test-ordering behavior. Ann Intern Med. 2004;141(3):196-204. [PMID: 15289216] | 5. Attali M, Bareil Y, Somin M, et al. A cost-effective method for reducing the volume of laboratory tests in a university-associated teaching hospital. Mt Sinai J Med. 2006;73(5):787-94. [PMID: 17008940] | 6. Salisbury AC, Reid KJ, Alexander KP, et al. Diagnostic blood loss from phlebotomy and hospital-acquired anemia during acute myocardial infarction. Arch Intern Med. 2011;171(18):1646-53. [PMID: 21824940]

A New Opportunity to Choose Wisely

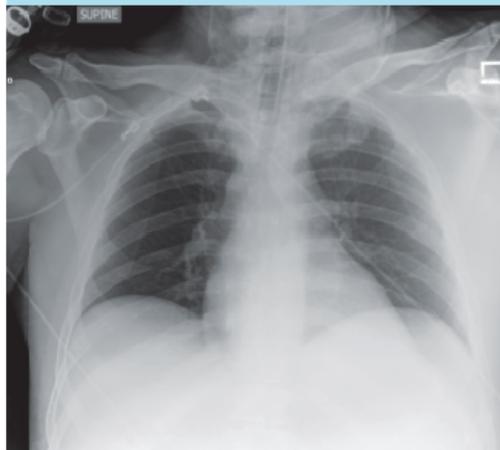


Order Fewer Chest X-rays

Three Ways to Choose Wisely:

- 1 In the ICU:** The Critical Care Societies Collaborative recommends against ordering daily chest x-rays without a clinical indication.
- 2 Pre-op:** The American College of Radiology recommends avoiding pre-operative chest x-rays for ambulatory patients with unremarkable history and physical exams.
- 3 New admissions:** The American College of Radiology recommends obtaining chest x-rays if you suspect acute cardiopulmonary disease or in a patient older than 70 with chronic stable cardiopulmonary disease who does not have a recent x-ray.

Each day more than half of ICU patients at VUMC receive a CXR.



The average daily cost of CXRs in ICUs at VUMC is more than \$1,500.

Frequently Held Misconceptions



- 1 My ICU patient needs a chest x-ray (CXR) every morning regardless of clinical status.**
Not necessarily. A meta-analysis of 9 studies showed no difference in mortality, ICU length of stay, or duration of mechanical ventilation in patients who received CXRs only based on clinical changes vs. those receiving routine, daily CXRs.¹ Other studies have shown a 32-45% reduction in CXR orders with no change in patient outcomes.²⁻³
- 2 In the majority of cases my morning chest x-ray changes management.**
Quite the opposite. A good rule is to always order a CXR to answer a clinical question. One study, conducted in an ICU, found that when performing routine, daily CXRs, only 5.5% of radiographs resulted in changes in management.⁴
- 3 There is no harm in routine, daily CXR's in ICU patients.**
False. The costs to patients include unnecessary work-ups of false positive results, excess radiation exposure, dislodged lines and endotracheal tubes during repositioning, and money (\$24 per CXR). It also takes away resources from support staff needed to evaluate more unstable patients.
- 4 Every patient needs a chest x-ray before surgery.**
Not the case. Patients with history or physical exam findings suggestive of cardiopulmonary disease or patients over age 70 without a CXR in the preceding six months may benefit from a pre-op CXR.⁵
- 5 I will miss something by not ordering a routine, morning chest x-ray on my intubated patient.**
It's unlikely. While most patients have a clinical indication for a CXR in the first 48 hours after intubation, patients ventilated >48 hours are unlikely to benefit from routine imaging. One study found only a 0.7% risk of delayed diagnoses among patients not receiving routine CXRs; most of the delayed diagnoses were mal-positioned NG tubes.⁴



Choosing Wisely: An APRN Led Initiative to Reduce Unnecessary Chest X-Rays in the Cardiovascular ICU

- Preliminary analysis of CXR ordering rates in the CVICU shows a significant decrease after the implementation of the CW initiative. After only five months, CXR rates have decreased 17%, resulting in a decrease of over \$33,000 per month in charges.
- An APN driven initiative to implement CCSC recommendations regarding CXR utilization in the CVICU resulted in a 17% decrease in CXR ordering rates. The reduction in radiological testing removes potential harm to patients and also decreases healthcare costs.



Targeting Stakeholders to Reduce Blood Draws in a Burn ICU

TARGETING STAKEHOLDERS TO REDUCE BLOOD DRAWS IN A BURN ICU

CLINT LEONARD MSN AG-ACNP; APRIL KAPU DNP ACNP FCCM; WADE IAMS MD; RUTH KLEINPELL PHD RN FCCM

VANDERBILT UNIVERSITY
MEDICAL CENTER

INTRODUCTION

- Unnecessary phlebotomy represents a significant burden both in terms of hospital expenditures and patient discomfort
- Routine labs (such as CBC and BMP) are estimated to cost \$250 per patient per day and are often ordered by default rather than based on clinical necessity¹
- These labs can lead to iatrogenic anemia. Patients lose roughly 50mLs of blood are lost each day due to phlebotomy¹
- There is a nationwide initiative to reduce unnecessary diagnostic tests collectively called Choosing Wisely²
- Changing a culture from defaulting to lab draws to only drawing labs when they are indicated is a difficult, long-term process that requires participation from multiple stakeholders, including physician leadership, bedside nurses, NPs, residents, and nursing management
- These stakeholders all have different perspectives and priorities, and achieving buy-in means tailoring Choosing Wisely education to the needs of specific groups

METHODS

- Choosing Wisely was implemented at Vanderbilt as a collaborative effort among advanced practice providers in 6 ICUs and various subacute care areas.
- Monthly committee meetings were held to plan specific interventions, including disseminating information on common lab test and imaging patient charges, distributing fliers around target units, email correspondence and in-person education. Each area had a designated ambassador to act as liaison
- Burn ICU focused on CBC, BMP, pre-albumin, and CRP
- Education was rolled out beginning Oct. 1, 2015

BICU Zero Lab Days

Interventions

- Presentation to Attending Physicians at Monthly Quality Improvement Meeting
- Changes to Default Admission Order Set
- Pre-operative labs no longer mandated for stable patients
- Communication with Nurses
- Policy regarding pre-albumin and C-reactive protein modified

Barriers

- Ingrained culture of overintervention
- Nursing Turnover
- Resident Turnover
- Off-Service/Overflow patients
- Inertia/reversion to previous practice
- Discomfort with lack of labwork

RESULTS

- Profound drop from 1.8 labs per day per patient to .53 labs per patient in initial month of study
- Significant attenuation of effect seen in subsequent months as time from initial roll-out increased
- Overall reduction in lab draws by 22.4% during study period, although the sample sizes are too low to achieve statistical significance

BICU

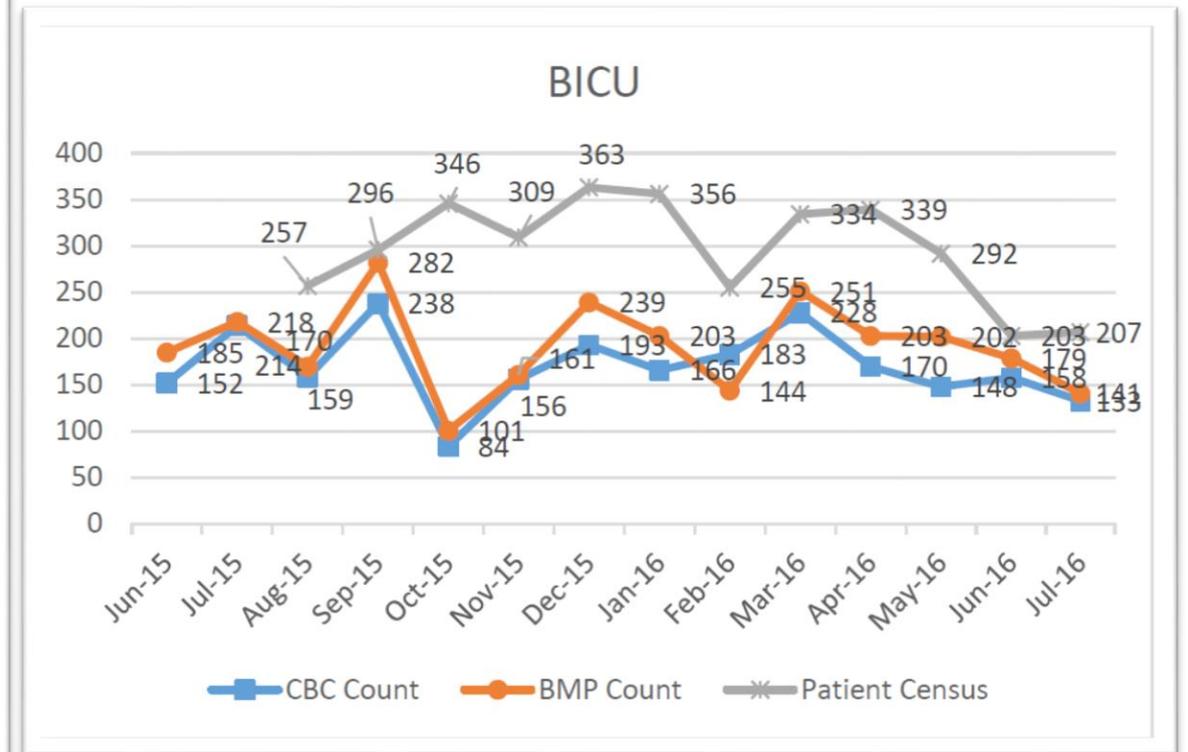
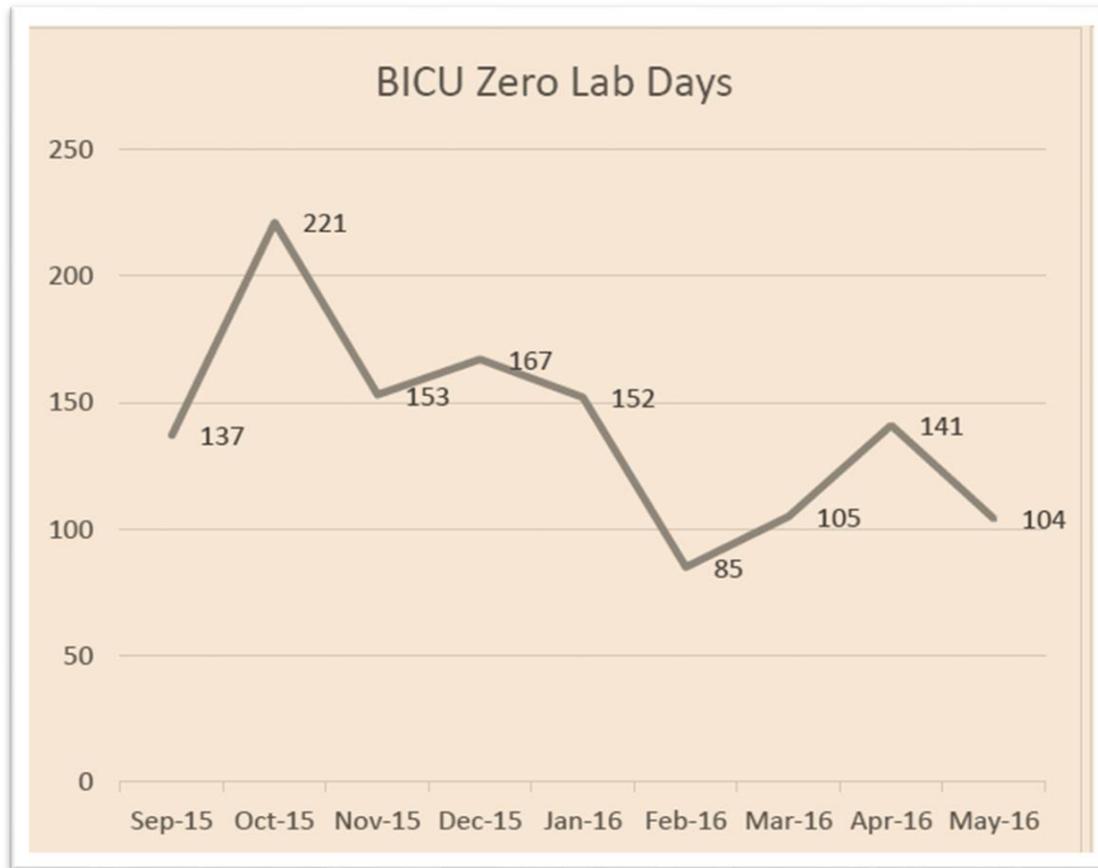
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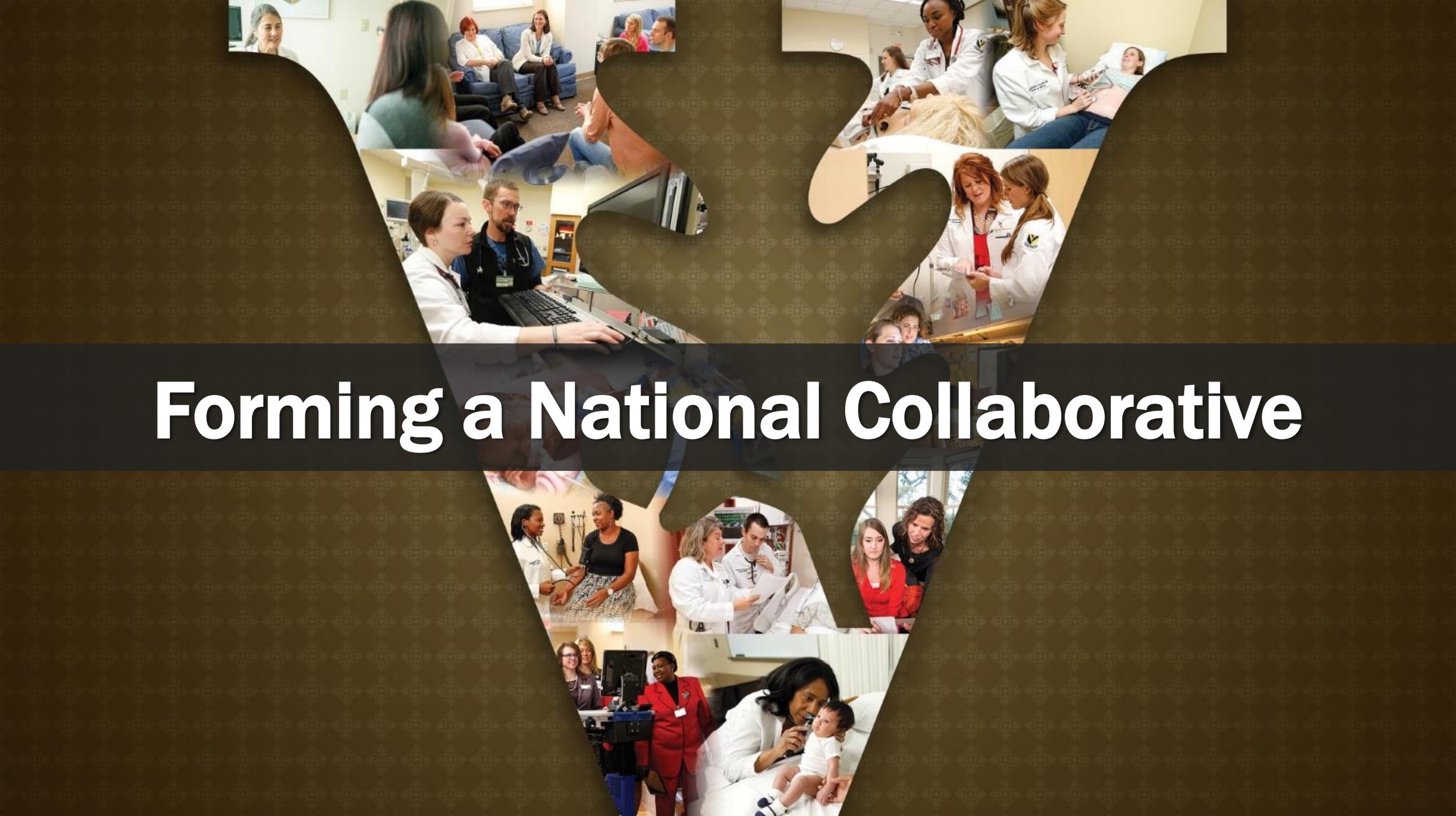
**REPETITIVE LAB TESTING:
FREQUENTLY HELD MISCONCEPTIONS AND ASKED QUESTIONS**

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- 2 **What will my attending think if I don't have labs?**
They will be impressed with your commitment to evidence based, cost-effective care. They may even give you an "Appreciation" ranking on your HCLM. Misconceptions (MCC) and QIPs⁵ - recognize and address common barriers to cost-effective care and actively participate in initiatives⁶.
- 3 **What's the harm in just ordering the labs?**
Unnecessary testing can result in several types of harm to the patient: technical errors, injuries, pain, hospital acquired events, and costs associated with working on repeated or erroneous abnormal results.⁷ Hospital acquired anemia due to excessive phlebotomy has been associated with increased mortality and morbidity.⁸
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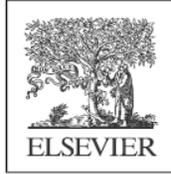
American Board of Internal Medicine. (2016). Retrieved from www.choosingwisely.org

Burn ICU Choosing Wisely





Forming a National Collaborative



Available online at www.sciencedirect.com



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The use of national collaborative to promote advanced practice registered nurse-led high-value care initiatives

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Table 1 – Examples of APRN Led Initiatives Implemented as Part of a National Collaborative

- Reducing unnecessary lab testing for hospitalized patients
- Reducing use of antibiotics for upper respiratory infections
- Development of an antibiotic stewardship committee
- Reducing the use of daily chest-x-rays for post cardiac surgery patients
- Discerning chest radiography appropriateness in the medical intensive care unit
- Reducing postoperative opioid analgesia prescribing using a morphine equivalent daily dosing tool in the electronic medical record
- Promoting mobility in hospitalized older adults
- Reducing the rate of unnecessary neuroimaging for headache complaints
- Creating an Enhanced Recovery After Surgery (ERAS) pathway for post-cystectomy and urinary diversion patients
- Reducing length of stay in patients with endocarditis secondary to intravenous drug use disorder who required cardiovascular surgery
- Use of oral rehydration therapy (ORT) for patients presenting with acute bouts of diarrhea with or without vomiting

Choosing Wisely Collaborative



Order Fewer Chest X-rays

Three Ways to Choose Wisely:

- 1 In the ICU:** The Critical Care Societies Collaborative recommends against ordering daily chest x-rays without a clinical indication.
- 2 Pre-op:** The American College of Radiology recommends avoiding pre-operative chest x-rays for ambulatory patients with unremarkable history and physical exams.
- 3 New admissions:** The American College of Radiology recommends obtaining chest x-rays if you suspect acute cardiopulmonary disease or in a patient older than 70 with chronic stable cardiopulmonary disease who does not have a recent x-ray.

Each day more than half of ICU patients at VUMC receive a CXR.



The average daily cost of CXRs in ICUs at VUMC is more than \$1,500.

References:

1. Choosing Wisely: Top Five List of the Critical Care Societies Collaborative http://www.choosingwisely.org/wp-content/uploads/2014/01/CCSC-Choosing-Wisely-List-0214.pdf accessed February 15, 2015.
2. Gansqually A, Adhikari NK, Spryginon J, Scales DC. Routine chest x-rays in intensive care units: a systematic review and meta-analysis. Crit Care. 2012;16(2):R66.
3. Choosing Wisely: Top Five List of the American College of Radiology http://www.choosingwisely.org/wp-content/uploads/2013/01/5things_11_fachler_Amer_ColR_Radiology.pdf accessed February 15, 2015.
4. Mohammed TL, et al. Expert Panel on Thoracic Imaging. ACR Appropriateness Criteria® routine admission and preoperative chest radiography. [Online publication]. Reston (VA): American College of Radiology (ACR); 2011.

Sign Up!

[Click here to sign up for the Choosing Wisely Collaborative](#)

Choosing Wisely Collaborative

Vanderbilt Advanced Practice Registered Nurse Choosing Wisely® (CW) Collaborative

Overview

It is well recognized that patients undergo numerous tests and procedures during a hospital stay or clinic visit. In an effort to promote judicious use of testing, the *Choosing Wisely (CW)* campaign was launched by the American Board of Internal Medicine Foundation, as an effort to identify tests and procedures commonly used but whose necessity should be evaluated. While reports of *CW* projects exist in the literature, little is known about the impact of advanced practice-nursing-led initiatives targeting the *CW* recommendations.

In response to this, an Advanced Practice Registered Nurse (APRN) led initiative was launched in 2015 at Vanderbilt University Medical Center, working in conjunction with an interdisciplinary *CW* committee. For a 12 month period, lab and chest-x-ray use were tracked in 6 intensive care units and in several specialty units to assess the impact of APRN-led unit based projects. Educational materials including promotional fliers, a slide deck that was customized for individual and group presentations, and email communications were used to launch the projects. APRN teams promoted awareness of the initiative and served as champions to reinforce the project aims over the duration of the initiative. Data was tracked on lab and x-ray use and reviewed at monthly taskforce meetings. Interdisciplinary committee representation

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- The American Academy of Nursing's Choosing Wisely Campaign, APN CW Collaborative, Ruth Kleinpell PhD ACNP-BC FAAN
- The American Board of Internal Medicine Choosing Wisely Campaign
www.choosingwisely.org

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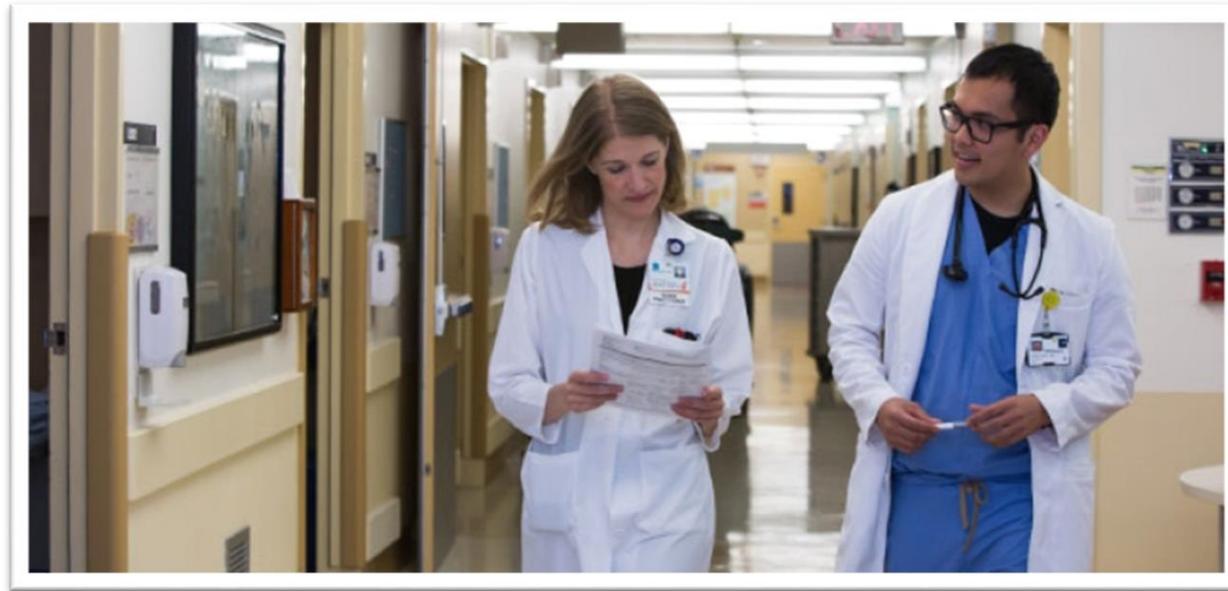
APRN CW National Collaborative Overview

- Monthly coaching calls
- Share strategies for implementing an APRN-led initiative
- 16 APRN teams from 13 states from academic & community settings currently participating in collaborative
- Teams report steps taken to track outcomes of various high value care initiatives



APRN CW National Collaborative Overview

- ▶ Teams have implemented a number of high value care initiatives targeting inpatient and outpatient care including lab test and imaging use, surgical pathway for enhanced recovery, and back pain management, among others.



Summary

- ▶ A national collaborative using the Choosing Wisely Campaign was beneficial in showcasing initiatives and identifying the impact of APRN led projects.

