ACP American College of Physicians
Leading Internal Medicine, Improving Lives
Tennessee Chapter

# Update on Hospital Medicine

## ACP TN Scientific Meeting 2019

Chase J. Webber, DO
Assistant Professor Clinical Medicine
Vanderbilt University Medical Center
Section of Hospital Medicine
@chasejwebber

VANDERBILT UNIVERSITY
MEDICAL CENTER

# COI

- I have no actual or potential conflict of interest in relation to this presentation.

# Thinking about Hospital Medicine

# Thinking about Hospital Medicine

Chase Webber
TEACHER'S AWARD
Bedside Procedure Team 2018 - 2019

PRO TREK
CASIO

Theory and Practice of Teaching Medicine
Ende
Mentoring in Academic Medicine
Humphrey
Teaching in the Hospital
Wise
Teaching in Your Office SECOND EDITION
Algure • DeWitt • Pinsky • Fenmbick
Methods for Teaching Medicine
Skeff • Stratos
Leadership Careers in Medical Education
Pangaro
ACP

SHIELDS
A Medical Teacher's Manual for Success

FTHE XFIRE BOOK
EDITED BY ELIOT WIGGINTON AND HIS STUDENTS
ANCHOR BOOKS

F2 XFIRE
ELIOT WIGGINTON AND HIS STUDENTS

F3 XFIRE
EDITED BY ELIOT WIGGINTON AND HIS STUDENTS

F4 XFIRE
EDITED BY ELIOT WIGGINTON AND HIS STUDENTS
ANCHOR BOOKS

2017


65 NORTH
Nashville
LANE ENDS
800 FT
EXIT 80
440 WEST
Memphis
EXIT 80
440 EAST
Knoxville


# HOSPITAL MEDICINE

*Where we are, where we're going, we're we've been*

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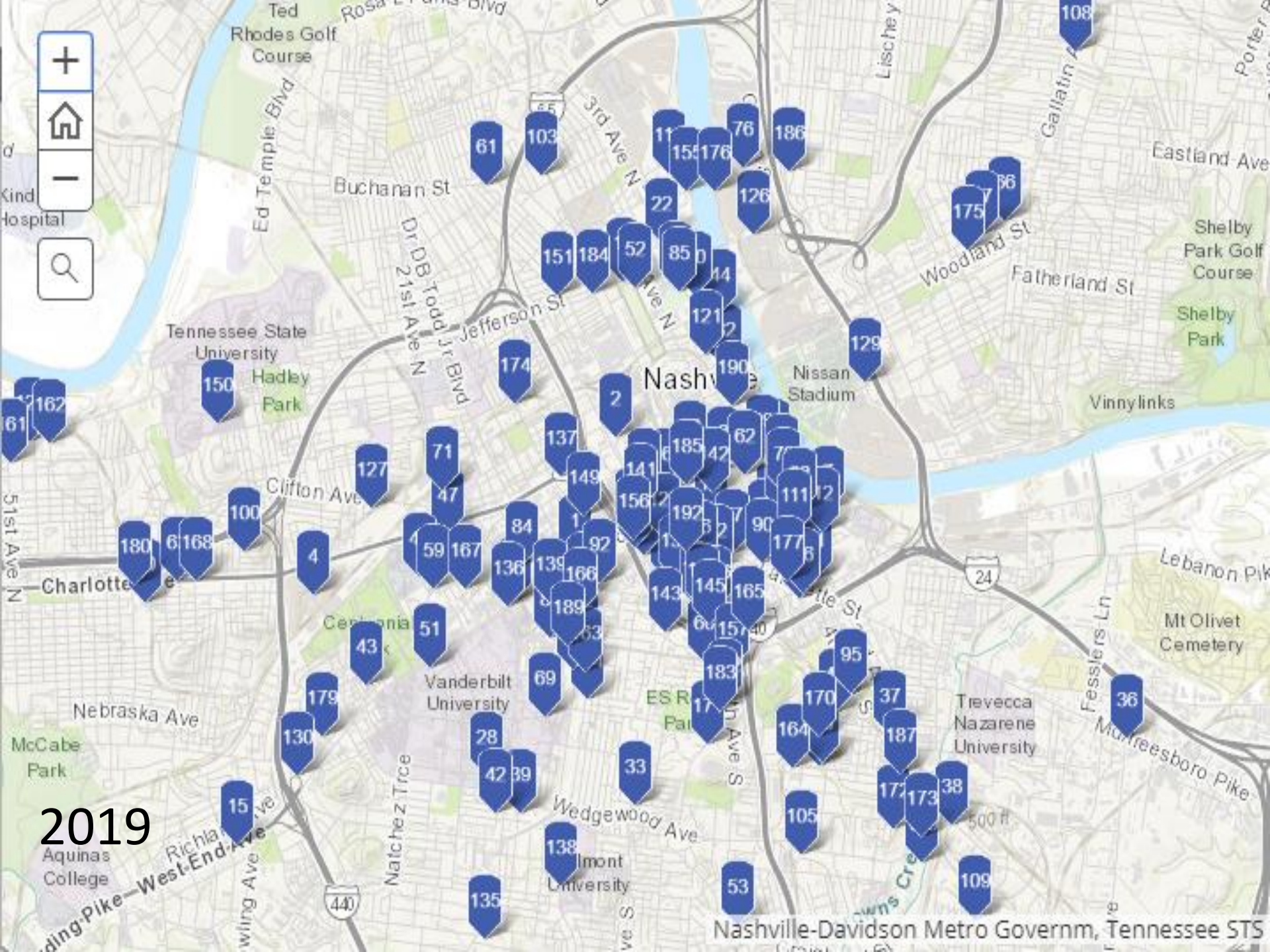
Courtesy: Tennessee State Library and Archives


1994 “Before the Titans, TV shows and pedal taverns”


2019
Nashville-Davidson Metro Governm, Tennessee STS
Ted Rhodes Golf Course
Buchanan St
Ed Temple Blvd
3rd Ave N
Dr DB Todd Jr Blvd
21st Ave N
Jefferson St
Tennessee State University
Hadley Park
Nissan Stadium
Vinnylinks
Eastland Ave
Woodland St
Fatherland St
Shelby Park Golf Course
Shelby Park
Clifton Ave
Charlotte Ave
51st Ave N
Centennial
Vanderbilt University
Nebraska Ave
McCabe Park
Aquinas College
Natchez Trace
Wedgewood Ave
Belmont University
Trevecca Nazarene University
Mt Olivet Cemetery
Lebanon Pike
Murfreesboro Pike
Fessler's Ln
West End Ave
24
440

Care Redesign

# Zero to 50,000 — The 20th Anniversary of the Hospitalist

Robert M. Wachter, MD & Lee Goldman, MD, MPH

UCSF School of Medicine

Columbia University Medical Center

Article · September 9, 2016

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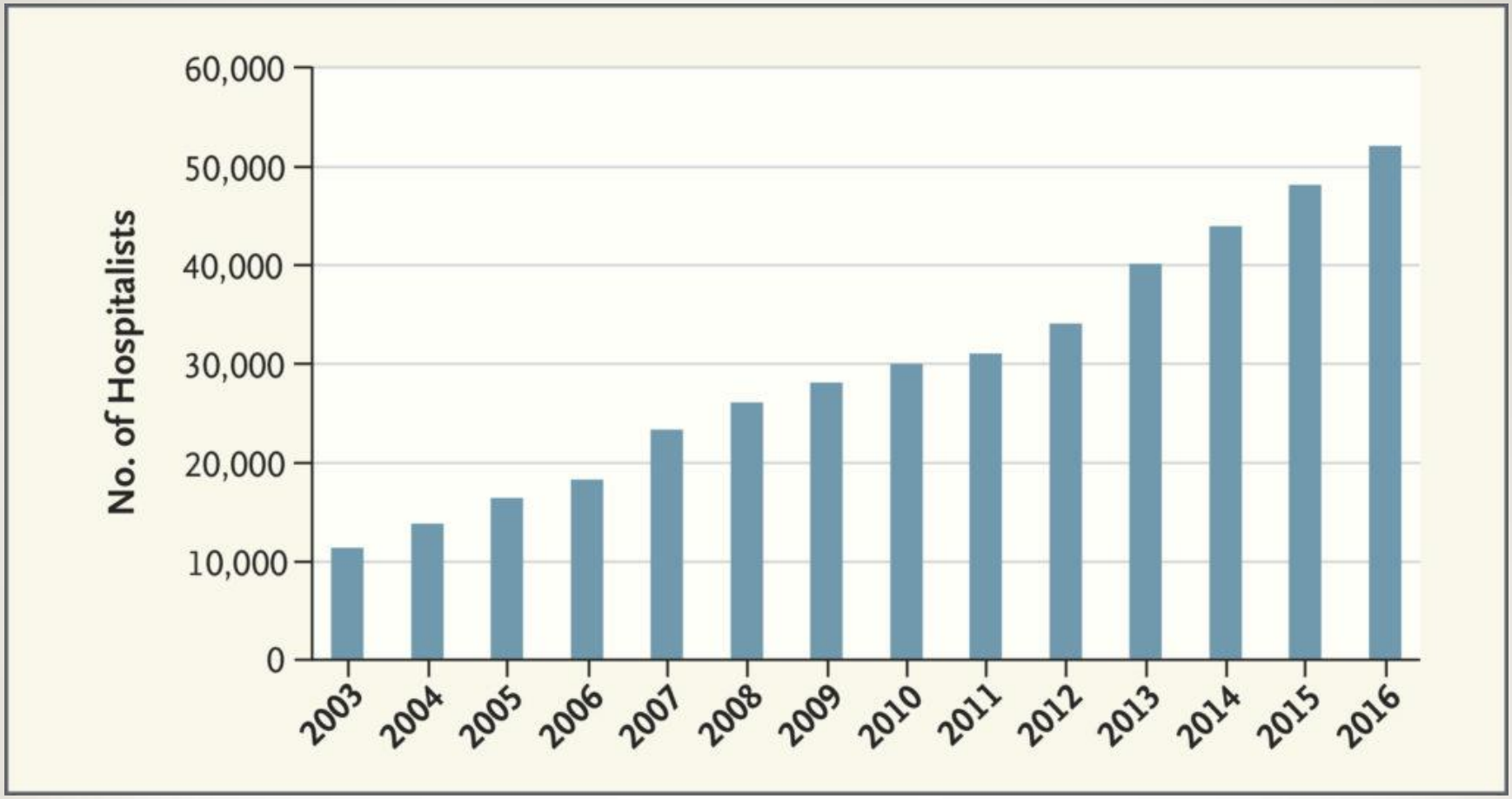
N Engl J Med 2016; 375:1009-1011




**Growth in the Number of Hospitalists in the United States, 2003–2016.**

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N Engl J Med 2016; 375:1009-1011


YIELD TO BUS
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OMNIBUS
LKQ


Old standards. New hits…
SOUTHERN TOURS


Timeless Pearls!

# 2018-2019 Updates

1 Best Practices in Medication Reconciliation

2 Antibiotic Stewardship

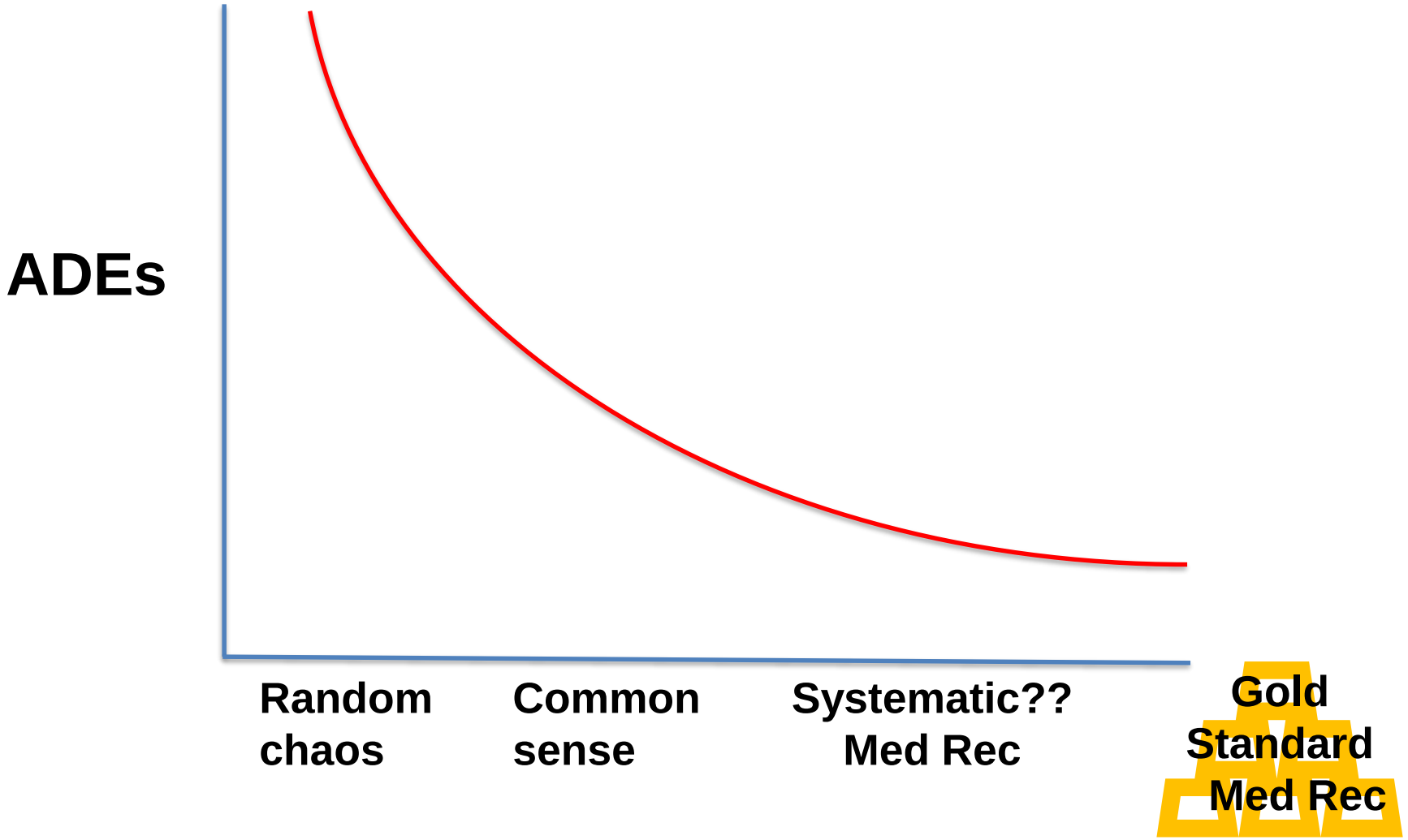
3 Delirium management

4 Discharge AMA

5 Discharge Pearls***

# Best Practices – Medication Reconciliation

# CHAOS MEDICATION TRANSITION


ADEs
Random chaos
Common sense
Systematic?? Med Rec
Gold Standard Med Rec

# An On-Treatment Analysis of the MARQUIS Study: Interventions to Improve Inpatient Medication Reconciliation

Amanda S Mixon, MD, MS, MSPH, FHM[1,2,3*]; Sunil Kripalani, MD, MSc, SFHM[2,3]; Jason Stein, MD, SFHM[4]; Tosha B Wetterneck, MD, MS, FACP, SFHM[5]; Peter Kaboli, MD, MS, FACP, FHM[6]; Stephanie Mueller, MD, MPH[7,8,9]; Elisabeth Burdick, MS[8]; Nyryan V Nolido, MA[8]; Stephanie Labonville, PharmD, BCPS[10]; Jacquelyn A Minahan[8,11]; E John Orav, PhD[8,12]; Jenna Goldstein, MA[13]; Jeffrey L Schnipper, MD, MPH[7,8,9]

## Clinical question

- Which Med Rec intervention is most effective at reducing inpatient medication discrepancies?

## Study design

- Mentored, Quality Improvement study

## Setting

- 791 patients in 5 hospitals over 25 months

J Hosp Medicine, epub: 8/21/19 DOI 10.12788/jhm.3308

# Interventions and Results

TABLE 2. **Relationship Between Potentially Harmful Medication Discrepancies Per Patient and Intervention Components by Site**

| Intervention Component | Adjusted Incidence Rate Ratio[a] (95% CI[b]) | *P* Value |
|---|---|---|
| Trained existing staff to take best possible medication histories | 1.38 (1.21 to 1.57) | <.001 |
| Hired additional staff to take best possible medication histories | 0.98 (0.58 to 1.65) | .94 |
| Trained existing staff to perform discharge medication reconciliation and patient counseling | 0.64 (0.46 to 0.89) | .007 |
| Hired additional staff to perform discharge medication reconciliation and patient counseling | 0.48 (0.31 to 0.77) | .002 |
| Clearly defined roles and responsibilities and communicating this with clinical staff | 0.53 (0.32 to 0.87) | .01 |
| Performed high-intensity interventions on high-risk patients | 1.28 (0.89 to 1.85) | .18 |
| Implemented a new electronic medical record | 2.21 (1.64 to 2.97) | <.001 |
| Made improvements to existing medication reconciliation health information technology | 0.82 (0.51 to 1.30) | .40 |
| Improved access to pre-admission medication sources | 1.42 (0.46 to 4.38) | .54 |

[a]Adjusted for patient age, service, insurance, marital status, number of prior admissions, number of high-risk medications, Elixhauser comorbidity score, diagnosis-related group (DRG) weight, median income by zip code, season, and study site

[b]95% confidence interval

J Hosp Medicine, epub: 8/21/19 DOI 10.12788/jhm.3308

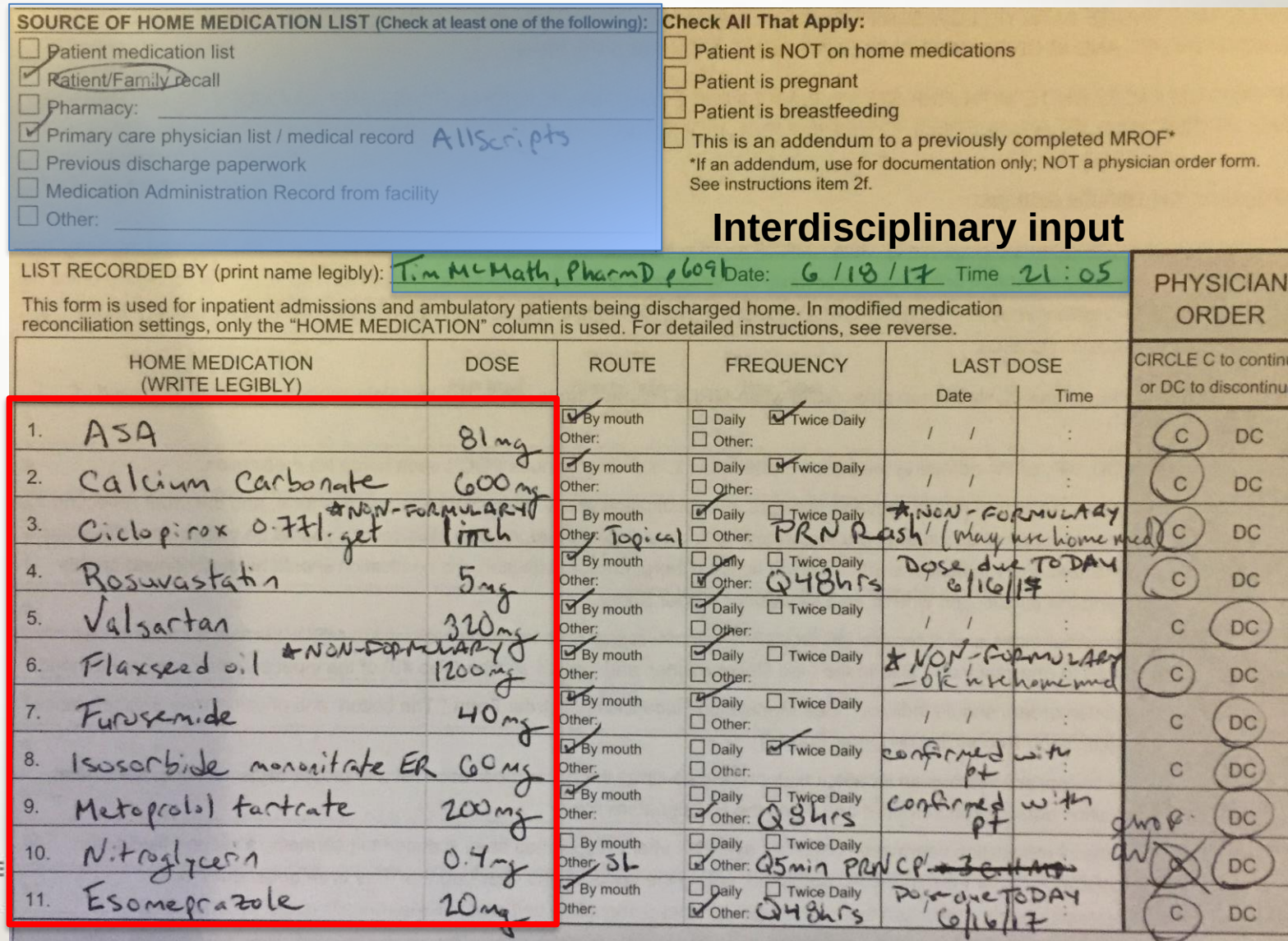
# What stands out?

**?Potential for ADEs**
**?Omitted medications**
**?Handwritten vs. EMR**

**Sources**: need at least 2

**Interdisciplinary input**

**Diverse mix**
-carried over
-OTC
-vitamins
-supplements
-nonhelpful or harmful



SOURCE OF HOME MEDICATION LIST (Check at least one of the following):
- ☐ Patient medication list
- ☑ Patient/Family recall
- ☐ Pharmacy:
- ☑ Primary care physician list / medical record Allscripts
- ☐ Previous discharge paperwork
- ☐ Medication Administration Record from facility
- ☐ Other:

Check All That Apply:
- ☐ Patient is NOT on home medications
- ☐ Patient is pregnant
- ☐ Patient is breastfeeding
- ☐ This is an addendum to a previously completed MROF*

*If an addendum, use for documentation only; NOT a physician order form. See instructions item 2f.

LIST RECORDED BY (print name legibly): Tim McMath, PharmD p609 Date: 6/18/17 Time 21:05

This form is used for inpatient admissions and ambulatory patients being discharged home. In modified medication reconciliation settings, only the "HOME MEDICATION" column is used. For detailed instructions, see reverse.

| | HOME MEDICATION (WRITE LEGIBLY) | DOSE | ROUTE | FREQUENCY | LAST DOSE Date | LAST DOSE Time | PHYSICIAN ORDER (CIRCLE C to continue or DC to discontinue) |
|---|---|---|---|---|---|---|---|
| 1. | ASA | 81 mg | ☑ By mouth Other: | ☐ Daily ☑ Twice Daily Other: | / / | : | C DC |
| 2. | Calcium Carbonate | 600 mg | ☑ By mouth Other: | ☐ Daily ☑ Twice Daily Other: | / / | : | C DC |
| 3. | Ciclopirox 0.77% ★NON-FORMULARY get 1 inch | | ☐ By mouth Other: Topical | ☑ Daily ☐ Twice Daily Other: PRN Rash | ★NON-FORMULARY (may use home med) | | C DC |
| 4. | Rosuvastatin | 5 mg | ☑ By mouth Other: | ☐ Daily ☐ Twice Daily Other: Q48hrs | Dose due TODAY 6/16/17 | : | C DC |
| 5. | Valsartan | 320 mg | ☑ By mouth Other: | ☑ Daily ☐ Twice Daily Other: | / / | : | C DC |
| 6. | Flaxseed oil ★NON-FORMULARY | 1200 mg | ☑ By mouth Other: | ☑ Daily ☐ Twice Daily Other: | ★NON-FORMULARY — OK to use home med | | C DC |
| 7. | Furosemide | 40 mg | ☑ By mouth Other: | ☑ Daily ☐ Twice Daily Other: | / / | : | C DC |
| 8. | Isosorbide mononitrate ER | 60 mg | ☑ By mouth Other: | ☐ Daily ☑ Twice Daily Other: | confirmed with pt | | C DC |
| 9. | Metoprolol tartrate | 200 mg | ☑ By mouth Other: | ☐ Daily ☐ Twice Daily Other: Q8hrs | confirmed with pt | | C DC |
| 10. | Nitroglycerin | 0.4 mg | ☐ By mouth Other: SL | ☐ Daily ☐ Twice Daily Other: Q5min PRN CP ~~x3 doses~~ | | | C DC |
| 11. | Esomeprazole | 20 mg | ☑ By mouth Other: | ☐ Daily ☐ Twice Daily Other: Q48hrs | Dose due TODAY 6/16/17 | | C DC |

- QR code to access Marquis/SHM resources portal

# MEDICATION RECONCILIATION ORDER FORM (MROF)

Page 1 of 2

Allergies: Statins (Joint pain, tolerates rosuvastatin)

ADDRESS

BIRTHDA

MEDICAL

Pediatric patients only: Height (cm) _____ Weight (kg) _____

PRINT CLEARLY IN INK OR IMPRINT WITH PATIENT'S CARD

**SOURCE OF HOME MEDICATION LIST (Check at least one of the following):**

- ☐ Patient medication list
- ☑ Patient/Family recall
- ☐ Pharmacy:
- ☑ Primary care physician list / medical record Allscripts
- ☐ Previous discharge paperwork
- ☐ Medication Administration Record from facility
- ☐ Other:

**Check All That Apply:**

- ☐ Patient is NOT on home medications
- ☐ Patient is pregnant
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*If an addendum, use for documentation only; NOT a physician order form. See instructions item 2f.

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|---|---|---|---|---|---|---|---|
| 1. | ASA | 81 mg | ☑ By mouth ☐ Other: | ☐ Daily ☑ Twice Daily ☐ Other: | / / | : | C DC |
| 2. | Calcium Carbonate | 600 mg | ☑ By mouth ☐ Other: | ☐ Daily ☑ Twice Daily ☐ Other: | / / | : | C DC |
| 3. | Ciclopirox 0.77% ★NON-FORMULARY get 1 tube | 1 tube | ☐ By mouth ☑ Other: Topical | ☑ Daily ☐ Twice Daily ☐ Other: PRN Rash | ★NON-FORMULARY (may use home med) | | C DC |
| 4. | Rosuvastatin | 5 mg | ☑ By mouth ☐ Other: | ☐ Daily ☐ Twice Daily ☑ Other: Q48hrs | Dose due TODAY 6/16/17 | : | C DC |
| 5. | Valsartan | 320 mg | ☑ By mouth ☐ Other: | ☑ Daily ☐ Twice Daily ☐ Other: | / / | : | C DC |
| 6. | Flaxseed oil ★NON-FORMULARY | 1200 mg | ☑ By mouth ☐ Other: | ☑ Daily ☐ Twice Daily ☐ Other: | ★NON-FORMULARY — OK to use home med | | C DC |
| 7. | Furosemide | 40 mg | ☑ By mouth ☐ Other: | ☑ Daily ☐ Twice Daily ☐ Other: | / / | : | C DC |
| 8. | Isosorbide mononitrate ER | 60 mg | ☑ By mouth ☐ Other: | ☐ Daily ☑ Twice Daily ☐ Other: | confirmed with pt | : | C DC |
| 9. | Metoprolol tartrate | 200 mg | ☑ By mouth ☐ Other: | ☐ Daily ☐ Twice Daily ☑ Other: Q8hrs | confirmed with pt | : | C DC |
| 10. | Nitroglycerin | 0.4 mg | ☐ By mouth ☐ Other: SL | ☐ Daily ☐ Twice Daily ☑ Other: Q5min PRN CP ~~x3 doses~~ | | | C DC |
| 11. | Esomeprazole | 20 mg | ☑ By mouth ☐ Other: | ☐ Daily ☐ Twice Daily ☑ Other: Q48hrs | Dose due TODAY 6/16/17 | : | C DC |

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MED

# Timeless Pearls

- Seek to obtain a Best Possible Medication History (BPMH) on admission.
- Specially trained Pharmacy staff and support: essential. Advocate for evidence-based resources.
- There may be unintended consequences to implementation of new systems (ie EHR).

# Antibiotic Stewardship

# Vignette

78 year old female PMH dCHF, severe aortic stenosis, presented to MICU with septic shock (gram negative bacteremia) due to acute cholecystitis.

- IR consulted and placed percutaneous cholecystostomy
- Weaned off pressors and now stable for transfer to floor
- By day 4, still on IV Piperacillin-tazobactam, but now ready for discharge…
- What will we do with the antibiotics?

# Duration – how long to treat?

The Medicine team discusses on rounds…

Point: "Continue antibiotics for as long as drain in place."

Counterpoint: "6 weeks? Really?"

Surgery intern (In August): "I have no idea."

Surgery resident: "Not sure, but I know what to do: let's ask our chief."

# Duration

Meanwhile, the surgery team asks the chief.. flinches & hold their breath, waiting for an answer:

"We want to sign off. What should we write for how long to treat?"

(…)

Surgery chief: "Ask the Hospitalist."

(This takes place in 2020)

# Why We *Should* Care

Hospital Medicine Goals

- Not only high quality of care
- Opportunity for leadership in this area

45 randomized controlled trials showing non-inferiority of shorter antibiotic regimens

# 45 randomized controlled trials showing non-inferiority of shorter antibiotic regimens

TABLE. **Infections for which Short-Course Antibiotic Therapy Is Equivalent in Efficacy to Longer Therapy**[1]

| Disease | Short Course Studied (days) | Long Course Studied (days) | Result |
|---|---|---|---|
| Acute bacterial sinusitis | 5 | 10 | Equal |
| Acute exacerbation of chronic bronchitis and obstructive pulmonary disease | ≤5 | ≥7 | Equal |
| Intraabdominal infection | 4 | 10 | Equal |
| Osteomyelitis | 42 | 84 | Equal |
| Pneumonia, community-acquired | 3-5 | 7-10 | Equal |
| Pneumonia, nosocomial (including ventilator-associated) | ≤8 | 10-15 | Equal |
| Pyelonephritis | 5-7 | 10-14 | Equal |
| Skin infections (cellulitis, major abscesses, wound infections) | 5-6 | 10-14 | Equal |

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J. Hosp. Med. 2018 May;13(5):361-362.

# FIND SOME 2019 STUDY

- Belabor the results of the prior table in specifics .. CAP, etc

"…The overuse of antibiotics is not a knowledge problem or a diagnostic problem; **it is largely a psychological problem.**"


JAMA Intern Med. 2016;176(11):1649-1650.

Annals of Internal Medicine ORIGINAL RESEARCH

# Excess Antibiotic Treatment Duration and Adverse Events in Patients Hospitalized With Pneumonia

## A Multihospital Cohort Study

Valerie M. Vaughn, MD, MSc; Scott A. Flanders, MD; Ashley Snyder, MS; Anna Conlon, PhD; Mary A.M. Rogers, PhD, MS; Anurag N. Malani, MD; Elizabeth McLaughlin, MS, RN; Sarah Bloemers, MPH; Arjun Srinivasan, MD; Jerod Nagel, PharmD, BCPS; Scott Kaatz, DO; Danielle Osterholzer, MD; Rama Thyagarajan, MD; Lama Hsaiky, PharmD, BCPS; Vineet Chopra, MD, MSc; and Tejal N. Gandhi, MD

**Clinical question**

- What are the predictors and outcomes associated with excess duration of antibiotic treatment?

**Study design**

- Retrospective cohort

**Setting**

- 43 hospitals, Michigan Hospital Safety Consortium

*Ann Intern Med.* 2019;171(3):153-163.

## Included

- Adult inpatients with CAP or HC-associated PNA
- Treatment ≥4 days and within first 2 days

## Key Exclusions

- Patients who received insufficient duration (≥2 days less than shortest guideline)
- MICU or ventilator need, other infection, pregnant or severe immunocompromise, bacteremia

## Outcomes

- 1° Rate??? (specify) of excess antibiotic treatment duration (how common is this practice)
- 2° Death, readmission, ED visit, Abx-associated ADE

*Ann Intern Med.* 2019;171(3):153-163.

# Primary outcome

- **Patients with excess antibiotic treatment duration**
  67.8% of patients:  abx longer than indicated

Each excess day abx = 5% increased odds of ADE

-

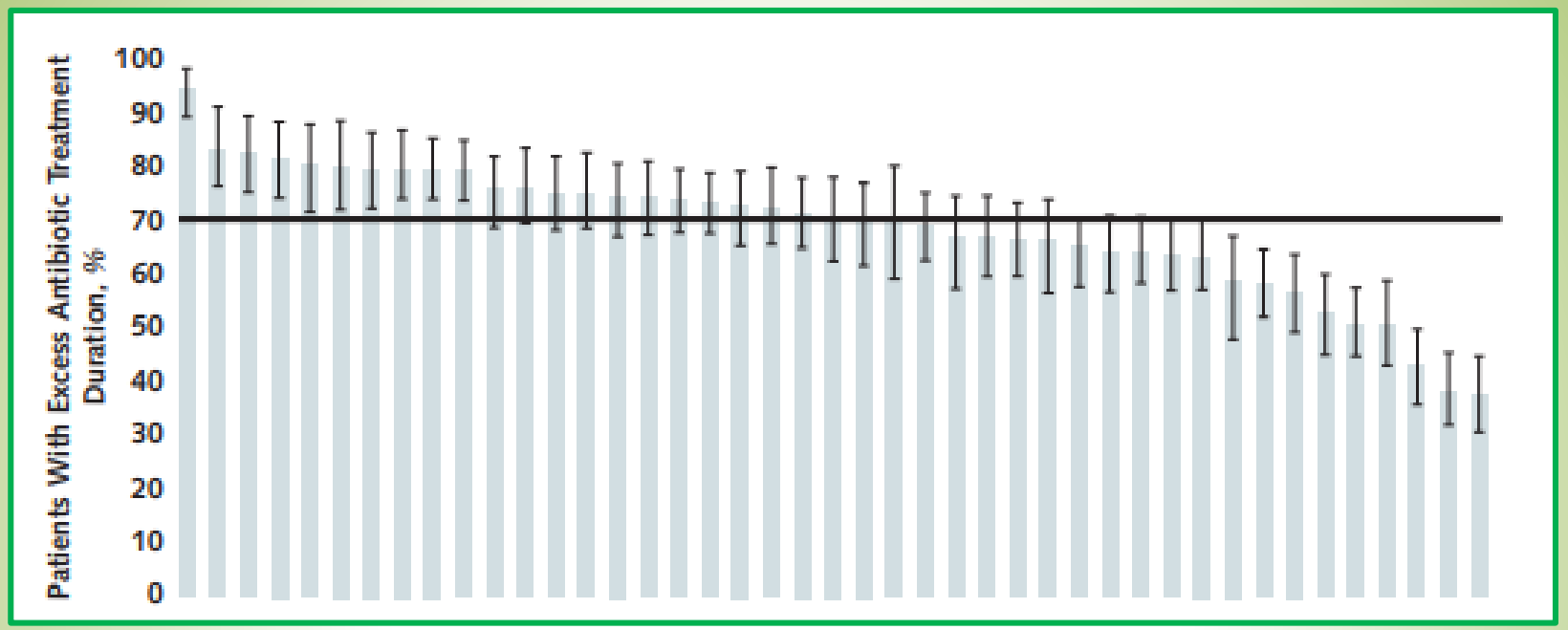
# Secondary Outcomes

- Longer duration did not improve mortality, reduce readmissions or re-visits to ED

- Increased Odds of pt-reported side effects. Its not fun to be on abx (nausea, GI)

*Ann Intern Med.* 2019;171(3):153-163.

We believe the study; even more it gives us clues as to how to improve our individual practice?




(Each bar = 1 hospital) Average excess days per patient: _____

## Factors Associated with Excess Treatment

- Sputum culture – negative (2.5 d) or positive (3.2 d)
- No end date documented (2.9d)

*Ann Intern Med.* 2019;171(3):153-163.

# We believe the study; even more it gives us clues as to how to improve our individual practice?

**Factors Associated with Excess Treatment**

1) 93.2% excess therapy = prescribed at discharge.

2) Sputum culture – negative (2.5 d) or positive (3.2 d)

3) No end date documented (2.9d)

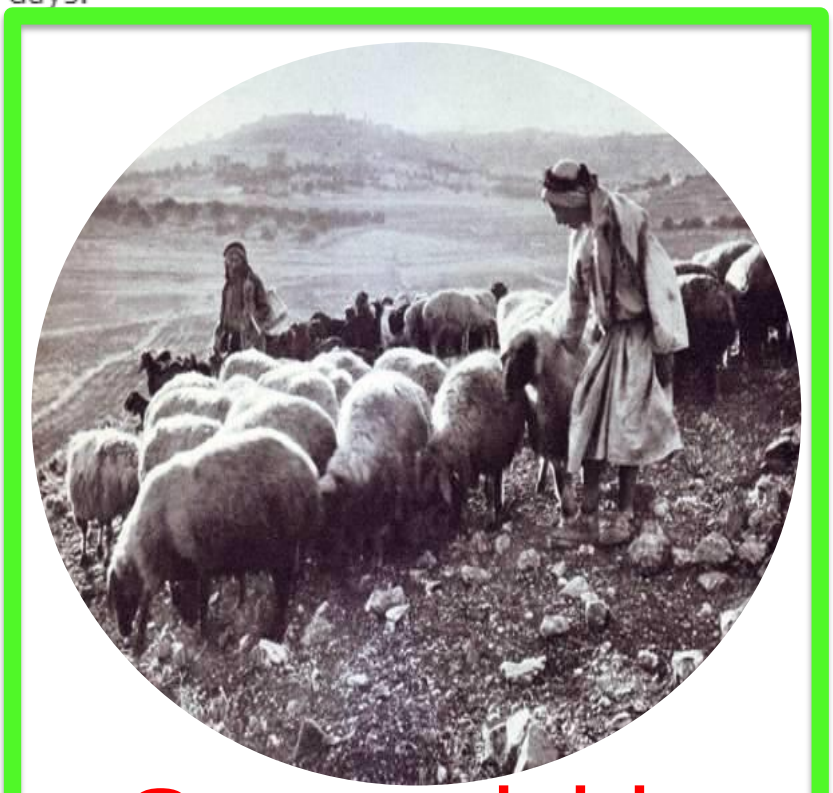
Editorial

September 2016

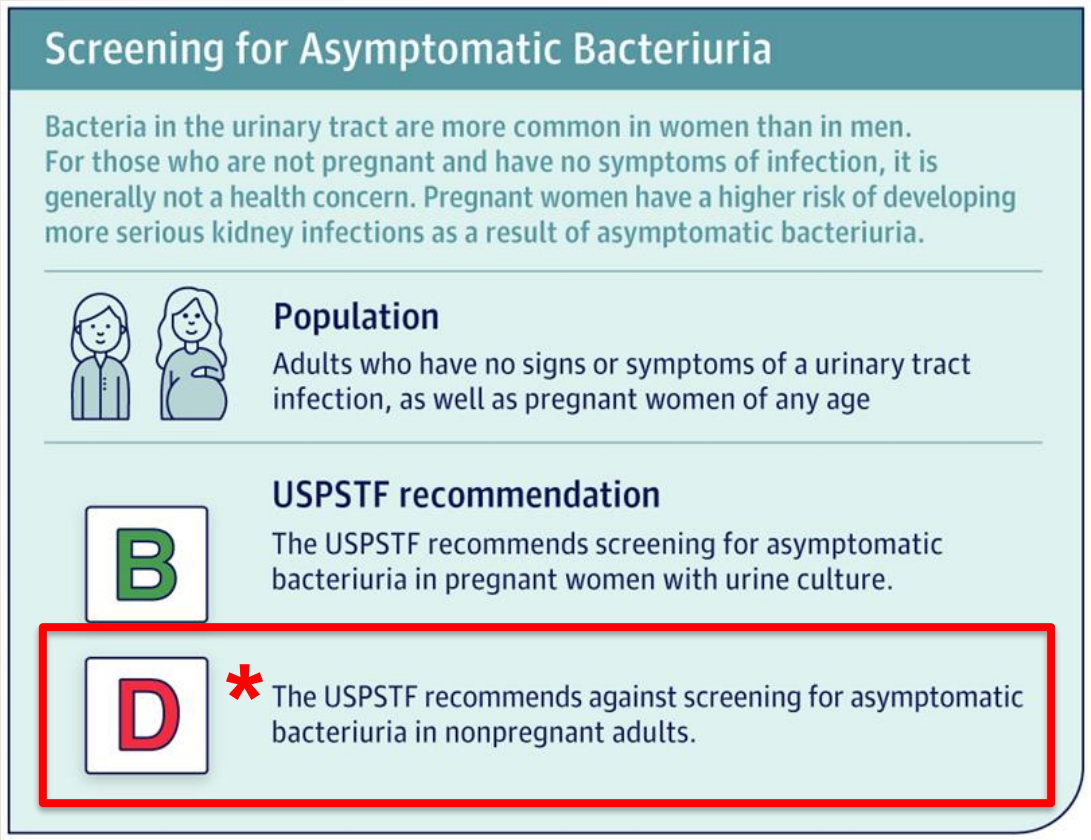
# The New Antibiotic Mantra—"Shorter Is Better"

Brad Spellberg, MD[1,2]

In AD 321, Roman Emperor Constantine the Great codified that there would be 7 days in a week. Even in the modern era of evidence-based-medicine, this 1695-year-old decree remains a primary reference for duration of antibiotic therapy: it leads physicians to treat infections in intervals of 7 days. Thus, it is gratifying when clinical trials challenge the standard antibiotic duration of 7 to 14 days.

# SIDE NOTE! Sometimes the right duration might even be ZERO




*** IDSA 2019**

**Exceptions**

1) Pregnancy
2) 1 month post renal transplant
3) Pre-urologic procedure with mucosal trauma

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*JAMA.* 2019;322(12):1222. doi:10.1001/jama.2019.14876.

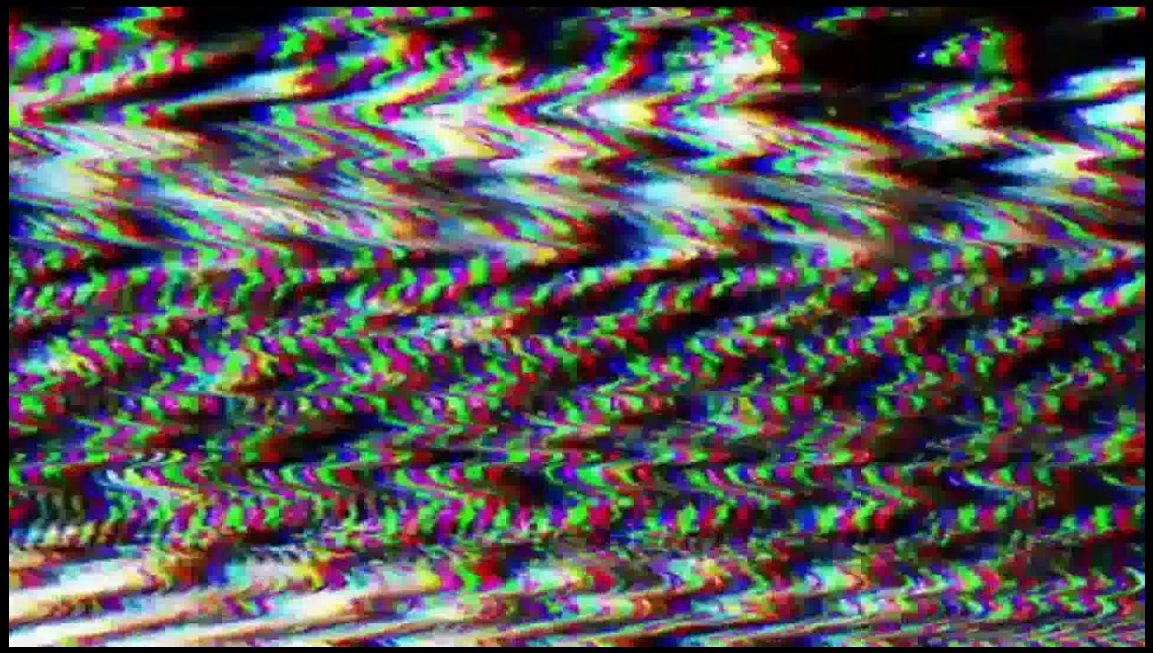
# Timeless Pearls

- Evidence and common sense together support shorter course of antibiotics for PNA.
- Use discharge as an opportunity to narrow and shorten duration.
- Don’t test for or treat nonpregnant adults for asymptomatic bacteriuria
- Constantine is dead, long live Stewardship!

# Delirium

“The I.C.U. setting itself can feel sinister to patients, as if lifted from “The Twilight Zone.”

The eerie, sleep-indifferent lights. The cacophony of machines and alarms.”



https://well.blogs.nytimes.com/2013/07/22/nightmares-after-the-i-c-u/

# 2019 or recent article on B-CAM or whatever relating to DIAGNOSIS

# B-CAM & CAM-ICU

- These are great and easy, the more you use them, the more hypoactive dlieiurm you will find

# Work-up: need a systematic approach

- Old Standard
  - How about a self-referential mnemonic? NEJM
- New hit
  - Clinical Problem Solvers

**Table 3. Evaluation and Management of Delirium.**

| Step and Key Issues | Proposed Evaluation and Treatment |
|---|---|
| **Evaluate and treat common modifiable contributors to delirium*** | |
| Drugs | Consider the etiologic role of newly initiated drugs, increased doses, interactions, over-the-counter drugs, and alcohol; consider especially the role of high-risk drugs: lower the dose, discontinue the drug, or substitute a less psychoactive medication |
| Electrolyte disturbances | Assess for and treat, especially dehydration, sodium imbalance, and thyroid abnormalities |
| Lack of drugs | Assess possible symptoms of withdrawal from long-term use of sedatives, including alcohol and sleeping pills; assess for and treat poorly controlled pain (lack of analgesia): use local measures and scheduled treatment regimens that minimize the use of opioids (avoid meperidine) |
| Infection | Evaluate and treat, especially urinary tract, respiratory tract, and soft-tissue infections |
| Reduced sensory input | Address issues involving vision (e.g., encourage use of eyeglasses) and hearing (e.g., encourage use of hearing aids or a portable amplifier) |
| Intracranial disorders | Consider such disorders (e.g., infection, hemorrhage, stroke, or tumor) if there are new focal neurologic findings or a suggestive history or if diagnostic evaluation for causes outside the central nervous system is unrevealing |
| Urinary and fecal disorders | Assess for and treat urinary retention (so-called cystocerebral syndrome) and fecal impaction |
| Myocardial and pulmonary disorders | Assess for and treat myocardial infarction, arrhythmia, heart failure, hypotension, severe anemia, exacerbation of chronic obstructive pulmonary disease, hypoxia, and hypercarbia |

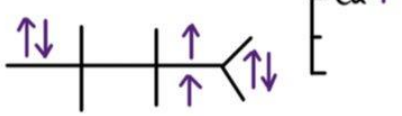
N Engl J Med 2017; 377:1456-1466.

# Altered Mental Status 2.0

## Mimic
① Aphasia
② Dysarthria

## Rx > Dx
↓Glucose → D50
↑Opiate → Naloxone
↓Airway protection → Intubate

## Metabolic
BMP




### Organ Dysfunction
① Lung – ↑$CO_2$, ↓$O_2$
② Cardiac – ACS
③ Liver – Hepatic Encephalopathy
④ Endocrine
- ↑↓ TSH
- ↓ Cortisol

↳ A/VBG, EKG, CMP Coags, TSH

### Other
① ↓ Vitamin – B1 | B12
② Urinary retention
③ Constipation
↳ Bladder Scan
Empiric Rx – IV thiamine

## Infection
### Extra-CNS
① PNA
② UTI
③ Other
↳ CXR/UA

### CNS
① Meningitis
② Encephalitis
↳ LP

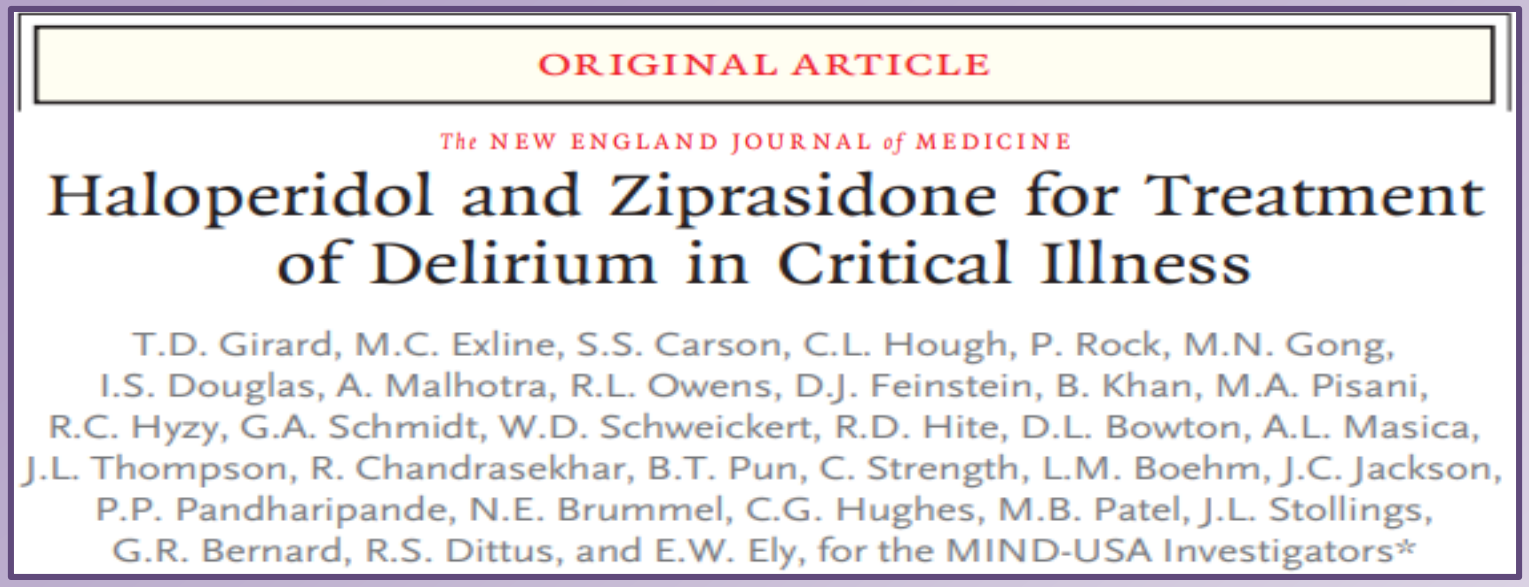
## Structural
① Subdural Hemorrhage
↳ CT

## Toxin

| | Rx | Utox |
|---|---|---|
| ⊕ | Anti-Cholinergic | Opiates |
| ⊖ | Benzo Withdrawal | Methanol |

↳ Med Rec Utox

Dx
The Clinical Problem Solvers



ORIGINAL ARTICLE

The NEW ENGLAND JOURNAL of MEDICINE

# Haloperidol and Ziprasidone for Treatment of Delirium in Critical Illness

T.D. Girard, M.C. Exline, S.S. Carson, C.L. Hough, P. Rock, M.N. Gong, I.S. Douglas, A. Malhotra, R.L. Owens, D.J. Feinstein, B. Khan, M.A. Pisani, R.C. Hyzy, G.A. Schmidt, W.D. Schweickert, R.D. Hite, D.L. Bowton, A.L. Masica, J.L. Thompson, R. Chandrasekhar, B.T. Pun, C. Strength, L.M. Boehm, J.C. Jackson, P.P. Pandharipande, N.E. Brummel, C.G. Hughes, M.B. Patel, J.L. Stollings, G.R. Bernard, R.S. Dittus, and E.W. Ely, for the MIND-USA Investigators*

## Clinical question

- What are the effects of haloperidol or ziprasidone, as compared with placebo, on delirium in ICU patients?

## Study design

- Randomized, double-blind, placebo-controlled

## Setting

- 16 medical centers, MIND-USA

N Engl J Med 2018; 379:2506-2516.

**Included**

- Age > 18 years, MICU or SICU patients, CAM-ICU + delirium
- Shock or respiratory failure

**Excluded**

- Severe cognitive impairment, pregnancy, history of torsades/QT prolongation/NMS

**Treatment arms**

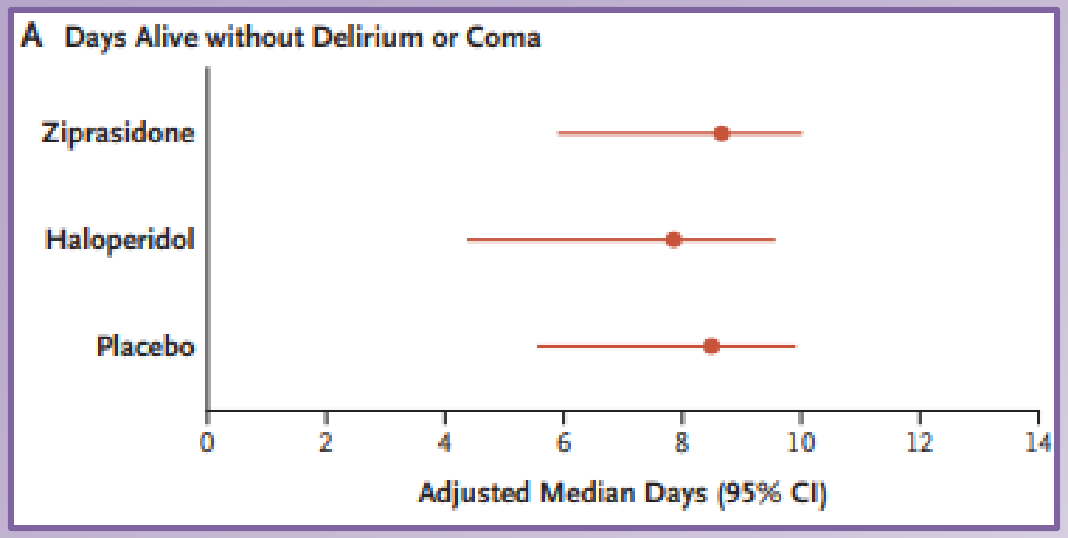
1) IV Haldol <20mg/d 2) IV ziprasidone <40mg/d

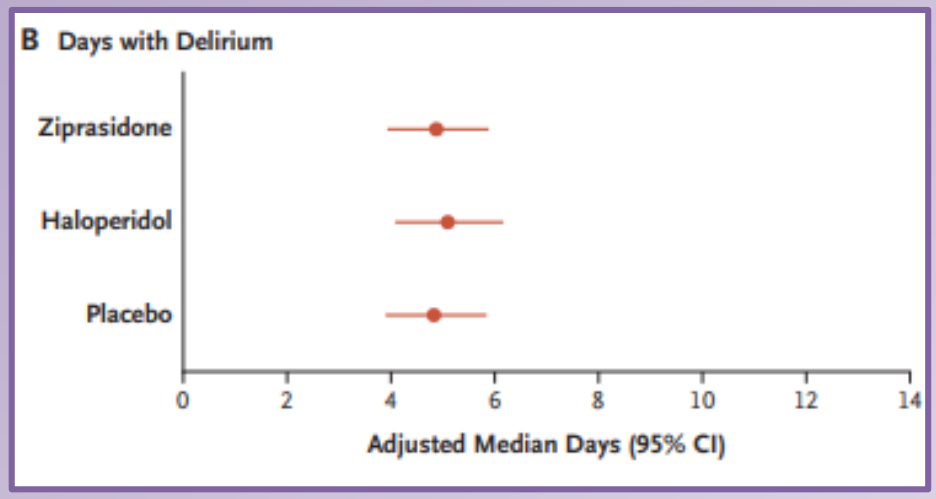
**Outcomes** or placebo

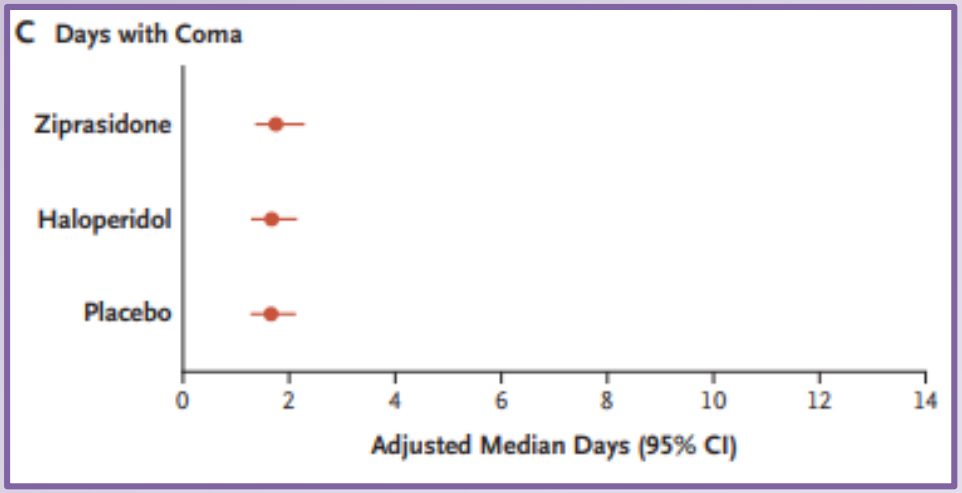
- 1° Days alive without delirium or coma
- 2° Duration of delirium, time to extubation, times to: final successful ICU d/c, hospital d/c, 30d and 90d survival

N Engl J Med 2018; 379:2506-2516.

# Results




N Engl J Med 2018; 379:2506-2516.

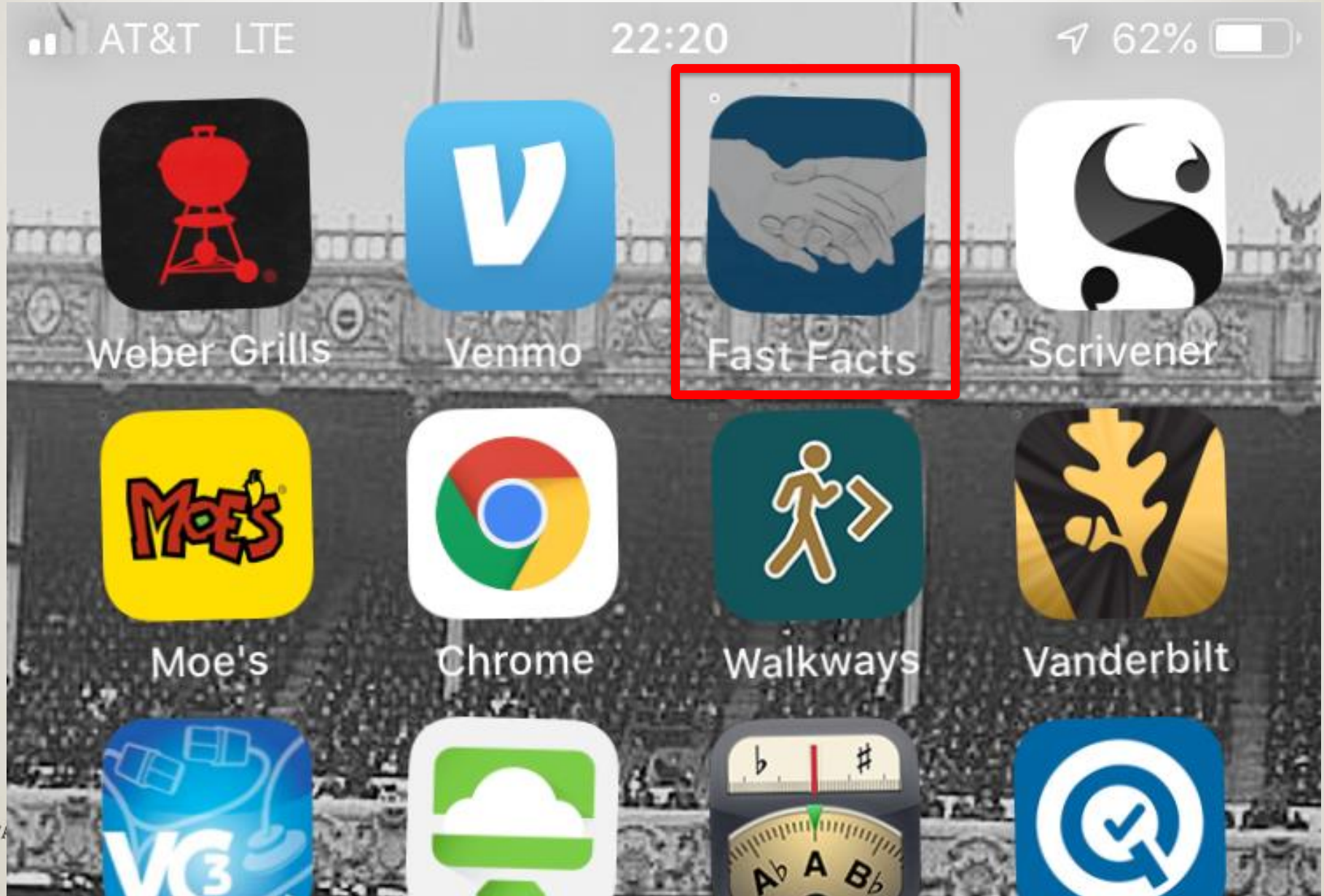
# Hospital delirium treatment: Continuation of antipsychotic therapy from the intensive care unit to discharge

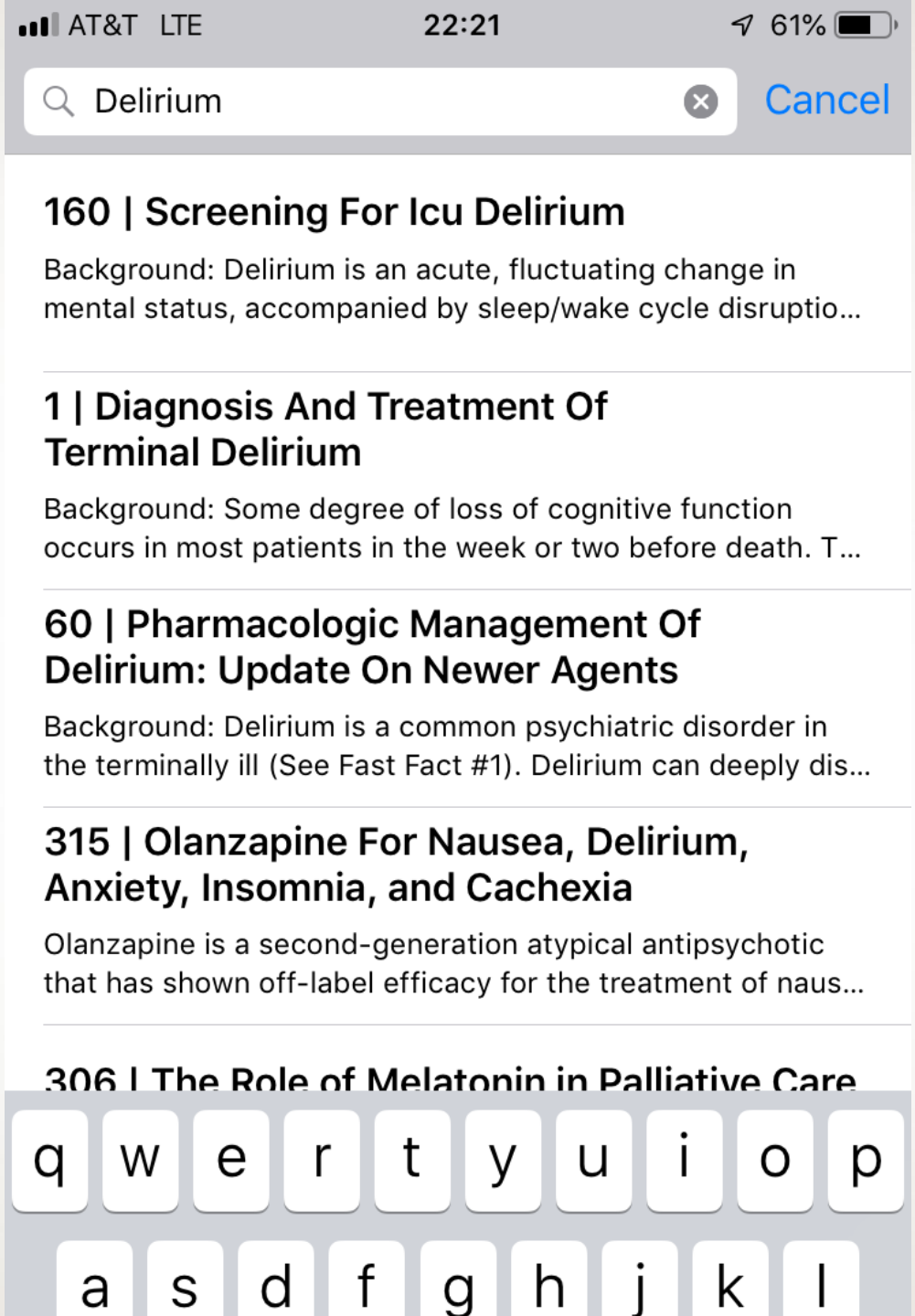
Rachel W. Flurie, Pharm.D., BCPS, Jeffrey P. Gonzales, Pharm.D., BCPS, FCCM ✉,
Asha L. Tata, Pharm.D., BCPS, Leah S. Millstein, M.D., Mangla Gulati, M.D., FAC P, FSHM

*American Journal of Health-System Pharmacy*, Volume 72, Issue 23_Supplement_3, 1 December 2015, Pages S133–S139, https://doi.org/10.2146/ajhp150474
**Published:** 01 December 2015

Of the 87 patients who met the study inclusion criteria, 23 **(26%) were continued on antipsychotic therapy** after their transfer from the MICU to the medical ward. Of the 23 patients continued on antipsychotic therapy, 9 **(39%) were discharged from the hospital with an antipsychotic**.

# Quick Take: Use Apps to Help!






VANDERBILT UNIVERSITY MEDICAL CENTER

Fast Facts (Palliative Care Network of Wisconsin), Dr David Weissman, Dr Sean Marks MD

# Screening For Icu Delirium

**Authors:** Richard Altman MD , Eric Milbrandt MD, MPH , Robert M Arnold MD

**Category:** ICU, Critical Care

**Background:** Delirium is an acute, fluctuating change in mental status, accompanied by sleep/wake cycle disruption, inattention, and altered perceptions (hallucinations/delusions) (see Fast Fact #1 , Fast Fact #60 ). Delirium can be hypoactive or hyperactive. Patients with hypoactive delirium are calm, but inattentive and manifest decreased mobility. Patients with hyperactive delirium are agitated and combative, and also lack the ability to maintain attention to complete tasks. Delirium can be considered a marker of acute brain dysfunction, much like shock is evidence for dysfunction of the cardiovascular system (1).

**ICU Delirium** Delirium occurring in the ICU is associated with an increased length of hospitalization, increased need for institutionalization, and higher short and long-term mortality (2). In the ICU, delirium occurs in as many as 80% of patients, but is often overlooked or misdiagnosed because of the difficulty of assessing mental states in intubated patients. Three assessment tools have

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Fast Facts (Palliative Care Network of Wisconsin), Dr David Weissman, Dr Sean Marks MD

# Timeless Pearls

- Compared to placebo, neither drug made a difference in **delirium duration**, **ICU time** or **mortality**
- Despite lack of benefit, both drugs were well-tolerated
- Only use in uncontrolled agitation, otherwise:

  treating ourselves > patient

# AMA Discharges


**ACP Hospitalis**

@acphospitalist

ACP Hospitalist provi
trends and issues in t

Philadelphia, PA

**In the Literature – October 2019**

Jessica Burke, MD; Chase Webber, DO; Kevin Liu, MD; Russell Ledford, MD; Krista Suojanen, MD; Derek Kruse, MD; Kevin Hageman, DO; Kelly Sponsler, MD
*Section of Hospital Medicine, Vanderbilt University Medical Center*

## AMA discharge linked to increased readmission rate, discontinuity of care

**Clinical question:** What is the impact of discharge against medical advice (AMA) on 30-day readmission rates and outcomes on subsequent hospitalization?

**Background:** AMA discharges are common (1-2% of all US discharges) and disproportionally affect vulnerable patient populations, specifically those of lower socioeconomic status and the uninsured. Previous studies have been insufficiently powered to assess the effects of AMA discharge on 30-day readmission rates at a national level.

**Study design:** Retrospective cohort

# AMA Discharges – Fast Take

Burden of 30-Day Readmissions Associated With Discharge Against Medical Advice Among Inpatients in the United States

Nilay Kumar, MD*
University of Wisconsin School of Medicine and Public Health, Madison

- Common: 1-2% of all discharges
- Risky 20.2% unplanned readmission vs. 10.1% routinely discharged
- AMA begets AMA: 20x odds of repeat AMA on readmit



Am J Med. 2019 Jun;132(6):708-717.

- So then why are we writing AMA discharges?

- Thoughts include:
- To persuade our patients to stay (perhaps with $ implications)
- Legal protection for the physician or hospital
- Reputation (I didn't think this dc was smart)


MYTHBUSTERS

# Financial Responsibility of Hospitalized Patients Who Left Against Medical Advice: Medical Urban Legend?

*Gabrielle R. Schaefer, BA[1], Heidi Matus, MD[2], John H. Schumann, MD[3], Keith Sauter, BA[4], Benjamin Vekhter, PhD[5], David O. Meltzer, MD, PhD[5], and Vineet M. Arora, MD, MAPP[2,5]*

[1]Pritzker School of Medicine, University of Chicago, Chicago, IL, USA; [2]Internal Medicine Residency Program, University of Chicago, Chicago, IL, USA; [3]Department of Internal Medicine, University of Oklahoma School of Community Medicine, Tulsa, OK, USA; [4]Patient Financial Services, University of Chicago Medical Center, Chicago, IL, USA; [5]Department of Medicine, University of Chicago, Chicago, IL, USA.

**CONCLUSIONS:** Contrary to popular belief, we found no evidence that insurance denied payment for patients leaving AMA. Residency programs and hospitals should ensure that patients are not misinformed.

*KEY WORDS*: patient discharge; financial responsibility; hospital reimbursement.
J Gen Intern Med 27(7):825–30
DOI: 10.1007/s11606-012-1984-x


J Gen Intern Med. 2012 Jul; 27(7): 825–830.

# Legal mythbuster

# Against Medical Advice (AMA) Discharges

*CHOOSING WISELY®: Things We Do For No Reason*

## Why AMA Discharges are thought to be helpful

- AMA formally distances practitioner from patients' request for non-standard DC plan – deflecting potential blame for any poor outcome

## Why AMA Discharges add no value to patient care

- 25% of patients discharged AMA report not wanting to return for follow-up care
- Breeds Distrust
- Does NOT provide liability protection

## What you should do instead

- Use Shared-Decision Making to provide harm-reducing discharge options that, while suboptimal, may not be substandard

Alfandre D et al. October 2017

Journal of HOSPITAL MEDICINE

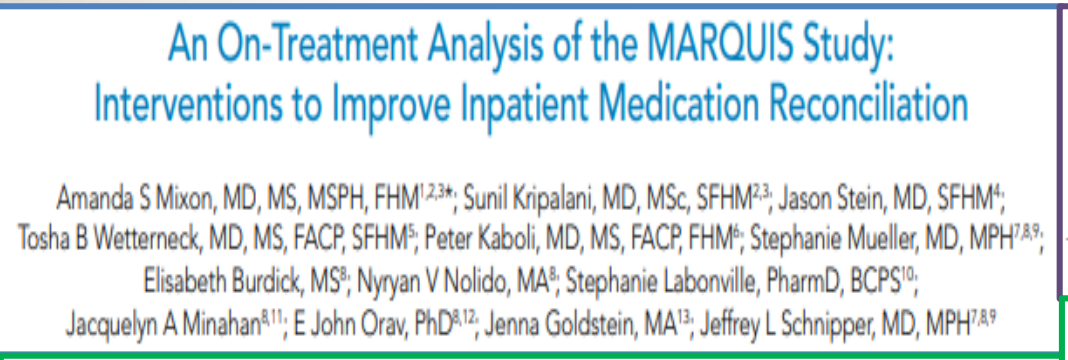
# Timeless pearls

- Discharges AMA:  common, fraught with risk, may threaten the patient-physician relationship
- ~~Patients financially responsible for AMA discharge~~
- Remain an ally, don't misinform.
- Move from AMA to SDM!

# Discharge

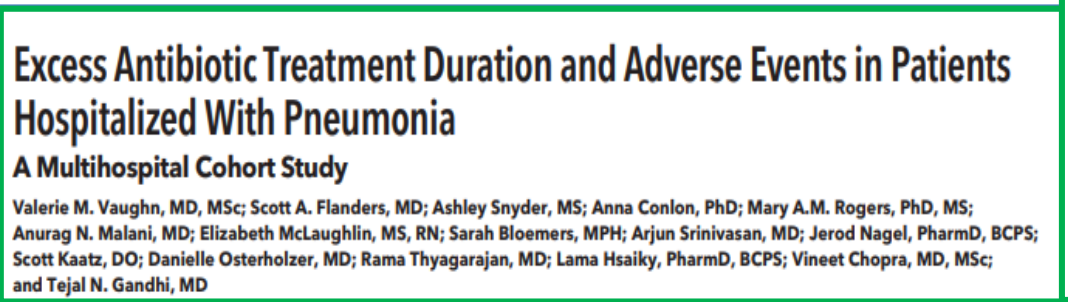
# Targeted approaches at discharge

- Multi-disciplinary approach to continuation and stopping unnecessary meds (med rec)
- Opportunity to be good stewards (abx duration)
- Discontinue new anti-psychotics (delirium)
- Shared decision making (in place of AMA)



An On-Treatment Analysis of the MARQUIS Study: Interventions to Improve Inpatient Medication Reconciliation

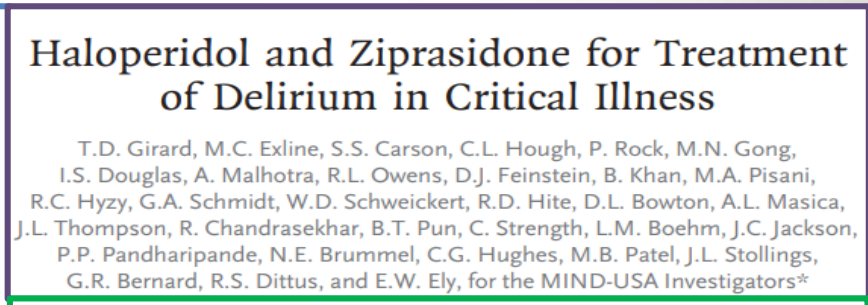
Amanda S Mixon, MD, MS, MSPH, FHM[1,2,3*]; Sunil Kripalani, MD, MSc, SFHM[2,3]; Jason Stein, MD, SFHM[4]; Tosha B Wetterneck, MD, MS, FACP, SFHM[5]; Peter Kaboli, MD, MS, FACP, FHM[6]; Stephanie Mueller, MD, MPH[7,8,9]; Elisabeth Burdick, MS[8]; Nyryan V Nolido, MA[8]; Stephanie Labonville, PharmD, BCPS[10]; Jacquelyn A Minahan[8,11]; E John Orav, PhD[8,12]; Jenna Goldstein, MA[13]; Jeffrey L Schnipper, MD, MPH[7,8,9]



Excess Antibiotic Treatment Duration and Adverse Events in Patients Hospitalized With Pneumonia

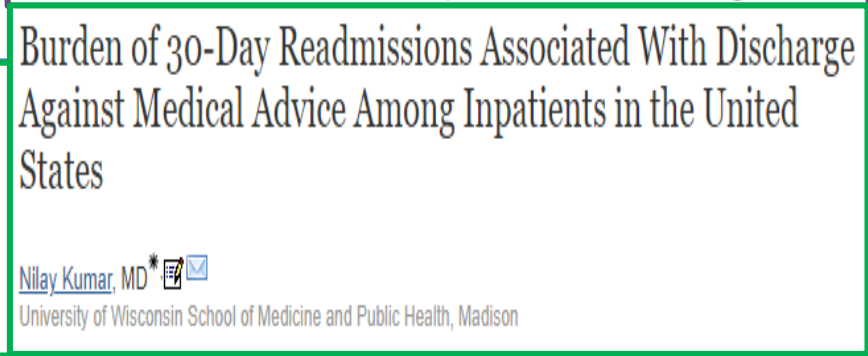
A Multihospital Cohort Study

Valerie M. Vaughn, MD, MSc; Scott A. Flanders, MD; Ashley Snyder, MS; Anna Conlon, PhD; Mary A.M. Rogers, PhD, MS; Anurag N. Malani, MD; Elizabeth McLaughlin, MS, RN; Sarah Bloemers, MPH; Arjun Srinivasan, MD; Jerod Nagel, PharmD, BCPS; Scott Kaatz, DO; Danielle Osterholzer, MD; Rama Thyagarajan, MD; Lama Hsaiky, PharmD, BCPS; Vineet Chopra, MD, MSc; and Tejal N. Gandhi, MD



Haloperidol and Ziprasidone for Treatment of Delirium in Critical Illness

T.D. Girard, M.C. Exline, S.S. Carson, C.L. Hough, P. Rock, M.N. Gong, I.S. Douglas, A. Malhotra, R.L. Owens, D.J. Feinstein, B. Khan, M.A. Pisani, R.C. Hyzy, G.A. Schmidt, W.D. Schweickert, R.D. Hite, D.L. Bowton, A.L. Masica, J.L. Thompson, R. Chandrasekhar, B.T. Pun, C. Strength, L.M. Boehm, J.C. Jackson, P.P. Pandharipande, N.E. Brummel, C.G. Hughes, M.B. Patel, J.L. Stollings, G.R. Bernard, R.S. Dittus, and E.W. Ely, for the MIND-USA Investigators*



Burden of 30-Day Readmissions Associated With Discharge Against Medical Advice Among Inpatients in the United States

Nilay Kumar, MD*

University of Wisconsin School of Medicine and Public Health, Madison


1 Medication Reconciliation
2 Antibiotic Stewardship
3 Delirium
4 Discharge AMA
5 Discharge Pearls

# What is your experience?

## Let’s continue this conversation:

@chasejwebber

#MedTwitter

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MOC Questions

Question 1

Which of the follow represents the most common antibiotic-associated adverse event reported by patients after 30 days?

A. Pruritis
B. C difficile infection
C. Diarrhea
D. Oral candidiasis

Answer: **C Diarrhea**

Rationale: Gastrointestinal distress and GI symptoms represent the most common antibiotic-associated adverse event reported by patients. This is particularly true in patients treated with excess antibiotic therapy, where each excess day of treatment accounts for a 5% increase in odds of ADE.

Citation: Vaughn VM, et al. “Excess Antibiotic Treatment Duration and Adverse Events in Patients Hospitalized with Pneumonia.” *Ann Intern Med*. 2019;171: 153-163.

Question 2

According to recently updated (June 2019) IDSA guidelines, asymptomatic bacteriuria should be treated in which of the following clinical scenarios?

A. Patients with spinal cord injury
B. Patients undergoing joint arthroplasty
C. Patients with indwelling foley catheters
D. Patients undergoing urologic procedures

Answer: **D Patients undergoing urologic procedures**

Rationale: IDSA guidelines recommend against screening or treating most nonpregnant adults for asymptomatic bacteriuria. Few exceptions to this rule include patients undergoing urologic procedures with expected mucosal trauma, as well as following recent renal transplant (first 1-3 months post transplant).

Citation: Nicolle LE, et al. “Clinical Practice Guideline for the Management of Asymptomatic Bacteriuria: 2019 Update by the Infectious Diseases Society of America. *Clin Infec Diseases* 2019:68: 83-110.