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POSTMIDYEAR ASHP

14 FEBRUARY 2024

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Farmacoterapia: infecciosas, críticos, urgencias,…

Edurne Fdez de Gamarra Martínez

Servicio de Farmacia. Hospital de la Santa Creu i Sant Pau (Barcelona)

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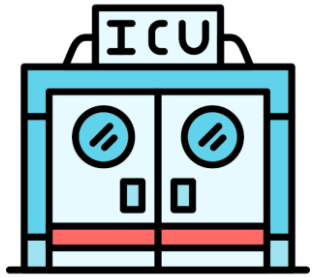
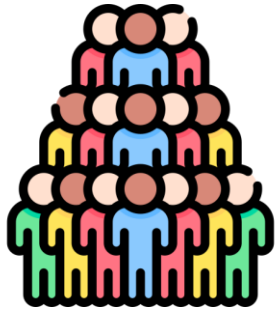
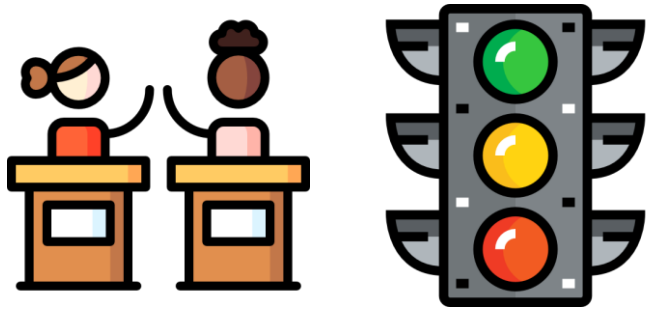
Enfermedades infecciosas



Paciente crítico, urgencias



Poblaciones especiales



Debates en terapéutica, perlas clínicas

Enfermedades infecciosas

We Don't Talk About Levo: Antibiotic Allergy Stewardship in 2023

- Meghan N. Jeffres, Pharmacy University of Colorado Skaggs School of Pharmacy.
- Curtis D. Collins, Pharmacy Specialist, Infectious Diseases, Trinity Health Ann Arbor.

Making the Grade: Approaches to Drug Allergy Management

- Robbie Christian, PharmD., BCIDP, AAHIVP
- Yewande Dayo, PharmD., BCIDP

New CDC Requirements for Antibiotic Use Reporting and Opportunities for Antibiotic Stewardship

- Arjun Srinivasan, MD, CAPT, FSHEA, USPHS

The 2023 CDC Vaccine Update

- Arjun Srinivasan, MD, CAPT, FSHEA, USPHS

Enfermedades infecciosas

Updates in Antifungal Pharmacotherapy: Resistance, Challenges, New Options

- Brandon K. Hawkins, PharmD, AAHIVP, BCIDP Kayla R. Stover, PharmD, BCIDP, BCPS
- Kayla R. Stover, PharmD, BCIDP, BCPS

What in the World? Insights from the International Consensus Recommendations for the Use of Prolonged-infusion β-lactams

- Marc H. Scheetz, PharmD, MSc
- Joseph L. Kuti, PharmD
- Lisa Hong, PharmD, BCPS

Why the Confusion? Demystifying β-lactam Induced Neurotoxicity

- Veena Venugopalan, PharmD, BCIDP
- Brandon J. Smith, MD, PharmD

Enfermedades infecciosas

COVID-19 Now and Beyond: Where Do We Go From Here?

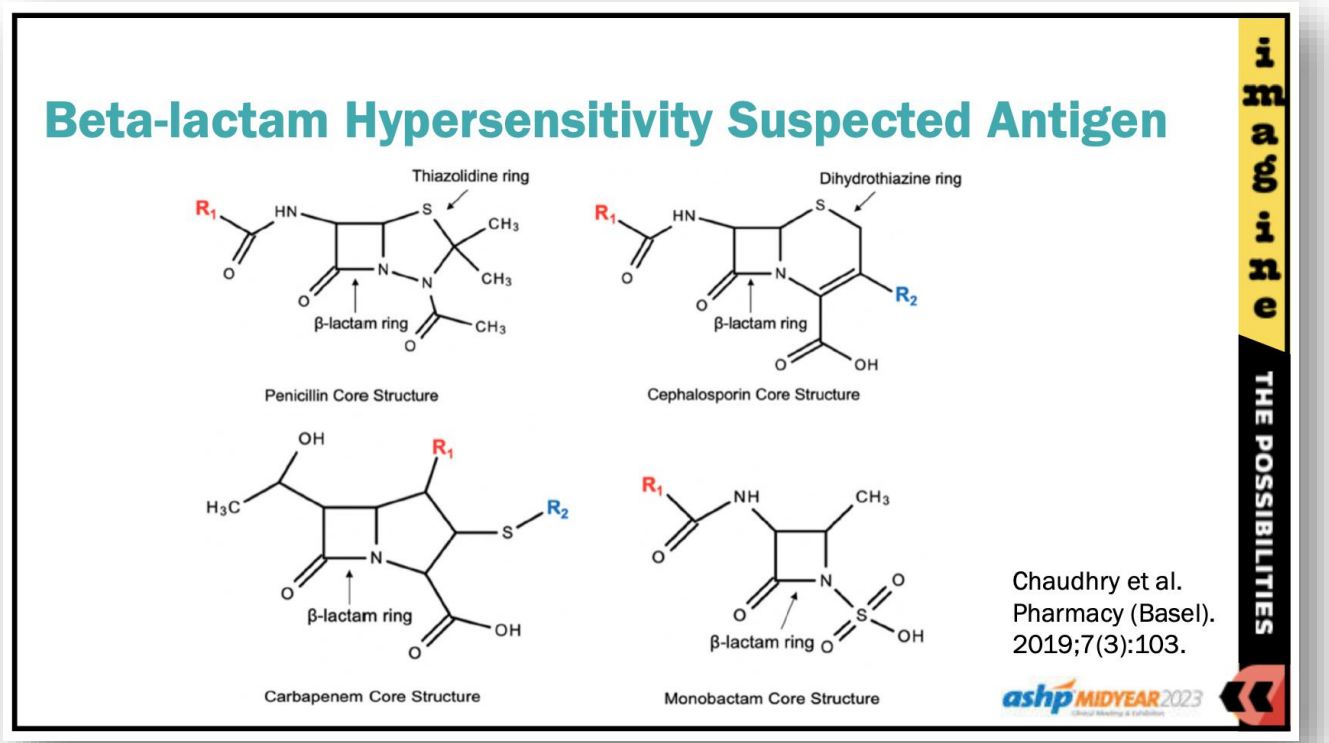
- Katherine Yang, PharmD, MPH, FCSHP, Activity Chair
- Monica V. Mahoney, PharmD, BCPS, BCIDP, FCCP, FIDSA, FIDP
- Sarah Parsons, PharmD, BCPPS
- Michael Ganio, PharmD, MS, BCPS, FASHP

One vs Two Touchdowns: Changing Durations in Gram-Negative and Enterococcal Bacteremia

- Bryan P. White, PharmD, FIDSA, BCPS, BCIDP
- Daniel B. Chastain, PharmD, AAHIVP, BCIDP

Mitos sobre las alergias:
El pasado, pasado está… "let it go, let it go…"

Importancia de la cadena lateral (conocido desde 1971)



CDC STI Guidelines, Gonorrhea

2015	"Use of ceftriaxone or cefixime is contraindicated in persons with a history of an IgE-mediated penicillin allergy (e.g., anaphylaxis, Stevens Johnson syndrome, and toxic epidermal necrolysis)"
2020 update	"When ceftriaxone cannot be used for treating urogenital or rectal gonorrhea because of cephalosporin allergy, a single 240 mg IM dose of gentamicin plus a single 2g oral dose of azithromycin is an option."
2021	"**Third-generation cephalosporins** (e.g., ceftriaxone and cefixime) **have lower cross-reactivity with IgE-mediated penicillin-allergic patients** (<1%) compared with first- and second-generation cephalosporins (1%-8%)

CDC: Centers for Disease Control and Prevention
STI: Sexually Transmitted Infections

Practice Guideline > J Allergy Clin Immunol. 2022 Dec;150(6):1333-1393.
doi: 10.1016/j.jaci.2022.08.028. Epub 2022 Sep 17.

Drug allergy: A 2022 practice parameter update

- β-lactam antibiotics with **dissimilar R-group side chains** are associated with **low cross-reactivity**.
- It is **safe to administer antibiotics with different R-group side chains**
- **Cefazolin does NOT share a common side chain with any other β–lactams**

https://www.jacionline.org/article/S0091-6749(22)01186-1/fulltext

Practice Guideline > J Allergy Clin Immunol. 2022 Dec;150(6):1333-1393.

doi: 10.1016/j.jaci.2022.08.028. Epub 2022 Sep 17.

Drug allergy: A 2022 practice parameter update

- Alergia a penicilina descrita en 10% de los pacientes
- De estos, **9/10** están **etiquetados de alergia de forma equivocada**

→ relacionado con **peores resultados**
→ mayor incidencia de **infecciones relacionadas con la cirugía**
→ mayor riesgo de infecciones por ***Clostridioides difficile***, MRSA y *Enterococcus* resistente a vancomicina

J Allergy Clin Immunol Pract. 2022; 10(12): 3262-3269
Infect Control Hosp Epidemiol. 2022; 43(7): 829-833
BMJ. 2018; 361: k2400.

Practice Guideline > J Allergy Clin Immunol. 2022 Dec;150(6):1333-1393.
doi: 10.1016/j.jaci.2022.08.028. Epub 2022 Sep 17.

Drug allergy: A 2022 practice parameter update

Consensus Based Statement

"We recommend that a proactive effort should be made to de-label patients with reported penicillin allergy, if appropriate."

The Joint Task Force on Practice Parameters (JTFPP)

Open Forum Infectious Diseases

MAJOR ARTICLE

Antibiotic Use in Patients With β-Lactam Allergies and Pneumonia: Impact of an Antibiotic Side Chain–Based Cross-Reactivity Chart Combined With Enhanced Allergy Assessment

Curtis D. Collins,[1,©] Renee S. Bookal,[1] Anurag N. Malani,[2] Harvey L. Leo,[3] Tara Shankar,[3] Caleb Scheidel,[4] and Nina West[1]

No difference in:

- overall allergic reactions between cohorts (2.4% vs. 1.6%; p = 0.738)
- reactions caused by β-lactams (1.3% vs. 0.9%; p = 0.703)

Healthcare facility-onset ***Clostridioides difficile*** **infection decreased**

(1.2% vs. 0.2%; p = 0.032)

Am J Health Syst Pharm. 2023 Apr 8;80(8):532-536. doi: 10.1093/ajhp/zxac385.

Pharmacist adjustment of preoperative antibiotic orders to the preferred preoperative antibiotic cefazolin for patients with penicillin allergy labeling

Sarah Lessard [1], Chris Huiras [2], Ala Dababneh [3], Raj Palraj [3], Renee Thies [4], Nate Woolever [1], Kandi Holt [5], Brenda Schwan [6], Jennifer Poelma [7], Jennifer Tempelis [1], Mark Sawyer [8]

Open Forum Infect Dis. 2023 Apr 24;10(6):ofad224. doi: 10.1093/ofid/ofad224. eCollection 2023 Jun.

Cefazolin vs Second-line Antibiotics for Surgical Site Infection Prevention After Total Joint Arthroplasty Among Patients With a Beta-lactam Allergy

Miranda R Norvell [1], Melissa Porter [2], Madison H Ricco [2], Ryan C Koonce [3], Craig A Hogan [3], Eric Basler [3], Megan Wong [4], Meghan N Jeffres [2 4]

(+) Known cross-reactive (X) Same R1 side chain	Penicillin	Amoxicillin	Ampicillin	Cephalexin	Cefadroxil	Cefazolin	Cefuroxime	Ceftriaxone	Cefotaxime	Ceftazidime	Cefepime	Cefiderocol	Aztreonam
Penicillin		+	+	+									
Amoxicillin	+		+	+	X								
Ampicillin	+	+		X									
Cephalexin	+	+	X										
Cefadroxil		X											
Cefazolin													
Cefuroxime													
Ceftriaxone											X		
Cefotaxime											X		
Ceftazidime												X	X
Cefepime								X	X				
Cefiderocol										X			X
Aztreonam										X		X	

DePestel. J Am Pharm Assoc. 2008;48(4):530-540.

Trubiano. J Allergy Clin Immunol Pract 2017;5:1532-1542.

Zagursky. J Allergy Clin Immunol Pract 2018;6:72-81.

Picard. J Allergy Clin Immunol Pract. 2019;7(8):2722-2738.e5.

Wijnakker. Clin Micro Infect. 2023 in press.

New CDC Requirements for Antibiotic Use Reporting and Opportunities for Antibiotic Stewardship

Antibiotic Use and Resistance Reporting Are Required Starting in 2024

Using NHSN Antibiotic Use Data for Action, Not Just Counting

https://www.cdc.gov/nhsn/au-case-examples/index.html

Ejemplos de buenas prácticas o casos de éxito

SAAR: *standardized antimicrobial administration ratio*

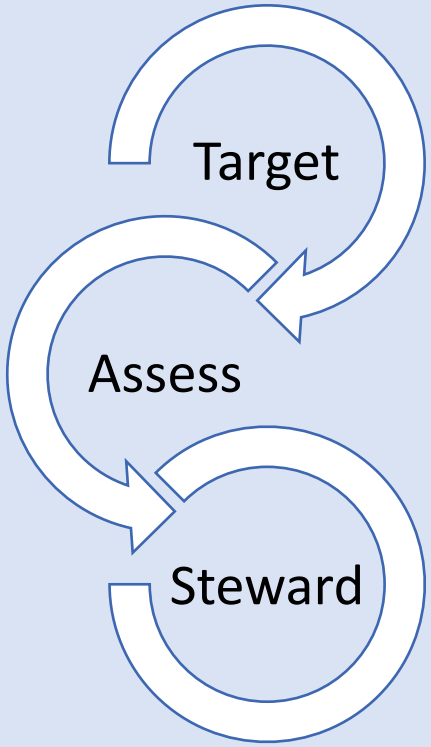
- medida que permite comparar los resultados observados con los predichos (predicted days of antimicrobial therapy).
- *predicted antimicrobial use days*: basados en datos nacionales agregados

SAAR target: elegido para cada categoría de antimicrobianos

AU-cumulative attributable difference (AU-CAD)

- traduce el SAAR target en una variable más tangible: número de días de antimicrobianos que es necesario añadir o quitar para conseguir el SAAR target.

AU-CAD = Observed antimicrobial days - (Predicted antimicrobial days x SAAR target)

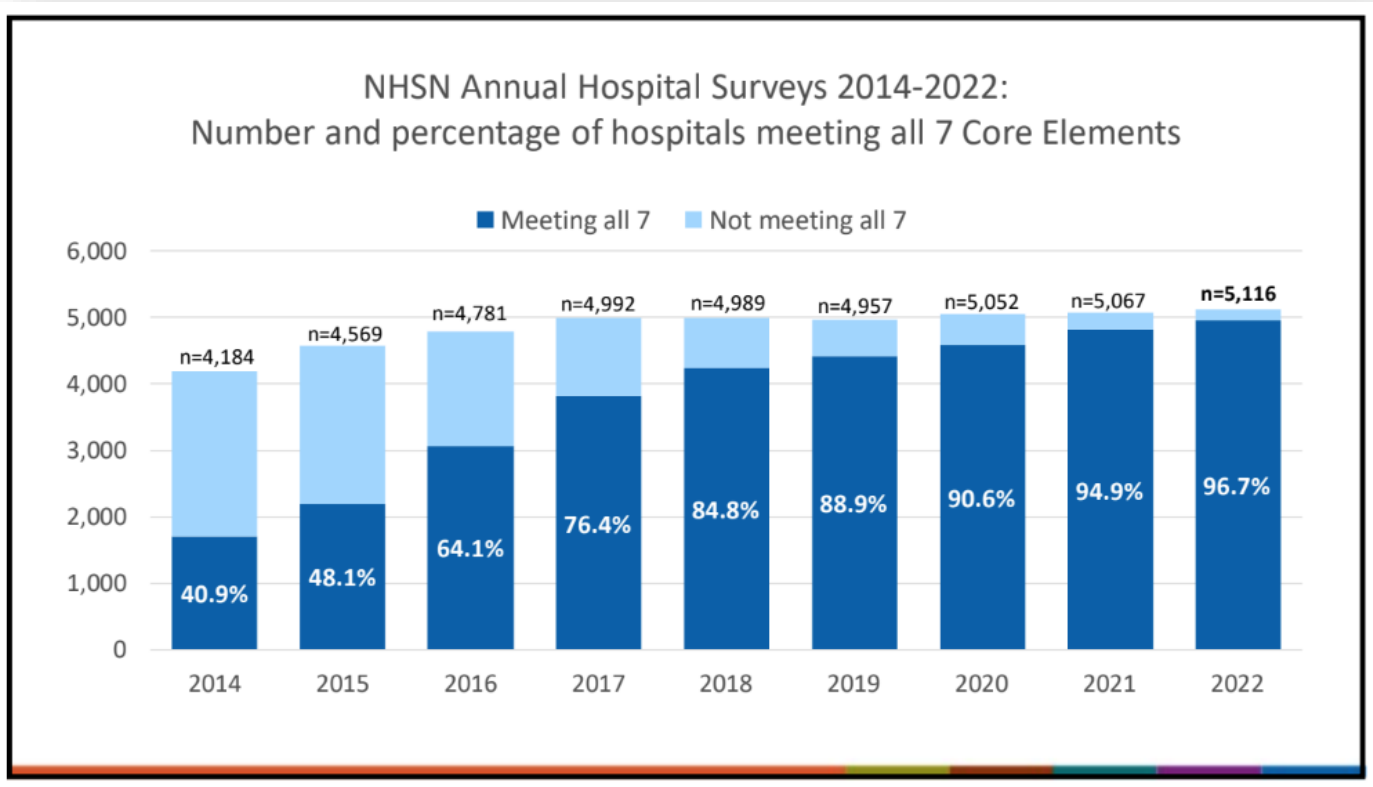


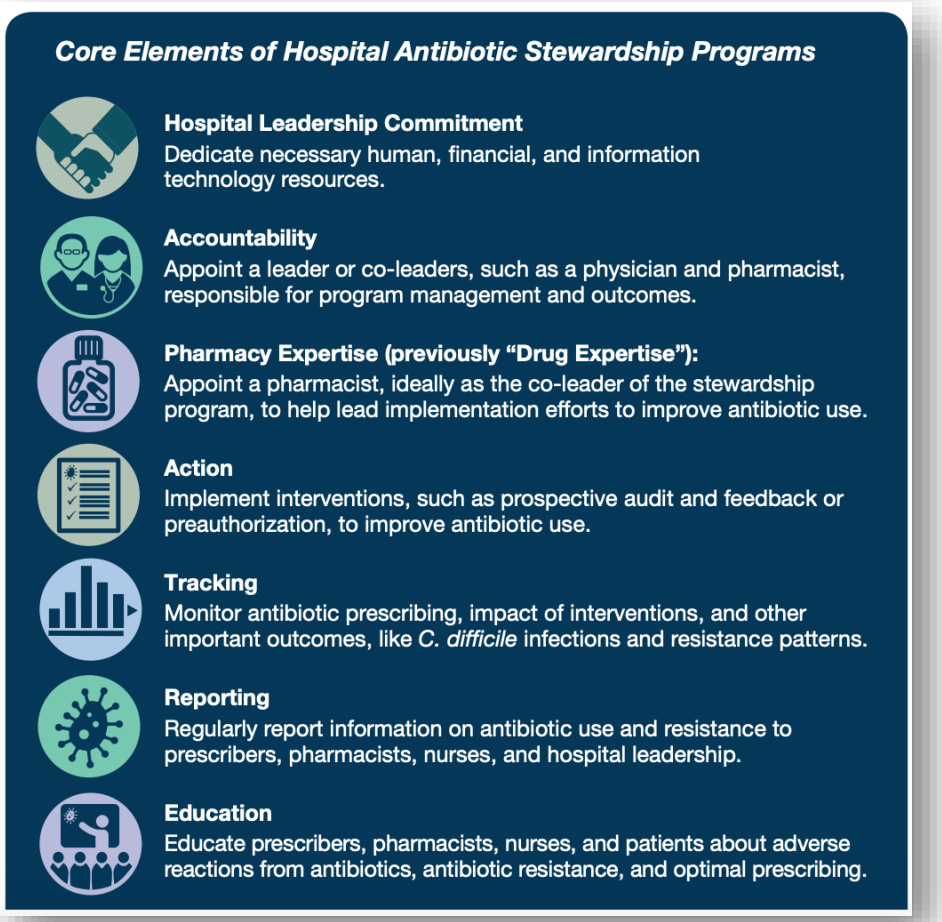
Targeted Assessment for Stewardship

"We came up with a SAAR goal of 0.9, how many days of therapy do we need to eliminate to get there?"

1. **Target:** identificar servicios y áreas con potencial de mejora (a través del AU cumulative attributable difference = AU-CAD).
2. **Assess:** identificar las oportunidades para la mejora del uso de antimicrobianos.
3. **Steward:** implementar actividades de "antibiotic stewardship", enfocadas a las oportunidades identificadas.

NHSN Annual Hospital Surveys 2014-2022: Number and percentage of hospitals meeting all 7 Core Elements





https://www.cdc.gov/antibiotic-use/healthcare/pdfs/hospital-core-elements-H.pdf

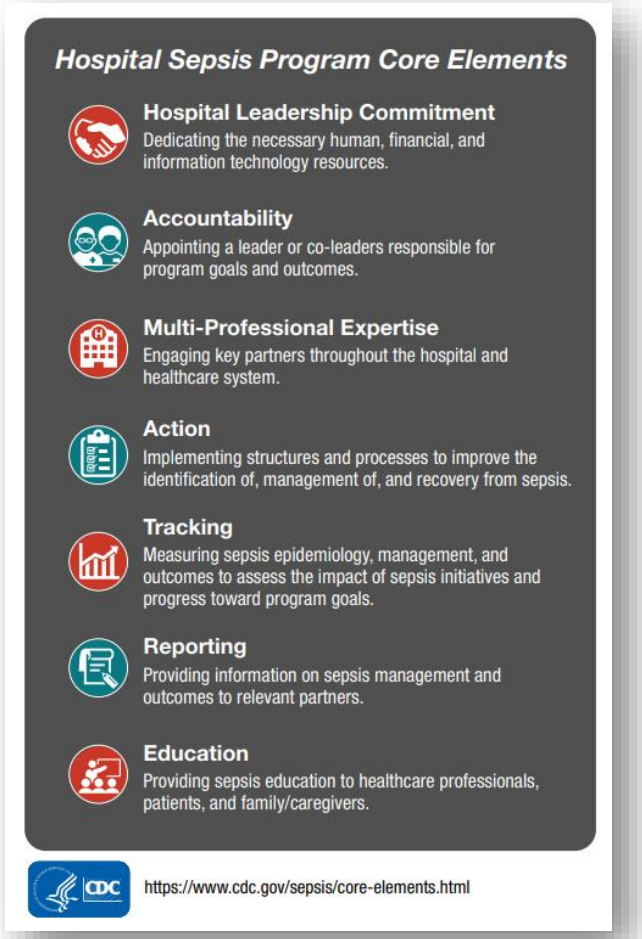
Oportunidades para los PROA:

- Identificar áreas de interés y “temas candentes”
- Sepsis
- *Diagnostic excellence/stewardship:* Better Diagnoses = Better Antibiotic Use

Clin Infect Dis. 2022; 75 (3): 382-389

Antibiotic Stewardship and Sepsis: Better Together

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION



https://www.cdc.gov/sepsis/core-elements.html

Updates in Antifungal Pharmacotherapy: Resistance, Challenges, New Options

- Resistencia a antifúngicos: preocupación creciente
  - 2022 World Health Organization Fungal Priority Pathogen List
- "Limitaciones" de los test de sensibilidad antifúngica
- Mecanismos de resistencia a antifúngicos

- Cryptococcus neoformans
- Candida auris
- Aspergillus fumigatus
- Candida albicans

New and Pipeline Agents

Fosmanogepix

Ibrexafungerp *

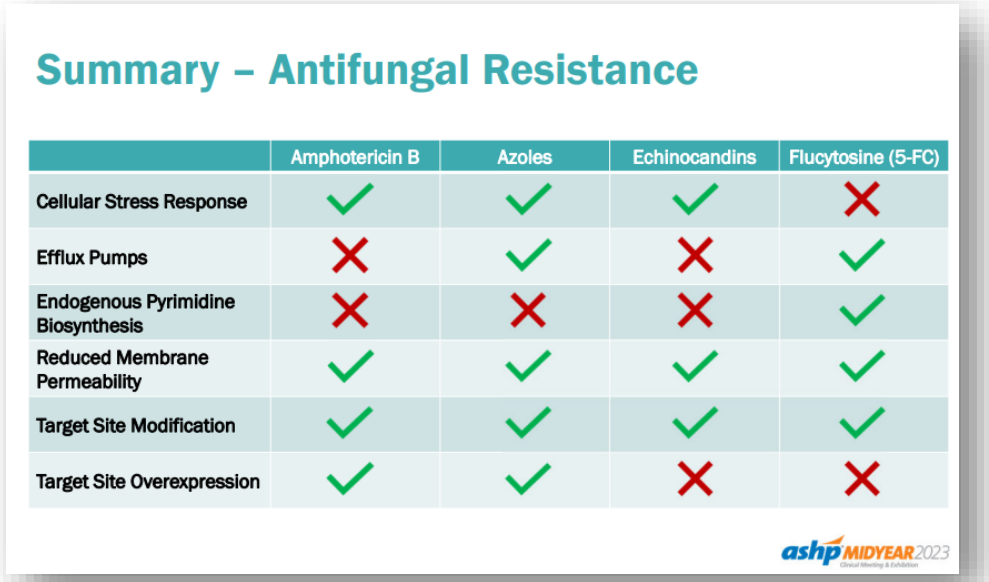
Olorofim

Opelconazole

Oteseconazole *

Rezafungin *

**** FDA Approved***



PostMidyear 2023. Farmacoterapia. Edurne FdeGamarra

Drugs (2021) 81:1703–1729
https://doi.org/10.1007/s40265-021-01611-0

LEADING ARTICLE

The Antifungal Pipeline: Fosmanogepix, Ibrexafungerp, Olorofim, Opelconazole, and Rezafungin

Martin Hoenigl[1,2,3] · Rosanne Sprute[4,5,6] · Matthias Egger[1] · Amir Arastehfar[7] · Oliver A. Cornely[4,5,6,8] · Robert Krause[1] · Cornelia Lass-Flörl[9] · Juergen Prattes[1] · Andrej Spec[10] · George R. Thompson III[11] · Nathan Wiederhold[12] · Jeffrey D. Jenks[2,3,13]

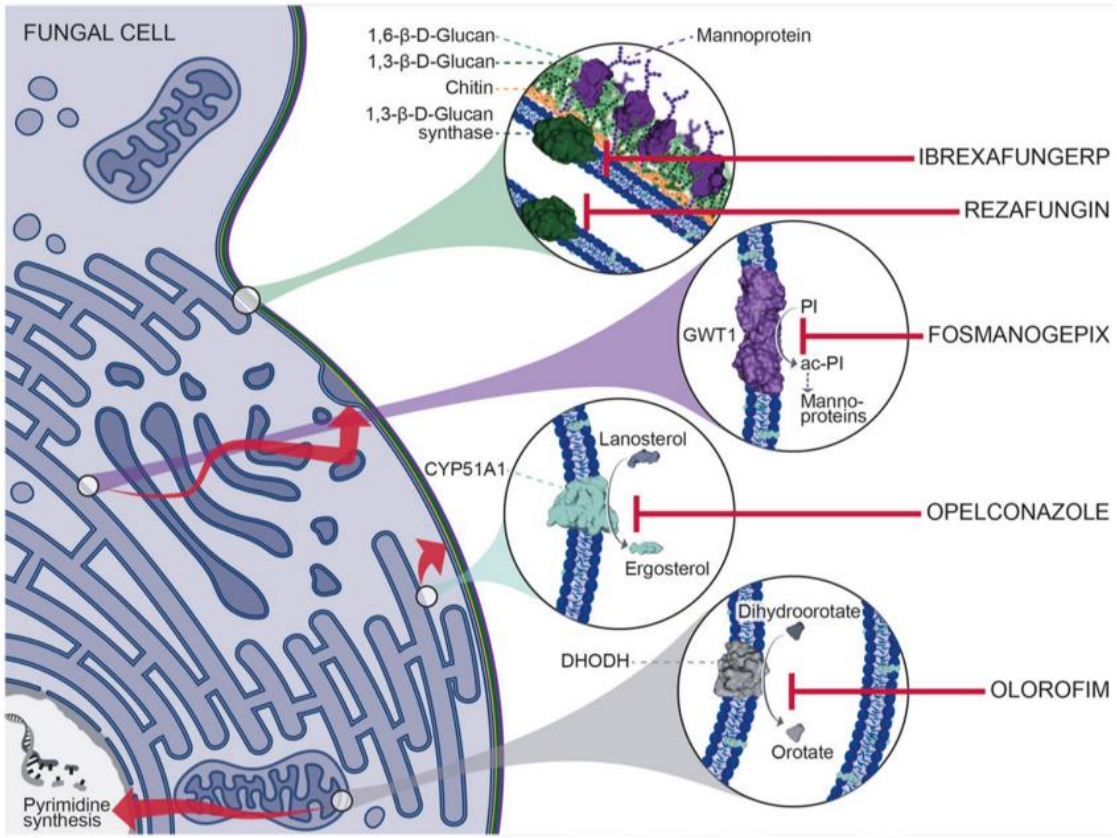


Fig. 1 Mechanism of action of novel antifungal drugs discussed in this review. *DHODH* dihydroorotate dehydrogenase

	Espectro	Vía adm	Indicación	Efectos adversos
Ibrexafungerp	*Candida* *Aspergillus* *Pneumocystis*	Oral	Candidiasis vulvovaginal	Gastrointestinal, cefalea
Oteseconazole	*Candida* *Aspergillus*	Intravenosa **semanal**	Candidemia Candidiasis invasiva	Fiebre Hipopotasemia
Rezafungin	*Candida*	Intravenosa	Candidiasis vulvovaginal recurrente	Rash, cefalea, infecciones urinarias, infecciones respiratorias
Fosmanogepix	*AMPLIO!* Candida Aspergillus Fusarium Scedosporium Cryptococcus Dimorphics Cladosporium	Oral/IV **semanal**	**FDA Fast Track Status** **Difficult-to-treat invasive fungal infections**	

PostMidyear 2023. Farmacoterapia. Edurne FdeGamarra

The 2023 CDC Vaccine Update

GRIPE | COVID | VIRUS RESPIRATORIO SINCITIAL

Gripe: tratamientos antivirales

Oseltamivir VO

Baloxavir VO

Zanamivir INH

Peramivir IV

https://www.cdc.gov/flu/pdf/professionals/antivirals/antiviral-summary-clinicians.pdf

Virus respiratorio sincitial (VRS): vacunas

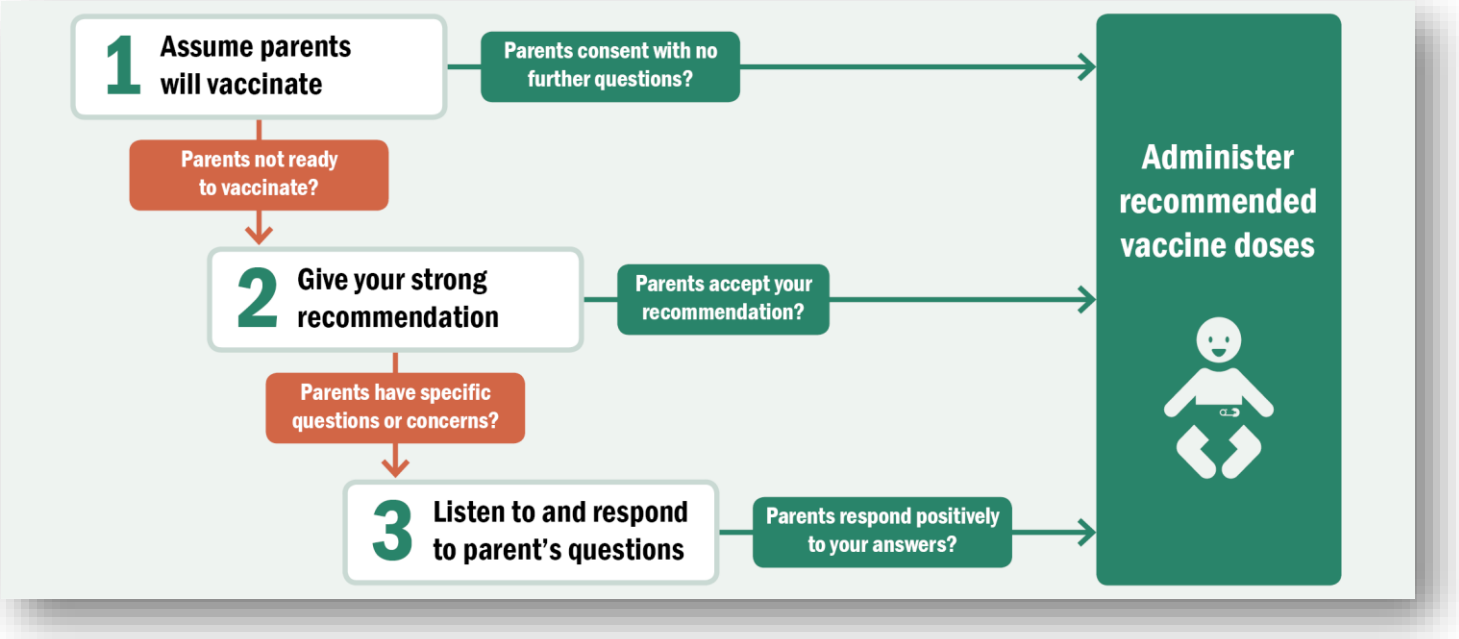
In June 2023, CDC's Advisory Committee on Immunization Practices (ACIP) recommended the ***first two RSV vaccines for older adults***.

- RSVPreF3 (Arexvy, GSK)
- RSVpreF (Abrysvo, Pfizer)

The 2023 CDC Vaccine Update

Vacunas: importancia de la entrevista motivacional → confianza, colaboración

- "Presumptive approach" + "strong vaccine recommendation"
- Empatía, pedir permiso, aplicar técnicas de entrevista, resolver dudas



https://www.cdc.gov/vaccines/hcp/conversations/talking-with-parents.html

Insights from the International Consensus Recommendations for the Use of Prolonged-infusion β-lactams

SPECIAL ARTICLE

PHARMACOTHERAPY

International consensus recommendations for the use of prolonged-infusion beta-lactam antibiotics: Endorsed by the American College of Clinical Pharmacy, British Society for Antimicrobial Chemotherapy, Cystic Fibrosis Foundation, European Society of Clinical Microbiology and Infectious Diseases, Infectious Diseases Society of America, Society of Critical Care Medicine, and Society of Infectious Diseases Pharmacists

Lisa T. Hong[1] | Kevin J. Downes[2] | Alireza FakhriRavari[1] | Jacinda C. Abdul-Mutakabbir[1,3] | Joseph L. Kuti[4] | Sarah Jorgensen[5] | David C. Young[6] | Mohammad H. Alshaer[7] | Matteo Bassetti[8] | Robert A. Bonomo[9,10] | Mark Gilchrist[11] | Soo Min Jang[1] | Thomas Lodise[12] | Jason A. Roberts[13,14,15,16] | Thomas Tängdén[17] | Athena Zuppa[2] | Marc H. Scheetz[18,19]

- **Question I:** Are there microbiologic targets for bacterial killing and resistance suppression for βlactams in preclinical PK/PD models of infections?
- **Question II:** Does PI of β-lactams result in enhanced bacterial killing relative to SI in preclinical PK/PD models of infections?
- **Question III:** Do PI β-lactams minimize resistance emergence relative to SI in pre-clinical PK/PD models of infections?
- **Question IV:** Is there a role for therapeutic drug monitoring (TDM) of PI β-lactams?
- **Question V:** What β-lactam concentration or exposure should be targeted when performing TDM?
- **Question VI:** Are there stability concerns when delivering PI βlactam infusions?

Insights from the International Consensus Recommendations for the Use of Prolonged-infusion β-lactams

- **Question VII: Should PI β-lactam antibiotics be preferred over SI dosing in severely ill adult patients to improve mortality or clinical cure?**
- **Question VIII: Should PI β-lactam antibiotics be preferred over SI in non-severely ill adult patients to improve mortality and clinical cure?**

- **Question IX:** Is the use of PI βlactam antibiotics safer than SI among adult and pediatric patients?
- **Question X:** Should a loading dose be administered over no loading dose when using PI βlactam antibiotics in adults to improve mortality or clinical cure?
- **Question XI:** Should PI β-lactam be used in children versus SI to improve efficacy?
- **Question XII:** Should PI β-lactam be used in obese patients versus SI to improve efficacy?

Table S1. Evidence summary table for efficacy outcomes among severely ill adult patients

Question: PI compared to SI in severely ill adult patients

Certainty assessment							№ of patients		Effect		Certainty	Importance
№ of studies	Study design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	PI	SI	Relative (95% CI)	Absolute (95% CI)		
Mortality [1-20]												
20	randomized trials	serious[a]	not serious	not serious	serious[b]	none	186/1147 (16.2%)	218/1146 (19.0%)	**RR 0.86** (0.72 to 1.02)	**27 fewer per 1,000** (from 53 fewer to 4 more)	⊕⊕◯◯ Low	CRITICAL
Clinical cure [3,5,7-11,13,15,16,18-21]												
14	randomized trials	serious[a]	not serious	serious[c]	not serious	publication bias strongly suspected[d]	596/936 (63.7%)	553/960 (57.6%)	**RR 1.10** (1.03 to 1.19)	**64 more per 1,000** (from 19 more to 121 more)	⊕◯◯◯ Very low	IMPORTANT
Microbiological cure [5,9,18-21]												
6	randomized trials	serious[a]	not serious	serious[e,f]	not serious	none	168/222 (75.7%)	145/231 (62.8%)	**RR 1.21** (1.08 to 1.35)	**132 more per 1,000** (from 50 more to 220 more)	⊕⊕◯◯ Low	IMPORTANT

CI: confidence interval; **PI:** prolonged infusion; **RR:** risk ratio; **SI:** short infusion

Should PI β-lactam antibiotics be preferred over SI dosing in severely ill adult patients to improve mortality or clinical cure?

3.7.1 | Recommendation 7

We suggest PI β-lactam antibiotics over SI to reduce mortality or increase clinical cure among severely ill adult patients, particularly those with gram-negative infections. (Conditional recommendation; very low certainty of evidence).

Should PI β-lactam antibiotics be preferred over SI in nonseverely ill adult patients to improve mortality and clinical cure?

3.8.1 | Recommendation 8

We cannot recommend for or against PI β-lactam antibiotics over SI to reduce mortality and increase clinical cure among nonseverely ill adult patients. (Conditional recommendation; very low certainty of evidence).

Should PI β-lactam antibiotics be used in children versus SI to improve efficacy?

3.11.1 | Recommendation 11

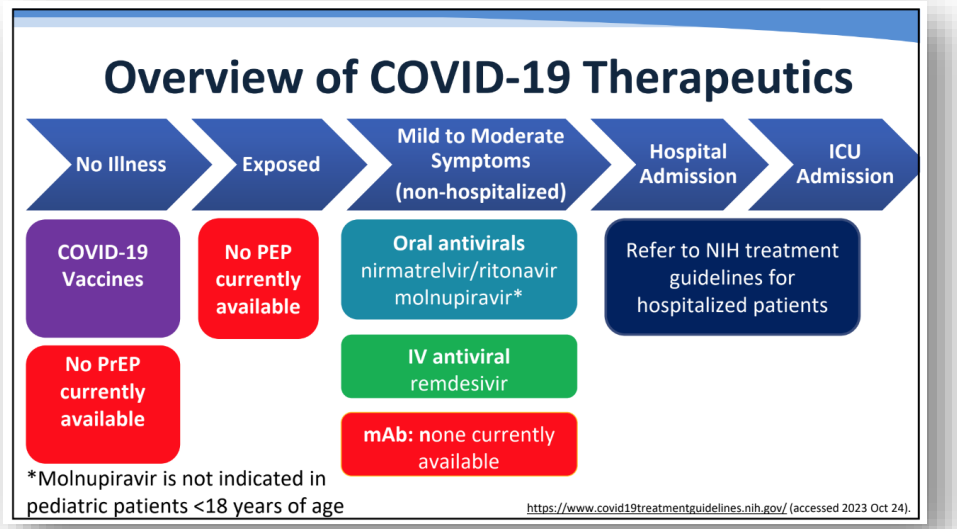
We cannot recommend for or against routine use of PI for any specific clinical situations or in any specific patient populations (e.g., severely ill, obese, neonates) to improve the efficacy of β-lactam agents in the pediatric population. (Conditional recommendation, very low certainty of evidence).

Should PI β-lactam antibiotics be used in obese patients versus SI to improve efficacy?

3.12.1 | Recommendation 12

We cannot recommend for or against the routine use of PI to improve the efficacy of β-lactam agents in obese patients (Consensus recommendation).

COVID-19 Now and Beyond: Where Do We Go From Here?



¿Algo nuevo a la vista?

Nuevos "mabs" para profilaxis:

- VYD222
- AZD5156

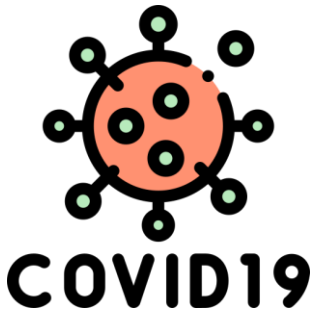
Antivirales orales

- VV116 (N Engl J Med 2023; 388: 406-417)

Effectiveness of Oral Nirmatrelvir/Ritonavir vs. Intravenous Three-Day Remdesivir in Preventing Progression to Severe COVID-19: A Single-Center, Prospective, Comparative, Real-Life Study

by Dimitrios Basoulis [1,2,*], Aristeidis Tsakanikas [1], Aikaterini Gkoufa [1], Aikaterini Bitsani [1,3], Georgios Karamanakos [4], Elpida Mastrogianni [4], Vasiliki E. Georgakopoulou [1,2], Sotiria Makrodimitri [1], Pantazis-Michail Voutsinas [1], Panagiota Lamprou [5], Athanasios Kontos [2], Stathis Tsiakas [6], Maria N. Gamaletsou [4], Smaragdi Marinaki [6,7] and Nikolaos V. Sipsas [1,2,7]

Viruses 2023; 15 (7); 1515



Paciente crítico, urgencias

Codes That Make You Tachycardic: Emergencies in Special Populations

- Christopher J. Edwards, PharmD, BCPS, FASHP
- Brian L. Erstad, PharmD, MCCM, FASHP, FCCM
- Nicole M. Acquisto, PharmD, FASHP, FCCM, FCCP, BCCCP

Dream of the Endless: Updates in Procedural Sedation

- Abby Bailey, PharmD, BCCCP
- Kyle Weant, PharmD, BCPS, BCCCP, FCCP

Emergency Medicine Pearls 2023

Paciente crítico, urgencias

Emerging and Continuing Controversies in the Management of Septic Shock

- Heather Torbic, PharmD, BCCCP, BCPS, FCCM
- Jeremy DeGrado, PharmD, BCCCP

Simply the Best — Updates in Best Practices for Managing Pain, Agitation, and Delirium in the Critically Ill

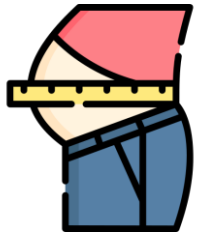
- Paul M. Szumita, PharmD, FCCM, FASHP, BCPS, BCCCP
- Jeremy DeGrado, PharmD, BCCCP
- Benjamin Hohlfelder, PharmD, BCCCP

Treating Acetaminophen Overdose: Consensus Guidelines

- Richard C. Dart, MD, PhD
- Lee Cantrell, PharmD

Codes That Make You Tachycardic: Emergencies in Special Populations

- Recommend a guideline-supported medication regimen for a **pediatric patient** with pulseless **ventricular tachycardia**.



- Develop an appropriate rapid **sequence intubation regimen** for an **obese patient** with acute hypoxic respiratory failure.

- Design an appropriate regimen for the **initial resuscitation** of a hemodynamically unstable **pregnant patient**.

Dream of the Endless: Updates in Procedural Sedation

Opioides
Morfina
Fentanilo
Remifentalino
Sulfentanilo

Sedantes
Etomidato
Ketamina
Midazolam
Propofol
Dexmedetomidina
"Ketofol"

	Intranasal	Intramuscular	Oral/Sublingual
Fentanyl (50 mcg/mL)	1-3 mcg/kg		
Ketamine (100 mg/mL)	3-9 mg/kg	3-5 mg/kg	Oral: 0.5 mg/kg/day (in 3 or 4 divided doses)
Dexmedetomidine (100 mcg/mL)	1-5 mcg/kg	0.05-0.1 mg/kg	Sublingual
Midazolam (5 mg/mL)	0.05-0.2 mg/kg		Oral: 0.25-0.5 mg/kg (max 20 mg/dose) Sublingual: 0.2 mg/kg
Chloral hydrate			Adult: 500-1000 mg Pediatric: 25-100 mg/kg/dose

PostMidyear 2023. Farmacoterapia. Edurne FdeGamarra

Emergency Medicine Pearls 2023

When HIET Hits The Fan: Medication Safety Pearls for Hyperinsulinemia-Euglycemia Therapy

HIET = HYPERINSULINEMIA-EUGLYCEMIA THERAPY → tratamiento de intoxicaciones por:

- antagonistas del calcio
- beta-bloqueantes
- antiarrítmicos
- antidepresivos tricíclicos
- inhibidores de la recaptación de serotonina/noradrenalina

Bolus: 1 UI/kg
Infusión: 1-10 UI/kg/h
Administración en SG 10%-20%

Administración (OJO SEGURIDAD!)
Estandarización 16 UI/ml, estabilidad 14 días
Laskey D, et al. Clin Toxicol (Phila). 2016; 54 (9): 829-832.

Emerging and Continuing Controversies in the Management of Septic Shock

Surviving Sepsis Campaign Guidelines

- Administración precoz de antibióticos
- Resucitación con fluidos → cristaloides balanceados, estrategia restrictiva vs liberal
- Vasopresores → considerar comorbilidades

Controversias

- Objetivo tensión arterial media (TAM) (Crit Care Med. 2023; 51 (2): 241-253)
- Resucitación temprana vs tardía (Journal of Intensive Care Medicine 2023; 38 (11): 1051-1059)
- Vasopresores: *Lower Versus Higher Exposure* (Crit Care Med. 2023; 51 (2): 254-266)
- Terapias "ahorradoras" de catecolaminas

Terapias “ahorradoras” de catecolaminas

- **Vasopresina: ¿administración temprana?**
- Corticosteroides
- Angiotensina II
- Ácido ascórbico, tiamina, hidroxocobalamina
- Azul de metileno
- Midodrina
- Bicarbonato sódico, trometamina

> Ann Pharmacother. 2023 May;57(5):521-526. doi: 10.1177/10600280221118903. Epub 2022 Aug 29.

Timing of Vasopressin Addition to Norepinephrine and Efficacy Outcomes in Patients With Septic Shock

Allison L Brask [1], Shelby M Shemanski [2], Tyler E Barnes [2], Ashley K Holmes [2]

> Ann Pharmacother. 2023 Aug 5:10600280231191131. doi: 10.1177/10600280231191131. Online ahead of print.

Comparison of Early Versus Late Adjunctive Vasopressin and Corticosteroids in Patients With Septic Shock

Abdulmajeed M Alshehri [1], Mary P Kovacevic [1], Kevin M Dube [1], Kenneth E Lupi [1], Jeremy R DeGrado [1]

Simply the Best — Updates in Best Practices for Managing Pain, Agitation, and Delirium in the Critically Ill

PAIN FIRST → ANALGOSEDATION

- Objetivos individualizados
- Valoración, valoración, valoración
- Estrategias no farmacológicas
- RASS 0 siempre que sea posible
- Opioides, sedantes, evitar bloqueo neuromuscular
- ANALGOsedación
- Rotación de fármacos

Terapia adyuvante con paracetamol o ketamina
Rotación de opioides

SEDACIÓN

- Beneficios sedación LIGERA
- Selección de sedante individualizada
- Fármacos adjunvantes
- **Seguridad y eficacia de los gases inhalados y nuevos fármacos (CIPROFOL)?**

DELIRIO

Intervenciones no farmacológicas… ¿qué podemos hacer?

- Ajustar horarios para favorecer el descanso nocturno
- Evitar sedantes para el delirio hipoactivo
- Estrategias no farmacológicas para minimizar las dosis
- ABCDEF bundle
- Desprescripción

Review > J Intensive Care Med. 2024 Jan;39(1):28-43. doi: 10.1177/08850666231186747. Epub 2023 Jul 4.

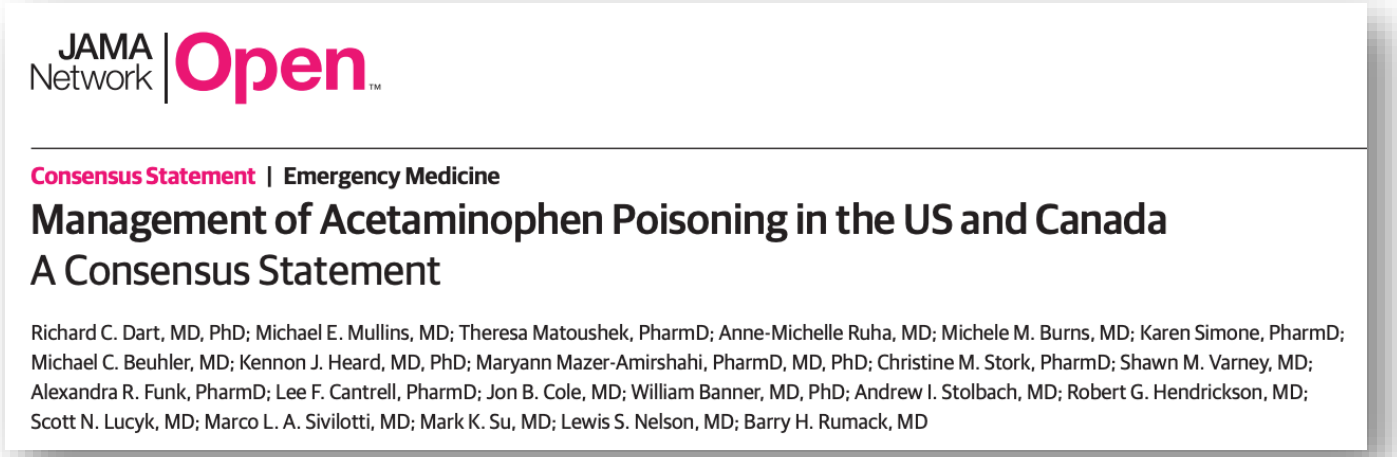
A Rapid Systematic Review of Pharmacologic Sleep Promotion Modalities in the Intensive Care Unit

Mojdeh S Heavner [1], Patricia R Louzon [2], Emily F Gorman [3], Kaitlin M Landolf [1 4], Davide Ventura [5], John W Devlin [6 7]

What else?

- Valproico – tratamiento delirio
- Dexmedetomidina nocturna – sueño
- Melatonina - sueño

Treating Acetaminophen Overdose: Consensus Guidelines



JAMA Network | Open

Consensus Statement | Emergency Medicine

Management of Acetaminophen Poisoning in the US and Canada
A Consensus Statement

Richard C. Dart, MD, PhD; Michael E. Mullins, MD; Theresa Matoushek, PharmD; Anne-Michelle Ruha, MD; Michele M. Burns, MD; Karen Simone, PharmD; Michael C. Beuhler, MD; Kennon J. Heard, MD, PhD; Maryann Mazer-Amirshahi, PharmD, MD, PhD; Christine M. Stork, PharmD; Shawn M. Varney, MD; Alexandra R. Funk, PharmD; Lee F. Cantrell, PharmD; Jon B. Cole, MD; William Banner, MD, PhD; Andrew I. Stolbach, MD; Robert G. Hendrickson, MD; Scott N. Lucyk, MD; Marco L. A. Sivilotti, MD; Mark K. Su, MD; Lewis S. Nelson, MD; Barry H. Rumack, MD

JAMA Netw Open. 2023; 6(8): e2327739

- Pautas de acetilcisteina y criterios para suspender el tratamiento
- Intoxicaciones con formulaciones de liberación retardada
- Embarazo
- Pacientes con P > 100 kg
- Pediatría
- Paracetamol IV

Poblaciones especiales

Drug Dosing in Patients with Severe Obesity

GFR Estimation in Transgender Patients: An Evolution in Progress

- Jesse Rungkitwattanakul, PharmD, BCPS, FNKF

- Reto: valoración de la función renal en pacientes transgénero
- Cambios en masa muscular, cambios en creatitina
- Momento idóneo para valorarlo (no siempre a los 6 meses)
- Cistatina? posiblemente buena alternativa (menor afectación por masa muscular, raza, género)
- **EKFC-cysC (sin género) – pendiente validación** (N Engl J Med. 2023; 388 (4): 333-343)
- Usar distintas aproximaciones, valorar rango, seleccionar dosis inicial + monitorización

ORIGINAL ARTICLE

Cystatin C–Based Equation to Estimate GFR without the Inclusion of Race and Sex

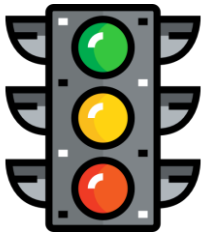
Hans Pottel, Ph.D., Jonas Björk, Ph.D., Andrew D. Rule, M.D., Natalie Ebert, M.D., M.P.H., Björn O. Eriksen, M.D., Ph.D., Laurence Dubourg, M.D., Ph.D., Emmanuelle Vidal-Petiot, M.D., Ph.D., Anders Grubb, M.D., Ph.D., Magnus Hansson, M.D., Ph.D., Edmund J. Lamb, Ph.D., Karin Littmann, M.D., Ph.D., Christophe Mariat, M.D., Ph.D., et al.

Therapeutic Debates & Clinical Pearls 2023

Therapeutic Debates 2023

- **SGLT2i Debate:** Should We Go With The “-flozins” For All in Chronic Kidney Disease?
- Stop Waiting! **Inhaled Corticosteroids** Belong in the COPD Backbone: A Debate on Initial COPD Therapy
- Don’t Stop Believin’: The pros and cons of **generic dabigatran**’s journey to the market

Therapeutic Debates & Clinical Pearls 2023



Clinical Pearls 2023

- **Over-the-Counter CBD** — Impact on Pharmacotherapy
- You Guana Calm Down: **Guanfacine for Agitation and Delirium** in the Intensive Care Unit
- Site Makes Right: Considering the **Location of Enteral Tube** Placement for Medication Administration
- Open Sesame: What is the Magic Solution to **Keep Umbilical Lines Patent**?
- Bashing **BRASH**: Breaking the Vicious Cycle
- Let's HEAR About **Aminoglycosides Genetics**!

- Actualización farmacoterapéutica “TOP”
- Áreas con alto desarrollo en Farmacia Clínica
- “Stewardship”: *the careful and responsible management of something entrusted to one's care*

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