

Hot Tips: Public Health Advisory #125 Date: 3/1/2022

Please copy and distribute to ALL physicians at your location.

***Cronobacter sakazakii* in infants: Powdered Infant Formula**

The FDA, along with CDC, state, and local partners are investigating four consumer complaints of infant illness related to products from Abbott Nutrition's Sturgis, Michigan facility received from 9/20/2021 to 1/11/2022. All cases are reported to have consumed powdered infant formula. These complaints include three reports of *Cronobacter sakazakii* (formerly *Enterobacter sakazakii*) infections and one report of *Salmonella Newport* infection in infants. All four cases related to these complaints were hospitalized and *Cronobacter* may have contributed to a death in one case.

On 2/17/2022, Abbott Nutrition initiated a voluntary recall of certain powdered infant formulas. These recalled products include Similac, Alimentum, and EleCare powdered infant formulas. Products made at the Sturgis facility can be found across the United States and were likely exported to other countries as well. Recalled products can be identified by the 7 to 9 digit code and expiration date on the bottom of the package. Product lot codes can be entered on the company's website to see if the product is part of the recall (www.similacrecall.com), or by calling 1-800-986-8540 and following the instructions provided.

Cronobacter multi-species complex is a group of gram-negative bacteria that exists in the environment and which can survive in very dry conditions. The natural habitat for *Cronobacter* is not known. It has been found in a variety of dry foods, including powdered infant formula, skimmed milk powder, herbal teas, and starches. *Cronobacter* illnesses are rare, but they are frequently lethal for infants and can cause serious illness among people with immunocompromising conditions and the elderly.

Cronobacter can cause several different kinds of infections, and symptoms vary with both the site of infection and the age of the patient. In infants, *Cronobacter* usually causes sepsis or severe meningitis. The first symptom of *Cronobacter* infection in infants is usually a fever, accompanied by poor feeding, excessive crying, or lethargy. Some infants may experience seizures. Those with meningitis may develop brain infarcts, hydrocephalus, or other serious complications that can cause long-term neurological complications. It is a classic cause of brain abscess in infants. The mortality rate for *Cronobacter* meningitis may be as high as 40%. Preterm and immunocompromised infants are at particular risk. *Cronobacter* can be detected in the blood or cerebrospinal fluid (CSF) of patients with meningitis or sepsis.

If an infant presents to you with symptoms of sepsis or meningitis, please consider *Cronobacter sakazakii*. Ask parents or caregivers if they are using powdered infant formulas to immediately stop using the product and to save it for laboratory evaluation. Notify the Communicable Diseases section of Public Health at 805-981-5201 of your suspicion. If the infant formula was received through WIC, report this to the Ventura County WIC Program (805-981-5251).

The CDC does not recommend testing infants for *Cronobacter* infection unless they have symptoms of meningitis or sepsis, even if they consumed recalled formula. This includes testing an infant's stool. Neither does it recommend testing formula for *Cronobacter* contamination unless an infant has a diagnosed *Cronobacter* infection.

Cronobacter sakazakii infection typically has been treated with ampicillin and gentamicin. Increasing resistance of *Cronobacter sakazakii* to antibiotics should prompt physicians to consider carbapenems or the newer cephalosporins in concert with a second agent such as an aminoglycoside. However, minimizing the use of broad-spectrum antibiotics and selecting antimicrobials on the basis of culture and sensitivity results are of paramount importance. Be on the lookout for other serious intracranial complications of this infection as well. Consult a pediatric infectious disease specialist.

This bulletin is intended to improve the public health in our county by keeping physicians and nurses informed of noteworthy diagnoses, disease trends, and other events of medical interest. Another goal of a public health department is to educate. We hope that you will use this information to increase your awareness. Please allow us to continue in our role of speaking to the press so that we may maximize the educational message to the benefit of all citizens of Ventura County.