State of New Jersey
Department of Human Services
Division of Medical Assistance & Health Services
New Jersey Drug Utilization Review Board

BULLETIN

Volume No. 01 No. 03 **May 2009**

TO: Physicians, Advanced Practice Nurses, Clinics, Federally Qualified Health Centers- **For Action**
Providers of Pharmaceutical Services, Health Maintenance Organizations – **For Information Only**

SUBJECT: **Clinical News from the New Jersey Drug Utilization Review Board (DURB)**

PURPOSE: To provide practitioners useful clinical information that may be helpful to the prescribing of prescription drugs

BACKGROUND: The DURB serves as an advisory board to the New Jersey Department of Human Services and the New Jersey Department of Health and Senior Services. The Board's responsibilities include recommending clinical standards based, in part, on the evaluation of prescription drug use by participants in the State's prescription drug programs. The Board is also responsible for disseminating information that the Board has determined would encourage appropriate drug utilization.

ACTION: Attached is a discussion regarding **Opportunisic Infections in HIV-Infected Adults**. This bulletin can be viewed electronically by visiting http://www.nj.gov/humanservices/dmahs/durb.html. The Board welcomes your comments regarding this bulletin. Send comments to www.state.nj.us/humanservices/dmahs/durb.html. The Subject should read, "DURB Comments."

RETAIN THIS NEWSLETTER FOR FUTURE REFERENCE

Opportunistic Infections in Adults

Pneumocystis Carinii Pneumonia (PCP): A Quick Overview on Prophylaxis

Caused by the ever-present fungus, *pneumocystis jirovecii,* Pneumocystis Carinii Pneumonia (PCP) was once prevalent in 70-80% of patients with AIDS. Ever since the introduction of prophylaxis and antiretroviral therapy, the incidence of PCP has declined substantially.

It is critical that prescribers know the array of options available for the prophylaxis of PCP. According to the recommendations by the National Institutes of Health, there are currently three major prophylaxis options. However, prevention with **Trimethoprim-Sulfamethoxazole (TMP-SMX) is the drug of choice** not only due to its widespread availability, relative safety and tolerability, but also due to its low cost—making it the most cost-effective regimen in the prevention of PCP.

When to Initiate Primary Prophylaxis:

- CD4+ count < 200 cells/µL
- History of oropharyngeal candidiasis
- CD4+ cell percent < 14% or history of Acquired Immune Deficiency Syndrome (AIDS)

Drugs of Choice in Prophylaxis of PCP:

Prophylaxis Drug	Daily Dose	Approximate Cost Per Month*
TMP-SMX Double Strength (DS)	One DS Tablet Daily	$15
Dapsone 100 mg	One Tablet Daily	$15-20
Atovaquone	1500 mg (2 teaspoons) Daily	**$1500**

*All prices quoted in this newsletter are approximations as of January 2009 and may be subject to change

Prophylaxis of Herpes Simplex Virus (HSV)

Herpes Simplex Virus Type 1 and Type 2 infections are common in HIV-infected patients with a seroprevalence of 60% and 17%, respectively. Both Valtrex® (Valacyclovir) and Zovirax® (acyclovir) are antivirals indicated for chronic suppressive therapy for recurrent genital herpes. Valacyclovir, the prodrug of acyclovir, has better bioavailability.

Drugs of Choice in Prophylaxis of HSV:

Prophylaxis Drug	Daily Dose	Approximate Cost per Month*
Acyclovir	400 mg Twice Daily	$14 - $20
Valacyclovir	1000 mg Daily	$418

*All prices quoted in this newsletter are approximations as of January 2009 and may be subject to change

In comparison of efficacy, clinical trials have shown both drugs to be equally effective in both the treatment and prophylaxis of HSV infection with only one difference in dosing frequency. One clinical trial comparing the efficacy of valacyclovir to acyclovir for recurrent HSV infections in immunocompetent patients found that twice-daily valacyclovir given at 1000 mg was just as effective and well-tolerated as acyclovir 200mg dosed five times daily. The median duration of healing of herpetic episodes for both drugs was 4.8 days and viral shedding stopped 2.55 and 2.24 times faster than placebo in valacyclovir and and acyclovir respectively.

The objective of another clinical trial was to evaluate the efficacy of both drugs in immunocompromised patients with an HSV infection. The trial concluded with the finding that there was no statistically significant difference in chronic suppression of recurrent HSV with p-value well above 0.05.

If valacyclovir and acyclovir are just as effective in prophylaxis of recurrent genital herpes, and compliance is not an issue, then why do prescribers choose Valtrex® over acyclovir despite the cost issues? **Cost-effectiveness is an important issue to consider when choosing therapies for patients.**

Test Your Knowledge:

Questions:

1. What is the more cost-effective treatment, TMP-SMX or Atovaquone for the prevention of PCP?
2. For patients who have discontinued TMP-SMX due to a **non life-threatening** adverse reaction, can TMP-SMX be reinstituted? If so, when?
3. Patients who have PCP despite adequate prophylaxis with TMP-SMX are effectively treated with what agent?
4. What three medications can be used for suppressive therapy of HSV in immunocompromised patients?
5. Does Valtrex® have a generic? Does Zovirax® have a generic?
6. What is the dose of Valtrex® for the suppression of recurrent genital herpes in immunocompromised patients?

Answers:

1. TMP-SMX
2. Yes. It is considered after the adverse event has resolved.
3. TMP-SMX
4. Valtrex®, acyclovir, and famciclovir
5. Valtrex® = NO! Zovirax® = YES! Acyclovir
6. 500 mg twice a day

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