

# The epidemiology of listeriosis in Australia 1998–2000—a rare disease with high public health importance.

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## Introduction

Listeriosis is a severe bacterial disease caused by consumption of contaminated food. Case fatality rates may be as high as 30%, and may cause death in neonates or foetuses. There are little published data on listeriosis in Australia.

## Methods

To review the epidemiology of notified cases of listeriosis, we collected data from State and Territory health departments for the years 1998–2000. We reviewed data on Australian clusters of listeriosis for the years 1995–2000, and Victorian data on materno-foetal infections between 1991–2001.

## Results

Australian health departments supplied data on 184 patients with listeriosis. Forty three (23%) notifications related to maternal-foetal pairs, arising from 37 distinct infections. The mean rate of listeriosis in Australia for the three years was  $3.0/10^6$  cases, and the mean rate for non-pregnancy related infections was  $2.4/10^6$  cases. There was a mean of 4.6 materno-foetal infections per 100,000 births each year. The case fatality rate was 35% for materno-foetal infections, and 20% for non-pregnancy related infections. Health Departments investigated five clusters of listeriosis, due to cooked chicken products (2), sandwiches/meat salads (1), and fruit salad (1). Three of these outbreaks occurred in healthcare settings. In Victoria the number of materno-foetal cases in 1997–2001 decreased 50% when compared to 1991–1996.

## Discussion & Conclusion:

National case numbers are consistent with those observed in other countries, as are case fatality rates. Despite few outbreaks occurring, epidemics can easily cross jurisdictional borders. In this review, we identified that hospitals are at high risk for outbreaks and that the incidence of listeriosis declined over the last ten years. We identified problems with routinely collected data, including: missing information, and variation in recording practices. To improve surveillance of listeriosis we recommend: rapid sharing of typing and epidemiological information, standardised reporting practices, collecting enhanced data, and conducting a national case control study for risk factors.