

Guide for healthcare facilities

Management of *Listeria monocytogenes* (Lm)

This fact sheet is developed to inform *Listeria monocytogenes* management strategies in healthcare facilities, such as hospitals and aged care services, and create awareness among food service staff members.

Listeria monocytogenes (Lm) as a foodborne pathogen

Lm is an intracellular zoonotic foodborne bacteria that causes listeriosis in humans. Lm is now recognised world-wide as a foodborne pathogen and its presence in food can be a serious health risk to the community. Humans are 'accidental acquirers' of listeriosis and infection almost always come from consuming contaminated food. One of the key characteristics of Lm is that it continues to grow slowly at refrigerated temperatures (5 °C and lower) if present in stored food. The approximate infective dose of Lm is estimated to be 10 to 100 million colony forming units (cfu) in healthy hosts, and only 0.1 to 10 million cfu in individuals at high risk of infection.

Listeriosis and vulnerable populations

People most at risk of infection from Lm are those with weakened immune systems; those at risk include the elderly, pregnant women and their unborn babies, organ transplant patients, chronic disease patients (cancer, HIV/AIDS, diabetes or dialysis) and anyone taking steroid medication that suppresses the immune system. In vulnerable people listeriosis can lead to septicaemia (blood infection) and meningitis (infection and inflammation of membranes surrounding brain) and can be serious and fatal. Overall, the mortality rate of listeriosis ranges from 20 to 30 per cent of illness cases.

High-risk foods

Lm can be found in a wide variety of food products. Ready-to-eat (RTE) foods, pre-packaged fruit and vegetables, unpasteurised fresh fruit and vegetable drinks, deli meats, unpasteurised dairy products, soft serve ice cream, soft cheeses (such as brie, camembert, ricotta, blue and feta), dips, salad dressings, and raw vegetable garnishes are considered high-risk foods in terms of Lm prevalence. Precautions must be taken when serving such foods to vulnerable people as they are at higher risk of acquiring an Lm infection.

Listeria in healthcare facilities

Healthcare facilities have a high proportion of patients considered vulnerable to Lm infection. Early recognition of contamination of food and implementation of control measures are key to reducing the effects of food associated outbreaks for people in healthcare facilities. Routine testing of food and environmental samples for Lm detection and implementing control strategies are important tools to mitigate the risk of Lm.

Microbiological testing of food and environmental samples

For facilities who prepare food for vulnerable people, it is good practice to develop an Lm monitoring program and healthcare facilities are strongly encouraged to incorporate this program into their food safety program (see over). Such a program should have a testing plan and a response plan to initiate corrective action. Microbiological testing of Lm should include environment, equipment, food contact surfaces and food product samples.

Standard 1.6.1 of the Food Standards Australia New Zealand Food Standard Code (the Code) sets limits for Lm detection in food products. The limit requires 'not detected in 25 g' (sampling plan n=5, c=0) for RTE food in which growth can occur. For RTE food in which growth will not occur, a limit of 100 cfu per gram is allowed (sampling plan n=5, c=0).

Listeria management strategies in healthcare facilities

Prevention of contamination

Lm contamination of food can be prevented by:

1. ensuring food handlers maintain good hygiene practices
2. keeping food covered
3. maintaining cleaned, sanitised environments (including kitchen, storage areas and dining areas)
4. having good pest control procedures in place.

Food safety program

An effective food safety program must be implemented in food service facilities to manage food safety hazards including Lm. Compliance with the Victorian *Food Act 1984* (section 19D) and Standard 3.2.2 of the Code will assist in the management of Lm through the use of good hygiene and food handling practices, processing and storage control measures, and food safety/hygiene training. The food safety program should also clearly define responsibilities of each individual involved in the supply chain and corrective actions if contamination occurs.

Regulatory controls and Listeria contamination

Standard 3.2.2 *Food Safety Practices and General Requirements* sets out specific food handling controls related to the receipt, storage, processing, display, packaging, transportation, disposal and recall of food. Food service facilities within healthcare settings must have procedures in place to retrieve food products from the food supply chain in accordance with the Code Standard 3.2.2 Clause 11 *Food disposal* as returned food, recalled food, or food that is, or may not be, safe or suitable.

In Victoria, it is a requirement under the Public Health and Wellbeing Regulations 2009 that the Department of Health and Human is notified when a number of microorganisms, including Lm, are discerned in food. Testing laboratories are required to notify the department immediately when there is a positive detection, which must be followed up with a written notification within five days.

Staff training and education

It is important to provide appropriate training and education to staff members who are involved in production, handling and serving food in healthcare settings. Training programs should cover topics such as the nature of Lm and its infections, growth and spread in the environment, cross-contamination, high risk foods, control measures for reducing the risk of listeriosis, and testing and management of Lm in food service facility.

Reminder: Information provided in this sheet is neither a comprehensive nor a definitive reference on the prevention of Lm contamination in every circumstance. Therefore, each healthcare facility is responsible for ensuring that the measures to manage Lm in their settings are effective, appropriate and adequate.

Additional resources:

Additional resources are available on the Food Safety Unit website, including 'Managing the risk of Listeria monocytogenes in health services – workshop summary, August 2016', 'Listeria prevention for class 1 health services webinar video, August 2016' and 'Guide for EHOs and food businesses: Clean-up guidance for *Listeria*

monocytogenes detection in food'. These resources and a copy of this guide can be found at:
<https://www2.health.vic.gov.au/public-health/food-safety/publications-guides-resources>.

To receive this publication in an accessible format phone 1300 364 352, using the National Relay Service 13 36 77 if required, or email <foodsafety@dhhs.vic.gov.au>

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