

BERIBERI OUTBREAK AMONG COMMERCIAL FISHERMEN, THAILAND 2005

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Abstract. In April 2005, The Thai Bureau of Epidemiology investigated a reported outbreak of beriberi among commercial fishermen in Maha Chai, a port city in the Gulf of Thailand. The objective of this study was to verify the diagnosis of beriberi in affected individuals, describe the possible outbreak, ascertain risk factors, and provide prevention and control measures. We interviewed ill persons and treating doctors, and reviewed medical records to conduct a descriptive study. A probable case was defined as a crewmember of Ship A with one of the following: leg edema scrotal edema or ascites, dyspnea, chest discomfort, chest pain, extremity numbness, or extremity weakness. Confirmed cases were those with clinical criteria and laboratory findings consistent with thiamine deficiency. The outbreak started in early March, 2005 and continued until March 31, 2005. Ship A had 28 crewmembers (four Thai, 24 Myanmar). Overall, there were 15 probable cases (attack rate 53.6%, with three confirmed and 12 probable cases). Only three were tested for Vitamin B1 deficiency. All cases were male, with a median age of 28 years (range 20-45). Fourteen of the 15 cases were Myanmar and one Thai. Due to limited resources, the crew ate only seafood and polished rice for almost two months prior to symptoms. Symptoms included edema (60%), chest discomfort (54%), and dyspnea (27%). Two persons died while on board the ship (case fatality 13%). The total time at sea for Ship A was 18 months, including a five-month delay in docking due to licensing problems.