ISSN- O: 2458 - 868X, ISSN–P: 2458 – 8687
National Library of Medicine - ID: 101731606

International Journal of Medical Science and Innovative Research (IJMSIR)
IJMSIR : A Medical Publication Hub
Available Online at: www.ijmsir.com
Volume – 11, Issue – 1, January – 2026, Page No. : 25 – 27

A retrospective 2 year study of maternal near miss cases, a standard tool for monitoring quality of maternal health care in a tertiary care centre of south east Rajasthan

[1]Dr Sophiya Godara, Department of Obstetrics and Gynaecology, Jhalawar Medical College, Jhalawar, Rajasthan
[2]Dr Pooja Nayak, Department of Obstetrics and Gynaecology, Jhalawar Medical College, Jhalawar, Rajasthan
[3]Dr Simran Singhal, Department of Obstetrics and Gynaecology, Jhalawar Medical College, Jhalawar, Rajasthan
[4]Dr Ayushi Gupta, Department of Obstetrics and Gynaecology, Jhalawar Medical College, Jhalawar, Rajasthan
[5]Dr Ritu Gupta, Senior Professor and Unit Head, Department of Obstetrics and Gynaecology, Jhalawar Medical College, Jhalawar, Rajasthan

Corresponding Author: Dr Sophiya Godara, Department of Obstetrics and Gynaecology, Jhalawar Medical College, Jhalawar, Rajasthan.

Citation this Article: Dr Sophiya Godara, Dr Pooja Nayak, Dr Simran Singhal, Dr Ayushi Gupta, Dr Ritu Gupta, "A retrospective 2 year study of maternal near miss cases, a standard tool for monitoring quality of maternal health care in a tertiary care centre of south east Rajasthan", IJMSIR - January – 2026, Vol – 11, Issue - 1, P. No. 25 – 27.

Type of Publication: Original Research Article

Conflicts of Interest: Nil

Abstract

Aim: To evaluate maternal near-miss (MNM) cases as a standard tool for monitoring the quality of maternal healthcare in a tertiary care centre of Southeast Rajasthan using NRHM 2014 criteria.

Methods: This retrospective observational study was conducted over a two-year period from April 2022 to March 2024 at SHKBM Hospital, Jhalawar Medical College, Rajasthan. Critically ill pregnant, labouring, postpartum, and post-abortal women fulfilling NRHM 2014 maternal near-miss criteria were included. Data were collected from ICU records, inpatient case files, and referral documents. Demographic profile, obstetric characteristics, causes of near-miss, delays in care, interventions, and maternal and fetal outcomes were analysed.

Results: A total of 188 maternal near-miss cases were identified, with an incidence ratio of 10.42 per 1000 live births. Most women were aged 18–23 years (51.6%), multiparous (55.3%), and presented after 28 weeks of gestation (79%). The majority belonged to a lower socio-economic class (88.8%). Hemorrhage (64.2%) and hypertensive disorders (28.2%) were the leading causes of near-miss events. Lower-segment cesarean section was the most common mode of delivery (44%). The maternal mortality ratio was 255 per 100,000 live births, and the mortality index was 19.65%.

Conclusion: Maternal near-miss analysis is a sensitive indicator of obstetric care quality. Most near-miss events were associated with preventable factors such as delayed care-seeking, inadequate antenatal care, and referral delays. Strengthening emergency obstetric services, improving antenatal coverage, and enhancing community awareness are essential to reduce severe maternal morbidity and mortality.

Keywords: Maternal Near-Miss; Maternal Mortality Ratio; Emergency Obstetric Care; Hemorrhage; Hypertensive Disorders

Introduction

Maternal mortality is a key indicator of the quality and accessibility of maternal healthcare services. Maternal near-miss (MNM) refers to a woman who nearly died but survived a life-threatening complication during pregnancy, childbirth, or within six weeks of termination of pregnancy. MNM events occur more frequently than maternal deaths and share similar clinical pathways, making them valuable indicators for evaluating obstetric care and identifying healthcare system gaps.

Materials and Methods

This retrospective observational study was conducted in the Intensive Care Unit of the Department of Obstetrics and Gynaecology, SHKBM Hospital, Jhalawar Medical College, Rajasthan, from April 2022 to March 2024. Maternal near-miss cases were identified using NRHM 2014 operational guidelines. Data were collected from indoor case records, ICU registers, and referral notes. Information regarding age, parity, gestational age, diagnosis, referral status, mode of delivery, treatment provided, duration of hospital and ICU stay, and maternal and fetal outcomes was recorded.

Ethical approval was obtained from the Institutional Ethics Committee of Jhalawar Medical College, Rajasthan.

Results

A total of 188 maternal near-miss cases were identified during the study period, with an MNM incidence ratio of 10.42 per 1000 live births. Most women were aged 18–23 years (51.6%), multiparous (55.3%), and presented after 28 weeks of gestation (79%). The majority belonged to a lower socio-economic class (88.8%).

The most common delay was Delay-1 (delay in seeking care) observed in 48.5% of cases, followed by referral and transport delays (28.2%). Hemorrhage (64.2%) and hypertensive disorders (28.2%) were the leading causes of MNM. Lower-segment cesarean section was the most common mode of delivery (44%).

The maternal mortality ratio was 255 per 100,000 live births, the maternal near-miss to mortality ratio was 4.08, and the mortality index was 19.65%. The severe maternal outcome ratio was 12.97 per 1000 live births.

Discussion

Maternal near-miss cases provide a valuable opportunity to assess the effectiveness of obstetric care beyond maternal mortality alone. The predominance of hemorrhage and hypertensive disorders in this study is consistent with findings from other Indian tertiary care centres. Delay in seeking care was the most significant contributing factor, emphasizing the need for improved maternal awareness and early healthcare-seeking behaviour.

Conclusion

Maternal near-miss is a robust and sensitive indicator of obstetric care quality. Preventable factors such as delayed care-seeking, inadequate antenatal coverage, and referral delays contribute significantly to severe maternal morbidity. Strengthening emergency obstetric care, improving antenatal services, and ensuring timely referrals are essential to reduce maternal morbidity and mortality in resource-limited settings.

References (Vancouver Style)

1. World Health Organization. Maternal death and near-miss classifications. Bull World Health Organ. 2009; 87:734–740.
2. Say L, Pattinson RC, Gülmezoglu AM. WHO systematic review of maternal morbidity and

mortality. Bull World Health Organ. 2004; 82:796–801.

3. Rathod AD, Chavan RP, Bhagat V, et al. Analysis of near-miss and maternal mortality at tertiary referral centre. J Obstet Gynaecol India. 2016; 66:295–300.