

Introduction

The Alaska Division of Public Health, the Arctic Investigations Program of the U.S. Centers for Disease Control and Prevention, and the Alaska Area Native Health Service of the U.S. Indian Health Service first produced this monograph in 1993 to give Alaska health care providers a comprehensive overview of botulism in Alaska. Alaska Division of Public Health staff updated the original monograph in 1998, 2005, and now in 2011.

Botulism can result from several different circumstances, the most common of which in Alaska is from consumption of preformed toxin in food. Cases of foodborne botulism in the United States have been associated with consumption of home-canned products, rarely with consumption of commercially available products, and in Alaska, with consumption of Alaska Native traditional foods.

Other potential routes of exposure to botulinum toxin include: through wounds, as previously documented among injection drug users, or the as-yet undocumented exposure to toxin as a result of a bioterrorism attack. Although all routes of intoxication will be mentioned briefly, this monograph will focus on the epidemiology of Alaska foodborne botulism cases, which have all occurred among Alaska Natives who had a history of consuming traditional foods.

Information was derived from the references listed on pages 24 to 25, and from surveillance data collected by the Alaska Division of Public Health.

The 2011 update includes the following changes:

1. Epidemiologic data for foodborne botulism cases in Alaska from 2005-10 (see pages 6–10).
2. Changes to the protocol for administration of botulism antitoxin (see page 15–16).
3. Information about BabyBIG® botulism immune globulin available from the California Infant Botulism Treatment and Prevention Program, and its use for two suspected Alaska cases (see pages 21–22).

Botulism is relatively uncommon and health care providers unfamiliar with its epidemiology and presentation in Alaska may not consider botulism in their differential diagnosis. It is critical that health care providers in Alaska are able to accurately diagnose botulism for several important reasons:

1. Botulism is a life-threatening disease.
2. Botulism is a public health emergency. The occurrence of a single case implies that other persons may also be at risk.
3. Early administration of antitoxin appears to be beneficial, especially with type E botulism, the most common type in Alaska.
4. Early diagnosis which leads to appropriate medical observation and access to mechanical ventilation, if appropriate, appears to be beneficial.
5. Current laboratory methods for detecting botulinum toxin in clinical specimens or food samples require at least 5 to 7 days to perform. Therefore, early intervention and epidemiologic investigation depends upon accurate and rapid clinical assessment.

After reading this monograph, a health care provider should have an understanding of the following:

1. The need for immediate reporting of suspect cases to the Alaska Division of Public Health, Section of Epidemiology.
2. The signs and symptoms of botulism.
3. The importance of rapid diagnosis, evaluation, and treatment.
4. The types of foods that have been associated with botulism in Alaska.