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Chloe Bryson-Cahn MD

Robert Cybulski, PhD

Marisa D'Angeli, MD

Rupali Jain, PharmD

John Lynch, MD, MPH

Natalia Martinez-Paz, MA

Paul Pottinger, MD

Erica Stohs MD, MPH

Ted Wright, MD

Agenda

- Didactic: Paul Pottinger, *Fluoroquinolone Update*
- Case Discussions
- Open Discussion

Fluoroquinolone Update

Paul Pottinger, MD, FIDSA
Associate Professor
UW Medical Center &
The University of Washington School of Medicine

October 17, 2017



Disclosures

- No financial conflicts of interest
- Everything we discuss is QI, thus protected from legal discovery under WA State Code



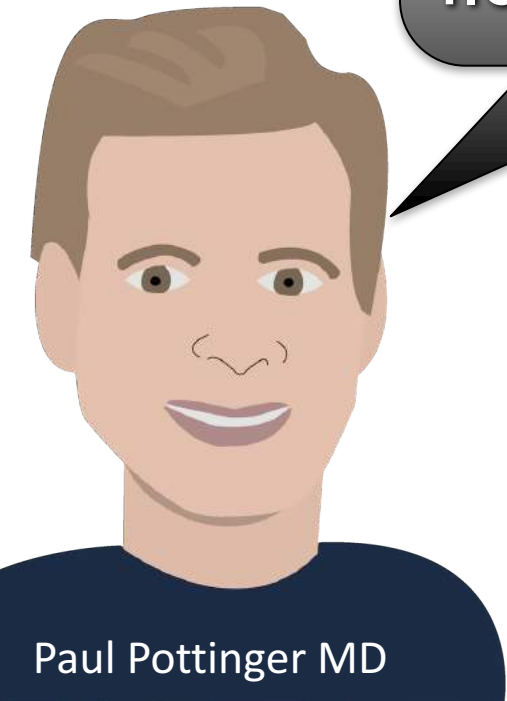
Paul Pottinger MD



Question...

Who has seen a
toxic side effect of
fluoroquinolones?

- A. Yep
- B. Nope
- C. I'm not sure...



Paul Pottinger MD

Heightened FQ Concern: Neuropathy

Certain Antibiotics Spur Widening Reports of Severe Side Effects



HURT BY LEVAQUIN

BRAIN/BODY TOXIC DRUG



HOME

BLOG

PURPOSE OF BLOG

SIDE EFFECTS

MEDIA/NEWS

REFERENCES

LINKS

ADVOCACY

JOHNSON & JOHNSON

HURT BY LEVAQUIN



Welcome to My Website

After suffering through approximately three years of daily pain from an antibiotic called Levaquin, I decided to begin documenting my life in an effort to help educate the public.



LIFE BEFORE
LEVAQUIN

If I can save just one person from having their life ruined as a result of Levaquin toxicity, then this blog will have served its

purpose.

www.levaquinadversesideeffect.com

Heightened FQ Concern: Neuropathy

Certain Antibiotics Spur Widespread Reports of Severe Side Effects

AS **Alexander Shunnarah**
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Cipro

Cipro, also known as Ciprofloxacin, is used to treat a number of infections which include the following: respiratory tract infections, urinary tract infections, gastroenteritis, bone and joint infections, among others. It is marketed by Bayer A.G. As a result of such adverse reactions, additional warnings, together with "dear doctor letters," and black box labels have been added. The FDA requested warning labels be added identifying peripheral neuropathy (irreversible nerve damage), and heart problems contributing to the severity of these reactions. Ciprofloxacin has generated billions of dollars in revenue. Bayer's gross sales of Cipro were approximately \$1.04 in 1999. A lawsuit was filed in 2003 involving postal workers against Bayer during the Anthrax scare in which the workers suffered serious side effects after being given Cipro. If you or a loved one took Cipro and need more information, **please call Alexander Shunnarah Personal Injury Attorneys today at 800-808-9083.**

Educational Videos

Car Wreck

[+]

Car Accidents



Car Wrecks



Top 10 Car Accident



Uninsured Motorist



Drunk Driver



Motorcycle Accidents



Truck Wreck

Nursing Homes



"no 'common thread' of negative evidence that would lead the agency to remove quinolones from the market"

FDA Black Box Warnings

- 2008: Tendonitis
- 2011: Myasthenia Gravis exacerbation
- 2013: Peripheral Neuropathy



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FDA Drug Safety Communication: FDA updates warnings for oral and injectable fluoroquinolone antibiotics due to disabling side effects

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This information is an update to the FDA Drug Safety Communication: FDA advises restricting fluoroquinolone antibiotic use for certain uncomplicated infections; warns about disabling side effects that can occur together issued on **May 12, 2016**

List of Serious Side Effects from Fluoroquinolones for Systemic use

Musculoskeletal and Peripheral Nerve	Central Nervous System
Tendinitis	Anxiety
Tendon rupture	Depression
Numbness or tingling or	Illusions
Muscle weakness	
Muscle pain	
Joint pain	
Joint swelling	
Other Body Systems	
Worsening of myasthenia gravis	
Skin rash	
Sunburn	
Abnormal, rapid or strong heart beat	
Severe diarrhea	

Tendinitis Risk: 2.4 / 10,000

ATR Risk: 1.2 / 10,000

Tendon Injury Risk Factors

- ✓ Advanced Age
- ✓ Male Gender
- ✓ Low GFR
- ✓ Rheumatologic Dz
- ✓ Corticosteroid use
- ✓ Hyperlipidemia
- ✓ Hyperparathyroidism
- ✓ Physical Activity

<http://www.fda.gov/Drugs>

“We have determined that fluoroquinolones should be reserved for use in patients who have no other treatment options for acute bacterial sinusitis, (ABS), acute bacterial exacerbation of chronic bronchitis (ABECB), and uncomplicated urinary tract infections (UTI) because the risk of these serious side effects generally outweighs the benefits in these patients. For some serious bacterial infections the benefits of fluoroquinolones outweigh the risks, and it is appropriate for them to remain available as a therapeutic option.” –FDA, 5/12/16

Severe diarrhea

Cystitis Recommendations



- Nitrofurantoin (*Macrobid*) 100mg PO BID x 5 days (caution in pyelo, age > 65) OR
- TMP/SMX (*Bactrim*) resistance <20%: 1 DS PO BID x 3 days OR
- Fosfomycin (*Monurol*) 3gm PO x 1 dose (caution in pyelo!)
- TMP/SMX resistance >20%:
 - ✓ Cipro 500mg PO QD x 3 days OR
 - ✓ Cefpodoxime 100mg PO BID x 7 days

Cystitis Recommendations



- Nitrofurantoin
5 days (cautious)

*Puget Sound: ~20%
Resistance*

- TMP/SMX (Bactrim) resistance <20%: 1

*Modified IDSA
recommendations
soon?*

O x 1 dose

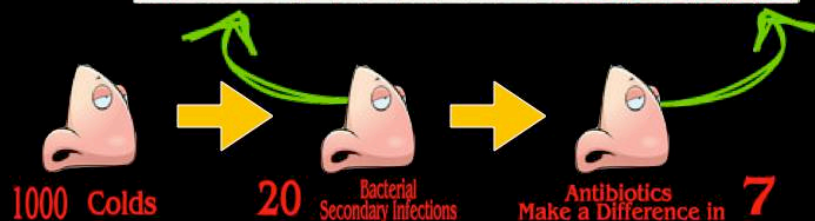
- TMP/SMX resistance >20%:
 - ✓ Cipro 500mg PO QD x 3 days OR
 - ✓ Cefpodoxime 100mg PO BID x 7 days

“Despite clear evidence, guidelines, quality measures and more than 15 years of educational efforts stating the antibiotic prescribing rate should be zero, the antibiotic prescribing rate for acute bronchitis is around 70%”



Michael Barnett, MD
JAMA 2014

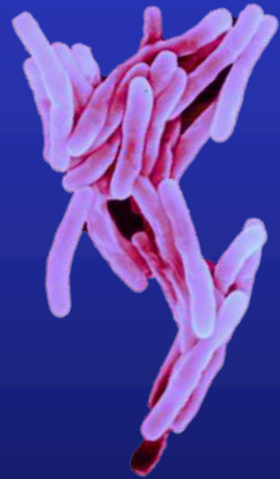
Antibiotic Effectiveness in Colds



Your
Suggestions for
Provider
Resources are
Welcome!

BACTERIAL PATHOGENS IN ADULT RHINOSINUSITIS

Pathogen	Incidence (%)
S.pneumoniae	41
H.influenzae	35
Anaerobes	7
Streptococci	7
M.catharralis	4
S.aureus	3
Other	4



Abx Update 2017: *Rhinosinusitis*

First-Line Empiric Abx

- Amox/clav 875-2,000 BID x 5-7 days



Second-Line Empiric Abx

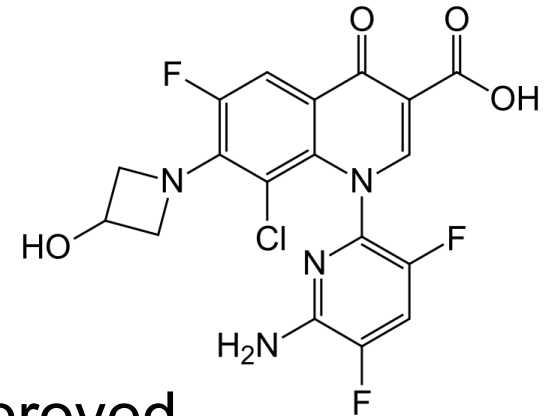
- Doxycycline 100 BID or
 - Levofloxacin 500 QD or
 - Moxifloxacin 400 QD
- 5-7 days

No Longer Recommended

- Azithromycin or TMP/SMX

Delafloxacin: New FQ

- Similar structure to Levofloxacin
- IV and PO formulations. Dose BID
- Approved for ABSSSI
- CAP and UTI indications not yet FDA approved
- Superior MRSA activity vs levo or moxi
- Not yet available... pricing unknown
- Carries **SAME black box warning** as other FQ's



Conclusions

FQ Toxicity is Real

- ✓ Valuable class of abx... use them when you need to!
- ✓ Balancing toxicity with efficacy more important than ever
- ✓ Medicolegal burden now on us if we use for UTI or URI