Cyclic Vomiting Syndrome: What Does It Mean?
Tammy B. Green
*NASN School Nurse* 2009; 24; 52
DOI: 10.1177/1942602X08330859

The online version of this article can be found at:
http://nas.sagepub.com

Published by:
http://www.sagepublications.com

On behalf of:
National Association of School Nurses

Additional services and information for *NASN School Nurse* can be found at:

Email Alerts: http://nas.sagepub.com/cgi/alerts

Subscriptions: http://nas.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav
Cyclic Vomiting Syndrome

What Does It Mean?

Tammy B. Green, RN, BSN, Georgia

Keywords: PPSN; non-public school nurses; chronic disease management; cyclic vomiting syndrome (CVS)

When we enter into a new school year, we as school nurses are generally moving at a fast pace with paperwork, re-enrollment, and new students. We find excitement in this and begin the process of getting to know our new students and what it will take to keep them healthy. Each year, many school nurses experience an increasing number of students with acute and chronic disorders. Therefore, it is imperative for school nurses to actively participate in current continuing educational opportunities. After 10 years of working in a private and parochial school, I found myself caring for a student with cyclic vomiting syndrome (CVS). Amazed and perplexed by this syndrome, I quickly began gathering information about how to care for the student with this rare disorder. CVS is known as a disabling condition characterized by recurrent, distinct episodes of nausea, vomiting, and lethargy separated by asymptomatic intervals in the absence of a specific causal etiology, such as malrotation or a urea cycle defect. Although the duration and other characteristics of episodes vary among patients with cyclic vomiting syndrome, most suffer from recurrent episodes that are stereotypical in that individual. (Boles, Powers, & Adams, 2006, p. 182)

Therefore, from experience, I have learned that the following practices can help the private and parochial school nurses to work with students with special health needs. Prior to the beginning of school, a parent-teacher conference and health history should be established to institute a plan of care. The student should be an active participant in developing this plan of care. As a school advocate, determine your state laws and prepare a Section 504 plan with the parent or guardian of the student with special needs. The educational setting should include an accessible wastebasket and the student should have an exit strategy. The student may request to share the disease process with classmates and, therefore, should be encouraged and supported.

“The Phases of CVS include the Prodrome, Episode, and Recovery” (Fleisher, 2005). The Symptom-Free Interval Phase consists of the time when the student is symptom free. The school nurse should be familiar with the use and administration of the student’s prescribed medication by a physician. Daily medication should be given regularly as directed to prevent cyclic vomiting episodes. The school nurse should have a “CVS Episode Diary” (Cyclic Vomiting Syndrome Association, 2005). The CVS Episodic Diary includes documentation areas for time of episode, pain scale, intensity of nausea/vomiting, prescribed medication, and predisposing factors.

“The Prodrome Phase signals that an episode of nausea and vomiting is about to begin” (National Institute of Diabetes and Digestive and Kidney Diseases [NIDDK], 2004). During this phase, the student should request to see the nurse. It is essential for the school nurse to have a clinical understanding of the disease process in order to help minimize predisposing factors. The student may be able to verbalize specific triggers such as transitioning to a new environment, feeling overwhelmed with forgetting a class assignment, or the excitement of planning a birthday party. “Other reported triggers include: metabolic stress, inclement weather, physical exhaustion, menstruation, motion sickness, bacterial and viral infections” (NIDDK, 2004). It is important to provide the student a place to utilize calming strategies such as deep breathing or other techniques that have been found effective. Allow the student to rest and be apart from the possible event or emotional discomfort that may have created the predisposing factor. A bathroom should be accessible and known to the student. If unfamiliarity occurs, it can further acerbate the episode. Symptomatic exhaustion can cause the student to rest for a few minutes or fall soundly asleep for hours. This phase is often marked by abdominal pain. When prescribed medication is given early, the episode can be reduced or prevented.

During the Episode Phase, the student will display intense symptoms in a “conscious coma” in which “active clinical symptoms of paleness, headache, severe abdominal pain, recurring vomiting and/or diarrhea will most likely be uttered in a troublesome voice” (Fleisher, 2005). Prescribed PRN rectal medication may be administered at this time. The school nurse should maintain privacy for the student and should call the parent or guardian promptly. “If treatment is delayed, the patient’s extreme distress predisposes them to fear the next episode, and since anticipatory anxiety can cause nausea, their fear may cause more frequent attacks” (quoted directly from document as stated; Fleisher, 2005). Vomiting in those with CVS is explosive and the vomit often has a strong bile-like smell.
**Cyclic Vomiting Syndrome**

**What Every School Nurse Should Know**

Do you know a student who has unexplained, severe, stereotypic episodes of vomiting? Is the student well between episodes?

**What Is It?**

Cyclic vomiting syndrome (CVS) is an unexplained disorder of children and adults. The condition is characterized by recurrent, prolonged attacks of severe nausea, vomiting, and prostration with no apparent cause. In some, there is severe abdominal pain. Vomiting occurs at frequent intervals for hours or days (one to four days most commonly). The episodes tend to be similar to each other in symptoms and duration and are self-limited with return of normal health between episodes.

**Occurrence**

CVS begins at any age. It can persist for months, years, or decades. Episodes may recur several times a month or several times a year. Females are affected slightly more than males. The person may be prone to motion sickness and there is often a family history of migraine. There is a high likelihood that children’s episodes will be replaced by migraine headaches during adolescence.

**Symptoms**

Episodes may begin at any time, but often start during the early morning hours. There is relentless nausea with repeated bouts of vomiting or retching. The person is pale, listless, and resists talking. They often drool or spit and have extreme thirst. They may experience intense abdominal pain and less often headache, low-grade fever, and diarrhea. Prolonged vomiting may cause mild bleeding from irritation of the esophagus. One mother aptly described her child’s state during the episode as a “conscious coma.” The symptoms are frightening to the person and family and can be life threatening if delayed treatment leads to dehydration.

**Diagnosis**

CVS has been difficult to diagnose because it is infrequently recognized and is often misdiagnosed as stomach flu or food poisoning. There are, as yet, no blood tests, x-rays, or other specific procedures used to diagnose the disorder. The diagnosis is made by careful review of the patient’s history, physical examination, and lab studies to rule out other diseases that may cause vomiting similar to CVS.

**Triggers**

Although some patients know of nothing that triggers attacks, many identify specific circumstances that seem to bring on their episodes. Colds, flus, other infections, intense excitement (birthdays, holidays, and vacations), emotional stress, and menstrual periods are the most frequently reported triggers. Specific foods or anesthetics may also play a role.

**Treatment**

Treatment is generally supportive with much importance placed on early intervention. A dark, quiet environment is critical for sleep. Hospitalizations and intravenous fluid replacement may be necessary. Medication trials sometimes succeed in finding something to prevent, shorten, or abort episodes. It is important to work with a physician who does his/her best to understand CVS and is supportive.

**Long-Term Treatment**

The foundation of long-term management involves a responsive, collaborative, doctor-patient-family relationship which is sensitive to stresses caused by the illness and to triggers that may predispose an individual to attacks. Consistent, accessible physician care by a professional who understands and communicates the nature of CVS, regardless of specialty, is vital to the family’s well-being. Connections with the Cyclic Vomiting Syndrome Association, a family, and professional network does a great deal toward healing a family that has been in doubt and despair for years.

**What You Can Do**

Since so many children go undiagnosed for years, it is important to be aware of CVS and offer assistance to parents, faculty, and health care providers in your community who may feel the child is “faking” to get out of school or to gain attention, is anorexic, or bulimic. Accommodations may be needed at school in order to assist the child in keeping up with class work or participating in activities. Development of an Individualized Education Program (IEP) may be appropriate based on the needs of the individual child.

**Related Terms:** Abdominal migraine, bilious attacks, periodic syndrome, recurrent vomiting

Educational materials are available on our Web site, www.cvsaonline.org. Printed brochures/support material may be obtained by e-mailing Judy Babiasz, Program Director, CVSA, at cvsa@cvsaonline.org.

CVSA is a volunteer organization founded in 1993 to raise awareness of cyclic vomiting, abdominal migraine, and related disorders.
The school nurse should provide comfort measures by encouraging the student to rinse his or her mouth to neutralize the acids of vomiting. Bleeding of the esophagus can occur and should be monitored closely. Intense nausea can cause the student to want to spit, so a basin should be readily available. Recurrent vomiting can lead to dehydration and possibly hospitalization. Support the family by encouraging them to have standing orders on file at the local hospital or emergency facility.

The “Recovery Phase occurs after the nausea and vomiting has stopped. Healthy color, appetite, and energy return” (NIDDK, 2004). The student will usually feel exhausted and sleep for hours after a vomiting episode. Offering clear liquids initially, followed gradually by a full diet, is important, as the student may experience symptoms of hunger. “Children with CVS may miss 10-20 days of school per year due to their illness. The children are sick so often that they may fall behind in their educational studies should resume as soon as possible. If

As a school nurse, what new experience are you going through in your health care setting? Are you utilizing your nursing resources by researching professional journals and collaborating with other school nurses? The National Association of School Nurse’s Web site has resources available, including online continuing educational opportunities and a Private and Parochial School Nurse online electronic Discussion List (NASN, 2008). Will you be prepared and ready for healthy outcomes for your students with special health needs?

References


Tammy B. Green, RN, BSN
*Holy Innocents’ Episcopal School*
Atlanta, GA

Tammy has been a school nurse at Holy Innocents’ Episcopal School for 10 years, serving preschool through 12th-grade students. She is also the current PPSN co-chair.