High Value Care for the Hospitalized Patient:

Are there “Things We Do For No Reason?”

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COI

None

Objectives

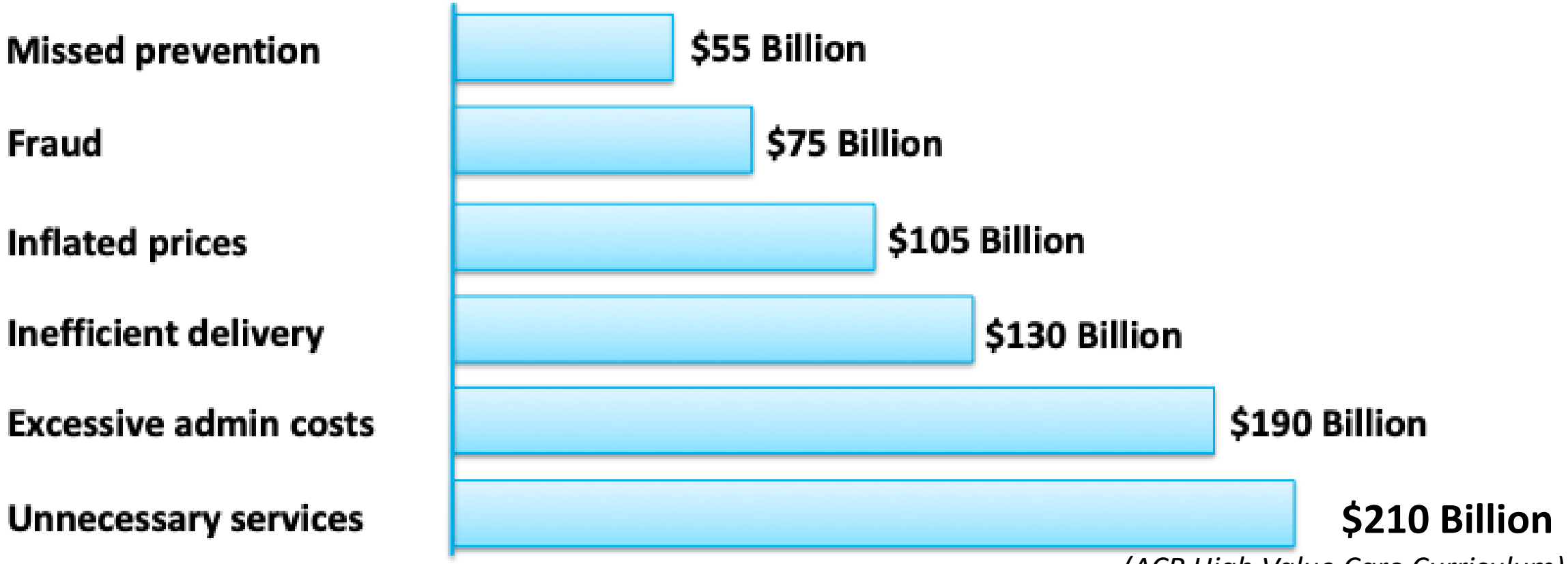
1. Define and understand the importance of high value care
2. Discuss the cost implications of several common clinical scenarios and the evidence-based guidelines for appropriate diagnosis and treatment
3. Identify opportunities to bring the principles of high value care to your practice on a daily basis.

High Value Care

- In 2016, healthcare spending was $3.3 trillion dollars, making up 17.9% of the US GDP
- One in three healthcare dollars are waste (NEJM, 2010)
  - Top three contributors to inappropriate spending:
    1. unnecessary services,
    2. excess administrative costs,
    3. inefficient delivery of care
- What is high value care?
  - *"The best care for the patient, with the optimal result for the circumstances, delivered at the right price"*

(ACP High Value Care Curriculum)

Estimated Sources of Excess Costs in Health Care



(ACP High Value Care Curriculum)

What is High Value Care?

Steps Toward High Value Care

1. Understand the benefits, harms, and relative costs of the interventions
2. Decrease or eliminate interventions that provide no benefits and/or may be harmful
3. Choose interventions and care settings to maximize benefits, minimize harms, and reduce costs
4. Customize a care plan that incorporates patient values and concerns
5. Identify system level opportunities to improve outcomes, minimize harms, and reduce waste

(ACP High Value Care Curriculum)

Barriers to Delivery of High Value Care

- Knowledge/cognitive
  - Diagnostic uncertainty, not knowing enough about a particular topic, not having enough time to look it up
- Process/systems related
  - Easier to order things than not order
- Patient satisfaction
  - “Testing to reassure does not reassure”
- Culture
  - Institutional role models or local practice habits can propagate low value care
  - Patient pressures and trainees not wanting to disappoint their attendings are also contributors

(ACP High Value Care Curriculum)

What are “Things We Do For No Reason?”

- A platform for discussion of common practices of hospital care where there is limited supporting evidence or even strong evidence refuting their value
- Digging into traditional practices or “The way we’ve always done it”
- Individual tests, treatments or other clinical practices that may not be beneficial or may be harmful to patients
- May not have significant physical or financial harm, but may cause significant downstream effects

Feldman, L. Journal of Hosp Med 2015:10(10)696-696

Case #1

70 y/o F with past medical history of type 2 DM and HTN was admitted with abdominal pain following 4 days of N/V and diarrhea. Blood pressure on admission: 118/72 mm Hg. Initial lab w/u revealed a BUN of 30 mg/dL and serum creatinine of 1.8 mg/dL. Her grandson had viral GI illness following an outbreak of similar symptoms at his pre-school.

She was diagnosed with viral gastroenteritis and admitted to observation for acute kidney injury.

These are your admission orders:

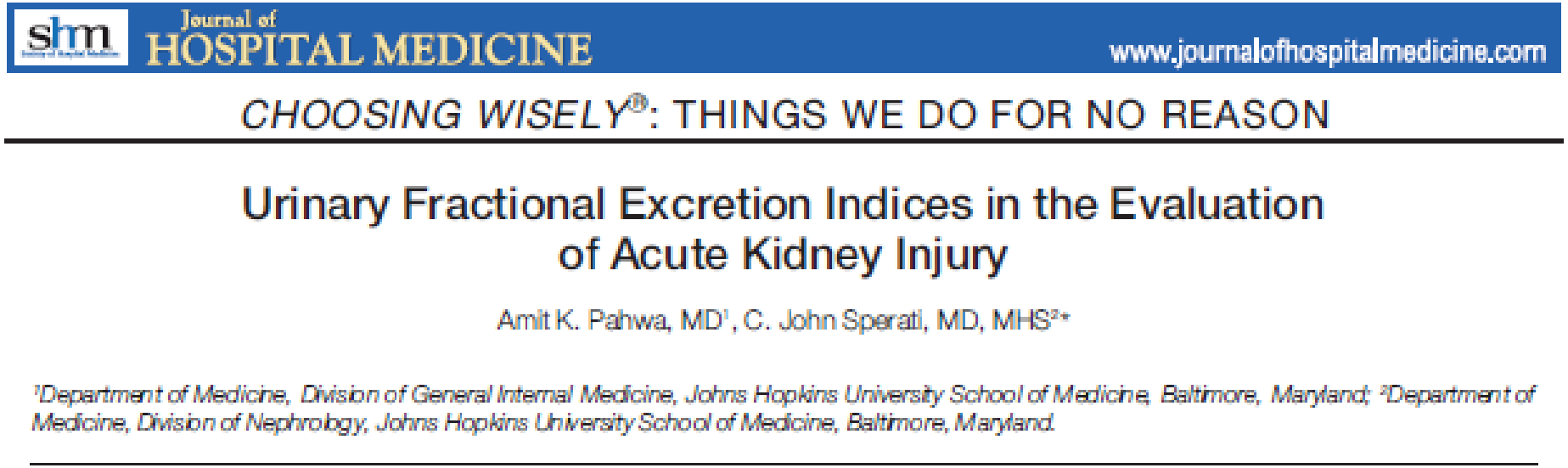
A. Hold nephrotoxic meds, check FENa and start IVFs

B. Hold nephrotoxic meds, check FENa, order renal ultrasound and start IVFs

C. Hold nephrotoxic meds, check FENa and if less than 1%, then start IVFs

D. Hold nephrotoxic meds and start IVFs

Urinary Fractional Excretion Indices in the Evaluation of Acute Kidney Injury



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Urinary Fractional Excretion Indices in the Evaluation of Acute Kidney Injury

Amit K. Pahwa, MD[1], C. John Sperati, MD, MHS[2]*

[1]Department of Medicine, Division of General Internal Medicine, Johns Hopkins University School of Medicine, Baltimore, Maryland; [2]Department of Medicine, Division of Nephrology, Johns Hopkins University School of Medicine, Baltimore, Maryland.

FeNa/FeUr in AKI

- Why you might think ordering FeNa or FeUr testing is helpful in the evaluation of AKI

August 9, 1976

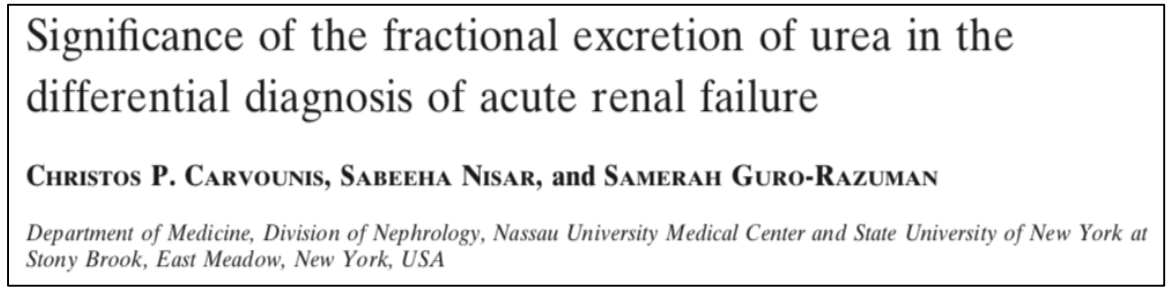
The FeNa Test

Use in the Differential Diagnosis of Acute Renal Failure

Carlos Hugo Espinel, MD

JAMA. 1976;236(6):579-581. doi:10.1001/jama.1976.03270060029022

- 17 oliguric patients, used FeNa <1% and FeNa >3% to distinguish between prerenal and ATI



Significance of the fractional excretion of urea in the differential diagnosis of acute renal failure

CHRISTOS P. CARVOUNIS, SABEEHA NISAR, and SAMERAH GURO-RAZUMAN

Department of Medicine, Division of Nephrology, Nassau University Medical Center and State University of New York at Stony Brook, East Meadow, New York, USA

- 50 pts with prerenal azotemia, 27 with prerenal azotemia on diuretics and 25 with ATI

FeNa/FeUr in AKI

- Why there is little reason to order FeNa and FeUr in patients with AKI
  - The application of FeNa or FeUr is predicated on the ordering provider already knowing the diagnosis is either prerenal azotemia or ATI
  - Prerenal azotemia and ATI often overlap
  - Why send a test that is predicated on already knowing the answer?
  - In the general population, FeNa or FeUr lacks specificity/sensitivity in the general population to inform clinical decisions

FeNa/FeUr in AKI

- The gold standard for diagnosis is the prompt improvement of prerenal azotemia with correction of renal hypoperfusion
- The decision to administer IVFs or diuretics in the management of AKI is independent of both FeNa and FeUr
- In the patient in the question, prerenal and ATI may both be present and low FeNa or FeUr will not change your intervention as even with ATI, a patient may require volume manipulation
- However, the one case where urine Na or FeNa is useful is in the evaluation of hepatorenal syndrome (HRS), characterized by oliguria and intense renal sodium reabsorption with resultant spot urine Na of <10 mEq/L and FeNa <1%

Case #2

62 y/o F with hx of type 2 DM, HTN, CAD, and obesity is admitted for AKI found on routine lab testing. She has been taking amoxicillin and doxycycline for 5 days for left leg cellulitis with minimal improvement. On admission, BP is 120/74 mm Hg and HR is 89 bpm. Serum Cr level is increased from baseline of 0.7 mg/dL to 3.6 mg/dL on admission.

Urinalysis reveals 1+ protein and presence of WBCs and isomorphic RBCs. No casts or crystals are seen. Given the possibility of acute interstitial nephritis (AIN), you order urine eosinophils.

Does this result significantly increase the patient's posttest possibility of having AIN?

A. YES

B. NO

C. I'm not sure

Urine eosinophils (UEs) for Acute Interstitial Nephritis (AIN)

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Urine Eosinophils for Acute Interstitial Nephritis

Melbeth Lusica, MD[1], Helbert Rondon-Berrios, MD[1*], Leonard Feldman, MD[2]

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Urine Eosinophils for AIN

- Why you might think UE testing is helpful in the evaluation of AIN
  - AKI occurs in 1 in 5 hospitalizations
  - AIN is an important cause of AKI; accounting in 6-30% cases on biposy
  - AIN: infiltration of inflammatory cells in the kidney interstitium
    - Most often caused by drugs, esp ß-lactam abx
  - Gold standard for diagnosis: biopsy and therefore, a noninvasive test such as UEs is appealing
  - 3 studies:
    - 1978: study of 9 patients found that UEs comprised 10-60% of urine WBCs in all 9 pts with methicillin-induced interstitial nephritis (Galpin et al)
    - 1980: 6 of 9 pts with bx proven AIN had + UE testing (Linton et al)
    - 1986: Hansel stain > Wright stain in identification of UEs (Nolan et al)

Urine Eosinophils for AIN

- Why there is little reason to order UEs in patients with suspicion for AIN

TABLE. Urine Eosinophils in the Diagnosis of Acute Interstitial Nephritis

			AIN			≥1% Urine Eosinophils for the Diagnosis of AIN					
Study	Year	Sample Size, N	Diagnosis	Etiology	Prevalence, %	Stain	Sensitivity, %	Specificity, %	PPV, %	NPV, %	LR+	LR–
Corwin et al.[9]	1985	65	Clinical[a]	NS	13.8	Wright	88.9	51.8	22.9	96.7	1.8	0.2
Nolan et al.[7]	1986	92	Clinical[a]	Drugs	12	Hansel	90.9	85.2	45.5	98.6	6.1	0.1
Corwin et al.[10]	1989	183	Clinical[a]	NS	4.4	Hansel	62.5	91.4	25	98.2	7.3	0.4
Ruffing et al.[12]	1994	51	Clinical[a]	Various[b]	29.4	Hansel	40	72.2	37.5	74.3	1.4	0.8
Muriithi et al.[13]	2013	566	Biopsy	Drugs[c]	16.1	Hansel	30.8	68.2	15.6	83.7	0.97	1.01

[a]In large majority of patients, diagnosis of AIN was made on clinical grounds only.

[b]Nonsteroidal anti-inflammatory drugs and other drugs not specified.

[c]In 80% of patients.

NOTE: Abbreviations: AIN, acute interstitial nephritis; LR+, likelihood ratio positive; LR–, likelihood ratio negative; NPV, negative predictive value; NS, not specified; PPV, positive predictive value.

Urine Eosinophils for AIN

- Initial studies that suggested utility of UEs for the diagnoses of AIN were limited by small sample size and lack of biopsy confirmation
- More recent studies with larger sample sizes and correlation with biopsy confirmed the poor diagnostic value of UEs in AIN
  - Insensitive and nonspecific; as elevated in pyelo, ATN, atheroembolism, GN
- Instead, rely on history of recent exposure to a classic offending drug (ß-lactam, PPI, NSAIDs) in combination with the classic triad of fever, rash and peripheral eosinophilia)
  - Only 5-10% of patients actually present with the triad, but if other causes of AKI have been excluded, stop potential offending agent and monitor for improvement
  - If you cannot safely stop the culprit drug, consider renal biopsy for confirmation
  - If kidney function continues to deteriorate, consider nephrology consult for guidance on the risks/benefits of kidney biopsy to confirm diagnoses and/or the use of corticosteroids

Renal Ultrasound in AKI

- In AKI, renal ultrasounds are only helpful to rule out obstruction and most AKIs in the hospital are not from obstruction
  - One study showed it cost $45,000 of renal ultrasound testing to find 1 case of intervenable hydronephrosis
  - Consider bladder scan if there is concern for urinary retention (e.g. from BPH) and to perform a formal renal ultrasound only if there is no identifiable cause of AKI or you have high suspicion for obstruction

Hypertensive Urgency

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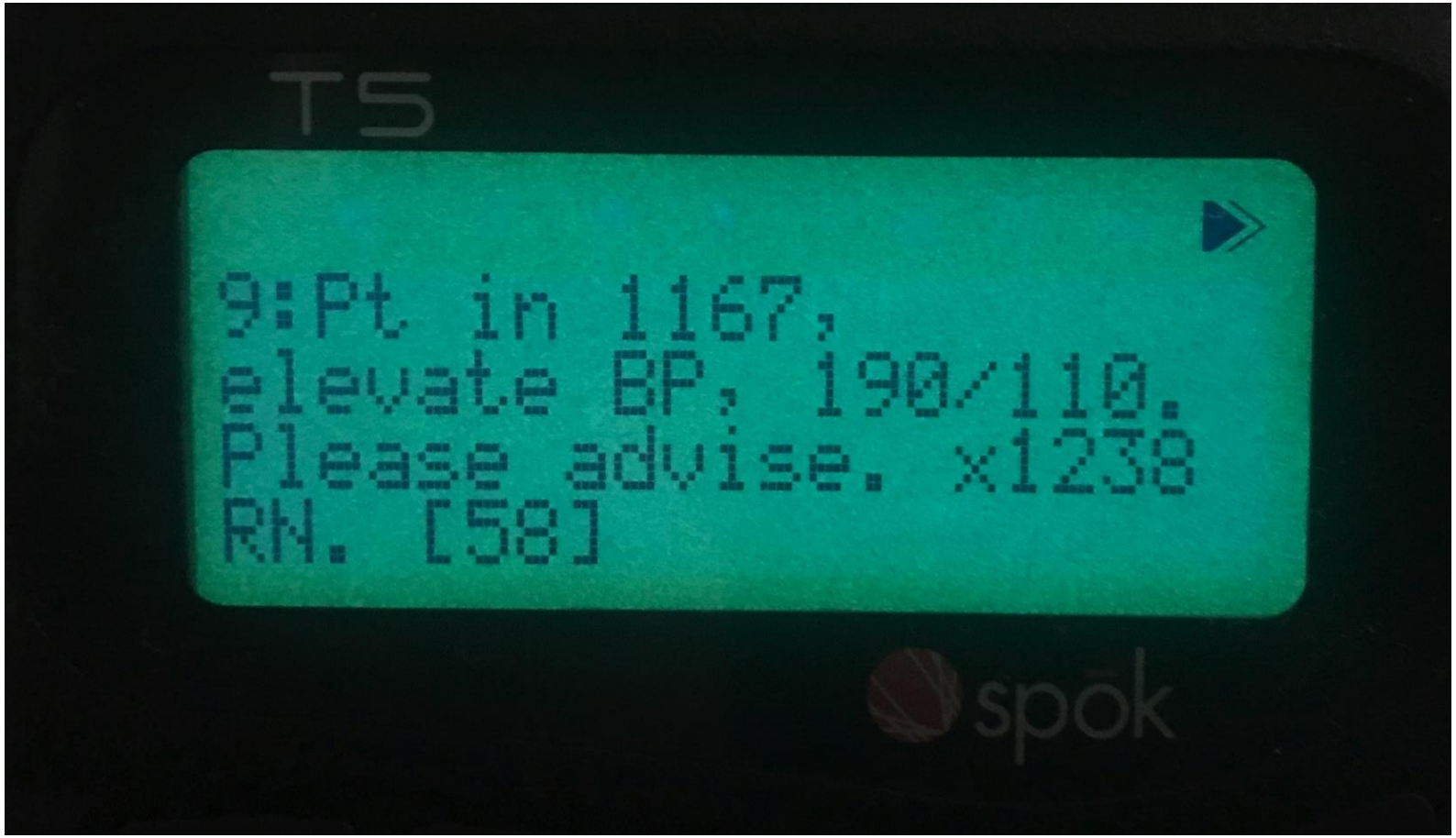
Acute Treatment of Hypertensive Urgency

Anthony C. Breu, MD[1,2]*, R. Neal Axon, MD, MSCR[3,4]

[1]Veterans Affairs Boston Healthcare System, West Roxbury, Massachusetts; [2]Harvard Medical School, Boston, Massachusetts; [3]Ralph H. Johnson VA Medical Center, Charleston Health Equity and Rural Outreach Innovation Center (HEROIC), Charleston, South Carolina; [4]Department of Medicine, the Medical University of South Carolina, Charleston, South Carolina.


T5
9:Pt in 1167,
elevate BP, 190/110.
Please advise. x1238
RN. [58]
spōk

Assumptions

Needs to be treated NOW…

or something bad will happen …

stroke, MI, pulmonary edema

This is the standard of care.

Case #3

75 YO M is hospitalized with a hip fracture after tripping over his chihuahua. History of HTN, on lisinopril and chlorthalidone as an outpatient.

On the evening of hospital day two, he is found to have a blood pressure of 192/95 on a scheduled vital signs check. He reports no symptoms other than hip pain.

In this case, what would you do next:

A. A one-time dose of intravenous hydralazine at 10 mg
B. A one-time dose of oral clonidine at 0.1 mg
C. Increase home antihypertensive regimen
D. Address the patient's pain

Case #4

A 70-year-old woman with HTN presents to your outpatient clinic. On routine checks of her vital signs, 210/108 mmHg in her right arm and 212/106 mmHg in her left arm. She is asymptomatic and has adhered to her daily antihypertensive regimen of amlodipine and hydrochlorothiazide. Recheck of blood pressure after 30 minutes of resting is 195/100 mmHg.

In this case, what would you do?

A. Send to the emergency department for hypertensive urgency
B. Give IV labetalol or hydralazine in office and monitor
C. Add an additional agent to her home regimen

At what blood pressure, would you order a PRN antihypertensive?

A. 160/100
B. 180/100
C. 200/100
D. 220/120
E. I would not order a PRN antihypertensive.

Have you ever ordered an IV PRN antihypertensive?

A. Yes

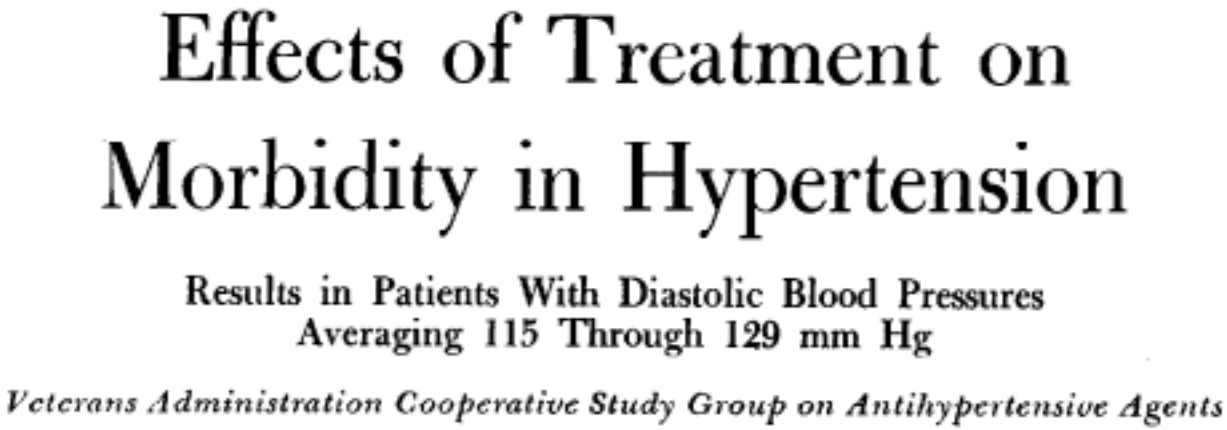
B. No

Hypertensive “Urgency”

Systolic blood pressure ≥ 180 mmgHg

Diastolic Blood Pressure ≥ 110 mmHg

No end organ damage



Effects of Treatment on Morbidity in Hypertension

Results in Patients With Diastolic Blood Pressures Averaging 115 Through 129 mm Hg

Veterans Administration Cooperative Study Group on Antihypertensive Agents

- **JAMA 1967**
- 143 male patients in clinic diastolic BP averaged 115-129 mmHg
- Randomized to (HCTZ + reserpine + hydralazine) OR placebo
- NNT = 5 to prevent death, stroke, heart failure, or MI
  - With treatment, risk 40% → 3%
- Average time to first event 11 months (placebo)

Original Investigation

Characteristics and Outcomes of Patients Presenting With Hypertensive Urgency in the Office Setting

Krishna K. Patel, MD; Laura Young, MD; Erik H. Howell, MD; Bo Hu, PhD; Gregory Rutecki, MD; George Thomas, MD; Michael B. Rothberg, MD, MPH

Retrospective review

- 58,836 patients presenting to clinic with severe asymptomatic HTN
  - **852 patients sent home**
  - 426 patients referred to the hospital → ___ admitted
- MACE low in both groups (<1%)
  - No significant difference in MACE at 7 days, 30 days, or 6 months
- 7-day event rate 1 in 1000
- What if sBP > 220? 7-day event rate 2 in 1000

What we know

- Transient elevations are common in hospitalized patients
- Secondary causes are prevalent: holding of home medication, pain, anxiety, alcohol/benzodiazepine withdrawal
- Insufficient data to support emergent treatment of asymptomatic hypertension
- Common IV PRN's are unpredictable
  - IV labetalol – half life of 5 hours
  - IV Hydralazine – half life of 2 hours, variable response, reflex stimulation of the sympathetic nervous system.

Axon, RN. J Hosp Med. 2011:417-22

CLINICAL MESSAGE

Adverse events associated with aggressive treatment of increased blood pressure

S. YANTURALI,[1] S. AKAY,[1] C. AYRIK,[1] A.A.CEVIK[2]

Dokuz Eylul University Hospital, Department of Emergency Medicine, Izmir, Turkey[1], Osman Gazi University Hospital, Department of Emergency Medicine, Eskisehir, Turkey[2]

STROKE PRECIPITATED BY MODERATE BLOOD PRESSURE REDUCTION

Glenn M. Fischberg, MD, Edward Lozano, MD, Kumar Rajamani, MD, Sebastian Ameriso, MD, and Mark J. Fisher, MD

University of Southern California, Los Angeles, California

Reprint Address: Mark Fisher, MD, Department of Neurology, University of California Irvine Medical Center, 101 The City Drive South, Building 55, Room 121, Orange, CA 92868

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Original Paper

Treatment of Hypertension in the Inpatient Setting: Use of Intravenous Labetalol and Hydralazine

Alan B. Weder, MD;[1] Steven Erickson, PharmD[2]

- Retrospective review
- 1-year, 29,000 hospitalizations, among patients with IV PRNs ordered (hydralazine or labetalol)
- LOS 12.0+/-15.9 days (received at least one dose PRN hydralazine) versus 7.1+/-9.0 days
- LOS of 11.8+/-16.1 days (at least one dose PRN labetalol) vs 7.9+/-10.4

Weber AB J Clin Hypertens (Greenwich). 2010 Jan;12(1):29-33.

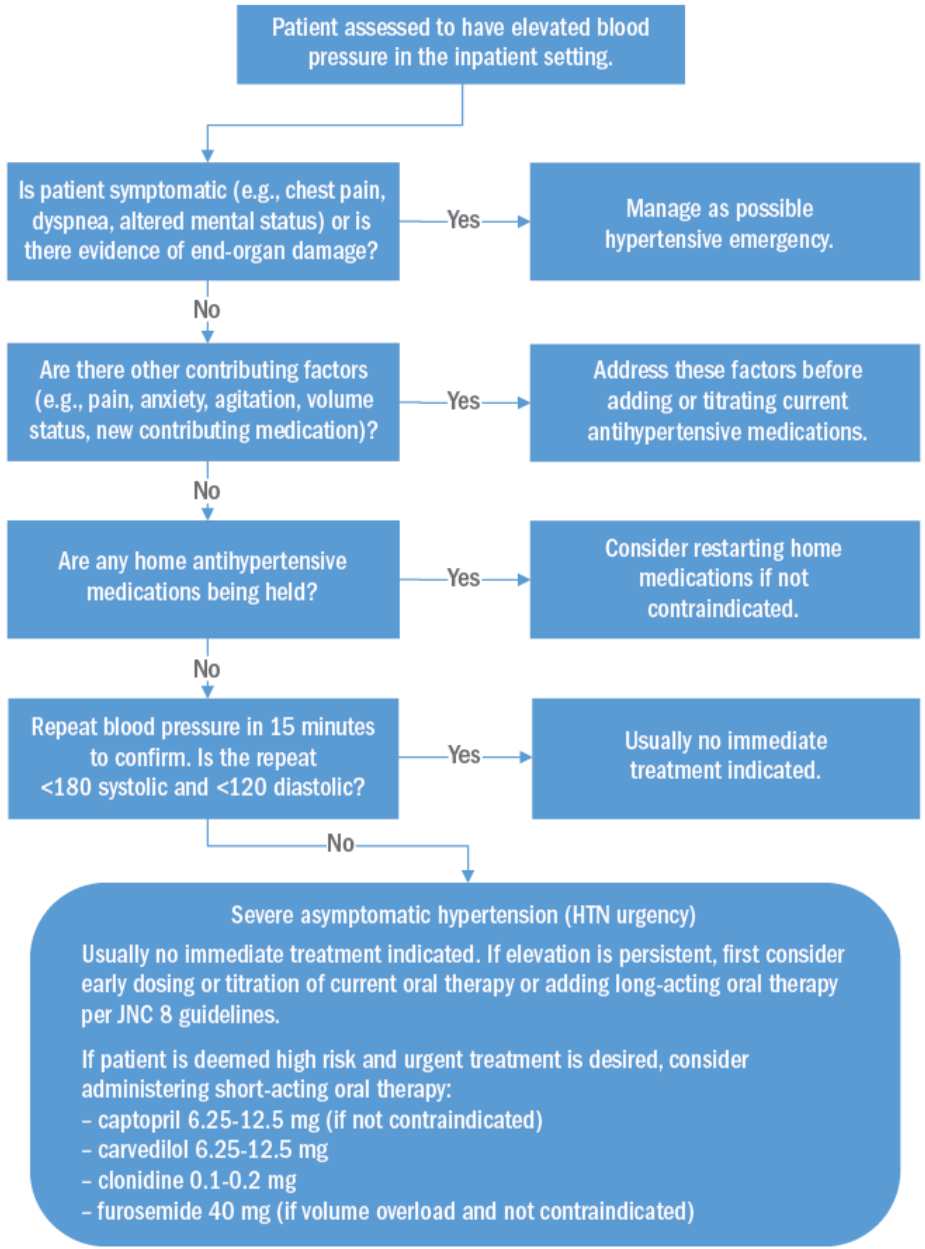
What about guidelines?

- JNC 7 2003
  - "Unfortunately, the term 'urgency' has led to overly aggressive management of many patients with severe, uncomplicated hypertension. **Aggressive dosing with intravenous drugs or even oral agents, to rapidly lower BP is not without risk."**
- JNC 8 2013
  - …
- AHA/ACC 2017 – "Many of these patients are noncompliant with antihypertensive therapy and do not have clinical or laboratory evidence of new or worsening target organ damage**; reinstitute or intensify antihypertensive drug therapy,** and treat anxiety as applicable"
- ACEP – "Unless there is evidence of end-organ damage, IV blood pressure medications should not be used."

What to do instead?

- Confirm no end-organ damage
- Look for treatable causes
  - Missed or held doses of outpatient medications
  - Pain, nausea
  - Alcohol or benzodiazepine withdrawal
  - Delirium
  - Obstructive sleep apnea
  - Volume overloaded
- No cause found - allow the patient to rest 30 minutes and retake BP*
- Still high? Augment home regimen or add an additional oral agent

Figure 1. Management of inpatient hypertension



Lippert, WC et al. How should asymptomatic hypertension be managed in the hospital? *The Hospitalist. May 1, 2018*

ORIGINAL RESEARCH

Assess Before Rx: Reducing the Overtreatment of Asymptomatic Blood Pressure Elevation in the Inpatient Setting

Sara D Pasik, BA[1]; Sophia Chiu, MS[1]; Jeong Yang, BA[1]; Catherine Sinfield, MPH[1]; Nicole Zubizarreta, MPH[2]; Rosemarie Ramkeesoon, FNP[3]; Hyung J Cho, MD[4]; Mona Krouss, MD[4]*

[1]Department of Medical Education, Icahn School of Medicine at Mount Sinai, New York, New York; [2]Department of Population Health Science and Policy, Institute for Healthcare Delivery Science, Icahn School of Medicine at Mount Sinai, New York, New York; [3]Department of Nursing, Mount Sinai Hospital, New York, New York; [4]Department of Medicine, Icahn School of Medicine at Mount Sinai, New York, New York.

ORIGINAL RESEARCH

Reducing Unnecessary Treatment of Asymptomatic Elevated Blood Pressure with Intravenous Medications on the General Internal Medicine Wards: A Quality Improvement Initiative

Zachary G Jacobs, MD[1,2]*; Nader Najafi, MD[1]; Margaret C Fang, MD[1]; Priya A Prasad, PhD, MPH[1]; Yumiko Abe-Jones, MS[1]; Andrew D Auerbach, MD, MPH, SFHM[1]; Sajan Patel, MD[1]*

[1]Division of Hospital Medicine, Department of Medicine, University of California, San Francisco, San Francisco, California; [2]Dr. Jacobs is now with Division of Hospital Medicine, Oregon Health & Science University, Portland, Oregon.

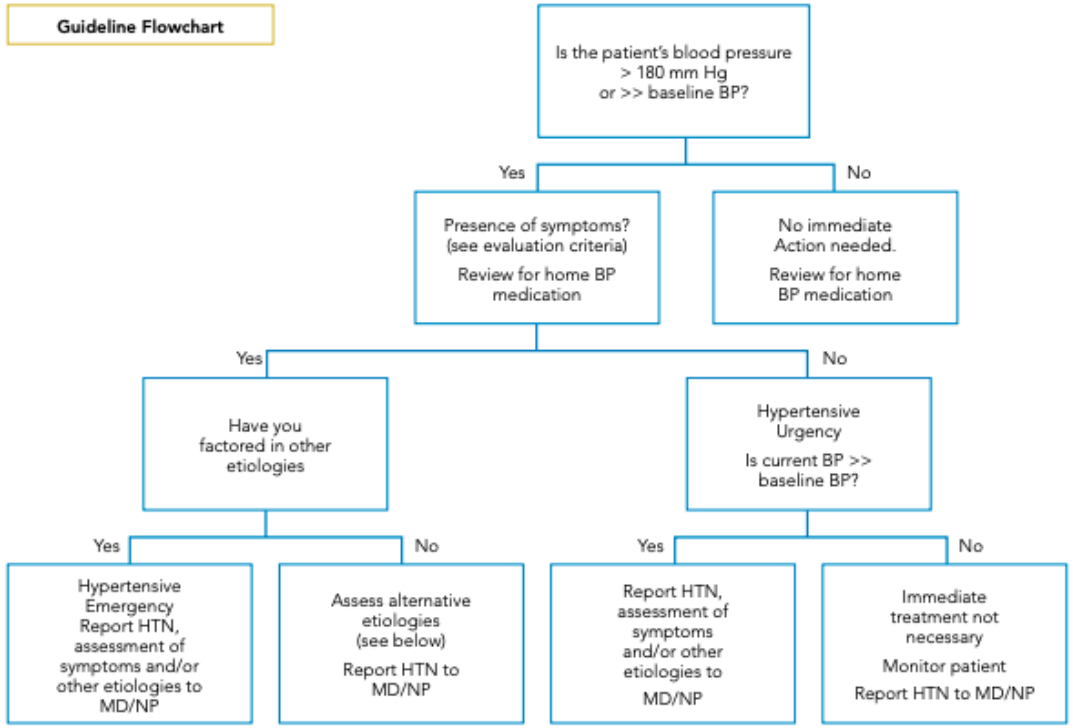
Assess before Rx

Did you know...

Aggressive treatment of asymptomatic hypertension can lead to:

Hypotension | Tachycardia | Stroke | Dizziness | Bradycardia | Organ injury

Guideline Flowchart



Evaluation Criteria

1. Check vitals (BP in both arms)
2. Check for the following:
   - Neuro check
   - Symptoms
     - Altered mental status
     - Headache
     - Changes in vision
     - Chest pain
     - Shortness of breath
     - Acute stroke
3. Check if anti-HTN meds were recently held

Alternative Etiologies

- Missing home BP meds
- Drug withdrawal
- Anxiety/Pain
- Delirium
- Volume overload (especially with renal/cardiac patients)

Case #5

A 34 y/o M is admitted for a complicated UTI related to a chronic in-dwelling Foley catheter. The patient suffered a spinal cord injury at C4/C5 from an MVA 10 years ago and is confined to a motorized wheelchair. He is an engineer and lives independently but has caregivers.

His BMI is 18.5 kg/m^2 and he reports stable weight. He has slight muscle atrophy of the biceps, triceps, interosseous muscles, and quadriceps. He reports that he eats well, has no chronic conditions or GI symptoms over the last 6 months. You consider ordering a prealbumin to assess for possible malnutrition.

Who has a patient in the hospital with a prealbumin checked during the admission?

A. Yes

B. No

C. What is a pre-albumin?

Prealbumin Testing to Diagnose Malnutrition in the Hospitalized Patient

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Things We Do for No Reason: Prealbumin Testing to Diagnose Malnutrition in the Hospitalized Patient

Mary Lacy, MD*, Justin Roesch, MD, Jens Langsjoen, MD

Department of Internal Medicine, University of New Mexico School of Medicine, Albuquerque, New Mexico.

Prealbumin Testing

- Background:
  - Malnutrition in hospitalized patients is an independent predictor of hospital mortality
  - *“an acute, subacute or chronic state of nutrition, in which varying degrees of overnutrition or undernutrition with or without inflammatory activity have led to a change in body composition and diminished function”*
  - Malnutrition is under-documented in the hospital setting with a prevalence of 20-50% and discharge documentation of 3%
  - Prealbumin testing is widely available and frequently ordered in the inpatient setting

Prealbumin Testing

- Why you might think prealbumin diagnoses malnutrition
  - Prealbumin is synthesized in the liver and released into circulation prior to excretion
  - Prealbumin transports thyroxine, triiodothyronine and holo-retinol binding protein, making it known as transthyretin
  - In 1972, it was proposed as a nutritional marker when low levels were found in 40 children with kwashiorkor and improved nutrition rose the level
  - It has a short half life suggesting its use with rapid changes in nutrition

Prealbumin Testing

- Why prealbumin is not helpful in diagnosing malnutrition
  - Lack of specificity, notably the acute phase response triggered by inflammation which is not insignificant in hospitalized patients
    - It is a negative acute phase reactant which decreases in settings of infection, stress or malignancy
    - In a study of 24 patients with severe sepsis and trauma, there was an inverse correlation between CRP and prealbumin, which normalized at the same time as CRP (Clark et al, 1996)
  - Lack of sensitivity
    - Patients with severe malnutrition and without coexisting inflammation do not routinely show low prealbumin levels
    - In a review of 20 studies in non-diseased malnourished patients, only 2 studies (both of which assessed pts with anorexia nervosa) showed prealbumin levels <20 mg dL (corresponding mean BMIs < 12 kg/m^2 and nml prealbumin levels were seen in pts with BMI as low as 12.9 kg/m^2) (Lee et al, 2015)

1. Clark MA, Hentzen BTH, Plank LD, Hill GL. Sequential changes in insulin-like growth factor 1, plasma proteins, and total body protein in severe sepsis and multiple injury. J Parenter Enter Nutr. 1996;20(5):363-370. doi: 10.1177/0148607196020005363.
2. Lee JL, Oh ES, Lee RW, Finucane TE. Serum albumin and prealbumin in calorically restricted, nondiseased individuals: a systematic review. Am J Med. 2015;128(9):1023.e1-22. doi: 10.1016/j.amjmed.2015.03.032.

Prealbumin Testing

- Why prealbumin is not helpful in diagnosing malnutrition
  - Prealbumin is not consistently responsive to nutritional interventions
    - While some studies have shown an increase in prealbumin with a nutritional intervention, they are subject to the same specificity limitations regarding concomitant inflammatory process
    - A study of institutionalized patients with Alzheimer's disease and normal CRP values that showed significant weight gain and increase in muscle following a nutritional intervention was without a notable change in prealbumin (Van Wymekbeke et al)
    - A study assessing the relationship of prealbumin, CRP and nutritional status only showed a correlation between prealbumin level and CRP, inversely (Davis et al)

1. Van Wymelbeke V, Guédon A, Maniere D, Manckoundia P, Pfitzenmeyer P. A 6-month follow-up of nutritional status in institutionalized patients with Alzheimer's disease. J Nutr Health Aging. 2004;8(6):505-508.
2. Davis CJ, Sowa D, Keim KS, Kinnare K, Peterson S. The use of prealbumin and C-reactive protein for monitoring nutrition support in adult patients receiving enteral nutrition in an urban medical center. JPEN J Parenter Enteral Nutr. 2012;36(2):197-204.

Prealbumin Testing

- Given the lack of a suitable biologic marker to identify malnutrition, rely instead on other markers:
  - Reduced food intake (anorexia)
  - Nonvolitional weight loss
  - Reduced lean mass
  - Status of disease burden and inflammation
  - Low BMI or underweight status

Summary/Key Points

- **Fractional excretion indices**
  - Urine Na/FeNa can help in the diagnosis of HRS, otherwise, routine use in the diagnosis of AKI should be avoided
  - In prerenal azotemia, therapy is guided by the etiology (IVFs for hypovolemia/hypoperfusion and diuretics for decompensated heart failure
  - In ATI, fluid administration is appropriate if hypovolemia is present; FeNa and FeUr cannot diagnose hypovolemia
- **Urine eosinophils**
  - Should not be used in the diagnosis of AIN
  - Clinical diagnosis should be based on excluding other possible likely etiologies of AKI and confirming the history of drug exposure. This is reinforced when the kidney function improves upon discontinuation of the offending agent
  - Kidney biopsy is the gold standard for AIN diagnosis and should be performed if the clinical picture is unclear or the renal function is not improving on discontinuation of the offending agent
- **Renal ultrasound**
  - Should not be part of standard work-up and be ordered only rarely, where the history is suggestive of obstruction

Summary/Key Points

- **Asymptomatic hypertension**
  - Avoid IV PRN antihypertensives
  - Review meds, check for secondary cause, and augment home regimen
- **Prealbumin**
  - Do not use prealbumin to screen for or diagnose malnutrition
  - Consult with local dieticians to ensure your institutional approach is in agreement with consensus recommendations

Other thoughts…

ONLINE FIRST APRIL 8, 2019—PERSPECTIVES IN HOSPITAL MEDICINE

Tackling the Minimizers Hiding Behind High-Value Care

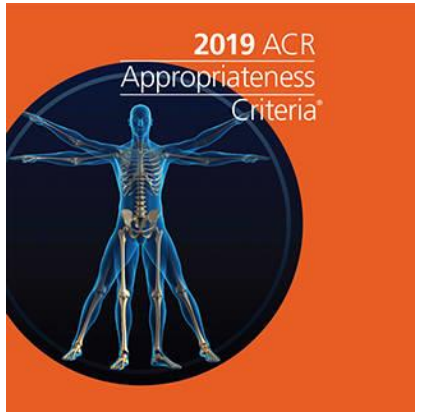
Vineet M Arora, MD, MAPP[1]*, Christopher Moriates, MD[2]

[1]*University of Chicago Pritzker School of Medicine, Director of Educational Initiatives, Costs of Care, Chicago, Illinois;* [2]*Department of Medicine, Dell Medical School, The University of Texas, and Director of Implementation Initiatives, Costs of Care, Austin Texas.*

Resources for High Value Care

Choosing Wisely®

An initiative of the ABIM Foundation



JAMA Internal Medicine

Teachable Moment

ACP | High Value Care

Choosing Wisely: Things We Do for No Reason

COSTS of CARE

Healthcare Bluebook™

Journal of Hospital Medicine

“Things We Do For No Reason” **Diagnostics**

- Serum and RBC folate testing on hospitalized patients
- CK-MB for chest pain and suspected ACS
- Urinary fractional excretion indices in the evaluation of AKI
- Carotid artery US for syncope
- Amylase testing for abdominal pain in suspected acute pancreatitis
- Avoiding contrast-enhanced CT scans in pts with shellfish allergies
- Inpatient inherited thrombophilia testing
- Non-directed testing for inpatients with severe liver injury
- Using US to r/o DVT in cases of cellulitis
- Urine eosinophils for acute interstitial nephritis
- FOBT in hospitalized patients with GIB
- Ammonia levels in pts with known liver disease
- ECHO in unselected patients with syncope
- Hospitalization of patients with low-risk chest pain
- Routine CXRs after routine thoracentesis
- Neuroimaging for hospitalized patients with delirium
- Routine echocardiography in hemodynamically stable patients with acute PE
- Prealbumin testing to diagnose malnutrition in the hospitalized patient

“Things We Do For No Reason” **Therapeutics**

- Nebulized bronchodilators over MDIs
- Overtreatment of nonpurulent cellulitis
- Routine replacement of peripheral IVs
- 2 unit red cell transfusion in stable anemic patients
- AMA discharges
- Periprocedural bridging anticoagulation
- Neutropenic diet
- IVC filter placement for patient with VTE without contraindication to anticoagulation
- Acute treatment of hypertensive urgency
- Intermittent pneumatic compression for medical ward patients
- Sliding-scale insulin as monotherapy for glycemic control in hospitalized patients
- Prescribing docusate for constipation in the hospital
- The use of thickened liquids in treating hospitalized adult patients with dysphagia
- Contact precautions for MRSA and VRE
- Antipsychotic medications in patients with delirium
- Failing to question a penicillin-allergy history

High Value Idea Competition

Deadline April 29th

Check your email for more information!

Banner University Medical Center
Phoenix Campus

Sixth Annual House Staff Quality and Safety Day
Poster Showcase
Call for House Staff Quality Improvement/Safety Abstracts

Residents and Fellows-Have you worked on a project dedicated to improving quality or enhancing patient safety? Share your work with your peers, faculty and the leadership at BUMCP during the Sixth Annual House Staff Quality and Safety Day Poster Showcase on May 14! This is an opportunity to network with others, plan future steps with your project, wrap up your results AND add a scholarly presentation to your CV.

Winning projects are able to demonstrate high value care by improving the quality of care for our patients with attention to cost of care

Prizes:

- The top poster abstract will be selected to give an oral presentation and compete as a "wild card" for the $2500 against the 3 high value idea winners.
- The program with the highest percentage of posters per total number of residents or fellows in the program will be awarded $500 towards a social event.
- Posters will be judged and the top 3 posters will each be awarded $250.00.

Share your quality improvement "work in progress" and make a difference!

THE UNIVERSITY OF ARIZONA
College of Medicine
Phoenix

Center
Phoenix

And… you might get your project published…

CHOOSING WISELY®: THINGS WE DO FOR NO REASON

Things We Do For No Reason: Contact Precautions for MRSA and VRE

Kristen Young, DO, MEd[1,2]*, Sarah B Doernberg, MD, MAS[3], Ruth Franks Snedecor, MD[1,2], Emily Mallin, MD, SFHM[1,2]

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Questions