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Epidemiology of America

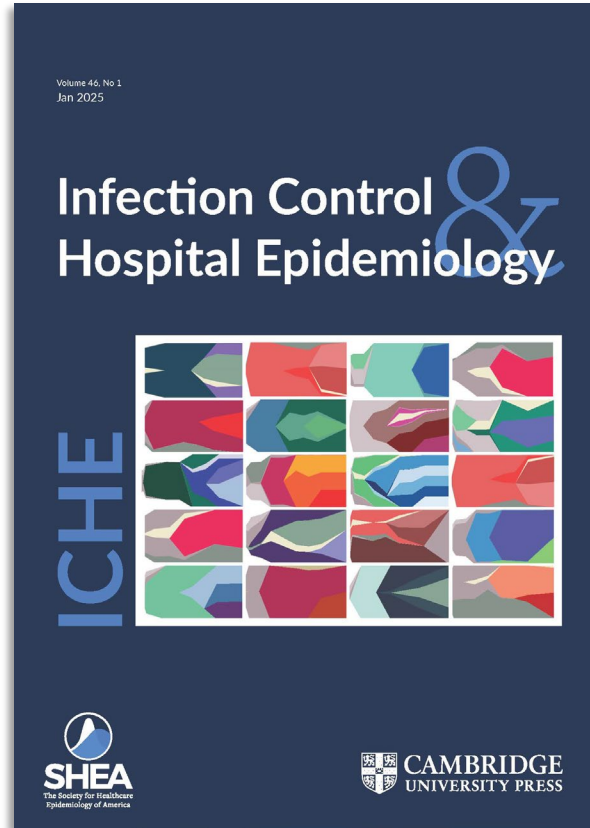
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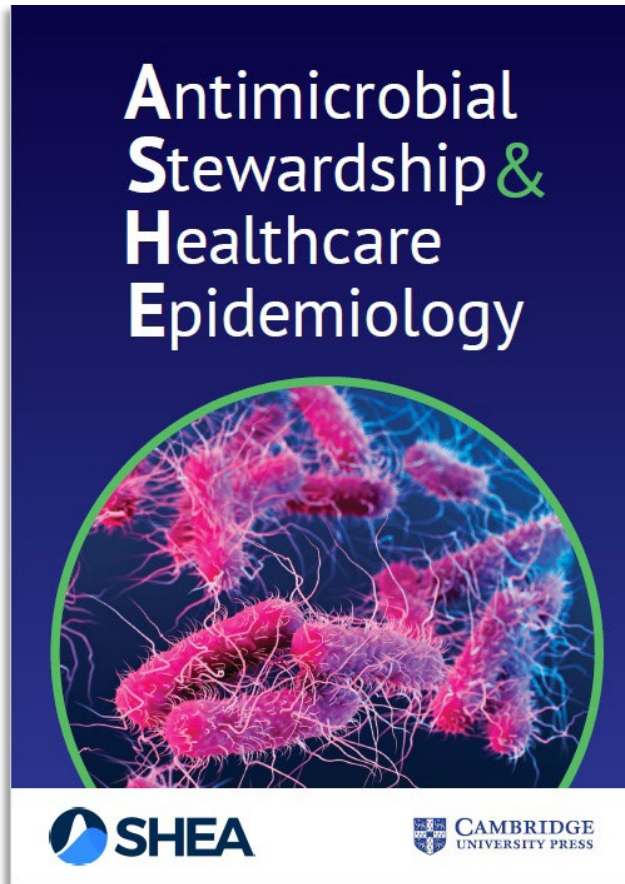
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*Course consists of multiple live sessions. Register now for access to the course – recordings and materials included.

Raising the Bar: How to Advocate for Resources for Effective IPC Teams

November 5, 2025 | 1:30 – 2:30 pm ET

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Diagnostic Stewardship Programs: From Concept to Implementation

January 26, 2026 | 2:00 – 3:00 pm ET

*Course consists of multiple live sessions. Register now for access to the course – recordings and materials included

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October Town Hall Panelists:



Dr. Marci Drees
ChristianaCare



Dr. Trish Perl
UT Southwestern Medical Center



Dr. Matthew Linam
Emory University



Dr. Erica Shenoy
Mass General Brigham

Invited Panelist:



Payal K. Patel, MD

*Director of Antimicrobial Stewardship
Intermountain Healthcare*

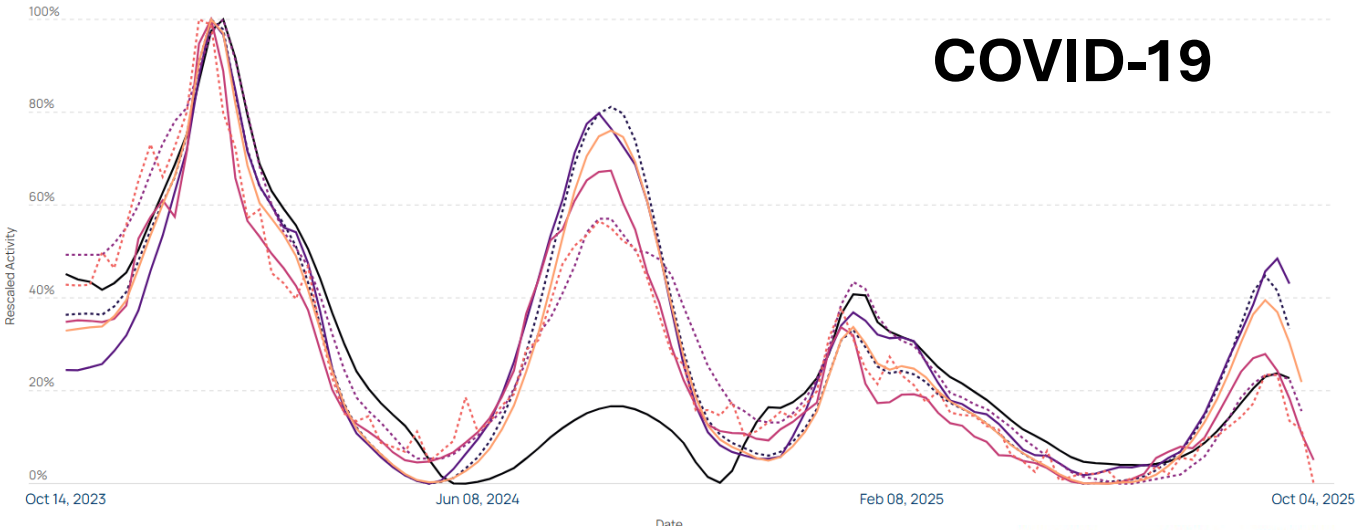
Respiratory Virus Update & Recent Lit Review

Oct 14, 2025

Respiratory Viral Trends

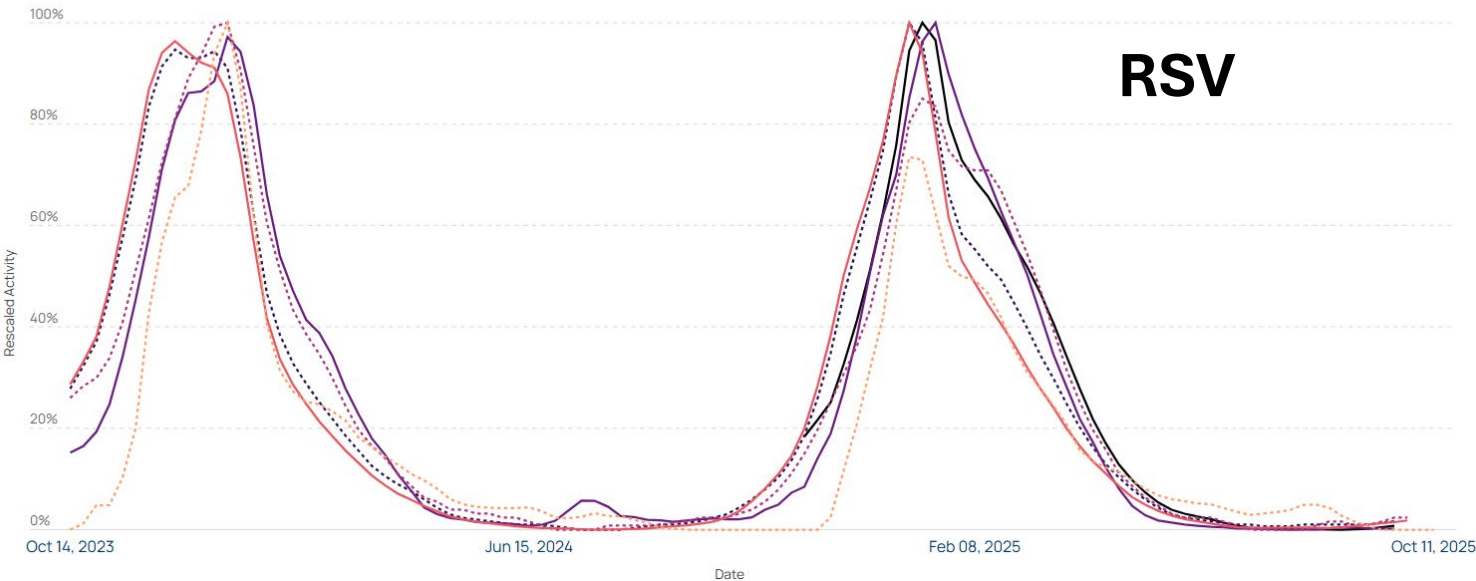
— CDC NHSN - - - CDC NSSP — CDC NWSS - - - CDC RespNET — Delphi Doctor Claims - - - Delphi Hospital Claims — Epic Cosmos, ED

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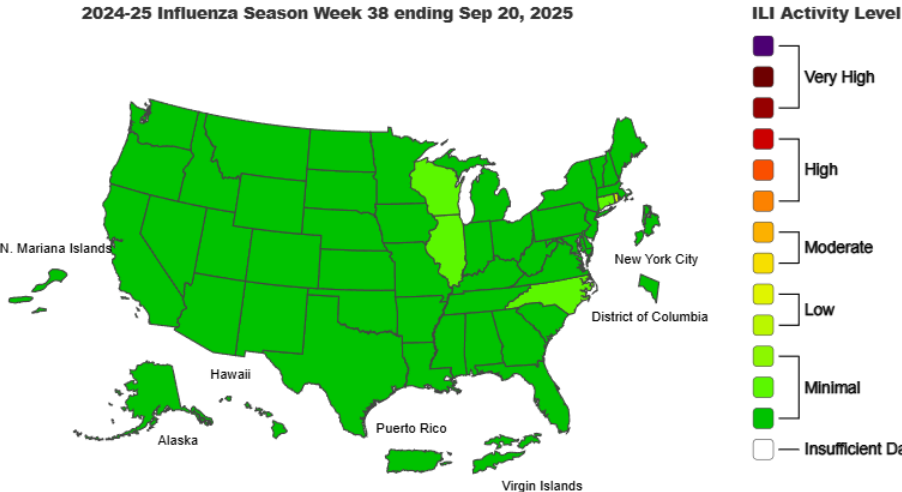
— CDC NHSN - - - CDC NSSP — CDC NWSS - - - CDC RespNET — Epic Cosmos, ED - - - Google Health Trends

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Flu *(FluView not updated since 9/26)*

2024-25 Influenza Season Week 38 ending Sep 20, 2025



CDC Immunization Schedule Adopts Individual-Based Decision-Making for COVID-19 and Standalone Vaccination for Chickenpox in Toddlers

ATLANTA—October 6, 2025—

- ACIP met Sept 18-19
- Updated vaccine schedules approved by Acting CDC Director Jim O’Neill and posted on Oct 7
 - Usually occurs within 24-48 hr
- Process issues:
 - Abandonment of GRADE, EtR
- Other ACIP votes:
 - Removal of MMRV option for children under 5y (previously allowed using SCDM)
 - All pregnant women should be tested for HBV; vote on HBV birth dose unexpectedly tabled
- Formation of new working group – Childhood & Adolescent Immunization Schedule ([announced Oct 8](#)):
 - Timing, coadministration, safety of certain ingredients (e.g., aluminum & risk of asthma), comparison with other countries’ schedules

Recommended for all adults who lack documentation of vaccination, **OR** lack evidence of immunity

Not recommended for all adults, but recommended for some adults based on either age OR increased risk for or severe outcomes from disease

Vaccination is based on shared clinical decision-making

Additional doses may be necessary based on medical condition or other indications. See Notes.

Precaution: Might be indicated if benefit of protection outweighs risk of adverse reaction

Contraindicated or not recommended
*Vaccinate after pregnancy, if indicated

No Guidance/Not Applicable

Vaccine	Pregnancy	Immuno-compromised (excluding HIV infection)	HIV infection CD4 percentage and count		Men who have sex with men	Asplenia, complement deficiency	Heart or lung disease	Kidney failure, End-stage renal disease or on dialysis	Chronic liver disease; alcoholism ^a	Diabetes	Health care Personnel ^b
			<15% or <200/mm ³	≥15% and ≥200/mm ³							
COVID-19 ⓘ	See Notes	Additional doses may be necessary (See Notes)		See Notes							
Influenza inactivated Influenza recombinant ⓘ		Solid organ transplant (See Notes)	1 dose annually								
LAIV3 ⓘ					1 dose annually if age		1 dose annually if age 19–49 years				

*Vaccination based on **individual-based decision-making**— with an emphasis that the risk-benefit of vaccination is most favorable for individuals who are at an increased risk for severe COVID-19 disease and lowest for individuals who are not at an increased risk according to the CDC list of COVID-19 risk factors.*

ACIP & COVID-19 Vaccines

- ACIP “SCDM” recommendation actually broader than FDA “approval”
 - E.g., pregnancy, healthy people 6 mo-64 years
 - No extra documentation required but “best practice” to document underlying conditions and state that SCDM used
 - Standing orders can be used as long as qualified HCP (physician, NP/PA, nurse, pharmacist) doing vaccine counseling & administration
 - May vary by state for pharmacists/pharmacies – Rx may be required
 - SCDM vaccines covered by insurance
- Delay in CDC Director sign-off delayed availability for state vaccination programs and VFC

Recent Lit Review

MAJOR ARTICLE

Impact of RSV immunization on the rate of pediatric acute otitis media: a time-series analysis.

Inès Fafi^{1,2,3}, MD; Corinne Levy^{4,5,6}, MD; André Birgy, MD, PhD^{1,7}; Stéphane Bechet^{5,6}, Msc; Andreas Werner^{5,8}, MD; Christophe Batard^{5,8}, MD; Bruno Franji⁶, MD; Yannis Lassoued^{1,3}, MD; Fabienne Cahn Sellem^{5,8}, MD; Romain Basmaci^{1,4,9}, MD, PhD; Florentia Kaguelidou^{2,10}, MD, PhD; Naïm Ouldali^{*1,3,4}, MD, PhD; Robert Cohen^{*4,5,6}, MD.

- Acute otitis media (AOM) leading cause of Abx use in children
- RSV suspected to play important role in AOM
- Interrupted time-series analysis based on French network of 110 ambulatory pediatricians
- Included all ambulatory visits for AOM from 6/17-2/25

• Results:

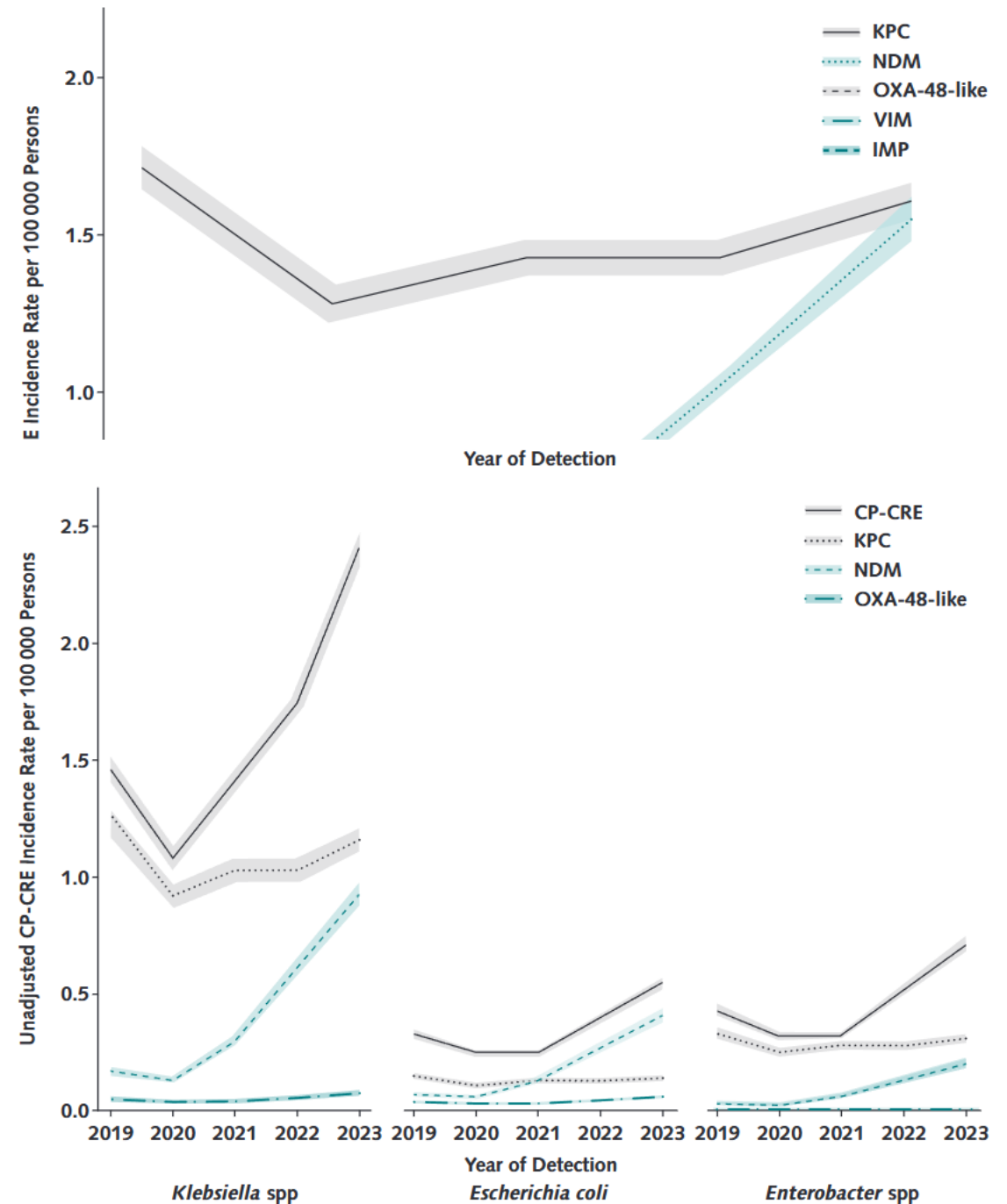
- 23.7% decrease in AOM in children <12 mo.
- 47.8% decrease in children under 6 mo.
- Similar findings for bronchiolitis among those < 12 and < 6 mo
- No change in older age groups or in UTI diagnoses

• Why?

- Direct reduction of RSV infections (rarely tested for in AOM)
- RSV highly suspected to trigger transitions from pneumococcal NP colonization to infection

Changes in Carbapenemase-Producing Carbapenem-Resistant Enterobacterales, 2019 to 2023

- Used CDC's Antimicrobial Resistance Laboratory Network to assess trends in CP-producing CRE (CP-CRE) in 29 states from Jan 2019-Dec 2023
- Age-adjusted incidence of CP-CRE increased 69%, primarily due to NDM
- By 2023, NDM most common CP in *E.coli*



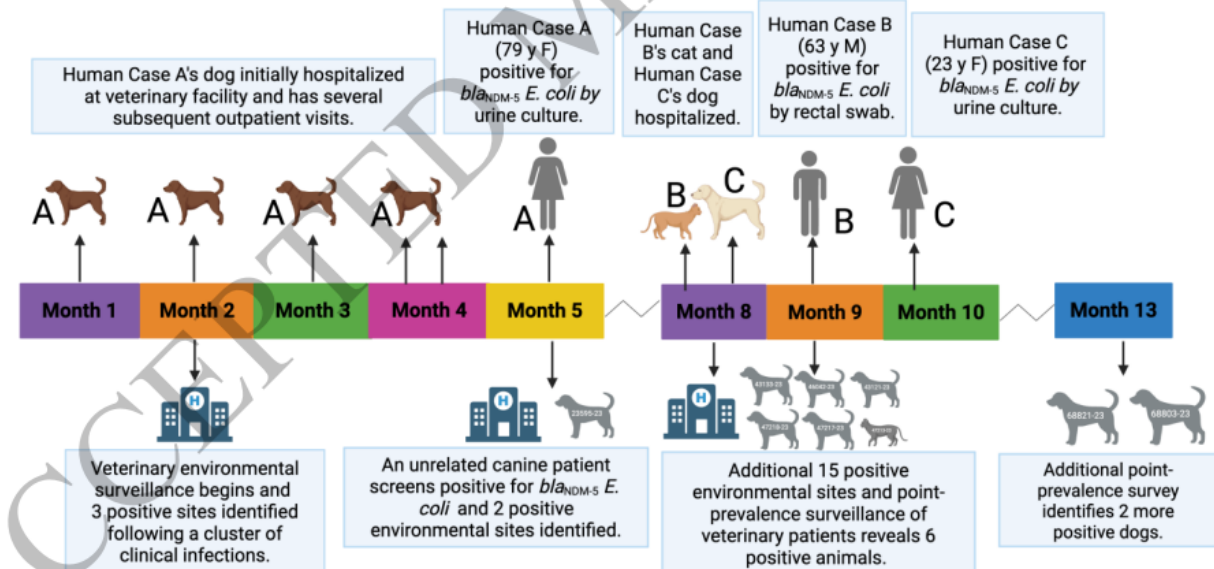
MAJOR ARTICLE

Human Cases of Carbapenemase-Producing *Escherichia coli* Linked to Spread Between Animals and the Environment in a Veterinary Facility -Massachusetts, USA, 2023

Ian M DeStefano DVM¹, Claire L Fellman DVM PhD¹, Paula M Snippes Vagnone MT(ASCP)², Melissa A Cumming MS³, Jennifer L Dale PhD², Abbey Ruhland MPH², Jaclyn Dietrich BA⁴, Catherine M. Brown DVM MPH³, Esther Fortes BS³, Nicolas N. Epie PhD, HCLD(ABB)³, Amanda Beaudoin DVM PHD⁵, Katherine Janiszewski MPH³, Jessica Leaf MPH³, Shira Doron MD⁶, Matthew Doucette BSc³, Stephen D Cole VMD^{4*}

- In MA, CRE infections in humans required to be reported and submitted to MA SPHL for WGS; no such requirement for veterinary isolates
- Veterinary hospital recognized cluster of imipenem-R *E. coli* & reached out to the MDPH

- 3 apparently unrelated human CRE cases identified but found to match environmental samples from veterinary hospital
- All 3 patients had pets cared for within prior 2 months at the veterinary hospital



The Impact of a Nationwide Blood Culture Bottle Shortage in 2024 on Healthcare Facilities in the United States

Joseph D. Lutgring,^{1,✉} Alexander Maillis,^{1,2} George C. Bryant,^{1,3,✉} Kathryn A. Haass,^{1,✉} Marissa McMeen,^{1,3,✉} Henrietta Smith,^{1,✉} Natalie L. McCarthy,^{1,✉} Kelly M. Hatfield,^{1,✉} L. Clifford McDonald,^{1,✉} Sujan C. Reddy,^{1,✉} Arjun Srinivasan,¹ Margaret Dudeck,¹ and Hannah Wolford^{1,✉}

¹Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia, USA; ²Chenega Enterprise Systems and Solutions, Atlanta, Georgia, USA; and ³Lantana Consulting Group, East Thetford, Vermont, USA

- NHSN questionnaire & retrospective cohort study using inpatient hospitalization data
- Of 3196 facilities reporting, 45.6% indicated using BD BACTEC™ bottles

Results:

- 27.4% decrease in cultures at hospitals using BACTEC during the shortage
- 15.3% decrease in rate of patients positive for a pathogen

A

Rates of Blood Cultures Over Time

	BD BACTEC™ Blood Culture Vial Facilities (n = 11)	
	Non-Shortage ^a	Shortage ^b
Rate of Bloodstream Infections ^c	30.8	25.0
<i>Staphylococcus aureus</i> ^d	5.6	4.8
<i>Escherichia coli</i> ^d	8.7	6.6
<i>Klebsiella pneumoniae</i> complex ^d	2.8	2.5
<i>Enterococcus faecalis</i> ^d	1.5	1.6
<i>Proteus mirabilis</i> ^d	1.2	1.2
<i>Streptococcus pneumoniae</i> ^d	1.4	0.6
<i>Pseudomonas aeruginosa</i> ^d	1.2	1.0
<i>Streptococcus pyogenes</i> ^d	1.0	0.5

MAJOR ARTICLE

Insights on recurrent and sequential *Clostridioides difficile* infections from genomic surveillance in Minnesota, USA, 2019-2021

Daniel Evans^{*1}, Bree Friedman¹, Kelly Pung¹, Bonnie Weber¹, Matthew Plumb¹, Jacob Garfin¹, Christine Lees¹, Stacy Holzbauer^{1,2}, Ruth Lynfield¹, and Xiong Wang^{1,3}

- Active population- and laboratory-based surveillance for CDI
- Used WGS to compare samples from 306 patients with >1 CDI event during the surveillance period (2019-21)
 - Used multi-locus sequence types (MLSTs) from WGS data to define relatedness

Results:

- 64.7% of patients had multiple infections with same MLSTs
 - Including 49.6% of patients with reinfection within 8-wk NHSN definition window
- 221 patients had recurrence within 2-8 weeks
 - 66.8% had same MLST
 - 33.2% involved multiple MLSTs
- 139 patients with recurrence > 8 weeks
 - 49.6% had matching MLST

CAUTI

Recent Lit Review

Multicentre, prospective, randomised controlled non-inferiority trial of bladder catheter management in short-duration, minimally invasive colon surgery (The Vesicalcath I-Study)"

Serra-Aracil, Xavier Ph.D.^{a,b}; Hidalgo, Jose^a; Perucho, Nuria Llorach^a; Montesinos, Cristina Soto^c; Diaz, Carlos Gómez^c; Figueras, Regina Vives^c; Rivilla, Salvadora Delgado^d; Romero Marcos, Juan Manuel^d; Gomez, Carlota Cuenca^d; Ferreres-Serafini, Joan^e; Romaguera, Vincent Primo^f; Galvez, Ana^g; Caro-Tarragó, Aleidis^e Vesicalcath-study group

Author Information 

International Journal of Surgery (>):10.1097/J.S9.0000000000002962, July 17, 2025. | DOI: 10.1097/J.S9.0000000000002962 

Question: whether immediate catheter removal after laparoscopic colectomy and upper rectal surgery is non-inferior to the conventional 24-hour removal protocol in terms of safety and efficacy

- CAUTI
- Acute urinary retention (AUR)

- Prospective, multicentre, randomised, controlled non-inferiority trial in 6 Spanish public hospitals
 - 415 patients undergoing elective minimally invasive colon and upper rectal surgery, with ERAS protocols, short operative time (<180 minutes), and restricted fluid administration (<2000 mL)
- Results:
 - AUR 3.4% (1.8% in 24-hr removal, 5.1% in immediate removal → non-inferior)
 - No difference in secondary outcomes such as length of stay
 - CAUTI 0.5% (1 in each group)

BRIEF REPORT

Comparing Generative Artificial Intelligence vs Experts for Detection of Catheter-Associated Urinary Tract Infection (CAUTI)

Shatha Alshanqeeti,^{1,2,3,Ⓢ} Karen Coffey,^{2,4} Karrie Mcdermott,² Aileen de Guzman,² Westyn Branch-Elliman,^{5,6,Ⓢ} Katherine E. Goodman,^{4,7} Anthony D. Harris,^{2,4,7,Ⓢ} Jonathan Baghdadi,^{4,7,Ⓢ} and Daniel J. Morgan^{2,4,Ⓢ}

Retrospective cohort study comparing generative artificial intelligence (GenAI) versus infection control expert for catheter-associated urinary tract infection (CAUTI) detection

- 231 positive urine cultures identified in surveillance records from 2021 to 2024
 - All 21 reported CAUTIs were identified and 21 positive urine cultures deemed not CAUTI randomly selected
- Overall agreement between expert review and AI review was 85.7% (36/42)
- Sensitivity for CAUTI was 95.2% (20/21) and specificity was 76.2% (16/21)
 - AI missed 1 CAUTI (failed to recognize Sx)
 - AI false+ 4 CAUTIs (assuming presence of catheter or including non-qualifying symptoms)
 - 1 CAUTI identified by AI that had been missed by initial review → improve specificity to 90%

References

- [Respiratory Diseases Dashboard • PopHIVE](#)
- [Advisory Committee on Immunization Practices \(ACIP\), Centers for Disease Control and Prevention \(CDC\), Childhood and Adolescent Immunization Schedule Workgroup](#)
- [Alshanqeeti S et al, Comparing Generative Artificial Intelligence vs Experts for Detection of Catheter-Associated Urinary Tract Infection \(CAUTI\). *Clin Infect Dis* 2025](#)
- [DeStefano IM, et al. Human Cases of Carbapenemase-Producing Escherichia coli. *Clin Infect Dis* 2025 \(accepted manuscript\)](#)
- [Evans D et al. Insights on recurrent and sequential Clostridioides difficile infections from genomic surveillance in Minnesota, USA, 2019-2021. *J Infect Dis* 2025 \(accepted manuscript\)](#)
- [Fafi I et al. Impact of RSV immunization on the rate of pediatric acute otitis media: a time-series analysis. *Clin Infect Dis* 2025 \(accepted manuscript\)](#)
- [Lutgring JD, et al. The Impact of a Nationwide Blood Culture Bottle Shortage in 2024 on Healthcare Facilities in the United States. *Clin Infect Dis* 2025](#)
- [Rankin DA et al. Changes in Carbapenemase-Producing Carbapenem-Resistant Enterobacterales, 2019 to 2023. *Annals Int Med* 2025 \(published ahead of print\)](#)
- [Serra-Aracil X, et al. Multicentre, prospective, randomised controlled non-inferiority trial of bladder catheter management in short-duration, minimally invasive colon surgery \(The Vesicalcath I-Study\). *Int. J Surgery*, July 17, 2025](#)



CAUTI Conversations: Practical Prevention Strategies

Payal K. Patel MD, MPH, FIDSA

Systemwide Medical Director of Antimicrobial Stewardship,
Intermountain Health
Associate Professor, Division of Infectious Diseases,
Intermountain Health
Adjunct Associate Professor, University of Utah



SHEA/IDSA/APIC Practice Recommendation

Strategies to prevent catheter-associated urinary tract infections in acute-care hospitals: 2022 Update

Payal K. Patel MD, MPH¹ , Sonali D. Advani MBBS, MPH² , Aaron D. Kofman MD³ , Evelyn Lo MD⁴ ,
Lisa L. Maragakis MD, MPH⁵ , David A. Pegues MD⁶ , Ann Marie Pettis RN, BSN⁷ , Sanjay Saint MD, MPH^{8,9} ,
Barbara Trautner MD, PhD^{10,11} , Deborah S. Yokoe MD, MPH¹² and Jennifer Meddings MD, MSc^{8,9,13} 

¹Division of Infectious Diseases, Intermountain Health, Salt Lake City, Utah, United States, ²Division of Infectious Diseases, Duke University School of Medicine, Durham, North Carolina, United States, ³Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia, United States, ⁴St. Boniface General Hospital and University of Manitoba, Winnipeg, Manitoba, Canada, ⁵Johns Hopkins University School of Medicine, The Johns Hopkins Hospital, Baltimore, Maryland, United States, ⁶Division of Infectious Diseases, Perelman School of Medicine at the University of Pennsylvania, Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania, United States, ⁷University of Rochester Medicine, Rochester, New York, United States, ⁸Department of Internal Medicine, University of Michigan Medical School, Ann Arbor, Michigan, United States, ⁹Department of Medicine and the Center for Clinical Management Research, Veterans' Affairs Ann Arbor Healthcare System, Ann Arbor, Michigan, United States, ¹⁰Department of Internal Medicine, Baylor College of Medicine, Houston, Texas, United States, ¹¹Section of Health Services Research and the Center for Innovations in Quality, Effectiveness, and Safety, Michael E. DeBakey Veterans' Affairs Medical Center, Houston, Texas, United States, ¹²University of California San Francisco School of Medicine, UCSF Health-UCSF Medical Center, San Francisco, California, United States and ¹³Department of Pediatrics, University of Michigan Medical School, Ann Arbor, Michigan, United States

Abstract and purpose

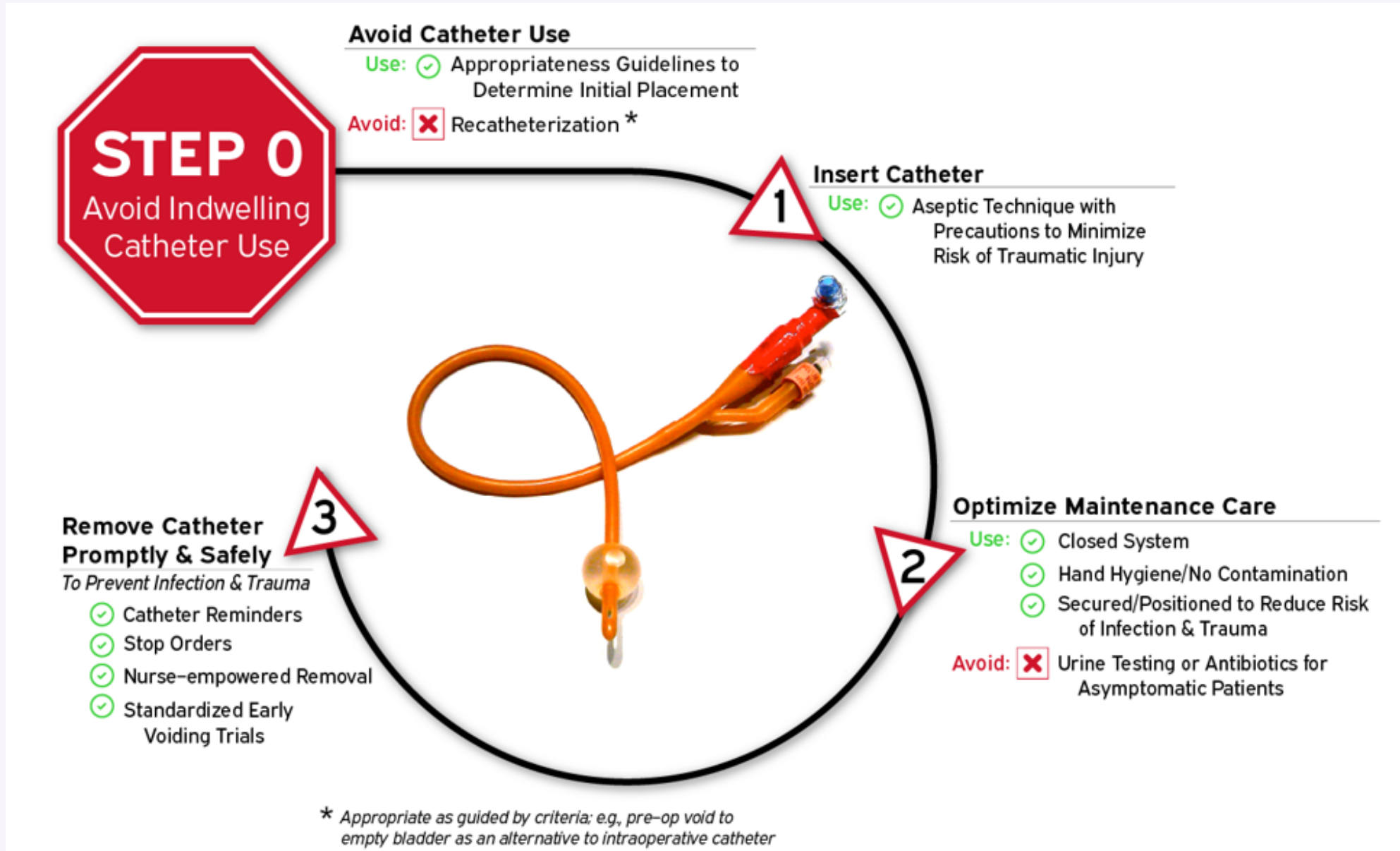
The intent of this document is to highlight practical recommendations in a concise format designed to assist physicians, nurses, and infection preventionists at acute-care hospitals in implementing and prioritizing their catheter-associated urinary tract infection (CAUTI) prevention efforts. This document updates the *Strategies to Prevent Catheter-Associated Urinary Tract Infections in Acute-Care Hospitals* published in 2014. It is the product of a collaborative effort led by SHEA, the Infectious Diseases Society of America (IDSA), the Association for Professionals in Infection Control and Epidemiology (APIC), the American Hospital Association (AHA), and The Joint Commission.

Education and training

1. Educate HCP involved in the insertion, care, and maintenance of urinary catheters about CAUTI prevention, including alternatives to indwelling catheters, and procedures for catheter insertion, management, and removal.⁷⁸ (Quality of evidence: LOW)
2. Assess healthcare professional competency in catheter use, catheter care, and maintenance.^{79–81} (Quality of evidence: LOW)
3. Educate HCP about the importance of urine-culture stewardship and provide indications for urine cultures. (Quality of evidence: LOW)
 - a. Consider requiring clinicians to identify an appropriate indication for urine culturing when placing an order for a urine culture.
4. Provide training on appropriate collection of urine. Specimens should be collected and arrive at the microbiology lab as soon as possible, preferably within an hour. If delay in transport to the laboratory is expected, samples should be refrigerated (no more than 24 hours) or collected in preservative urine transport tubes. (Quality of evidence: LOW)
5. Train clinicians to consider other methods for bladder management such as intermittent catheterization, or external male or female collection devices, when appropriate before placing an indwelling urethral catheter. (Quality of evidence: LOW)
6. Share data in a timely fashion and report results to appropriate stakeholders. (Quality of evidence: LOW)

Conceptual model for CAUTI prevention

Disrupting the lifecycle of the urinary catheter



Encourage use of alternatives: External catheters

- Reduction in use of indwelling catheters reduces CAUTIs (Example: VA)
- Solution 1: Female and male urinals
- Solution 2: Female and Male External catheters



Thanks to Dr. Rachael Lee for this slide

Category	Description	Image	Application	Image Url
Latex-based sheathed devices	External catheter with latex sheath. Available with and without separate adhesive liner. ^A		Sheath is held at the tip of the penis and rolled down the penile shaft. Appropriate sizing is necessary.	http://www.coloplast.us/conveen-latex-urisheaths-en-us.aspx#section=product-variants_4
	External catheter with latex sheath and adhesive lining. ^B			https://www.hollister.com/us/products/popup_large_product_photo.asp?photo=large_960x_174.jpg&groupid=3
	External catheter with foam adhesive strap. ^C		Sheath is held at the tip of the penis and rolled down the penile shaft. An adhesive strap is wrapped around the device to provide securement. Appropriate sizing is necessary.	http://www.exmed.net/images/Product/Large/ru-sch-texas-style-male-external-latex-condom-catheter-GHWWQYPHB.jpg
Non-latex based sheath devices	External catheter with sheath made of PSX silicone material and adhesive lining. ^A		Sheath is held at the tip of the penis and rolled down the penile shaft. Appropriate sizing is necessary.	http://www.coloplast.us/conveen-optima-en-us.aspx
	External catheter with silicone sheath and adhesive lining. ^A			http://www.coloplast.us/freedom-clear-advantage-en-us.aspx
	External catheter with silicone sheath and adhesive lining. ^B			https://www.hollister.com/us/products/popup_large_product_photo.asp?photo=large_975x_527.jpg&groupid=3
	External catheter with hydrocolloid sheath and adhesive lining. ^C		Sheath is held at the tip of the penis and rolled down the penile shaft. Appropriate sizing is necessary.	http://www.exmed.net/p-3769-rochester-spirit-silicone-male-external-condom-catheter-style-3-wideband.aspx
	External catheter with silicone sheath and adhesive lining. ^C			http://www.blowoutmedical.com/ultraflex-external-condom-catheter-by-rochester-medical.html?utm_source=google&utm_medium=base&utm_campaign=products&feed_special=google
	External catheter with silicone sheath and adhesive lining. ^C			http://www.allegromedical.com/browse/ViewProduct?productId=8ab281020bb66df010bb67f037a64a9
	External catheter with silicone sheath. Adhesive free. ^C		Sheath is held at the tip of the penis and rolled down the penile shaft. A foam velcro strap is wrapped around the device to provide securement. Appropriate sizing is necessary.	http://www.exmed.net/p-2059-rochester-catheter-latex-free-male-external-condom-catheter.aspx?DefaultVariantID=20896&utm_source=Google&utm_medium=cse&utm_term=ROC38304EACH&gclid=CjwKEAjwXMetBRDjx6Sz2p7DsQ0SADJHAqNYhd6XHCZ3-XvLzITgmniY9meE9pOYky5OTqsomCxoCpsPw_wcB
	Inflatable external catheter with silicone sheath. Adhesive free. ^D		The inflatable retention ring secures the catheter and can be easily deflated for removal. Appropriate sizing is necessary.	https://www.cookmedical.com/products/uro_30230_websds/#/
Retracted Penile Pouch	Integrated hydrocolloid ring with adhesive and collection pouch. ^B		The penis is placed in the opening of the pouch and the wafer adheres to the skin at the base of the penis. Wafer can be cut to accommodate different sized anatomies.	http://www.elderstore.com/retracted-penis-pouch.aspx
Glans-adherent device	Non-sheath, glans-adherent ECD with integrated hydrocolloid and adhesive. ^E		The device secures to the glans only by first adhering the faceplate, then overlapping and securing with the seal straps. One-size-fits-all and no sizing necessary.	http://eloquesthealthcare.com/reliafit/

Appropriate Indications for Indwelling Urinary Catheter Use

Appropriate Indications

Patient has acute urinary retention or obstruction

Need for accurate measurements of urinary output in critically ill patients.

Perioperative use for selected procedures:

- urologic surgery or other surgery on contiguous structures of genitourinary tract,
- anticipated prolonged surgery duration (removed in post-anesthesia unit),
- anticipated to receive large-volume infusions or diuretics in surgery,
- operative patients with urinary incontinence,
- need to intraoperative monitoring of urinary output.

To assist in healing of open sacral or perineal wounds in incontinent patients.

Requires prolonged immobilization (e.g., potentially unstable thoracic or lumbar spine)

To improve comfort for end of life care if needed.

Inappropriate Indications for Indwelling Urinary Catheter Use

Inappropriate Indications

As a substitute for nursing care of the patient or resident with incontinence

As a means of obtaining urine for culture or other diagnostic tests when the patient can voluntarily void

For prolonged postoperative duration without appropriate indications (e.g., structural repair of urethra or contiguous structures, prolonged effect of epidural anaesthesia, etc.)

Routinely for patients receiving epidural anesthesia/analgesia.

Inappropriate Catheter Placement

- Initial indication for catheter placement¹:
 - Inappropriate in 21%-54% of catheterizations
 - Varies by location of placement and site of care

Indication ²	MICU (N=135)		Med Unit (N=67)	
	Justified %	Unjustified %	Justified %	Unjustified %
Monitoring urine output	93	7	90 (17/19)	10 (2/19)
Urinary incontinence	0	0	20	80
Urinary retention	0	0	92	8
Periop/periprocedural	97	3	100	0
Unclear reason	0	100	0	100

1 Hooton TM, et al. Clin Infect Dis 2010;50:625-63.

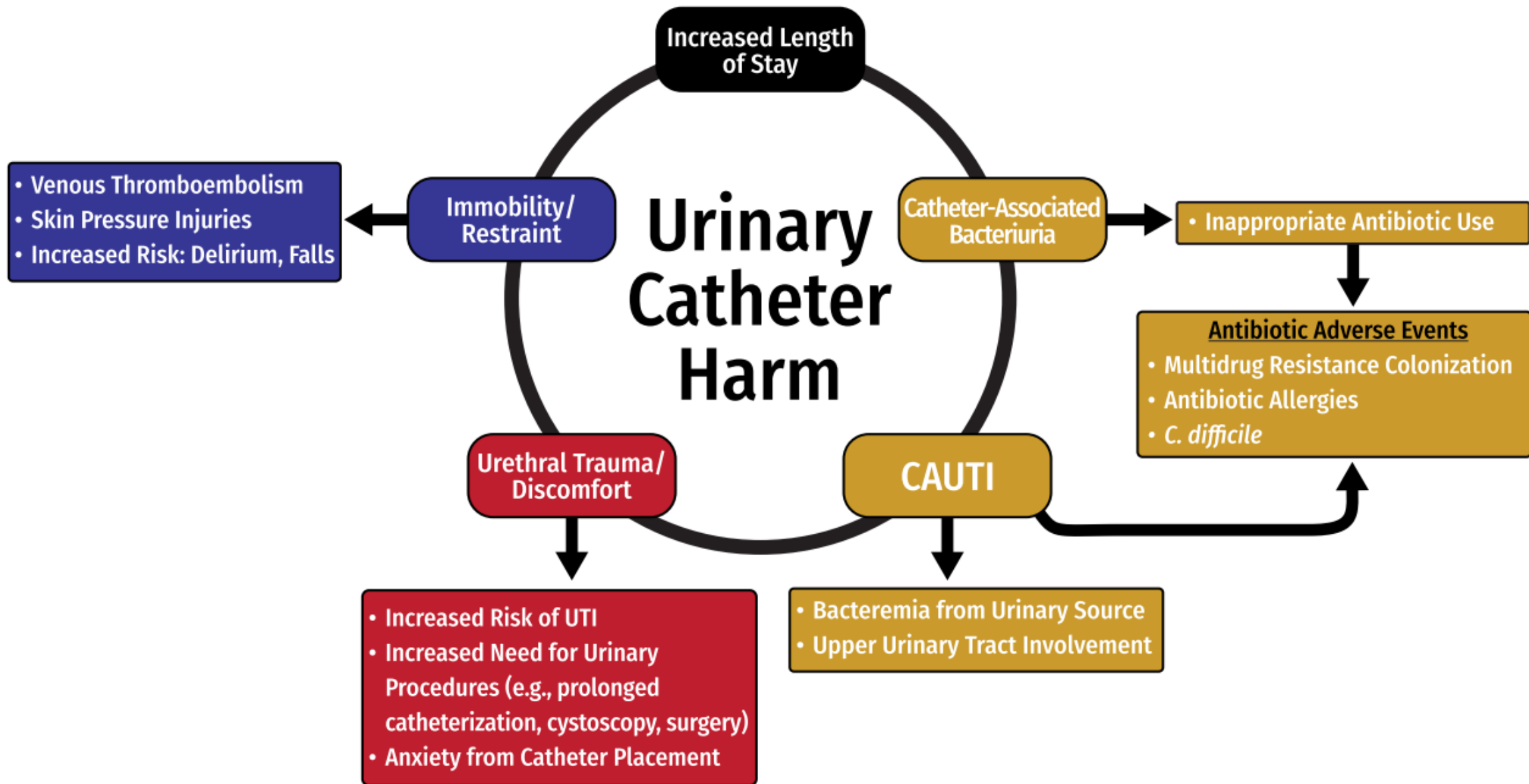
2 Jain P, et al. Arch Intern Med 1995;155:1425-9.

Non-infectious complications of IUCs

- Prospective cohort study of 2227 consecutive patients with new IUC placement during hospitalization at 4 hospitals
- Followed for 30 days after IUC placement
- 57% reported at least 1 complication
 - 10.5% (95%CI 9.3-12.0%) infectious
 - 55.4% (95%CI 53.2-57.6%) noninfectious

Table 2. Specific Patient-Reported Complications Associated With Urethral Catheter Use During the Month After Insertion^a

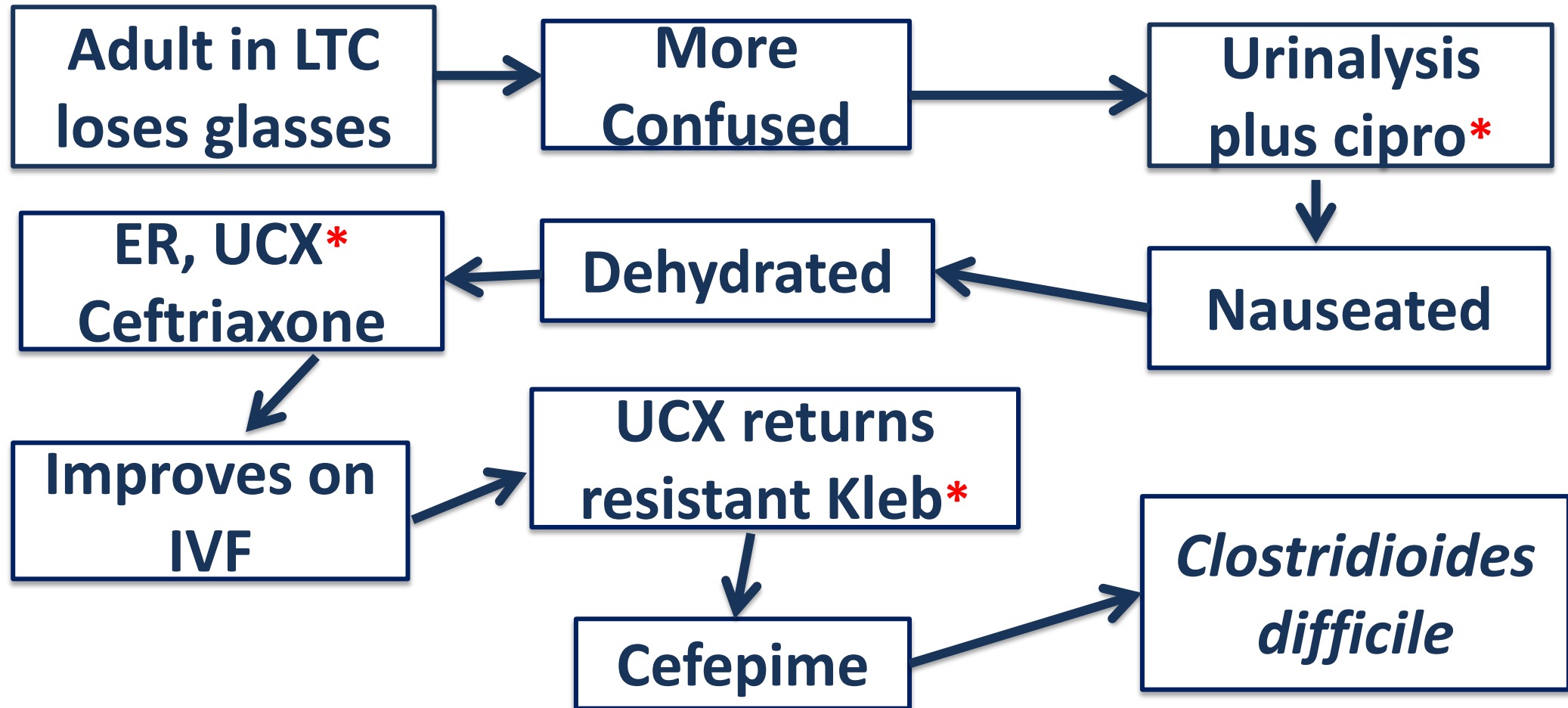
Specific Complication	No. (%)		
	Catheter in Place (n = 124)	Catheter Removed (n = 2034)	Total (N = 2076) ^b
Infectious complication	19 (15.3)	205 (10.1)	219 (10.5)
Fevers, chills, burning with urination, urinary frequency, urinary urgency, or other symptoms suggestive of an infection that required you to see a physician	12 (9.7)	162 (8.0)	173 (8.3)
Told you have a urinary tract infection	16 (13.0)	106 (5.2)	118 (5.7)
Noninfectious complication	87 (70.2)	1106 (54.4)	1150 (55.4)
Pain or discomfort	67 (54.5)	NA	NA
A sense of urgency or bladder spasms	43 (34.7)	487 (24.0)	523 (25.2)
Blood in the urine	34 (27.4)	179 (8.8)	207 (10.0)
Trauma to your skin related to catheter securement or catheter placement	24 (19.4)	NA	NA
Leaking urine	NA	413 (20.3)	NA
Difficulty with starting or stopping your urine stream	NA	395 (19.5)	NA
Pain or burning when you urinate	NA	353 (17.4)	NA
Split stream of urine	NA	245 (12.1)	NA
Spraying of urine stream	NA	187 (9.2)	NA
Skin problems in the genital area	NA	134 (6.6)	NA
Bleeding from where the urinary catheter entered or was attached to your body, or other type of discharge	NA	94 (4.6)	NA
New urinary tract symptom	NA	69 (3.4)	NA
Bladder or kidney stones	NA	59 (2.9)	NA
Newly diagnosed urethral stricture disease	NA	4 (0.2)	NA
Other complications	66 (53.2)	99 (4.9)	160 (7.7)
Restrictions in activities of daily living associated with having the catheter	49 (39.5)	NA	NA
Restrictions in social activities associated with having the catheter	54 (43.9)	NA	NA
Sexual problems	NA	99 (4.9)	NA
Mechanical or equipment issues with the catheter or securement device, eg, leaking, issues with leg band	16 (12.9)	NA	NA



Practices to Avoid in CAUTI Prevention

- Routine collection of urine cultures
- Routine use of antimicrobial/antiseptic catheters
- Routine changing of catheters
 - In the case of a patient with a long-term catheter in place (>7 days), catheter replacement can be considered at the time of specimen collection for urine testing to obtain

What happens in real life after urine tests are sent?



* places to intervene

Urine Culture Stewardship in catheterized patients

Appropriate Indications to collect UA and urine culture

- Symptoms referable to urinary tract (dysuria, urgency, frequency/dysuria after indwelling catheter removal, flank/pelvic pain)
- Signs of GU obstruction or trauma (hematuria, flank pain, renal/ureteral stones, urinary retention after catheter removal)
- Complications related to urologic procedure
- Signs of pyelonephritis
- Severe shock/sepsis without obvious alternative source

Inappropriate indications for UA and urine culture

- “Pan-culturing” – avoid ordering cultures without clinical assessment of the patient
- Change in urine character or quality – cloudy, color, consistency, smell, sediment
- Clearance of urine after antibiotics, routine “test of cure” or screening on admission
- Changes in mental status
- Leukocytosis or leukopenia
- Pyuria without attributable urinary symptoms
- Chronic urinary catheter present on admission

Thanks to Dr. Rachael Lee for this slide

Questions?

Thank you