

Pharmacokinetic Considerations in the Treatment of Pediatric Behavioral Issues

The purpose of this continuing education offering is to increase the pediatric nurse's knowledge of the pharmacokinetic and pharmacodynamic issues of treatment for children with attention deficit hyperactivity disorder (ADHD).

ADHD is one of the most common behavioral disorders of childhood. In the current shortage of child psychiatric specialists, the charge of this vulnerable population is often left in the hands of the primary care provider. A variety of medications and dosages may be prescribed throughout the course of treatment. Drug interactions occur when the efficacy or toxicity of a medication is changed by the administration of another medication or substance. An important role for pediatric nurses is appropriate screening and monitoring of outcomes for children on psychostimulant and non-stimulant medications. Knowledge of the pharmacokinetic and pharmacodynamic issues of treatment can assist nurses in this role.

This continuing nursing education offering features an article that discusses the pharmacokinetic and pharmacodynamic consequences of medications for children with ADHD.

ASSIGNMENT

Theoktisto, K.M. (2009). Pharmacokinetic considerations in the treatment of pediatric behavioral issues. *Pediatric Nursing*, 35(6), 369-374.

1.2 Contact Hours and 80 Pharmacology Minutes

1. **Drug interactions that occur as a result of the Cytochrome P450 system result in:**
 - a. Making the medications more lipid soluble and less readily excreted.
 - b. Reduces liver absorption.
 - c. Affects metabolism of the medication by making it more water soluble and more readily excreted in urine or bile.
 - d. Improves intestinal absorption.
 - e. A and D.

OBJECTIVES

1. Discuss the importance of the pediatric nurse's understanding of psychostimulant and non-stimulant medications.
2. Describe a case of drug interaction for a teenage girl with ADHD.
3. Identify opportunities for pediatric nurses to keep current on the topic of drug interactions.

This offering for 1.2 contact hours and 80 pharmacology minutes is provided by Anthony J. Jannetti, Inc.

Anthony J. Jannetti, Inc is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation (ANCC-COA).

Anthony J. Jannetti, Inc. is an approved provider of continuing education by the California Board of Registered Nursing, CEP No. 5387.

Articles accepted for publication in the continuing education series are refereed manuscripts that are reviewed in the standard *Pediatric Nursing* review process with other articles appearing in the journal.

This test was reviewed and edited by Judy A. Rollins, PhD, RN, *Pediatric Nursing* associate editor, Veronica D. Feeg, PhD, RN, FAAN, *Pediatric Nursing* editor, and Rosemarie Marmion, MSN, RN-BC, NE-BC, and Sally S. Russell, MN, CMSRN, CPP, AJJ Education Directors.

2. **The first FDA approved pharmogenetic test using a DNA microarray is called:**
 - a. GenomeOne.
 - b. DNA TestStrip.
 - c. Genetics One.
 - d. AmpliChip.
 - e. GenoArray.

3. Which stimulant medication side effect is most expected?
 - a. Paranoia
 - b. Reduced appetite
 - c. Increased heart rate
 - d. Blood sugar changes
 - e. Headache

4. Which portion of the family history would not be expected to increase the risk of CYP450 reactions?
 - a. Marfan's syndrome
 - b. Family history of sudden death under age 30
 - c. Diabetes mellitus
 - d. Arrhythmias
 - e. Cardiomyopathy

5. Psychopharmaceutical treatment in children requires careful screening in order to prevent which serious CYP450 reaction?
 - a. Asthma exacerbation
 - b. Enuresis
 - c. Hyperglycemia
 - d. Torsade de pointes
 - e. Pneumonia

Answer Form: Pharmacokinetic Considerations in the Treatment of Pediatric Behavioral Issues

Check the box next to the correct answer.

***PED J0908**

- | | | | | |
|------|------|------|------|------|
| 1. A | 2. A | 3. A | 4. A | 5. A |
| B | B | B | B | B |
| C | C | C | C | C |
| D | D | D | D | D |
| E | E | E | E | E |

COMPLETE THE FOLLOWING:

This test may be copied for use by others.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Evaluation	Strongly disagree	Strongly agree
1. The objectives relate to the overall purpose/goals of the education activity.	1 2 3 4 5	
2. The activity met the stated objectives.		
a. Discuss the importance of the pediatric nurse's understanding of psychostimulant and non-stimulant medications.	1 2 3 4 5	
b. Describe a case of drug interaction for a teenage girl with ADHD.	1 2 3 4 5	
c. Identify opportunities for pediatric nurses to keep current on the topic of drug interactions.	1 2 3 4 5	
3. Home study format was appropriate.	1 2 3 4 5	
4. The content was relevant to my practice.	1 2 3 4 5	
5. The content met my needs.	1 2 3 4 5	
6. How much time was used to complete reading assignment and posttest:		
a. Less than 1 hour _____		b. 1-2 hours _____
c. 2-3 hours _____		d. 3 hours or more _____

Comments _____

Signature _____

Use Pediatric Nursing CNE Offerings as Pharmacology CE!

The *Pediatric Nursing* Continuing Nursing Education Committee now identifies Pediatric Nursing CNE self-study units and programs to include a method to denote if some or all of the CNE offering will be designated as Pharmacology CE (R) credits. Throughout the country, Advanced Practice Nurses need continuing education in pharmacology content in order to renew their prescription authority.

If there is pharmacology content addressed in programs as defined by the PN CNE Committee, the objectives will be marked by an asterisk (*), and the time that is designated for this content can be counted as Pharmacology Continuing Education hours. These will be identified as Pharmacology CE credits and can be used by participants to denote that the learning activity was pharmacology based, depending on individual professional organization or state requirements.

POSTTEST INSTRUCTIONS

1. Select the best answer and check the corresponding box on the answer form. Retain the test questions as your record.
2. Complete the information requested in the space provided.
3. Detach the answer form or a copy of the answer form and mail to: *Pediatric Nursing*, CNE Series, Jannetti Publications, Inc., East Holly Avenue Box 56; Pitman, NJ 08071-0056 with a check or money order payable to Jannetti Publications Inc. for \$10.00 (subscriber) or \$15.00 (nonsubscriber).
4. Test returns **must** be postmarked by December 31, 2011. If you pass the test (70% or better), a certificate will be awarded by Anthony J. Jannetti, Inc.

Please allow 6-8 weeks for processing. For recertification purposes, the date that contact hours are awarded will reflect the date of processing.

Test Scoring, CNE Awarding/Recording fees:

PN Subscriber	\$10.00
Nonsubscriber	\$15.00
Exp. Date _____	