

Selected Drugs Used in Pediatric Patients: Pharmacology Update

The purpose of this continuing education series is to increase the pediatric nurse's awareness and understanding of selected drugs used in pediatric practice.

Each year new drugs or improved drugs are approved for use with children. Keeping updated on selected drugs and their effectiveness will increase the pediatric nurse's ability to provide appropriate care to children receiving these drugs in their practice settings.

This continuing education series features two articles of importance to pediatric nurses. The first article describes the use of hydroxyurea therapy for children with sickle cell disease. The second article discusses the use of risperidone as a potentially safe and effective treatment for disruptive behavioral symptoms in children with autism.

ASSIGNMENT

Anderson, N. (2006). Hydroxyurea therapy improving the lives of patients with sickle cell disease. *Pediatric Nursing*, 32(6), 541-543.

West, L., & Waldrop, J.. (2006). Risperidone use in the treatment of behavioral symptoms in children with autism. *Pediatric Nursing*, 32(6), 545-549.

Objectives:

1. Discuss the importance of pediatric nurses keeping up to date on pediatric drugs that are used in their practice.
2. Describe the benefits of hydroxyurea therapy for children with sickle cell disease.
3. List three side effects of the use of risperidone with children with autism.
4. Identify opportunities for pediatric nurses to keep current on pharmacological issues.

This offering for 2.8 contact hours is provided by Anthony J. Jannetti, Inc.

Anthony J. Jannetti, Inc. is accredited as a provider of continuing education in nursing 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, and Veronica D. Feeg, PhD, RN, FAAN, *Pediatric Nursing* editor.

Earn 2.8 Contact Hours

Questions

1. **The Food and Drug Administration approved the use of hydroxyurea in symptomatic sickle cell patients because this medication has been shown to**
 - a. improve cell hydration.
 - b. increase platelet aggregation.
 - c. increase fetal hemoglobin.
 - d. a and c
 - e. All of the above
2. **The Multicenter Study of Hydroxyurea follow-up observational study demonstrated that hydroxyurea**
 - a. reduced hospitalizations by 10%.
 - b. reduced death rates by 95%.
 - c. reduced pain crisis by 40%.
 - d. increased acute chest syndrome by 50%.
 - e. None of the above
3. **The most common side-effect of hydroxyurea therapy is myelosuppression of the blood cells, most importantly the**
 - a. red blood cells.
 - b. platelets.
 - c. plasma.
 - d. white blood cells.
4. **Clinical trials (BABY HUG) investigating the use of hydroxyurea therapy in children 6 to 24 months of age has thus far demonstrated**
 - a. decrease in growth rates.
 - b. slower progression of developmental milestones.
 - c. no unusual reactions.
 - d. decreased number of hospitalizations.
5. **A 16 year-old menstruating female will be starting hydroxyurea therapy today. The hematologist orders routine lab work and a prescription for hydroxyurea. Which test is most important to complete before the patient leaves the office?**
 - a. Hepatitis panel
 - b. Complete blood count
 - c. Pregnancy test
 - d. Urinalysis
6. **Risperidone can be prescribed for children with autism to best treat which behavior?**
 - a. Poor social interaction
 - b. Lack of communication
 - c. Aggression
 - d. Hyperactivity
 - e. Irritability
7. **Some of the more common side effects of risperidone include which of the following?**
 - a. Weight gain, drowsiness, headache, and increased prolactin levels
 - b. Weight loss, hyperactivity, hypotension, increased serotonin levels
 - c. Bradycardia, urinary retention, constipation, decreased prolactin levels
 - d. Long QT syndrome, eczema, dry mouth, heart palpitations
 - e. Increased communication, decreased social withdrawal, emotional lability
8. **Other than targeted behavioral symptoms, which of the following information should be gathered at baseline and monitored throughout therapy when prescribing risperidone?**
 - a. Serotonin level, cardiac enzymes, chest x-ray, respiratory rate, kidney function, and liver function panel
 - b. Prolactin level, liver enzymes, electrocardiogram, blood pressure, heart rate, and weight
 - c. Dopamine level, pancreatic enzymes, echocardiogram, temperature, sodium level, and head MRI
 - d. White blood cell count, potassium level, abdominal ultrasound, neurostatus, and head CT
 - e. Dopamine level, sodium level, neurostatus, liver function panel, and weight

9. Which is the best method of dosing risperidone?

- a. Start at 0.25 mg/day and increase monthly in 0.25 mg/day increments until therapeutic
- b. Start at 0.5 mg/day and increase monthly in 0.5 mg/day increments until therapeutic
- c. Start at 5 mg/day and increase by 2.5 mg/day every 3-7 days until therapeutic
- d. Start at 2.5 mg/day and increase by 2.5 mg/day every 3-7 days until therapeutic
- e. Start at 0.25 mg/day and increase by 0.25 mg/day every 3-7 days until therapeutic

10. Alex, a 13-year-old male with autism, presents with his mother to your clinic for a medication follow-up visit. He has been taking risperidone 2 mg twice a day for 6 months. During your history assessment, the mother states Alex's temper tantrums and hitting himself have decreased while taking risperidone. She adds, however, that his teacher complains that he seems tired for the majority of the day and has difficulty motivating him to complete schoolwork. The mother has noticed the same at home. What would be the best choice for his treatment?

- a. Discontinue risperidone and consider a different medication because the side effects are unacceptable.

- b. Decrease the dose of risperidone to decrease the side effects.
- c. Decrease the morning dose to 1.5 mg and increase the evening dose to 2.5 mg to alter the timing of side effects.
- d. Do not make any changes to the dose. The side effects are not intolerable.
- e. Add another medication to counteract the fatigue.



Answer Form: Selected Drugs Used in Pediatric Patients: Pharmacology Update

***PED J608**

Check the box next to the correct answer.

- | | | | | | | | | | |
|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|
| 1. <input type="checkbox"/> A | 2. <input type="checkbox"/> A | 3. <input type="checkbox"/> A | 4. <input type="checkbox"/> A | 5. <input type="checkbox"/> A | 6. <input type="checkbox"/> A | 7. <input type="checkbox"/> A | 8. <input type="checkbox"/> A | 9. <input type="checkbox"/> A | 10. <input type="checkbox"/> A |
| <input type="checkbox"/> B | <input type="checkbox"/> B | <input type="checkbox"/> B | <input type="checkbox"/> B | <input type="checkbox"/> B | <input type="checkbox"/> B | <input type="checkbox"/> B | <input type="checkbox"/> B | <input type="checkbox"/> B | <input type="checkbox"/> B |
| <input type="checkbox"/> C | <input type="checkbox"/> C | <input type="checkbox"/> C | <input type="checkbox"/> C | <input type="checkbox"/> C | <input type="checkbox"/> C | <input type="checkbox"/> C | <input type="checkbox"/> C | <input type="checkbox"/> C | <input type="checkbox"/> C |
| <input type="checkbox"/> D | <input type="checkbox"/> D | <input type="checkbox"/> D | <input type="checkbox"/> D | <input type="checkbox"/> D | <input type="checkbox"/> D | <input type="checkbox"/> D | <input type="checkbox"/> D | <input type="checkbox"/> D | <input type="checkbox"/> D |
| <input type="checkbox"/> E | <input type="checkbox"/> E | <input type="checkbox"/> E | <input type="checkbox"/> E | <input type="checkbox"/> E | <input type="checkbox"/> E | <input type="checkbox"/> E | <input type="checkbox"/> E | <input type="checkbox"/> E | <input type="checkbox"/> E |

This test may be copied for use by others.

COMPLETE THE FOLLOWING:

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 pediatric nurses keeping up to date on pediatric drugs that are used in their practice.	1	2	3	4 5
b. Describe the benefits of hydroxyurea therapy for children with sickle cell disease.	1	2	3	4 5
c. List three side effects of the use of risperidone with children with autism.	1	2	3	4 5
d. Identify opportunities for pediatric nurses to keep current on pharmacological issues.	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 _____

POSTTEST INSTRUCTIONS

- Select the best answer and check the corresponding box on the answer form. Retain the test questions as your record.
- Complete the information requested in the space provided.
- Detach the answer form or a copy of the answer form and mail to: *Pediatric Nursing*, CE 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 (non-subscriber).
- Test returns **must** be postmarked by December 15, 2008. If you pass the test (70% or better), a certificate for 2.8 contact hours 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, CE Awarding/Recording fees:
 PN Subscriber \$10.00
 Nonsubscriber \$15.00
 Expir. Date _____