# Chapter 23 / Capítulo 23

*Screening, Diagnosis, and Prevention in Clinical Practice: Evidence from Argentine and Latin American Medicine (English Version)*
**ISBN:** 978-9915-704-33-3
**DOI:** 10.62486/978-9915-704-33-3.Ch23
**Pages:** 336-353

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# Listeriosis in pregnancy

## Listeriosis en el embarazo

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**ABSTRACT**

**Objective:** to analyze Listeria monocytogenes infection in pregnant women, focusing on complications, risk factors, and prevention.
**Design:** literature review based on a narrative synthesis. Data sources: Scopus, Science Direct, and PubMed. Data selection: The documents were selected and analyzed through a critical literature review, considering inclusion and exclusion criteria.
**Results:** a corpus of 24 articles was analyzed, including 9 narrative reviews, 1 systematic review, 6 retrospective studies, 3 quantitative studies, 2 descriptive studies, and 3 cross-sectional studies. The studied population focused exclusively on pregnant women. The studies were conducted in various countries: 4 in the United States, 2 in Canada, 3 in China, 1 in France, 2 in the United Kingdom, 1 in Italy, 1 in Iran, 1 in South Africa, 1 in Lithuania, 1 in Uganda, 1 in Portugal, 1 in the United Arab Emirates, 1 in Argentina, and 4 in Spain, each providing a unique perspective to the research. Complications were characterized in 13 articles reporting spontaneous abortions, preterm births, sepsis, and neonatal mortality, highlighting the risk among pregnant women with anemia, HIV, or immunodeficiency. Seven studies identified risk factors such as bacterial resistance, consumption of contaminated foods, and inadequate food hygiene practices. Finally, four articles addressed prevention, emphasizing the importance of health education, safe food handling, and epidemiological surveillance to reduce cases of listeriosis during pregnancy. Regarding socioeconomic level, 13 articles came from low-income countries, 9 from middle-income countries, and 2 did not specify their level.
**Conclusion:** perinatal listeriosis, caused by Listeria monocytogenes, leads to abortions, neonatal death, and serious pregnancy complications. It mainly affects pregnant and immunocompromised women, responding to specific antibiotics. Its persistence is associated with bacterial resistance and contaminated food consumption. Prevention depends on adequate food education and proper hygiene practices in food handling and cooking.

**Keywords:** Listeriosis; Pregnant Women; Complications; Risk Factor; Prevention.

**RESUMEN**

**Objetivo:** analizar la infección por Listeria monocytogenes en gestantes, basado en complicaciones, factores de riesgo y prevención.

**Diseño:** revisión de la literatura basado en una síntesis narrativa. *Fuentes de datos*: Scopus, Science direct, PubMed. Selección de datos: Los documentos fueron seleccionados y analizados bajo una revisión crítica de literatura tomando en cuenta los criterios de inclusión y de exclusión. **Resultados:** se analizó un corpus de 24 artículos de los cuales, 9 revisión narrativa, 1 revisión sistemática, 6 retrospectivo, 3 cuantitativo, 2 descriptivo y 3 estudio transversal. La población estudiada solo contiene una categoría: mujeres embarazas. Los estudios se realizaron en diversos países: 4 de EE. UU, 2 en Canadá, 3 en China, 1 en Francia, 2 en Reino Unido, 1 en Italia, 1 en Irán, 1 en Sudáfrica, 1 en Lituania, 1 en Uganda, 1 en Portugal, 1 en Emiratos Árabes, 1 en Argentina, 4 en España cada uno aportó una perspectiva única a la investigación. Las complicaciones se caracterizaron por 13 artículos que reportaron abortos espontáneos, partos prematuros, sepsis y mortalidad neonatal, destacando el riesgo en gestantes con anemia, VIH e inmunodepresión. Los factores de riesgo fueron descritos en 7 estudios que identificaron la influencia de la resistencia bacteriana, el consumo de alimentos contaminados y las prácticas inadecuadas de higiene alimentaria. Finalmente, la prevención fue abordada por 4 artículos que resaltaron la importancia de la educación sanitaria, la manipulación segura de los alimentos y la vigilancia epidemiológica para reducir los casos de listeriosis en el embarazo. En cuanto al nivel socioeconómico, 13 artículos procedieron de países de bajos ingresos, 9 de ingresos medios y 2 no especificaron su nivel. **Conclusión:** la listeriosis perinatal, causada por *Listeria monocytogenes*, genera abortos, muerte neonatal y graves complicaciones en el embarazo. Afecta principalmente a gestantes e inmunodeprimidos, respondiendo a antibióticos específicos. Su persistencia se asocia a resistencia y alimentos contaminados. La prevención depende de una adecuada educación alimentaria y de buenas prácticas higiénicas en la manipulación y cocción de los alimentos.

**Palabras clave:** Listeriosis; Embarazadas; Complicaciones; Factor de Riesgo; Prevención.

## INTRODUCTION

Listeriosis has a high mortality rate and poses a threat to pregnant women (Awofisayo et al., 2015), causing serious consequences for the fetus or newborn (Vázquez et al., 2025). However, the specific morbidities have not yet been detailed (Craig et al., 2022). However, pregnant women are 17 times more at risk of invasive listeriosis and miscarriage (Ke et al., 2022), as well as spontaneous abortion, fetal death, premature birth, sepsis or neonatal meningitis (Awofisayo et al., 2015), ARDS and mechanical ventilation, and cesarean section. It is associated with comorbidities with higher rates of HIV, pulmonary hypertension, gestational diabetes, and severe preeclampsia/eclampsia.

The attributable risk of infection on overall maternal morbidity remains incompletely described (Craig et al., 2022) due to a lack of data on epidemiology and limited information on its incidence and social and clinical impact (Vázquez et al., 2025), which conditions the disease (Awofisayo et al., 2015). Likewise, the lack of surveillance, diagnosis, and specific treatments leaves the recent trend of the disease uncertain (Lu et al., 2021).

Some studies highlight that listeriosis during pregnancy represents a high-risk infection due to its ability to cross the placental barrier and cause complications in both the mother and the fetus, demonstrating its persistence in hospital and food environments (Lencho et al., 2021). Similarly, it is reported that infected pregnant women often present with fever, general malaise, and abdominal pain, nonspecific symptoms that hinder early diagnosis and allow vertical transmission (Welekidan et al., 2019). while its relationship with spontaneous

abortions, premature births, and neonatal deaths has been confirmed, evidencing its negative impact on maternal and perinatal health (Sevilla et al., 2023).

Likewise, maternal bacteremia caused by L. monocytogenes is associated with adverse outcomes, including placental inflammation and fetal tissue damage, reinforcing the need for timely treatment and clinical follow-up during pregnancy (Gao et al., 2024). In addition, the infection is highly severe in women with immune disorders, highlighting the importance of immediate medical intervention and the appropriate use of antibiotics to improve maternal-fetal prognosis (Mateus et al., 2013), while the most recent research highlights the importance of strengthening epidemiological surveillance, ensuring specialized obstetric care, and promoting health education to reduce complications and prevent new cases (Khsim et al., 2022).

The importance of the study lies in the fact that listeriosis is a foodborne infectious disease with clinical and epidemiological implications, mainly affecting vulnerable populations such as pregnant women, newborns, the elderly, and immunocompromised individuals. Addressing this disease is essential, as understanding its impact on maternal and perinatal health allows us to identify its relationship with increased morbidity and obstetric complications (Craig et al., 2022), as well as to strengthen prevention and health surveillance strategies given its epidemiological relevance in pregnancy (Vázquez et al., 2025).

In addition, the analysis of clinical and epidemiological factors linked to infection in pregnant women contributes to optimizing early detection and therapeutic management (Awofisayo et al., 2015), with continuous epidemiological surveillance and genetic characterization of cases also being a priority to prevent outbreaks and strengthen health control policies (Lu et al., 2021).

Therefore, the objective of this study is to analyze Listeria monocytogenes infection in pregnant women, based on complications, risk factors, and prevention.

## METHODO

A comprehensive narrative review of listeriosis in pregnant women was conducted to explore the existing scientific literature, drawing on the following databases: Scopus, PubMed, and ScienceDirect. To refine the search, the following terms were used: (Listeriosis) AND (pregnancy), (Listeriosis) AND (pregnancy) AND (neonate), (Listeriosis) AND (monocytogenes) AND (neonate). In addition, the Boolean operator AND was used to refine and broaden the search scope, and the search period was extended from August to November 2025, considering articles published between 2005 and 2025 for review. This search covered texts written in any language, specifically excluding interviews, letters to the editor, theses, and books, due to their less empirical nature or specific focus.

Within the aforementioned databases, a total of 8 237 articles were initially identified using the designed search string. Of these, 4,942 articles corresponded to the Scopus database, 2 059 articles to PubMed, and 1 236 to Science Direct. Next, 2 418 duplicate articles were removed. Subsequently, 5,450 articles that did not align with the study objective and another 345 that did not meet the established inclusion criteria were excluded. As a result of this filtering and selection process, a final corpus of 24 articles relevant to the review was obtained.

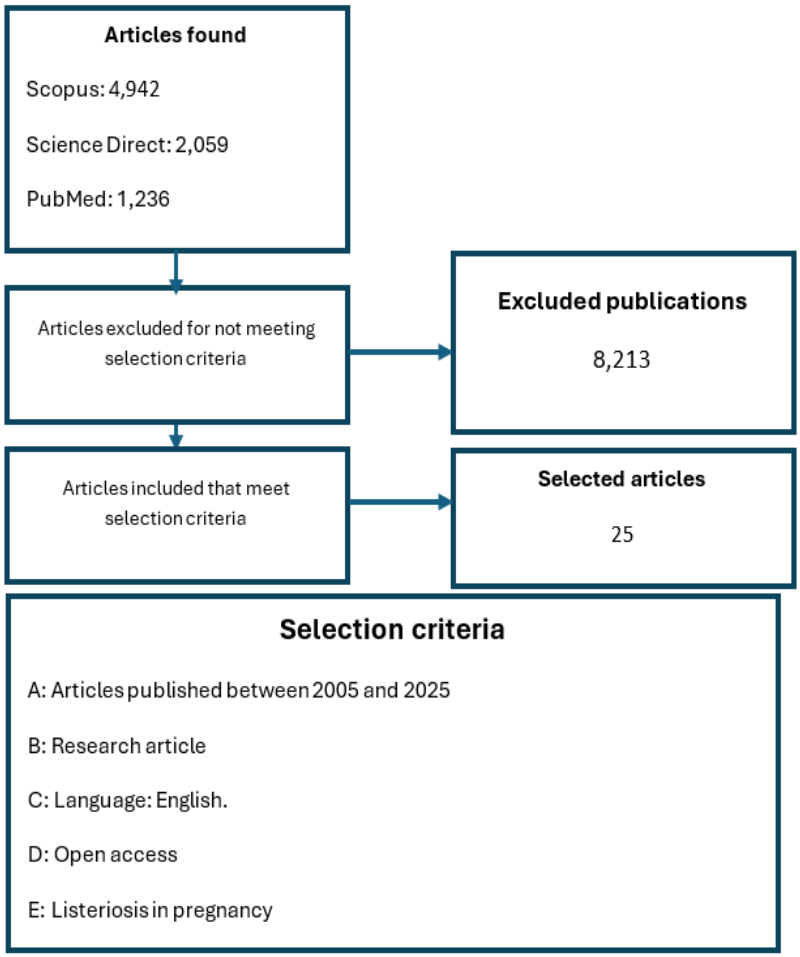


**Figure 1.** Flow diagram

## RESULTS AND DISCUSSION

The purpose of developing these findings is to analyze Listeria monocytogenes infection in pregnant women, focusing on complications, risk factors, and prevention, and to compare them with other studies.

### Complications

Perinatal infection with listeriosis leads to miscarriages, cesarean sections, vaginal deliveries, admissions to intensive care, and neonatal death (Gutiérrez-Barquín, 2007; Vázquez et al., 2025). It also causes early illness in live births, with hospitalization and some deaths (Jackson et al., 2010). In addition, it causes gastroenteritis, focal infections such as peritonitis, cholecystitis, respiratory infections, and vascular prosthesis infections, with high mortality (Corral et al., 2024), as well as in various regions of the placenta, evidencing bacterial transfer from the fetal to the maternal side (McLeod et al., 2025).

**Table 1.** Results table

| Study title | Methodology | Objective/sample | Main results |
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| Listeriosis and pregnancy (Murillo-Zaldívar, 2021) | Narrative review | Objective: To describe the incidence, etiology, transmission, and prevention of listeriosis in pregnancy. Samples: 8 documents (3 official, 2 reviews, 1 case, 2 guidelines). | It has a high prevalence and high mortality rates in pregnant women, depending on the type of food—prevention: hygiene and avoiding risky foods. |
| Listeriosis during pregnancy: a retrospective cohort study (Ke et al., 2022) | Descriptive review | Objective: To describe the clinical characteristics and outcomes of listeriosis in pregnancy to improve its management. Samples: 14 cases (12 mothers and 14 newborns). | Pregnancy-associated listeriosis in neonatal cases is identified by low birth weight and gestational age. |
| Pregnancy-associated listeriosis in England and Wales (Awofisayo et al., 2015) | Retrospective review | Objective: to identify social and clinical risk factors that influence the prognosis of listeriosis during pregnancy. Samples: 3 088 cases of listeriosis reported in England and Wales, of which 462 (15 %) were related to pregnancy | Maternal symptoms in the first and second trimesters were associated with an increased risk of stillbirth or spontaneous abortion. |
| Listeria Monocytogenes Infection during Monochorionic Twin Pregnancy: Case--Report and Review of the Literature (Roero et al., 2024) | Narrative review | Objective: To describe a rare case of Listeria monocytogenes (LM) infection in a monochorionic diamniotic twin pregnancy, including diagnosis, treatment, and outcome; to review the literature on listeriosis in pregnancy. Samples: 67 studies included in the review, published between 2000 and 2021; a clinical case of a 33-year-old woman at 30 weeks of gestation, including the Monalisa cohort study. | Listeriosis in pregnancy was associated with a risk of premature birth and neonatal sepsis. |
| Listeria in Pregnancy—The Forgotten Culprit (Kraus et al., 2024) | Narrative review | Objective: To provide a comprehensive overview of listeriosis, covering its diagnosis and treatment, while delving into the mechanisms of vertical transmission and the clinical manifestations of neonatal listeriosis. | Listeriosis in pregnancy increased the risk of miscarriage or stillbirth; timely treatment improved the neonatal prognosis. |
| Perinatal Listeria monocytogenes infection during pregnancy and childbirth (Gutiérrez-Barquín, 2007) | Retrospective review | Objective: To determine the prevalence of by Listeria monocytogenes (LM) in our center and to describe the effects on pregnancy and childbirth. Samples: 21 cases of perinatal infection by *Listeria monocytogenes*. | Perinatal infection resulted in abortions, cesarean sections, vaginal deliveries, intensive care admissions, and one neonatal death. |

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| Listeriosis associated with pregnancy (Jackson et al., 2010) | Quantitative review | Objective: To describe the illnesses and food exposures associated with listeriosis during pregnancy, we analyzed surveillance data from the Listeria Initiative from 2004 to 2007.<br>Sample: 758 cases of listeriosis reported in the U.S. between 2004 and 2007, of which 128 (16,9 %) were associated with pregnancy | *Listeria* infection caused fetal loss, neonatal death, and early illness in live births, with hospitalization and some deaths. |
| Non-perinatal listeriosis: Changes in frequency, clinical spectrum, and prognostic factors (Corral et al., 2024) | Retrospective review | Objective: To study changes in its incidence, clinical forms of presentation, and possible factors associated with mortality.<br>Sample: 194 cases of listeriosis were analyzed. | Listeriosis caused gastroenteritis, focal infections such as peritonitis, cholecystitis, respiratory infections, and vascular prosthesis infections, with high mortality. |
| Moderate Decrease in the Rate of Newborn Listeriosis Cases in California, 2001 to 2020 (Croker, 2025) | Quantitative review | Objective: To compare trends in (perinatal) and neonatal listeriosis among pregnant women and identify target populations for intervention<br>Sample: There were 165 perinatal cases and 71 neonatal cases identified. | Perinatal listeriosis was highly severe, and its reduction in neonates demonstrates the positive impact of prevention in pregnant women. |
| Clinical Features and Antibiotic Treatment of Neonatal Listeriosis: A Hospital-Based Study (Zhang et al., 2023) | Retrospective review | Objective: to determine the clinical characteristics, laboratory findings, antibiotic treatment, and outcomes of neonatal listeriosis.<br>Sample: 11 neonates with a confirmed diagnosis of neonatal listeriosis. | Neonatal listeriosis in premature infants with early sepsis presented with respiratory distress, fever, and rash; mortality was associated with lower Apgar scores and higher CRP levels. |
| A method for ex vivo human placental Listeria monocytogenes infections (McLeod et al., 2025) | Descriptive review | Objective: To develop an ex vivo human placenta model to study *Listeria monocytogenes* infections in a controlled and replicable manner.<br>Sample: Human placentas donated by volunteers who gave birth by scheduled cesarean section at the Royal Columbian Hospital (New Westminster, Canada). | The pregnant women presented infection in various regions of the placenta, evidencing bacterial transfer from the fetal to the maternal side. |
| Prevalence of Listeria monocytogenes infection in women with spontaneous abortion, normal delivery, fertile and infertile (Ahmadi et al., 2022) | Cross-sectional review | Objective: To examine the frequency of *Listeria monocytogenes* infection in different groups of women: those with spontaneous abortion, normal delivery, fertile, and infertile.<br>Sample: 417 women between the ages of 19 and 40: 109 with spontaneous abortion, 109 with normal delivery, 100 fertile, and 99 infertile. Vaginal samples were collected and analyzed by PCR. | It was detected in women with spontaneous abortion, normal delivery, or fertile women, without relation to complications; food education is highlighted. |

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| Presentation and outcomes of Listeria-affected pregnancies in Johannesburg tertiary hospitals: A 2-year review<br>(Iiyambo et al., 2023) | Retrospective review | Objective: To describe maternal risk factors, presentations, peripartum findings, and pregnancy outcomes in women infected with Listeria monocytogenes.<br>Samples: Records of 51 pregnant women infected with listeriosis who gave birth between February 1, 2016, and February 28, 2018, at three academic hospitals. | Listeriosis was associated with preterm delivery, fetal distress, cesarean sections, and low Apgar scores, and was more common in women with anemia, HIV, or maternal infections. |
| Neonatal Listeriosis Presentation and Outcome: A Prospective Study of 189 Cases<br>(Charlier et al., 2020) | Retrospective review | Objective: To implement a nationwide prospective cohort and analyze the characteristics of neonatal listeriosis.<br>Sample: 189 infants. | Neonatal listeriosis presented early and late with meningitis; maternal treatment before delivery reduced its severity. |
| Clinical features and antibiotic treatment of early-onset neonatal listeriosis<br>(Wu et al., 2022) | Narrative review | Objective: To analyze the clinical characteristics, efficacy of antibiotic treatment, and progression of neonatal listeriosis.<br>Sample: Nine patients , including 11 premature infants and three full-term infants. | Mothers with infection and newborns with fever, rash, seizures, and neurological involvement; most recovered with antibiotics. |
| Antibiotic susceptibility and risk factors for listeriosis in women with spontaneous abortion in Ugandan tertiary hospitals: a cross-sectional study<br>(Ssentongo et al., 2025) | Cross-sectional review | Objective: To determine the prevalence, antibiotic susceptibility, and associated risk factors for listeriosis among women admitted with spontaneous abortion in tertiary hospitals in Uganda.<br>Sample: 384 women with spontaneous abortion | Listeriosis in pregnancy associated with spontaneous abortions, antibiotic resistance, and maternal and dietary risk factors. |
| Extraintestinal infection of Listeria monocytogenes and susceptibility to spontaneous abortion during pregnancy: A systematic review and meta-analysis<br>(Yousefi et al., 2021) | Systematic review | Objective: To analyze the relationship between L. monocytogenes and the risk of miscarriage during pregnancy.<br>Sample: 4 059 pregnant women with spontaneous abortion due to L. | The frequency of *Listeria monocytogenes* increased in pregnant women with spontaneous abortion, with a significant association. |
| Listeriosis and pregnancy<br>(Martínez et al., 2016) | Narrative review | Objective: to synthesize the scientific evidence on listeriosis in pregnancy | Listeriosis is a serious infection that affects pregnant women and newborns, preventable through education and hygiene. |
| Listeriosis in Pregnancy: A Rare but High-Risk Infection<br>(Correia de Sá et al., 2023) | Cross-sectional review | Objective: To describe the clinical course, diagnosis, treatment, and complications of a pregnant woman with *Listeria monocytogenes* bacteremia.<br>Sample: A 30-year-old pregnant woman in her second trimester (23 weeks + 4 days) with class III obesity, who was admitted with fever, vomiting, and abdominal pain. | *Listeria* bacteremia showed high fetal and neonatal risk, highlighting the importance of early diagnosis and antibiotic treatment. |

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| Listeriosis Infection In Pregnancy: A Case Series<br>(Ahmed et al., 2024) | Narrative review | Objective: To describe the clinical course and obstetric outcomes of pregnant wom ed with listeriosis treated at Latifa Women and Children's Hospital (Dubai).<br>Sample: Three pregnant women, previously healthy and without comorbidities or risk factors, who presented with fever and abdominal and/or back pain. | *Listeria* infection caused fetal loss, while the pregnant women progressed without mortality or complications. |
| Neonatal cross-infection due to Listeria monocytogenes<br><br>(Mclauchlin et al., 2022) | Quantitative review | Objective: To highlight listeriosis as a cause of neonatal cross-infection and review a large series of cases in the United Kingdom, Ireland, and other countries.<br>Samples: 35 cases of neonatal cross-infection documented in the United Kingdom and Ireland between 1971 and 2012. | Neonatal listeriosis was transmitted in hospitals from one congenital case to others with late-onset meningitis, confirming the same strain as the common source. |
| The epidemiology and healthcare costs of pregnancy-related listeriosis in British Columbia, Canada, 2005–2014<br>(Ilic et al., 2024) | Narrative review | Objective: To describe the epidemiological characteristics and pregnancy outcomes of diagnosed cases of listeriosis, and the excess healthcare costs of pregnant and neonatal cases attributable to listeriosis.<br>Samples: 15 pregnant women and 7 newborns. | Listeriosis in pregnancy was associated with preterm delivery, fetal death, and neonatal complications such as sepsis and meningitis. |
| Listeriosis associated with pregnancy: 30 years of experience in Argentina<br><br>(Prieto et al., 2020) | Narrative review | Objective: To report cases of listeriosis associated with pregnancy between 1986 and 2016 to determine the burden and trend of this disease in our setting. | Listeriosis affected immunocompromised individuals, pregnant women, and newborns, causing fetal loss, premature birth, and neonatal sepsis. |
| Listeriosis related to pregnancy in Spain<br><br>(Vázquez et al., 2025) | Narrative review | Objective: We describe the main clinical and epidemiological characteristics of patients hospitalized with listeriosis, evaluating the impact of listeriosis on maternal and fetal outcomes compared to the general population.<br>Sample: 540 and 450 hospital admissions for listeriosis. | Listeriosis presented obstetric and neonatal cases with spontaneous abortion, miscarriage, and fetal and neonatal death. |

Early sepsis presents with respiratory distress, fever, and rash, and mortality is associated with lower Apgar scores and higher CPR (Zhang et al., 2023), accompanied in some cases by seizures and neurological involvement; however, most recover with antibiotics (Wu et al., 2022). Listeriosis during pregnancy carries a risk of premature birth and neonatal sepsis (Roero et al., 2024), being more common in women with anemia, HIV, or maternal infections (Iiyambo et al., 2023), complicated by meningitis (Ilic et al., 2024), which, when treated before delivery, reduces the severity (Charlier et al., 2022); however, timely treatment improves the neonatal prognosis (Kraus et al., 2024), and therefore cases progress without mortality or complications (Ahmed et al., 2024).

*Abortion*

Perinatal infection with listeriosis leads to miscarriages, cesarean sections, vaginal deliveries, admissions to intensive care, and neonatal death (Gutiérrez-Barquín, 2007; Vázquez et al., 2025); Listeria monocytogenes has been identified as the direct cause in these cases (A Dawane & Shegakar, 2021). It has also been confirmed that the strains involved are highly virulent (Kamel et al., 2024). This connection is reinforced by a greater immune response in women with a previous clinical history (Aljičević et al., 2005) and who are at greater risk of infection (Ssentongo et al., 2025), demonstrating the bacterium's ability to invade the placenta through specific entry points (Robbins et al., 2010).

*Neonatal death*

Listeriosis leads to miscarriages, cesarean sections, vaginal deliveries, intensive care admissions, and neonatal death (Gutiérrez-Barquín, 2007; Vázquez et al., 2025) and intrauterine death (Coipan et al., 2023). This infection during pregnancy has a negative impact, associated with low birth weight, pneumonia, and prematurity (Vázquez et al., 2025). Furthermore, recurrence of deaths in the first 24 hours is uncommon; however, mortality remains high, and fatality rates vary among affected neonates (Tao et al., 2025). In addition, mother-to-fetus transmission can lead to fatal outcomes in the first days of life (Gołuchowska et al., 2020) and even in pregnancies of 24 weeks, where the infection demonstrates its lethal impact in the early stages of pregnancy (Paumier et al., 2016).

*Peritonitis*

Listeriosis causes gastroenteritis and focal infections such as peritonitis, cholecystitis, respiratory infections, and vascular prosthesis infections with high mortality (Corral et al., 2024), fever, abdominal pain, and cloudy dialysate (Tsai et al., 2024), especially in immunocompromised patients or those with other risk factors (Sin et al., 2021) undergoing continuous ambulatory peritoneal dialysis where microorganisms are isolated from dialysate or blood culture (Schlech, 2019). However, treatment with oral amoxicillin and intraperitoneal vancomycin was successful (Poulsen et al., 2018), and the infection was controlled by monitoring serum concentrations (Boss et al., 2020).

*Meningitis*

The infection is more common in women with anemia, HIV, or maternal infections (Iiyambo et al., 2023), and can be complicated by meningitis (Ilic et al., 2024). Therefore, it requires accurate pathogen identification and appropriate antibiotic treatment (Chen et al., 2024). In addition, early therapy with coverage for Listeria monocytogenes improves the prognosis (Colomba et al., 2020), confirming its detection by MALDI-TOF (bacterial protein identification test) and 16S rRNA (bacterial genetic identification test) with a favorable response to the use of ampicillin and meropenem (Ranjan et al., 2024), showing resistance to cephalosporins

(Mahadevaiah et al., 2018). While in pregnant women with neurological manifestations such as meningoencephalitis, good progress is observed with the use of amoxicillin and gentamicin (Ho et al., 2022).

**Risk factor**

Maternal symptoms in the first two trimesters are associated with an increased risk of stillbirth or spontaneous abortion (Awofisayo et al., 2015), while antibiotic resistance and dietary factors influence infection (Ssentongo et al., 2025), with a greater frequency of n in previously affected pregnant women (Yousefi et al., 2021). It is also associated with low birth weight and gestational age variation (Ke et al., 2022), as well as maternal bacteremia (Correia de Sá et al., 2023) and involvement in immunocompromised women (Prieto et al., 2020). Furthermore, newborns infected congenitally were able to transmit the infection, leading to late-onset meningitis (Mclauchlin et al., 2022).

*Dietary factors*

Antibiotic resistance and dietary factors influence infection (Ssentongo et al., 2025), as this pathogen survives and multiplies in various environmental conditions of food production and handling (Osek et al., 2022). So, eating soft cheeses, cold cuts, salads, and sprouts poses a significant risk of infection (Pezdirc et al., 2012). Similarly, pregnant women who eat raw meat, unwashed vegetables, or unpasteurized milk are more likely to become infected (Deressa et al., 2024), confirming that plant-based foods are a high source of exposure during pregnancy (Ooi et al., 2025). In addition, consumption of contaminated dairy products is also associated with infection (Shamloo et al., 2018), and inappropriate food practices, such as prolonged storage, poor refrigeration, and inadequate cooking, have been identified as factors that favor the survival and proliferation of the pathogen (Moran et al., 2018).

*Maternal bacteremia*

Listeriosis in pregnancy is often accompanied by maternal bacteremia (Correia de Sá et al., 2023), with infection frequently observed in maternal blood and the genital tract (Lamont et al., 2011). In addition, fetal death and inflammation in maternal organs have been reported, with high bacterial concentrations in the placenta and fetal tissues (Wolfe et al., 2017). Therefore, detection and timely diagnosis are essential, as the appropriate use of antibiotics improves the health and prognosis of the newborn (Wang et al., 2021).

**Prevention**

Listeriosis is a serious infection that affects pregnant women and newborns. However, it can be prevented through education and hygiene (Martínez et al., 2016). In this sense, it can be avoided by avoiding risky foods (Murillo-Zaldívar, 2021). Perinatal listeriosis is also very serious, and its decline in newborns demonstrates the positive impact of prevention in pregnant women (Croker, 2025). Finally, although no significant relationship has been observed between infection and pregnancy complications, the importance of food education is highlighted (Ahmadi et al., 2022).

*Hygiene*

Listeriosis is a serious infection that affects pregnant women and newborns, but it can be prevented through education and hygiene (Martínez et al., 2016). Deficiencies have been observed in the washing, storage, and cooking of food (Jevšnik et al., 2021), as well as in the hygienic handling of frozen vegetables, which constitutes an additional risk of contamination in pregnant women (Rosenthal et al., 2024), reflecting limited knowledge and inadequate hygiene

practices during food handling and consumption (Almanasrah et al., 2022).

*Food education*

Although no significant relationship between infection and pregnancy complications has been observed, the importance of food education as a preventive measure is highlighted (Ahmadi et al., 2022), given that preventing listeriosis depends on effective training in proper food selection, cooking, and storage habits (Janakiraman, 2008). There is also evidence of a lack of knowledge about food safety, which reinforces the need for educational programs aimed at pregnant women (Xu et al., 2017), while deficiencies in preparation and storage continue to represent a risk factor associated with insufficient food education (Taylor et al., 2012).

This study has certain limitations, as it was not possible to cover all available literature on listeriosis in pregnancy due to the limited number of recent, open-access articles on the topic. Furthermore, the studies included vary in context and population, which may limit the generalizability of the findings. Therefore, it is suggested that future research expand the search for sources and include a greater number of databases to obtain a more comprehensive analysis.

## CONCLUSION

It is concluded that perinatal infection with listeriosis causes miscarriages, cesarean sections, and neonatal death, with *Listeria monocytogenes* being directly responsible. The strains are highly virulent and elicit a stronger immune response in women with a clinical history, demonstrating the ability to invade the placenta through specific entry points. It hurts pregnancy with low birth weight, pneumonia, and prematurity, as well as high rates of neonatal mortality due to mother-to-fetus transmission, causing fatal outcomes even in early pregnancies. It also causes gastroenteritis and focal infections such as peritonitis, cholecystitis, respiratory infections, and vascular prosthesis infections, with fever, abdominal pain, and cloudy dialysate in immunocompromised patients. In cases of peritoneal dialysis, the microorganisms are isolated from the dialysate, showing successful treatment with oral amoxicillin and vancomycin. On the other hand, the infection is more common in women with anemia, HIV, or maternal infections, and can be complicated by meningitis. Accurate identification and appropriate antibiotic selection are essential, with favorable responses to ampicillin, meropenem, and gentamicin; however, resistance to cephalosporins has been reported.

In addition, antibiotic resistance and dietary factors influence its persistence, as the pathogen survives under various production and handling conditions. The consumption of soft cheeses, sausages, unwashed vegetables, and contaminated dairy products increases the risk in pregnant women, along with inadequate storage and cooking practices that favor its proliferation.

Listeriosis in pregnancy is often accompanied by maternal bacteremia, frequently in the blood and genital tract. In addition, it causes fetal death and inflammation in organs with high bacterial concentrations, so detection and appropriate use of antibiotics greatly improve the neonatal prognosis.

On the other hand, it can be prevented through education and hygiene. However, deficiencies in food washing, storage, and cooking, along with improper handling of frozen vegetables, reflect limited knowledge and poor hygiene practices among pregnant women. Finally, the importance of food education as a preventive measure is highlighted, as it depends on adequate training in food selection, cooking, and preservation. This training is lacking, evidenced by a lack of

knowledge about food safety and deficiencies in preparation and preservation that increase the risk of infection.

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