

BSc (Hons) Health and Social Care Module: Psychological Classifications and Provisions BMHP6029

ICD-11- KA00.3 Fetus or newborn affected by maternal infectious diseases

Component 1: Written Report

Student name: Ketrina Bardhi

Student number:2324052

Lecturer's name: Bianca Sanfilippo

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1.Introduction

In the ICD-11, KA00.3 refers to a fetus or newborn affected by maternal infectious diseases, showing the link between maternal health and newborn wellbeing. The term “condition” is more neutral than “disorder,” as it suggests the baby is affected by external health factors. Diagnosis involves maternal infection and related newborn symptoms, such as inflammation or breathing problems. Care focuses on pregnancy screening, prevention, and newborn support, with ongoing developmental monitoring recommended (ICD-11, 2026).

2.Classification and Diagnosis

2.1 Structural Classification within ICD-11

In the ICD-11 framework, code KA00.3 is carefully placed within Chapter 19: Certain conditions originating in the perinatal period. More specifically, it belongs to the section for a fetus or newborn affected by maternal factors or complications of pregnancy, labour, and delivery. This classification is separate from direct neonatal infections, listed under KA60–KA6Z, because it mainly helps identify the maternal cause. By recording the newborn’s condition in relation to maternal morbidity rather than focusing only on isolated neonatal symptoms, ICD-11 supports a more cause-based approach to clinical coding. This structure enables healthcare professionals to connect neonatal distress with the maternal infectious environment, ensuring that the maternal–fetal dyad is recognised as a closely connected biological unit for epidemiological purposes (NHS, 2020).

2.2 Diagnostic Criteria and Clinical Processes

The diagnosis of a fetus or newborn affected by maternal infectious disease is usually based on evidence of infection in the mother during pregnancy, labour, or delivery,

alongside possible signs of fetal or neonatal impact. Clinical processes often begin with reviewing the mother's medical history, identifying risk factors, and carrying out infection screening or laboratory tests. These may include checks for infections such as Group B Streptococcus, HIV, syphilis, hepatitis, rubella, or cytomegalovirus. After birth, the newborn is carefully assessed for signs such as breathing difficulties, fever, poor feeding, tiredness, jaundice, abnormal muscle tone, or suspected sepsis. Further investigations may include blood tests, cultures, inflammatory markers, PCR testing, or imaging if neurological concerns are present. Management usually involves close monitoring, infection control, and early treatment where needed. This process supports timely diagnosis, reduces complications, and helps guide follow-up care for the baby's long-term development (ICD-11 International Classification of Diseases for Mortality and Morbidity Statistics Eleventh Revision Reference Guide, n.d.).

2.3 Analysis of Classification Nomenclature

The ICD-11 uses careful wording to describe KA00.3, choosing the term "condition" rather than "disorder" or "illness." In clinical language, a disorder may suggest an ongoing functional difficulty, while illness often refers to an active disease state. By using "condition," the classification presents the newborn's health status as being influenced by external biological factors, particularly maternal infection. This wording avoids placing the focus solely on the newborn and instead recognises the wider maternal environment. This distinction is important for clinical documentation, as it supports appropriate monitoring, care planning, and long-term preventative approaches (Blencowe et al., 2024).

3. Treatment and Rehabilitation

3.1 Evaluation of Standard Treatment Approaches

Ming et al. (2024) contend that the clinical management of a fetus or newborn affected by maternal infectious disease is shaped by a dual strategy of maternal stabilisation and neonatal intervention. Standard treatment protocols prioritise antenatal prophylaxis, including the administration of antimicrobial or antiviral agents to the mother to reduce microbial load and minimise the risk of vertical transmission. Intrapartum antibiotic prophylaxis, for example, remains a key intervention in the management of maternal Group B Streptococcus infection, as it helps reduce the risk of neonatal sepsis. Following delivery, the neonate is usually subject to immediate clinical assessment and may receive empiric therapy until infection is either confirmed or excluded. Although these pharmacological interventions are effective in targeting specific pathogens, they mainly address acute infection rather than the systemic inflammatory response syndrome (SIRS), which may already have triggered severe or

fatal injury before treatment begins. As a result, standard treatments can be considered largely reactive, as they do not always prevent early-stage inflammatory damage once the fetal or neonatal immune response has been activated (Ming et al., 2024).

3.2 Examination of Rehabilitation Measures

Rehabilitation for neonates affected by maternal infectious diseases is not fully addressed within ICD-11, as it mainly functions as a diagnostic classification system. In clinical practice, rehabilitation requires a multidisciplinary approach based on the infant's individual complications. Neonates with neurological or developmental delays linked to maternal immune activation may need early intervention, including physiotherapy, occupational therapy, speech and language therapy, and developmental monitoring. If maternal infection causes preterm birth, follow-up after neonatal intensive care is important to assess sensory, feeding, motor, and developmental difficulties. Overall, rehabilitation helps reduce long-term impacts and supports improved quality of life (GOV.UK, 2023).

3.3 Effectiveness and Limitations of Clinical Approaches

National Institute for Health and Care Excellence, (2021) suggest that current clinical approaches have reduced neonatal mortality linked to infections such as HIV and syphilis. Early diagnosis and standardised treatment protocols have helped make many high-risk pregnancies more manageable. However, limitations remain, especially in relation to the timing of intervention. Some maternal infections are subclinical, meaning the fetus may experience prolonged inflammatory exposure before treatment begins. In addition, unequal access to advanced neonatal intensive care and rehabilitation services affects the management of complex outcomes. This highlights the need for improved screening, timely intervention, and accessible follow-up care to promote equitable neonatal health outcomes (NICE, 2021).

4.Current Debates and Emerging Issues

4.1 Ongoing Debates in Classification and Treatment

Lorea, Pressman, and Schuler-Faccini (2025) highlight an important debate about how fetuses and newborns affected by maternal infectious disease should be classified. A key concern is that the current framework places very different conditions, from mild maternal viral infections to severe bacterial sepsis, within one broad category. This may reduce diagnostic detail and make accurate epidemiological tracking more difficult. There is also disagreement about when the classification should be used. Some clinicians believe it should apply only when neonatal illness is clearly present, while others argue it should include significant maternal infection exposure to support long-term monitoring. This debate also affects treatment decisions, as clinicians must balance the risk of unnecessary antibiotics in healthy-looking newborns against the

danger of missing early-onset neonatal sepsis (Lorea, Pressman and Schuler-Faccini, 2025).

4.2 The Role of Neurodivergence and Reclassification

Choi (2025) identifies maternal immune activation as a significant emerging issue in understanding how maternal infectious disease affects fetal and neonatal development. Research suggests that the maternal inflammatory response, particularly raised pro-inflammatory cytokines, may disrupt fetal neurodevelopment even when the pathogen is not directly transmitted to the fetus. Current reclassification discussions therefore consider whether separate identifiers should distinguish direct fetal infection from inflammatory exposure. This would help connect perinatal conditions with later neurodevelopmental outcomes and recognise the fetal brain as especially vulnerable to changes in the maternal immune environment (Choi, 2025).

4.3 Impact on Practice and Policy

These debates are reshaping obstetric and neonatal policy by encouraging a broader, long-term approach to care. The emerging association between maternal infection and later neurodevelopmental outcomes has led to calls for healthcare systems to move beyond the standard 28-day neonatal period. Some policies now support neurodevelopmental follow-up for infants affected by maternal infection, shifting practice from acute infection management to ongoing developmental surveillance. These debates also expose global health inequalities, as many policies rely on high-resource interventions that may not be available in low-resource settings, where maternal infectious disease burden is often greatest and diagnostic documentation may be limited (UK, 2026).

5. Recommendations for Enhancing Clinical Care and Policy

5.1 Strategic Improvements to Classification and Diagnosis

To improve the accuracy of health surveillance, it is recommended that the classification system for a fetus or newborn affected by maternal infectious disease be expanded to include specific sub-identifiers. These should distinguish between direct vertical transmission and indirect maternal immune activation. Such granularity would align with the objectives of the Health and Social Care Act 2012 in the United Kingdom, which emphasizes the duty to improve the quality of services and provide more accurate data for commissioning (Gov.uk, 2012). Furthermore, the diagnostic process should be standardized through integrated electronic health records that automatically link maternal pathology to neonatal files. This would support the General Data Protection Regulation (GDPR) and the Data Protection Act 2018 by ensuring that sensitive health data is used proportionately and accurately to facilitate safer clinical transitions of care (GOV.UK, 2018).

5.2 Enhancements to Treatment and Rehabilitation

Regarding treatment and rehabilitation, policy should mandate longitudinal neurodevelopmental screening for all infants identified under this classification. Current frameworks often focus on the acute neonatal period, but evidence suggests that inflammatory impacts may not manifest until later in childhood. Legislative support, such as the Children and Families Act 2014, could be leveraged to ensure these children receive integrated "Education, Health and Care" (EHC) plans from an earlier age (GOV.UK, 2014). Practice should move toward a "preventative rehabilitation" model, where early intervention services are triggered by the maternal infection event itself rather than waiting for a developmental delay to become clinically apparent. This proactive stance would improve the efficacy of early years support and reduce the long-term economic burden on state services (England, 2026).

5.3 Implications for Practice, Policy, and Further Research

The recommendations imply a major shift in clinical practice, policy, and research priorities. In practice, obstetric and paediatric teams should work under shared protocols for managing maternal infectious disease and monitoring neonatal outcomes. Research funding should also focus on identifying biomarkers of maternal immune activation, helping clinicians recognise which fetuses may be at higher risk of later neurodevelopmental difficulties. Such research must follow ethical and legal standards, including the Medicines for Human Use Clinical Trials Regulations. By linking clinical developments with child protection and healthcare legislation, health systems can address the hidden long-term effects of maternal infection alongside acute neonatal illness (The findings of UK birth trauma inquiry show that change is long overdue – here's what needs to happen now, 2024).

6. Conclusion

ICD-11 classification links maternal infectious disease with fetal and neonatal outcomes, recognising how infection and immune responses can affect development. While acute treatment remains important, long-term developmental monitoring is also needed. Improved diagnostic detail and follow-up can shift care from reactive treatment to proactive support, improving neonatal survival and quality of life.

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