



# PEDIATRIC FORUM

*A journal of The Children's  
Medical Center of Dayton*



Hypercholesterolemia

Images in Clinical  
Pediatrics – Olfactory  
neuroblastoma

Preoperative  
preparation

Literacy and child  
health: Is there a link?

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This education activity is designed for pediatricians, family physicians and related child health care providers.

### Educational objectives

- Articles will review commonly encountered clinical conditions and provide updates in pediatric medical and surgical care.
- Each individual article will have activity-specific learning objectives.

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# HYPERCHOLESTEROLEMIA AND PREVENTIVE CARDIOVASCULAR HEALTH IN CHILDREN



by  
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As cholesterol testing becomes easier, decisions about results, treatment and possible referral become increasingly difficult.

However, cholesterol management is only one aspect of preventive cardiology in general pediatrics.

Preventive cardiology involves the following screening:

- Obesity<sup>1</sup>:** Studies show the prevalence in obesity steadily increasing among younger children and adolescents. Obesity leads to such complications as obstructive sleep apnea, orthopedic problems, hepatosteatorosis, exercise intolerance and possibly insulin resistance. From a cardiovascular standpoint, obese patients are more likely to suffer from hypertension, complications of premature coronary artery disease and type II diabetes. Obesity also is defined by body mass index (Table 1). This relates the weight to the height squared in meters:

$$\frac{\text{Weight (kg)}}{\text{Height (m}^2\text{)}}$$

- Hypertension:** Systolic > 140 mmHg and diastolic > 80 mmHg or >95th for height.
- Sedentary lifestyle:** Some studies have shown a correlation between television viewing hours and elevated cholesterol levels. Children should watch less than 2 hours of television per day, not be allowed to snack on high fat and high carbohydrate snacks while watching. Regular exercise—not just seasonal exercise—should be encouraged.
- Tobacco use:** More than 10 cigarettes per day.
- Family history:** Hypercholesterolemia and/or premature cardiovascular disease before age 55 in a male and before 65 in a female should be identified.
- Level of total cholesterol:** Determining the level provides objective criteria to allow more intensive and focused therapy.
- Insulin resistance:** Juvenile diabetic patients have more atherosclerotic plaques and a higher frequency of atherosclerosis-related events than do nondiabetic children of similar age and sex. Type II diabetes and insulin resistance are evaluated for diabetic dyslipidemia which is considered very atherogenic (Table 2).

*National Heart, Lung and Blood Institute classification of Obesity (adult)*

<b>Obesity class</b>	<b>BMI</b>
Underweight	<18.5
Normal	18.5 - 24.9
Overweight	25 - 29.9
Obesity	Class I 30 - 34.9 Class II 35 - 39.9
Extreme or morbid Obesity	Class III >40

**TABLE 1**

## OBJECTIVES

*After completing the article, the reader should be able to:*

- identify risk factors for preventive cardiovascular health.
- evaluate and treat children with hypercholesterolemia.
- recognize when to refer children with severe risk factors.

### **Diabetic dyslipidemia**

HDL.....	< 40 mg/dl
Triglycerides.....	> 150 mg/dl
VLDL.....	> 30 mg/dl
Pattern (B) LDL.....	small dense LDL
Low number of large HDL	
Elevated number of large VLDL...By lipid NMR evaluation	

**TABLE 2**

Continued

Primary and secondary prevention trials in the adult group have shown significant decrease in cardiovascular morbidity. Clinical benefit of cholesterol management seems evident in the multiple studies of clinical intervention. The death rate from coronary heart disease (CHD) has decreased 28.6% between 1984 and 1994.

In meta analysis, it was found that a 10% decrease in total cholesterol means a 25% decrease in CHD at 5 years.<sup>2</sup> The paper reviewed studies before the statins (HMG-CoA reductase inhibitors) were widely used. With the advent of these new drugs, the changes have been more dramatic with mortality decreasing by 30% and coronary death rate by 42%. These studies underscore the importance of cholesterol management.

In pediatrics, the influences of these studies emphasize the importance of more efficiently screening those families with the above-mentioned lifestyle and cardiovascular risks.

As advances in treatment of cardiovascular disease increase, controversies persist in the prevention of premature atherosclerosis. In the field of pediatrics, there are three controversial areas:

1. Why do we screen?
2. Who do we treat?
3. What therapy should be implemented?

### 1. Why do we screen?

The national cholesterol expert guidelines<sup>3</sup> recommended screening for children with the following risk factors:

- A. Family history of cardiovascular disease before the age of 55 years old. This includes coronary artery disease, strokes and cerebral ischemic events.
- B. Family history of hypercholesterolemia. I suggest screening cholesterol levels in patients—particularly adolescents—with the following cardiovascular risks:
  - A. High blood pressure
  - B. Obesity
  - C. Sedentary lifestyle
  - D. Smoking
  - E. Unavailable family history

At this point, it is not recommended to screen infants and toddlers less than 2-years-old.

The present recommended screening uses a fasting lipid profile. Although these are the adult treatment panel guidelines<sup>4</sup>, I suggest also using them for children. Lipid profiles should be obtained after a minimum of 12 hours fast. In the values from every laboratory, the level of LDL-cholesterol is always *calculated*, not measured, according to the following formula:

$$\text{LDL-C} = \text{TC} - (\text{HDL-C} + \text{triglycerides}/5)$$

TC – total cholesterol

LDL-C – low density cholesterol

HDL-C – high density cholesterol

This formula is not applicable if the triglyceride level is over 400 mg/dl and may not be very accurate above 200mg.

## 2. Who do we treat?

Children with cholesterol levels between 170 and 199 mg/dl should be advised of appropriate diet therapy and evaluated for other atherosclerosis risk factors.

### NCEP Guidelines

	<i>Desirable</i>	<i>Borderline</i>	<i>Elevated</i>	<i>Severe</i>
Total Cholesterol	<170 mg/dl	170-199 mg/dl	200-239 mg/dl	>240 mg/dl
LDL-C	<110 mg/dl	110-129 mg/dl	130-159 mg/dl	>160 mg/dl
Triglycerides	<120 mg/dl	120-149 mg/dl	>150 mg/dl	>400 mg/dl

TABLE 3

According to the NCEP guideline, children with total cholesterol level greater than 200 mg/dl should be treated (Table 3).

In my practice, I still make recommendations according to the NCEP guidelines. I direct the attention of the therapy toward the patient and the family, since

it is not rational to expect only one member in the family to follow the recommendations.

Some children are particularly susceptible to diet modifications. Significant complications may arise when these children are placed under diet restrictions without the support of a professional nutritionist. Eating disorders may be triggered by the association of diet restriction, exercise emphasis and family or peer pressure. Moreover, growth failure has been documented when the content—ie, the fat percentage—is stressed and not the appropriate amount of total calories. Therefore, children under 3 years of age should not be placed under any restriction unless they have been diagnosed with type I hyperlipidemia.

## 3. What therapy should be implemented?

The current recommendation greatly emphasizes diet therapy (Table 4).

**The American Heart Association diet has been modified. It now places emphasis on saturated fat and polyunsaturated fat. Other recommendations also have been made.**

<i>Nutrient</i>	<i>Recommended Intake</i>
Saturated fat .....	Less than 7% of total calories
Polyunsaturated fat .....	Up to 10% of total calories
Monounsaturated fat.....	Up to 20% of total calories
Total fat.....	25-35% of total calories
Carbohydrate .....	50-60% of total calories
Fiber.....	20-30 grams per day
Protein .....	Approximately 15% of total calories
Cholesterol .....	less than 200 mg/day
Total calories (energy) .....	Balance energy intake and expenditure to maintain desirable body weight/prevent weight gain

TABLE 4

Diet therapy is very effective, but limited. It will usually lower the cholesterol level by 10% to 15%, but is limited by several factors:

- poor compliance
- need for the whole family to abide by the same diet
- insufficient decrease in cholesterol level for patients with TC > 240mg/dl or LDL-C > 160 mg/dl
- decrease in HDL-C
- need to be supervised by an expert nutritionist to assure nutrients are adequate for appropriate growth

### Physical activities high in aerobic metabolism:

- Bicycling
- Running
- Cross-country skiing
- Swimming
- Ice hockey
- Basketball

### Physical activities with moderate aerobic metabolism:

- Figure skating
- Tennis
- Soccer
- Football
- Gymnastics
- Downhill skiing

### Physical activities low in aerobic metabolism:

- Baseball
- Volleyball
- Horseback riding
- Walking

TABLE 5

Along with this particular therapy, reducing other atherosclerotic risk factors should be attempted:

- Increase activity—exercise program should be implemented with or without the help of a professional trainer (Table 5).
- Weight reduction, when applicable, should be attempted along with diet recommendations.

For children with TC > 300 mg/dl or LDL > 190 mg/dl, or LDL-C > 160 mg and 2 or more risk factors, medication therapy should be considered if they are more than 10 years old. Medication therapy should be implemented rapidly along with diet therapy. Presently, the most effective drugs are the statins—also known as the HMG-CoA reductase inhibitors—lovastatin, pravastatin and the most recent atorvastatin. Side effects include myopathy and liver enzyme elevation. Liver enzyme panel and CPK ought to be followed regularly as the drugs have yet to be studied in children. The only drugs currently recommended are cholestyramin or colestipol and niacin. These drugs also have significant potential side effects, but, more importantly, have a very low compliance record. A new compound zetia ezetimibe effectively blocks cholesterol absorption. Studies in children are being planned.

### Summary

Emphasis should be placed on the screening of children and families at risk for premature cardiovascular disease. Pediatricians have a significant role to play. Unfortunately, physicians seeing adults who are at risk or are already suffering from cardiovascular disease fail to refer children of these patients. In my practice, the pattern of referral is 65% pediatricians, 34% parents and less than 1% from internists or family practitioners.

Preventive cardiovascular health could be implemented through a more directed family history, intervention with patients showing signs of being overweight and increased family education. Cholesterol testing is a cornerstone of preventive cardiovascular health, since hypercholesterolemia is the underlying trigger of the atherosclerotic plaque leading to premature cardiovascular accident.

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## CME QUESTIONS

1. The following are risk factors for premature heart disease except:
  - a. BMI of 36.
  - b. HDL of 42 mg/dl.
  - c. TC of 220 mg/dl.
  - d. maternal grandfather with a heart attack at age 40.
  - e. type II diabetes.
2. Children with TC > 300 should be treated with:
  - a. diet.
  - b. diet and exercise and niacin.
  - c. diet and exercise and statin.
  - d. diet and exercise and cholestyramin.
  - e. referred to a lipid center for further evaluation and treatment.
3. The best screening test is:
  - a. fasting HDL.
  - b. fasting LDL.
  - c. fasting lipid profile.
  - d. nonfasting VLDL.
  - e. fasting triglyceride.

# PREOPERATIVE PREPARATION



by  
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The preparation of a child who is about to undergo anesthesia and surgery involves the child's family, anesthesiologist, surgeon, primary care physicians, nursing and other specialists. Communication among the individuals caring for the patient is paramount for the smoothest preoperative course. Established lines of communication permit the efficient and meaningful transfer of patient information. Communication also provides the most efficient means of informing the patient about necessary procedures. Familiarity with operating room and day surgery unit policies (eg, NPO guidelines) helps alleviate patient and parent anxiety. For this reason Dayton Children's offers families tours of the operating facility.

Adequate preoperative preparation reduces the chances of having postoperative complications. It is the time when the anesthesiologist determines whether the child is physiologically appropriate for the proposed procedure. Preoperative preparation identifies disease that might need preoperative treatment or could affect the course of anesthesia and surgery. The anesthesiologist determines which anesthesia regimen is optimal for the child. The preparation includes review of patient's medical records, taking a history from parent/guardian and patient (depending on patient's age), physical exam and review of medications, laboratory and radiology results.<sup>1,2</sup>

Three aspects of the preoperative preparation will be further discussed:

1. preoperative NPO status,
2. medications, and
3. disease states and the decision to proceed with anesthesia.

### Preoperative NPO status

Since tone in skeletal and smooth muscles is lost during general anesthesia, the likelihood of regurgitation of gastric contents into the oropharyngeal cavity increases and the risk of pulmonary aspiration is higher. Adequate time between the last solid or liquid material ingested by mouth and the induction of general anesthesia is required. This time will allow for gastric emptying. Too short a time may mean inadequate gastric emptying while too long a time predisposes the patient to dehydration and hypoglycemia.

The duration of preoperative nothing by mouth (NPO) period has been changed based on new evidence. The American Society of Anesthesiologists (ASA) issued a practice guideline<sup>3</sup> that recommends a fasting period of 2 hours or more after a clear liquid for all patients before elective procedures requiring general anesthesia, regional anesthesia or sedation/analgesia (eg, monitored anesthesia care) (Table 1). Examples of clear liquids include, but

ASA preoperative NPO guideline	
After clear liquid.	2 hours or more
After breastmilk, infant formula, nonhuman milk and solids.	4 hours for neonates and infants
After infant formula.	6 hours or more for infants 4 hours or more for neonates
After light meal and nonhuman milk.	6 hours or more
After a meal including fried or fatty foods or meat.	8 hours or more

**TABLE 1**

## OBJECTIVES

*After completing the article, the reader should be able to:*

- describe some aspects of the preoperative preparation of a patient, an important step in reducing the possibility of intra- and postoperative complications.
- recognize the importance of involvement of parents, physicians of different specialties and non-physician personnel.

are not limited to water, fruit juices without pulp, carbonated beverages, clear tea and black coffee. Tobacco in all forms is discouraged preoperatively.

The same ASA guideline recommends a fasting period of 4 hours after breast-milk for both neonates and infants. There is, however, insufficient published data to address the safety of any preoperative fasting period for breastmilk, infant formula, nonhuman milk and solids. The fasting period after infant formula is 6 hours or more for infants and 4 hours or more for neonates. The recommendations for the light meal (eg, toast and clear liquid) and nonhuman milk is 4 or more hours. Eight or more hours of fasting is recommended after a meal that includes fried or fatty foods or meat because these foods delay gastric emptying. Both the amount and type of food ingested must be considered when determining an appropriate fasting time.

These preoperative fasting guidelines are modified in some institutions. Dayton Children's guideline is the same as that recommended by the ASA task force. However, we add 2 hours to each category allowing us to safely move a patient up in the event of a schedule opening due to a cancellation or the surgeon being ahead for outpatient procedures. Failing to follow the NPO guideline of the institution is a cause for delaying or canceling surgery.

## CME QUESTIONS

**4.** A 2-year-old boy is scheduled for a right inguinal hernia repair. He drank an ounce of apple juice at 6:00 am. What is the earliest time he can have a general anesthesia?

- a. 10:00 am
- b. 8:00 am
- c. 12:00 pm
- d. 1:00 pm
- e. 11:00 am

**5.** A 9-year-old asthmatic girl is scheduled for an axillary lymph node biopsy at 11:00 am. She is on albuterol MDI treatment twice a day. Her mother was not sure whether she should have her morning dose. What would you advise her?

- a. Her morning dose should be doubled.
- b. She should have her regular dose regardless of directions provided by the anesthesiologist or surgeon.
- c. It is the child's choice whether or not to have her morning dose.
- d. She should not have her morning dose.
- e. She should have her regular dose unless specified by the anesthesiologist or surgeon.

### Medications

Pediatric patients take various drugs on a regular basis and the majority of these medications should be continued during the perioperative period. Examples of drugs that may need to be discontinued preoperatively are anticoagulants and NSAIDs, which are not commonly used in pediatric patients. Discontinuation of some medications preoperatively may predispose patients to adverse intra or postoperative incidents. Examples include the asthmatic patient taking bronchodilator medications and patients taking medications for attention deficit hyperactivity disorder. It is best to continue the medication as usual until the time of anesthesia, keeping the NPO guidelines in mind.

### Disease states

A careful preoperative examination of the child and the child's medical record enables the anesthesiologist to assess the general state of health and identify the presence of chronic, acute or intercurrent diseases, as well as recognize previous anesthetic problems. From this information a preoperative medical condition can be optimized for surgery. If there is sufficient time to do so and the surgery is not emergent, priority should be given to correcting the medical condition before proceeding with surgery.

The preoperative period is the time when a patient is assessed for appropriateness to undergo anesthesia and surgical procedure. It also is the time when measures are taken to optimize the patient's medical condition and it may involve physicians from different specialties. With a few exceptions, advising patients to continue taking their medication during the perioperative period contributes to the smoothness of the perioperative period.

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by  
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Mirkin, MD

Dr. Mirkin serves as medical director of pathology and the clinical laboratory at Dayton Children's. He is also professor of pathology and pediatrics at Wright State University School of Medicine.

## OBJECTIVES

After completing the article, the reader should be able to:

- recognize the main clinical and morphological features of this neoplasm and to evaluate some of the therapeutic strategies.

## CME QUESTION

6. Which is not true of olfactory neuroblastomas?
- a. Can metastasize.
  - b. Contain myosin and actin microfilaments.
  - c. Express neurohistochemical markers.
  - d. Contain abundant glycogen.
  - e. Demonstrate well-developed desmosomes.

## OLFACTORY NEUROBLASTOMA (ESTHESIONEUROBLASTOMA)

Olfactory neuroblastoma is a specialized form of neuroectodermal tumor arising from the nasal sensory epithelium. It is a slow growing tumor composed primarily of neuroblasts, typically arising in the vault of the nose overlying the cribriform plate<sup>1</sup>. Unilateral nasal obstruction, anosmia, epistaxis, excessive lacrimation, severe headaches and eye pain are important symptoms<sup>2</sup>. A reddish-gray polypoid mass that readily bleeds is the usual physical finding. Eleven years to 20 years is one of the peak ages. Differential diagnosis of other cellular lesions include sinonasal undifferentiated carcinomas, neuroendocrine carcinoma, sarcomas, Ewing tumor, melanoma, and extension of a pituitary adenoma. Neural markers are expressed and can be detected by immunohistochemistry. A chromosomal translocation, t(11;22)(q24;q12), has been found in most of these tumors suggesting a relationship with peripheral primitive neuroectodermal tumor (pPNET). Hirose et al.<sup>3</sup> have proposed that better prognosis is related to higher S-100 immunoreactivity and a lower Ki-67 labeling index of cellular proliferation. Olfactory neuroblastoma has been reported in a patient previously treated for acute leukemia<sup>4</sup>. Prognosis is favorable when total excision is possible.<sup>5,6</sup> Metastases to cervical lymph nodes and bone can occur. Current improvement in survival has depended upon craniofacial surgery combined with irradiation and chemotherapy, especially platinum-based regimens. One effective strategy for cure has been the use of preoperative chemoradiation followed by a multidisciplinary surgical team approach including neurosurgery, head and neck surgery and neuro-ophthalmology<sup>6</sup>.

In this case a 15-year-old girl experienced the onset of rhinorrhea 8 months before a mass in ethmoid sinus extending into surrounding tissue was discovered. She had been treated with antibiotics, antihistamines and corticosteroid nasal spray. The biopsy revealed a highly cellular neoplasm composed of small round cells with vascular invasion infiltrating the submucosa of the nasal epithelium (Figure 1). Immunostains were positive for neuron specific enolase (NSE) and MIC2 (CD99). Diagnosis was olfactory neuroblastoma.

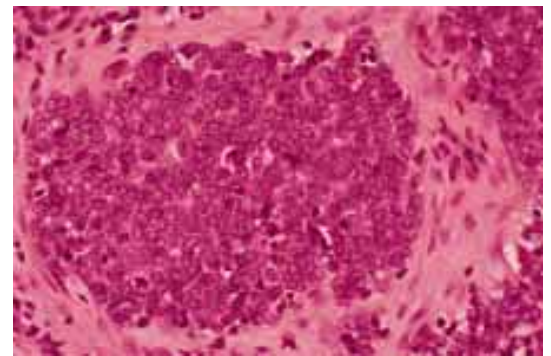


FIGURE 1

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# LITERACY AND CHILD HEALTH: IS THERE A LINK?



by  
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*Dr. Forbis is assistant professor of pediatrics at Wright State University. She came to Dayton Children's following her fellowship training in general academic pediatrics at the University of Rochester where she was named the 2001 Wm. L. Bradford Fellow.*

## OBJECTIVES

*After completing the article, the reader should be able to:*

- discuss the status of literacy in the U.S. and discuss its implications for health.
- explain minimum standards for written health education materials.

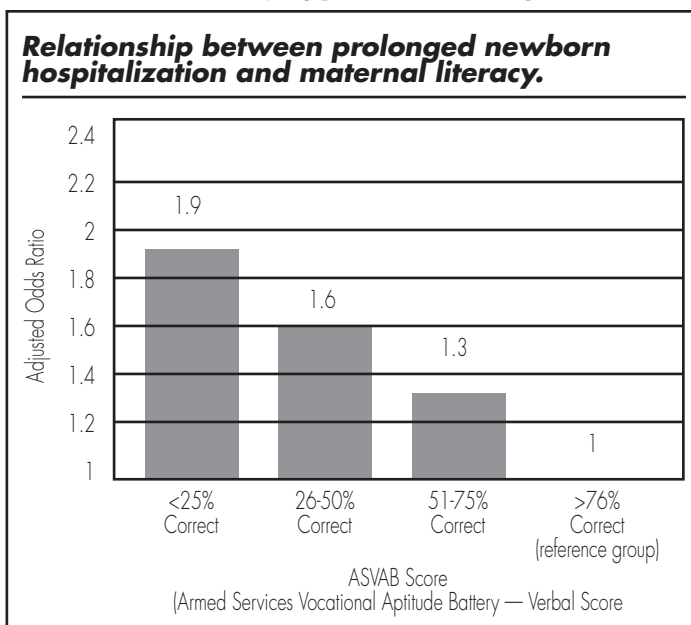
## The Problem

Adult illiteracy is a significant issue in the United States. According to the National Adult Literacy Survey, conducted in 1992, over 16 million Americans have significant literacy needs.<sup>1</sup> Approximately 19% of adults in Montgomery County are functionally illiterate. In addition, another 25% are only marginally literate. This translates into 196,286 adults at or below approximately a 7th grade reading level.<sup>2</sup> Another study in 1994 showed that less than 2% of 129 documents from pediatric sources (including AAP, CDC) were written at or below a 7th grade reading level.<sup>3</sup>

What is known about the interaction between literacy and health? Studies demonstrate that illiterate adults are more likely to be hospitalized than those with adequate and fluent skills.<sup>4</sup> In addition, illiterate adults with diabetes are more likely to have poor glycemic control (higher hemoglobin A1C levels) and to develop complications such as retinopathy.<sup>5</sup> Less is known about the impact of literacy on child health. Researchers have hypothesized a link between maternal literacy and child health outcomes. This is based on the observation that countries such as Costa Rica, Sri Lanka (prior to civil war) and the State of Kerala in India are known to have lower infant mortality rates and higher female literacy rates than would be expected based on economic indicators (when comparing to other countries with similar economic indices).<sup>6,7</sup> When analyzing data from 103 different countries, there is a correlation between rates of infant mortality and adult illiteracy.<sup>8</sup> This correlation was stronger than the correlation between infant mortality and per capita income in this study. The primary weakness of these studies is that they do not demonstrate a direct link between the two factors (illiteracy and child health outcomes).

## Current Research

My current research focuses on the relationship between literacy and child health as well as identifying potential mediating factors. One study<sup>9</sup> utilized



the National Longitudinal Survey of Youth, a nationally representative dataset, to explore the relationship between maternal literacy and important newborn

**FIGURE 1**

health outcomes: infant birth weight (BW) and length of hospitalization for newborn (LOS). In bivariate analyses, the mean BW increased as maternal literacy level increased. After adjusting for factors such as race, education, marital status, maternal age, passive smoke exposure, and birth order, the relationship persisted (although it was only significant for those with marginal literacy skills). Newborn length of hospitalization also was significantly related to maternal literacy (functionally illiterate versus fluent literacy) [Odds Ratio (OR)=1.5, 95% Confidence Interval (CI) 1.1-2.0]. After adjusting for the previously mentioned factors the relationship strengthened (Figure 1) [Adjusted OR=1.9, 95% CI 1.3-2.8]. Therefore, in this dataset an association exists between maternal literacy skills and important newborn health outcomes.

To further explore the factors that may link maternal literacy to child health, I conducted a pilot project in which 10 illiterate parents and 5 professionals who assist this population (social workers, nurse practitioners) were interviewed. The interviews were designed to explore barriers illiterate parents experience when accessing and providing health care for their children. Nine of 10 parents were documented to have read below a 5th grade level. Many illiteracy-related barriers to accessing health care were identified. A common theme identified was the use of confusing medical terminology by health care providers as well as in written materials (including forms, prescriptions and health education materials). One parent said, "Most of the forms I just filled out not reading." In relation to handouts: "They have all sorts of things in Spanish...but nothing for people who can't read." Another issue was the difficulty with navigation in finding medical facilities and specific offices within the medical complex: "When you get directions... you're told go down to the end of the hall... look for the doctor's name... I take my mother-in-law." One parent mentioned her inability to drive to new places: "Can't read the signs, gotta worry about driving 65, too much reading. I feel like I'm stupid." A sense of shame and embarrassment locked parents into a frustrating cycle of foregoing services to avoid exposing their illiteracy. "I would have gone without Medicaid rather than get help." This preliminary study is the first to document that parental illiteracy itself is an important factor with an adverse impact on disparities in access to health care for children.

### **Implications for clinical practice**

Two important ramifications exist. The first is the choice of written health education materials for use in clinical practice. Currently, health education experts suggest that documents that are used be written at a 5th grade reading level; although, consensus indicates 3rd grade should be the gold standard. In addition to the grade level, it is important to evaluate the suitability of the material.<sup>10</sup> Aspects of suitability include the print (at least 12 point, serif type), organization, writing style, appearance and appeal. Studies have shown that parents at all levels of literacy (including highly educated parents) prefer and retain more information from handouts that are simply written with only the most pertinent information.<sup>11</sup>

The second aspect is increasing awareness that adults with lower literacy skills require health care providers to use simple, everyday language while avoiding medical jargon when explaining issues to families. In addition, any medication or other instructions for families MUST avoid the use of jargon and abbreviations. Physicians should avoid assuming that all families in their practice read fluently and should give succinct, clear verbal instructions.

Literacy and child health:  
Is there a link?,  
continued...

Many poorly literate individuals rely on this. If a practitioner or staff member thinks that a patient/family member has poor reading skills, they should be sensitive to this issue. It may help to ask how this person learns best: through written materials or verbal instruction.

Poor literacy skills remain a serious issue for adults in the United States. Current research continues to highlight that there are health ramifications to this societal problem. Preliminary results demonstrate potential links between adult illiteracy and child health outcomes. Therefore, improving health care practices to better serve this population may improve the health of children.

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### CME QUESTIONS

7. What reading level is the current standard for written patient education materials?
  - a. 3rd grade level
  - b. 4th grade level
  - c. 5th grade level
  - d. 6th grade level
  - e. 7th grade level
8. What are the key aspects of a written document that increases the usability for patients and families?
  - a. Use of medical terminology
  - b. Inclusion of all information related to a topic
  - c. Inclusion of few main points
  - d. Fancy fonts
  - e. Abbreviations

# ANSWER SHEET

## PEDIATRIC FORUM, VOLUME 15, NUMBER 1

### Instructions

To obtain CME credit you must:

- Answer the questions from each article and complete this answer sheet.
- Complete the program evaluation located on reverse side.
- Return your completed answer sheet and program evaluation by mail or fax to:

Carol Apple, coordinator  
Department of Continuing Medical Education  
The Children's Medical Center  
One Children's Plaza  
Dayton, OH 45404-1815

Fax 937-641-5931

The answer sheet and program evaluation must be received by **November 30, 2004** for the credit to be awarded.

Upon completion of all requirements, Wright State University will issue a memorandum of credit to you for your permanent records.

Answers (Please circle the BEST answer.)

- |    |   |   |   |   |   |
|----|---|---|---|---|---|
| 1. | a | b | c | d | e |
| 2. | a | b | c | d | e |
| 3. | a | b | c | d | e |
| 4. | a | b | c | d | e |
| 5. | a | b | c | d | e |
| 6. | a | b | c | d | e |
| 7. | a | b | c | d | e |
| 8. | a | b | c | d | e |

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### Physician accreditation statement and credit designation

Accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education (CME) for physicians, Wright State University (WSU) takes responsibility for the content, quality and scientific integrity of this CME activity. This educational activity is designated for a maximum of two hours in category 1 credit toward the American Medical Association Physician's Recognition Award. Each physician should claim only those hours of credit he or she spent on the activity.

**THANK YOU!**

# PROGRAM EVALUATION

## PEDIATRIC FORUM, VOLUME 15, NUMBER 1

1. Did the material presented in this publication meet the mission to enhance health care delivery in our region through education based on the essentials and policies of the Accreditation Council for Continuing Medical Education? (Circle one response.)

Strongly agree    Agree    Neutral    Disagree    Strongly disagree

2. Did the material presented in this publication meet the educational objectives stated?

Met the stated objectives  
 Did not meet the stated objectives

3. Please rate the contents of this issue using the following scale:

1 = Poor, 2 = Fair, 3 = Good, 4 = Very good, 5 = Excellent

(Circle one response for each.)

	Poor					Excellent
Timely, up-to-date?	1	2	3	4	5	
Practical?	1	2	3	4	5	
Relevant to your practice?	1	2	3	4	5	

4. Please describe any changes you plan to make in your clinical practice based on the information presented in this program.

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5. Are there any other topics you would like to have addressed in this publication?

Yes  
 No

If yes, please describe: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

6. Any other comments/suggestions for future educational programs for health care providers? \_\_\_\_\_

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# NEWS AND UPDATES

## THE CHILDREN'S MEDICAL CENTER OF DAYTON



Cecilia Rivera-Amisola, MD,  
developmental pediatrics



Todd Maugans, MD,  
pediatric neurosurgeon

### **New specialists join Dayton Children's**

Since July 1, 2003, commitments from many pediatric specialists have been secured. Dayton Children's has three additional anesthesiologists, one neurosurgeon, a neurologist and one developmentalist, Cecilia Rivera-Amisola, MD. We expect two radiologists, one orthopedist, one cardiologist and a general surgeon. Recruitment efforts continue for neurology, urology, gastroenterology, pulmonology and radiology.

### **Neurosurgery expands**

Todd Maugans, MD, is our additional neurosurgeon. Dr. Maugans received his medical degree from Temple University School of Medicine and completed his clinical fellowship in pediatric neurosurgery at Children's Hospital, Los Angeles. He was a *Who's Who in Medicine* award winner in 2003 and brings an expert knowledge of sports related head injuries.

### **Central scheduling**

Central scheduling will be implemented at Dayton Children's. We recognize concerns about our scheduling system and are working toward a central scheduling system for clinic and diagnostic testing services. The conversion to central scheduling will begin in July 2004 and will be implemented in several phases. Details will be shared as soon as possible. **Please contact Lisa Coffey at 937-641-3374 or Beth Wolpert at 937-641-4609 with questions.**

### **Sleep disorders center**

Dayton Children's sleep disorders center is the region's only accredited pediatric sleep program and Michael E. Steffan, MD, has been named director of sleep medicine. Dr. Steffan is a pediatric pulmonologist board certified in sleep medicine. He evaluates all children seen through the sleep disorders clinic and interprets sleep studies. For your convenience, you may refer children to the sleep disorders clinic or you may order sleep studies directly. Fax referral forms for both services can be found on our website at [www.childrensdayton.org/Phys/faxReferral.htm](http://www.childrensdayton.org/Phys/faxReferral.htm). **Referrals also can be made by phone at 937-641-5004.**

### **Direct admit patients**

Direct admit patients must have orders upon or immediately after arrival. This can be accomplished by sending a set of admitting orders with the patient, faxing orders to the receiving units or providing orders by phone to nursing staff who call you once the child arrives. This avoids delays between arrival and evaluation. A generic admission order set is posted on our website. **Call Tom Murphy, MD, vice president for medical affairs, at 937-641-5871 with questions.**

### **Online asthma education module**

Dayton Children's is proud to offer an asthma education program for nurses, respiratory therapists and other health care professionals on our website. A link to the education module can be found on our home page at [www.childrensdayton.org](http://www.childrensdayton.org). Dayton Children's is seeking review and/or approval for continuing education credits for nursing contact hours. If you have questions about the program call Susan Brockman at 937-641-3620.

### **Documentation**

Documentation in a medical record at Dayton Children's must be completed in blue or black permanent ink. Health information management at Children's advises that it is not acceptable to use water-soluble or erasable ink to document in a medical record.

### **Construction update**

The construction of a new pediatric surgery and critical care complex continues. When complete Dayton Children's will have nine new surgical suites, 10 new recovery rooms, two new treatment rooms and 20 new private day surgery rooms for surgical services. The critical care complex will offer 15 private rooms and a family lounge with amenities. The entire project will be complete in 2005.



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medical  
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### From the North:

I-75 south, Exit 54C to Rt. 4; Rt. 4 north to Valley St./Troy St. exit. Go through first stop sign at bottom of exit ramp. Valley Street is the next stop sign. Turn left.

### From the South:

I-75 north, Exit 54C to Rt. 4; Rt. 4 north to the Valley St./Troy St. exit. Go through first stop sign at bottom of exit ramp. Valley Street is the next stop sign. Turn left.

Or I-675 north, Exit 13 to Rt. 35; west on Rt. 35 to the Keowee St. exit; right on Keowee to Valley St.; right on Valley St.

### From the East:

Rt. 35 west to the Keowee St. exit; right on Keowee St. to Valley St.; right on Valley St.

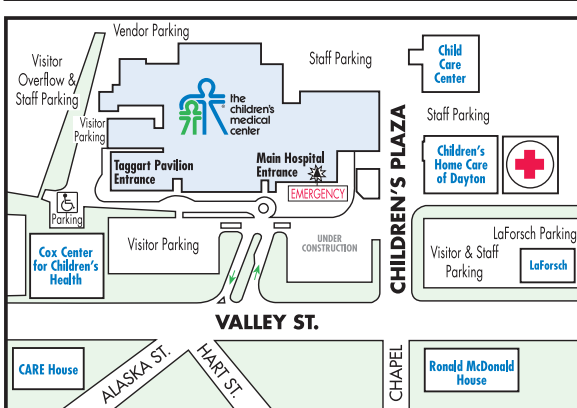
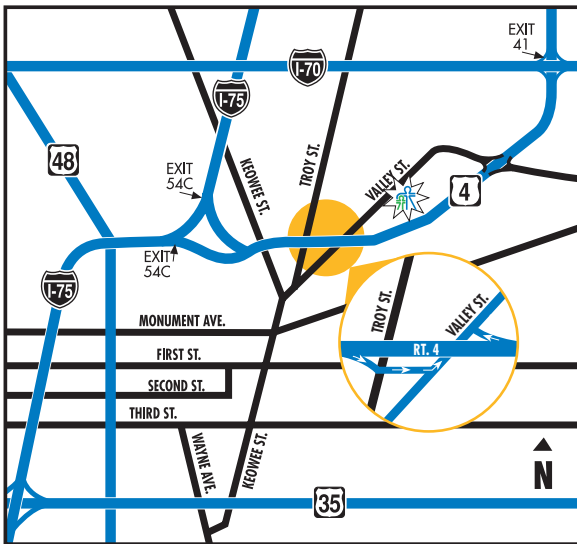
From I-70 Exit 41, take Rt. 4 south to Stanley Ave./Findlay St. exit. Turn right at bottom of exit, then left at the first light on Stanley Ave. This is Valley St.

### From the West:

Third St. east to Keowee St.; left on Keowee St. to Valley St.; right on Valley St.

### For your information

Paid parking is available in front of The Children's Medical Center. Parking is \$1 per day; in/out passes are available at the booth in the parking lot. Discounted books of 10 passes for \$5 are available in the admitting department.



Because all kids  
need special care.

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