



## CONTINUOUS OBSTETRIC CARE (CONTINUITY OF CARE) IN NEWBORNS WITH MILD ASPHYXIA AT PRATAMA NIAR CLINIC MEDAN INDONESIA 2025

Novalita Eudia Pasaribu<sup>1</sup>, Ribur Sinaga<sup>2</sup>, Febriana Sari<sup>3</sup>, Efra Tasiya Sitio<sup>4</sup>, Apriyanis Waruwu<sup>5</sup>, Nitaria Sonata Sinaga<sup>6</sup>, Sri Yanti Kristin<sup>7</sup>

<sup>1,2,3,4,5,6,7</sup>Sekolah Tinggi Ilmu Kesehatan Mitra Husada Medan

[2219401025@mitrahusada.ac.id](mailto:2219401025@mitrahusada.ac.id), [ribursinaga@mitrahusada.ac.id](mailto:ribursinaga@mitrahusada.ac.id), [febrinasari@mitrahusada.ac.id](mailto:febrinasari@mitrahusada.ac.id),  
[2319401024@mitrahusada.ac.id](mailto:2319401024@mitrahusada.ac.id), [2419401012@mitrahusada.ac.id](mailto:2419401012@mitrahusada.ac.id), [2419201392@mitrahusada.ac.id](mailto:2419201392@mitrahusada.ac.id),  
[sriyantikristin@mitrahusada.ac.id](mailto:sriyantikristin@mitrahusada.ac.id)

### ABSTRACT

Neonatal asphyxia remains one of the leading causes of neonatal morbidity and mortality, particularly in developing countries. Timely and continuous obstetric care is essential to prevent complications and improve neonatal outcomes.(Kemenkes, 2023) Objective: This study aimed to describe the implementation of continuous obstetric care in a newborn with mild asphyxia at Pratama Niar Clinic, Medan. Methods: This study used a descriptive case study design conducted from November 2024 to February 2025. Data were collected through observation, interviews, physical examinations, and review of maternal and child health records. Care was provided continuously from antenatal, intrapartum, to postnatal periods. Results: The newborn experienced mild asphyxia associated with meconium-stained amniotic fluid and maternal factors.(Lee *et al.*, 2025) .Immediate neonatal resuscitation followed by post-resuscitation care resulted in stable neonatal condition with a normal APGAR score. Continuous monitoring and early initiation of breastfeeding supported neonatal recovery. Conclusion: Continuous obstetric care enables early detection, prompt management, and effective prevention of complications in newborns with mild asphyxia. This approach contributes to improved neonatal outcomes and maternal understanding of pregnancy and childbirth risks.(Julyanti and Susilawati, 2024)

**Keywords:** *Continuous Obstetric Care, Neonatal Asphyxia, Resuscitation, Newborn Care, Apgar Score*

### Introduction

Neonatal asphyxia is defined as the failure of a newborn to initiate and maintain regular breathing immediately after birth, resulting in impaired gas exchange and hypoxia. This condition may lead to serious complications such as hypoxic ischemic encephalopathy, long-term neurological impairment, and increased risk of neonatal mortality. Despite advances in maternal and neonatal care, neonatal asphyxia remains a

significant public health problem. (Handayani, Yunita and Hidayah, 2024) The etiology of neonatal asphyxia is multifactorial and may occur during pregnancy, labor, or immediately after delivery. Placental insufficiency, umbilical cord complications, prolonged labor, and meconium aspiration are among the common contributing factors. If not managed promptly, hypoxia can cause irreversible damage to vital organs including the brain, heart, and lungs. (World Health Organization, 2022)



In Indonesia, neonatal mortality continues to pose a challenge in achieving the Sustainable Development Goals (SDGs), particularly the target of reducing neonatal mortality to at least 12 per 1,000 live births by 2030. Strengthening continuity of care through comprehensive obstetric services is a strategic approach to improving maternal and neonatal health outcomes. ("Daily iron and folic acid supplementation during pregnancy," no date) (Susi Milwati dkk, 2024)

Efforts to care for LBW babies supported by comprehensive facilities and infrastructure and trained human resources can reduce neonatal rates. Under certain circumstances and indications, LBW babies require incubators, but care in an incubator is relatively expensive (Handayani, 2024). Furthermore, the use of incubators is considered to inhibit contact between mothers and babies, resulting in mothers lacking confidence and skill in caring for their babies (Argaheni, NB, 2025). One way to reduce eye contact between mothers and babies, so that mothers can become confident and skilled in caring for LBW babies, is by using the Kangaroo Care Method. (Shabani and Proverbio, 2025)

Neonatal asphyxia is defined as the failure of a newborn to initiate and sustain adequate breathing at birth (Astria, NKR, 2021). Mild asphyxia is commonly characterized by a slightly decreased Apgar score and transient respiratory difficulty, which may resolve with appropriate and timely care (Atri Rutitasari, 2023). Despite being categorized as mild, inadequate management may lead to adverse neonatal outcomes. (Tasya Pricilia and Ode Nurul Mutia, 2025).

Continuous Obstetric Care or Continuity of Care (CoC) is a healthcare model that provides consistent and

coordinated care across the maternal and neonatal continuum (Manurung, 2022). This model involves the same healthcare provider or team delivering care from pregnancy through childbirth, postpartum, and neonatal periods. Previous studies have demonstrated that continuity of care improves maternal satisfaction, early detection of complications, and neonatal outcomes. (Argaheni and Wulandari, 2025)

Pratama Niar Clinic in Medan, Indonesia, provides maternal and neonatal services using a continuity of care approach. However, documentation regarding the implementation of this model in the management of newborns with mild asphyxia is still limited. Therefore, this study aims to describe the application and outcomes of Continuous Obstetric Care in newborns with mild asphyxia at Pratama Niar Clinic in 2025.

## Research Method

This study employed a descriptive case study design focusing on the implementation of continuous obstetric care. The activity was conducted at Pratama Niar Clinic, Medan, from November 2024 to February 2025. The subject was a mother and her newborn diagnosed with mild neonatal asphyxia. Primary data were collected through direct observation, structured interviews (anamnesis), and physical examinations of both mother and newborn. Secondary data were obtained from medical records, including the Maternal and Child Health (MCH) handbook. Ethical permission was obtained from the clinic, and confidentiality was maintained throughout the study. (Lira Dian Nofita, 2024).

## Result



The implementation of continuous obstetric care at Pratama Niar Clinic was carried out systematically, starting from antenatal care, intrapartum management, and continuing into the postnatal period. (Julyanti *et al.*, 2024). Health education was provided to the mother regarding pregnancy risks, warning signs, and the importance of regular antenatal visits. The newborn presented with mild asphyxia characterized by delayed initiation of spontaneous breathing and the presence of meconium-stained amniotic fluid (Sinaga, K, 2025).

Meconium aspiration is a known indicator of intrauterine hypoxia and may obstruct the airway, interfere with surfactant function, and compromise neonatal respiration with mild asphyxia and prevented progression to more severe conditions. (Rumpun Ilmu Kesehatan Halaman Jurnal *et al.*, 2022).

Strengthening continuity of care is recommended as an effective strategy to

improve neonatal outcomes and support the achievement of national and global maternal and child health targets. (Atri Ruditasari *et al.*, 2023). The implementation of Continuous Obstetric Care in newborns with mild asphyxia at Pratama Niar Clinic showed positive outcomes. Most newborns demonstrated an increase in Apgar scores within five minutes after birth. Respiratory adaptation improved with appropriate stimulation and supportive care. Vital signs remained within normal limits during the observation period. (Astria, Suryawan and Sucipta, 2021).

Follow-up assessments indicated that newborns were able to breastfeed effectively and showed no signs of respiratory distress or infection. Continuous monitoring allowed healthcare providers to promptly address minor complications and provide guidance to parents regarding newborn care.

(Xu Zheng *et al.*, 2024).

## Discussion

The findings of this study indicate that the implementation of continuous obstetric care (continuity of care) plays an important role in improving clinical outcomes among newborns with mild asphyxia. Continuous care enables early identification of neonatal adaptation problems and facilitates timely interventions during the critical transition period after birth. (Damanik *et al.*, 2024)

This approach supports physiological stabilization, particularly in respiratory function, thermoregulation, and feeding readiness, which are essential components in the recovery of newborns with mild asphyxia (Zulkarnain Batubara, Imran Surbakti, 2024).

Continuity of care ensures consistent monitoring from the intrapartum period through the early neonatal phase, allowing healthcare providers to promptly detect subtle changes in the newborn's condition. In cases of mild asphyxia, early and continuous observation is crucial, as delayed recognition may lead to worsening respiratory distress or secondary complications. The results of this study align with previous evidence suggesting that integrated and continuous maternal-newborn care contributes to better neonatal adaptation and reduces the risk of adverse outcomes.

Furthermore, the continuity of care model promotes effective communication and coordination among healthcare professionals. This integrated approach



minimizes gaps in care, enhances adherence to clinical guidelines, and supports the consistent application of evidence-based neonatal resuscitation and post-resuscitation management. In newborns with mild asphyxia, such coordination is essential to ensure appropriate oxygen therapy, thermal management, and early initiation of breastfeeding when clinically stable (Lisa Putri Utami Damanik, Afni Veronika Tambunan, Herna Rinayanti Manurung, Siti Nurmawan Sinaga, Zulkarnain Batu Bara, 2024).

Another important aspect of continuous obstetric care is family-centered care. Continuous engagement with parents increases their understanding of the newborn's condition, encourages early bonding, and supports maternal confidence in newborn care. Parental involvement has been shown to positively influence neonatal outcomes, particularly in monitoring feeding patterns and recognizing early warning signs after discharge (Manullang, R, 2024).

Despite these positive findings, several challenges may affect the implementation of continuity of care in newborns with mild asphyxia. These include limitations in healthcare resources, variations in staff competency, and inconsistent documentation across care settings. Addressing these barriers requires strengthening clinical protocols, enhancing training for healthcare providers, and improving referral and follow-up systems to ensure seamless care continuity (Manurung, B, 2023).

Overall, this study reinforces the importance of continuous obstetric care as a comprehensive and effective approach in managing newborns with mild asphyxia. Integrating continuity of care into routine neonatal practice has the potential to improve early neonatal

outcomes, enhance quality of care, and contribute to the reduction of neonatal morbidity (Sinaga, 2022).

### Conclusion and Suggestion

Continuous Obstetric Care is an effective approach in the management of newborns with mild asphyxia. The continuity of care model supports early identification, prompt intervention, and comprehensive follow-up, resulting in improved neonatal adaptation and favorable early outcomes. The implementation of this model is recommended in maternal and neonatal healthcare settings to enhance the quality of care.

### Acknowledgements

The authors gratefully acknowledge the Director and all healthcare professionals of Pratama Niar Clinic, Medan, Indonesia, for their institutional support and facilitation of this study. The authors also extend their sincere appreciation to all newborns' families who participated in this research. Furthermore, gratitude is expressed to all colleagues and supervisors for their academic guidance, professional insight, and valuable contributions during the research process and manuscript development.

### References

Argaheni, NB, et al. (2025). Pengabdian Masyarakat: Seminar Perencanaan Persalinan Dan Pencegahan Komplikasi Pada Ibu Hamil, Ibu Bersalin Dan Ibu Nifas Wilayah Puskesmas Gilingan. *Jurnal Kreativitas Pengabdian Kepada Masyarakat*, 8.

Astria, NKR, et al. (2021). Analysis Of Factors Associated With The Incidence Of Neonatal Asphyxia In The Neonatal Intensive Care Unit (Nicu) And

Perinatology Unit In Wangaya Regional General Hospital. *Indonesia Journal Of Biomedical Science*. <https://doi.org/10.15562/Ijbs.V15i2.344>.

Atri Rutitasari, et al. (2023). Faktor Dominan Yang Memengaruhi Kejadian Asfiksia Pada Bayi Baru Lahir Di Rs Parindu, Sanggau Kalimantan Barat. *Daily Iron And Folic Acid Supplementation During Pregnancy*.

Damanik, N. S., Simanjuntak, P., Manurung, H. R., Sinaga, R., Ginting, A. B., & Syahputri, A. F. (2024). Risk factors for transient tachypnea of newborns in the NICU room at Sylvani Hospital, Pahlawan Village, North Binjai District, Binjai City in 2024. *Science Midwifery*, 12(5), 1840–1846. <https://doi.org/10.35335/midwifery.v13i2.1783>

Handayani, et al. (2024). Pengaruh Pemberian Pelayanan Antenatal Care 10t Terhadap Kunjungan Ibu Hamil Di Puskesmas Haruui. *Jurnal Rumpun Ilmu Kesehatan*, 4. <https://doi.org/10.55606/Jrik.V4i1.2869>.

Lisa Putri Utami Damanik, Afni Veronika Tambunan, Herna Rinayanti Manurung, Siti Nurmawan Sinaga, Zulkarnain Batu Bara, M. B. (2024). Pengaruh Mobilisasi Dini Pasien Post Sectio Caesarea Terhadap Gangguan Mobilitas Fisik Di Puskesmas Danau Paris Kabupaten Aceh Singkil Tahun 2024. *Inovasi Kesehatan Global*, 1(2), 191–197. <https://doi.org/https://doi.org/10.62383/ikg.v1i3.718>

Manullang, R, et al. (2024). Hubungan Antara Sikap Ibu Dengan Pemberian Asi Eksklusif Pada Bayi 6-12 Bulan. *Jurnal Ilmu Kesehatan Dan Kebidanan Nusantara (JIKKN)*, 1(4), 178–184.

Manurung, B, et al. (2023). Hubungan Pengetahuan Ibu dengan Pemberian Imunisasi Dasar dada Bayi di PMB Rini Kecamatan Sunggal Tahun 2023. *Jurnal Riset Ilmu Kesehatan Umum Dan Farmasi (JRIKUF)*, 2(1), 51–57. <https://doi.org/10.57213/jrikuf.v2i1.86>

Manurung, H. R. (2022). The Effectiveness of Neck Massage to Increasing the Totalof Postpartum Breast Milk on the First until Third Days at PMB Medan City. *Science Midwifery*, 10(4), 3458–3464. <https://doi.org/https://doi.org/10.35335/midwifery.v10i4.852>

Sinaga, K, et al. (2025). *Faktor-Faktor yang Mempengaruhi Kejadian Asfiksia Neonatorum di Puskesmas Pagar Merbau Kec. Pagar Merbau Kab. Deli Serdang Provinsi spontan dan teratur segera setelah lahir . Sehingga bayi tidak dapat memasukkan oksigen*. 3.

Sinaga, S. N. (2022). *The role of the midwife as an implementer in handling risk 4T in Puskesmas Basah Rice , Pangkalan Susu subdistrict , Langkat district in 2021*. 10(4).

Zulkarnain Batubara, Imran, Surbakti, R. (2024). The Effect of Listening to English Classical Music and Murottal on Reducing Depression Levels in the Elderly in Bangun Rejo Village, Tanjung Morawa Regency in 2024. *Science Midwifery*, 12(5), 1834–1839.