"A ONE YEAR OBSERVATIONAL STUDY OF POTENTIALLY LIFE-THREATENING COMPLICATIONS IN PREGNANCY, MATERNAL NEAR MISS AND MATERNAL MORTALITY IN DR PRABHAKAR KORE HOSPITAL, BELAGAVI"

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KLE ACADEMY OF HIGHER EDUCATION AND RESEARCH,

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Dr. YESHITA V. PUJAR, MS
Professor and Head,
Department of Obstetrics and Gynaecology,
J. N. Medical College,
Nehru Nagar, Belagavi – 10

Date: 08/07/2024
Place: Belagavi

KAHER BELAGAVI J.N. MEDICAL COLLEGE

Dr. N. S. MAHANTSHETTI MD
Principal,
J. N. Medical College,
Nehru Nagar,
Belagavi – 10

PRINCIPAL
J.N. Medical College,
BELAGAVI- 590 010

Date: 08/07/2024
Place: Belagavi

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JAWAHARLAL NEHRU MEDICAL COLLEGE
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(Recognized by National Medical Commission, New Delhi)
Accredited 'A+' Grade by NAAC (3rd Cycle) Placed in Category 'A' by MoE (GoI)
Nehru Nagar, Belagavi- 590 010, Karnataka, INDIA
0831 - 2471350 0831 - 2470759 www.jnmc.edu principal@jnmc.edu

Ref No: MDC/PG/ Date: 02-07-2024

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Chairperson-Antiplagiarism Committee &
Principal,
J. N. Medical College, Belagavi.

To,
Reg. No. BJ0121007
Postgraduate Student,
2021-22 Batch,
Department of Obstetrics & Gynaecology
J. N. Medical College, Belagavi.

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JNMC INSTITUTIONAL ETHICS COMMITTEE
JAWAHARLAL NEHRU MEDICAL COLLEGE,
NEHRU NAGAR, BELAGAVI-590010 (KARNATAKA-INDIA)

Website: http//www.jnmc.edu
E-Mail : dome@jnmc.edu

Phone: (+ 91-(0)831 Office : 2472550
Principal 2471701
Fax No. +91 (0)831 – 2470759

Ref No.MDC/JNMCIEC/ 59 **Date: 27/09/2022**

To,
REG.NO: BJ0121007
PG Student in Obstetrics & Gynaecology,
J. N. Medical College,
BELAGAVI.

Sub: Institutional Ethical Clearance for the study.

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(Dr. Smita Sonoli)
Member Secretary
JNMC Institutional Ethics Committee
J.N.Medical College, Belagavi.

(Dr. Harsha Hegde)
Chairman,
JNMC Institutional Ethics Committee
J.N.Medical College, Belagavi

LIST OF ABBREVIATIONS USED

PLTC-Potentially Life Threatening Complicatins in pregnancy

MNM – Maternal Near Miss

MM- Maternal Mortality

MMI – Maternal Mortality Index

WHO-World Health Organisation

ARDS-Acute Respiratory Distress Syndrome

LSCS- Lower Segment Caesarean Section

ANC-Antenatal Care

HELLP syndrome- Haemolysis Elevated Liver enzymes and Low Platelet Syndrome

SDGs-Sustainable Development Goals

MMR – Maternal Mortality Ratio

LMIC-Low and Middle Income Nations/countries

LB-Live Births

GoI-Government of India

PE-Pre-Eclampsia

HDU-High Dependency Unit

ICU-Intensive Care Unit

NICU-Neonatal Intensive Care Unit

PMR-Peri-Natal Mortality Rate

LTR-SMO- Life-Time Risk of Severe Maternal Outcomes

SSA-Sub Saharan Africa

BT-Blood Transfusion

ABSTRACT

Background: Evaluation of complications which are life-threatening during pregnancy can help to assess the quality of care provided in health care centres and suggest ways to enhance maternal as well as peri-natal health, particularly in low-income countries. This study aimed to evaluate the incidence of potentially life-threatening conditions during pregnancy, maternal near miss, as well as maternal mortality.

Methods: This prospective study recruited 239 pregnant women who experienced life-threatening complications during pregnancy, labour, and during the postpartum period (according to operational definitions suggested by WHO severe morbidity criteria) over a period of 1 year from February 2023 to January 2024. The study analysed the data to assess the incidence of PLTC MNM and MM and also calculated MNM: MM ratio and mortality index. The study used chi-square, proportion, and Fisher's exact tests to analyse the association between outcomes and clinical and demographic characteristics, with non-parametric tests for discrete variables and p-values < 5% for all tests.

Results: The study observed a total of 239 cases of potentially life-threatening conditions (PLTC), 34 near misses, and 4 mortalities over a one-year period with a total of 4,083 deliveries**.** The study revealed that the age group of 26-30 years had the highest number of PLTC, accounting for 40.2% of the total cases. Obstetric score were found to be significantly associated (p-value 0.003) with outcomes, with Primigravida experiencing highest percentage of complications during pregnancy (36.8%) and Gravida 3 having highest mortality (75%). Subjects who were registered in this hospital comprised 48.5% of the total PLTC, however no mortality occurred in

this group. The majority of the PLTC belonged to gestational age group 37-42 weeks (47.3%). Emergency LSCS was the most common mode of delivery, accounting for 62.3% of cases. Live birth occurred in 85.8 % of cases, perinatal mortality in 8.4%, and NICU admission in 27.2% of cases.

Conclusion: Lack of Ante-natal care, cause of PLTC, type of intervention, and delay in hospital admission or referral by primary centres were major parameters responsible for adverse outcomes like maternal near miss and maternal mortality. It was noted that while maternal mortality ratio was high, a detailed study of near miss to mortality ratio showed that this hospital receives and manages a high number of maternal near miss cases per mortality .A detailed study of PLTC further showed that most of the mortalities were referred to this centre as near miss and died with in 24 hours suggesting that maternal mortality ratio alone is not a good index to see the quality of obstetric health care in a tertiary care referral centre.

Keywords: Maternal Near Miss, Maternal Mortality, Potentially life threatening Complications in Pregnancy, Childbirth

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INTRODUCTION

Pregnancy and childbirth are significant events in a woman's life, characterized by profound physiological changes and considerable emotional impact.[1] Despite advances in medical science and obstetric care, pregnancy remains fraught with potential complications that can pose serious threats to both maternal and foetal health.[2] In particular, life threatening complications during the period of pregnancy, labour, as well as postpartum continue to be a major concern in maternal health care.[3]

The term 'potentially life-threatening complications in pregnancy' encompasses a wide range of medical conditions that can endanger the lives of pregnant women. These complications can include severe preeclampsia, eclampsia, haemorrhage, sepsis, and obstructed labour etc.[4] The timely identification and management of these conditions are crucial for preventing adverse outcomes.

Maternal mortality is defined as a women's death in the period of pregnancy or within forty two days of giving birth, regardless of duration of the pregnancy or location, caused by any factor associated to or exacerbated by the pregnancy or its management. This definition, established by the World Health Organization (WHO), has been instrumental in guiding global health policies and monitoring maternal health outcomes.[5]

The concept of maternal near miss (MNM) was introduced to capture instances in which pregnant women nearly died but survived the complications which occurred in the period of pregnancy, labour, or pregnancy termination within forty two days. These cases, commonly categorised as "near-miss" events, offer valuable insights into the healthcare system's ability to manage severe complications. The WHO defines a maternal near miss case as "a woman who nearly died but survived a

complication that occurred during pregnancy, childbirth, or within 42 days of termination of pregnancy."[6]

In 2009, the WHO proposed recommendations for monitoring near-misses [6], and subsequently, in 2011, they released the WHO near-miss approach for maternal health [7].

Potentially Life-Threatening Conditions (PLTC) and Maternal Near Miss (MNM) – WHO Criteria

To standardise the identification of PLTC and MNM cases, WHO has established specific clinical, laboratory, and management criteria. These criteria help healthcare providers to systematically recognize and manage severe maternal complications.[6]

Table A: WHO Criteria for Potentially Life-Threatening Conditions (PLTC) [6]

Condition	Severe Morbidity Criteria
Haemorrhagic disorders	Abruptio placenta, accreta/increta/percreta placenta, ectopic pregnancy, postpartum haemorrhage, ruptured uterus
Hypertensive disorders	Severe pre-eclampsia, eclampsia, severe hypertension, hypertensive encephalopathy, HELLP syndrome
Other systemic disorders	Endometritis, pulmonary oedema, respiratory failure, seizures, sepsis, thrombocytopenia <100 000/cmm,
Severe management indicators	Blood transfusion, central venous access, hysterectomy, admission to an intensive care unit, prolonged hospital stays (>7 postpartum days), shock, non-anaesthetic intubation, return to operating room, surgical intervention

Table B: WHO Criteria for Maternal Near Miss (MNM) [7]

Criterion	Description
Clinical Criteria	Acute cyanosis, Gasping, Respiratory rate >40 or <6/min, Shock, Oliguria non-responsive to fluids or diuretics, Failure to form clots, Loss of consciousness lasting ≥12 hours, Cardiac arrest, Stroke, Uncontrollable fit/total paralysis, Jaundice in the presence of preeclampsia
Laboratory based Criteria	Oxygen saturation <90% for ≥60 min, PaO2/FiO2 <200 mmHg, Creatinine ≥300 µmol/l or ≥3.5 mg/dl, Bilirubin >100 µmol/l or >6.0 mg/dl, pH <7.1, Lactate >5 mEq/ml, Acute thrombocytopenia (<50,000 platelets/ml), Loss of consciousness and ketoacids in urine.
Management based Criteria	Use of continuous vasoactive drugs, Hysterectomy following infection or haemorrhage, Transfusion of ≥5 units of blood, Intubation and ventilation for ≥60 min not related to anaesthesia, Dialysis for acute renal failure, Cardio-pulmonary resuscitation

Maternal mortality continues to be a significant challenge for global public health. As indicated by the World Health Organization, roughly 295,000 maternal fatalities were recorded in 2017, with the overwhelming majority of these occurring in regions with limited resources.[8] In India, maternal mortality has declined over the years, yet remains a concern. The Maternal Mortality Ratio (MMR) in India, as reported by the Sample Registration System (SRS) for the period 2016-18, was 113 per 100,000 live births.[9] Karnataka, a state in India, has made substantial progress in reducing maternal mortality, with an MMR of 92 deaths per 100,000 live births for the same period. In the Sustainable Development Goals (SDGs), the target was set to reduce the MMR to below 70 deaths per 100,000 live births for all countries, including those in developing nations, by the year 2030. The significance of the high MMR in developing countries was acknowledged and taken into account in the SDGs.[9] Recognizing and addressing the key factors that lead to maternal deaths

would be instrumental in achieving the SDGs' objective of lowering the maternal mortality rate, and studying PLTC and MNM cases will help identify the root cause of mortality along with the healthcare quality of a hospital and hence city, state, and country.

Furthermore, considerable decreases in maternal deaths have been recorded in the last two decades as countries progress through the obstetric transition—a long-term change from high to low maternal death and a shift from direct to indirect causes of maternal mortality. The enhanced approaches and improved quality of emergency obstetric care have resulted in a significant increase in the number of women who survive life-threatening complications during pregnancy and the forty two days postpartum period.[10] The measure of the ratio of MNM subjects to maternal mortality can be used to validate the obstetric care quality. A higher ratio indicates a greater ability of a healthcare system to handle obstetric related emergencies effectively.[11]

KLE Dr. Prabhakar Kore Hospital and Medical Research Centre in Belagavi, Karnataka, India has been an instrumental facility in this endeavour. The KLE Women's and Children's Health Research Unit (WCHRU) at Jawaharlal Nehru Medical College, part of the KLE Academy of Higher Education and Research (KAHER), has conducted extensive community-oriented research since 2001 to reduce maternal and newborn mortality in North Karnataka. This unit collaborates with numerous international and national institutions and has received funding from prestigious organisations, such as the World Health Organization (WHO), the National Institutes of Health (NIH), and the Bill & Melinda Gates Foundation (BMGF).

The objective of this observational study, conducted at KLE Dr. Prabhakar Kore Hospital from February 2023 to January 2024, was to identify and analyse all

potentially life-threatening complications during the period of pregnancy as well as to specifically focus on instances of maternal near miss as well as mortality. By examining these critical outcomes, this study aimed to elucidate the incidence, causes, as well as management of severe maternal complications. Understanding these factors is essential for developing strategies to enhance outcomes of maternal health and reduce the incidence of both maternal death and near-miss events.

This thesis is structured as follows. Chapter 1 reviews the existing literature on life-threatening complications during pregnancy, maternal near miss, and maternal mortality. Chapter 2 outlines the methodology used in this observational study, including the data collection, analysis, and ethical considerations. Chapter 3 presents the results of the study and highlights the key findings and patterns. Chapter 4 delves into the consequences of these findings for clinical practice as well as public health policies, shedding light on their broader implications. Finally, Chapter 5 concludes with recommendations for further research as well as potential strategies to enhance maternal health outcomes.

Previous studies have focused on maternal near miss, but studies of potentially life-threatening complications in pregnancy which eventually evolve into maternal near miss and mortality have been scarce in India. Hence, this study was conducted to investigate the potentially life-threatening complications in pregnancy, maternal near miss, and maternal mortality in Dr. Prabhakar Kore Hospital, Belagavi.

Through this study, we aim to contribute to the existing body of knowledge on maternal health, provide evidence-based recommendations for improving obstetric care, and ultimately support efforts to reduce maternal morbidity and mortality worldwide.

AIMS AND OBJECTIVES

Primary Objective:

- To know the incidence of potentially life threatening conditions during pregnancy, maternal near miss and maternal mortality in pregnant women in KAHER'S Dr. Prabhakar Kore Hospital.

Secondary Objective:

- To determine the maternal near miss to maternal mortality ratio and mortality index (Number of Maternal Deaths / Number of Maternal Near Misses + Maternal Deaths) * 100

REVIEW OF LITERATURE

Pregnancy and childbirth are natural processes that often evoke mixed emotions. On the one hand, they can bring immense joy and happiness to some families, but on the other hand, they can result in unforeseen grief and anguish for others. The devastating impact of maternal deaths has sparked numerous conversations in low-income nations, putting pregnant women at a heightened risk of encountering life threatening complications. The term "severe acute maternal morbidity" or "obstetrics near miss" refers to an incident in which a pregnant woman experiences a life-threatening complication during childbirth, but survives, often narrowly escaping death. [12]

As per Ragini Kulkarni and colleagues, India has witnessed a consistent decline in MMR over the recent years, with the rate decreasing from 130/100,000 live births (LB) in 2014-2016 to 122/100,000 LB in 2015-2017 and further down to 113/100,000 LB in 2016-2018.[13] As stipulated by the Government of India (GoI) guidelines, a Maternal Death Review (MDR) is carried out at all medical facilities across the country.[14] One of the significant drawbacks of MDR is that it is often viewed as a means of assigning blame by service providers and other parties involved, which can result in apprehension about potential punitive measures being taken against them.[14] The MNM-review (MNM-R) boasts a plethora of benefits when compared to MDR. Recently, numerous investigations focusing on MNM have been carried out in India as well as various low and middle income nations. Despite the fact that the MNM criteria have been employed in various studies, there seems to be a lack of uniformity in their application.

In India, a study carried out across 6 medical colleges as part of a pilot project found that reporting of MNM is perceived as non-threatening as well as offer valuable insights for enhancing quality of care. Following that operational guideline for MNM reviews was released by the Government of India in December 2014.[14] These guidelines aim to aid program managers in the public health sector, regardless of their level, in implementing MNM-R in order to improve the quality of care and ultimately decrease maternal morbidity and mortality rates.[15] Guidelines should initially be put into effect at tertiary-care establishments and subsequently at lower health care facilities.

The current low maternal mortality rate in developed countries, which stands at a mere single digit, diminishes its capacity to evaluate the quality of healthcare provided in facilities or to conduct maternal audits effectively. As a result, data on near miss may provide high valuable insights in this context.[16] Severe health issues affect approximately one percent of pregnant women in US, as opposed to 3.01% to 9.05% of women in developing nations.[17] Globally, primary contributing factors to maternal near miss are haemorrhage, eclampsia and preeclampsia (PE). [17] These complications can lead to long-lasting consequences, resulting in persistent maternal issues such as psychosocial problems, physical injury, and disability. [18]

A considerable number of maternal deaths and severe health issues are frequently documented in women who fail to receive proper antenatal care from competent birth attendants. These individuals are typically referred to specialists at a late stage, when obstetric complications become life-threatening. [17,18] Emergency intrapartum transfers are prevalent in developing countries, where obstetric services are lacking. Occasionally, negative outcomes in subjects like these can occur due to a lack of awareness, financial constraints, and inadequate transportation systems,

resulting in severe consequences for the woman, her baby, and her family.[19] Women from low socioeconomic backgrounds make a substantial contribution to the maternal mortality and morbidity rates.[18,20] Despite the implementation of extensive intervention programs aimed at improving safe motherhood, Nigeria still experiences high maternal mortality and morbidity. Most literature findings on maternal mortality as well as near miss frequently concentrate on peripartum incidents, while inadvertently disregarding pregnancy complications that occur earlier, such as ruptured ectopic pregnancies with heavy bleeding resulting in severe bleeding from molar pregnancies, sepsis, hypovolemic shock, and unsafe abortion. Additionally, these publications often overlook the indirect factors that contribute to maternal mortality such as tuberculosis, malaria, AIDS/HIV during the pregnancy period. In keeping with the WHO guidelines for defining maternal near miss as well as mortality, we carried out an extensive literature evaluation of pregnancy-related complications.

Verma A et al. in 2023, conducted observational retrospective analytical study, aimed to investigate maternal near-misses and compare them with maternal mortality, providing valuable insights into the effectiveness of the healthcare system in serving pregnant women. Data were collected retrospectively, focusing on patients with life threatening conditions during pregnancy, delivery, or within forty two days postpartum, necessitating ICU admission. Of the 4,360 deliveries, 79 were eligible, comprising 52 near misses as well as 27 mortalities. The study revealed a MMR of 623/100,000 live births (LB), indicating a higher than expected rate, possibly because of inadequate medical facilities in this region. The maternal near-miss ratio amounted to 12 deaths per 1,000 live births, while the severe maternal outcome rate resulted in 18 deaths per 1,000 live births. Hypertensive disorders as well as haemorrhage have

emerged as primary factors for morbidity as well as mortality, followed by sepsis and severe anaemia, with cardiac and respiratory dysfunction being the leading causes. These findings underscore the pressing need for well-equipped referral units, obstetrical high-dependence units (HDUs), and comprehensive training for healthcare personnel to mitigate maternal mortality and morbidity in developing countries. Additionally, rapid access to blood and blood products alongside multidisciplinary teams is crucial for improving maternal healthcare outcomes. [21]

Akpan UB et al. in 2020, conducted a retrospective review to comprehensively understand the landscape of severe pregnancy complications and maternal near-miss events over a five-year period. Within this timeframe, the hospital recorded a significant number of pregnancy-related admissions, totalling 10,111 participants. Among the admissions, 790 cases were classified as life threatening pregnancy related complications, which led to 99 mortality as well as 691 near misses. The figures show a remarkably high maternal mortality rate of 979/100,000 live births, highlighting a pressing issue for maternal health outcomes. Furthermore, the maternal near miss ratio was alarmingly high at 6,834/100,000 maternities, highlighting the prevalence and severity of complications faced by pregnant women in this setting. Notably, sepsis as well as severe anaemia emerged as particularly lethal conditions, with mortality indices of 0.4 and 0.53, underscoring the urgent need for targeted interventions to manage these complications. Additionally, the review sheds light on the adverse perinatal outcomes associated with these complications, revealing a significantly higher perinatal mortality rate (PMR), increased admissions to neonatal intensive care (NIC), and a greater prevalence of LBW infants in comparison to uncomplicated pregnancies. This emphasises the critical importance of comprehensive antenatal care, timely identification of danger signs during pregnancy,

and timely referral to ensure essential obstetric care, thereby safeguarding the well-being and survival of both mothers and infants. [22]

Kulkarni et al. in 2023 conducted a study in Maharashtra's two tertiary care hospitals to evaluate the incidence as well as factors affecting maternal near miss (MNM) events based on the Government of India's 2014 operational guidelines. A total of 228 participants meeting the MNM criteria were identified and discussed at monthly MNM meetings. Results showed an MNM incidence of 11deaths per 1000 live births, with MNM to maternal deaths ratio of 1.2:1. Haemorrhage and hypertensive disorders have been identified as the leading causes, particularly in abortion as well as ectopic pregnancies. The majority of women were anaemic, with a significant proportion experiencing severe anaemia. The study highlights delays at various levels, with 86% of MNM events occurring at admission and 81% of subjects being referrals from lower facilities. Level one as well as level two delays were noted by over half of the women, with level three delays prominent both at referral centres (69.7%) and tertiary hospitals (48.2%). The findings underscore the need for MNM review processes at all Indian tertiary care hospitals, aligning with the guidelines of the GoI to identify and address gaps using the three-delay model. Recommendations include implementing interventions to strengthen infrastructure, facilities, as well as manpower at first referral units to mitigate future MNM occurrences. [13]

Balachandran DM et al. in 2022, conducted a cohort study in Puducherry, India, to analyse the maternal near miss incidence by utilizing various sets of criteria which includes those specifically created for low-resource settings or tailored for Indian scenario. They employed severity indicators provided by WHO to determine the potentially life-threatening conditions during pregnancy or delivery. Of the 37,590 live births analysed, 1833 women (4.9%) were identified with such conditions, among

whom 380 experienced life-threatening outcomes and 57 died. The study found that the maternal near-miss incidence varied significantly depending on the criteria used, ranging from 7.6 to 15.6 deaths/1000 live births. Notably, Global Network and criteria provided WHO were only able to identify all women who had died. Notably, the addition of blood transfusion as a criterion resulted in a larger number of women being identified with near misses, regardless of the quantity of transfusions administered. The findings suggest that the WHO as well as Global Network criteria are effective in detecting maternal near misses in low-resource settings. Findings of the study emphasised the potential benefits of blood transfusions as a marker for maternal near miss, specifically in low and middle income nations in which specifying number of units received might be challenging. [23]

Gazeley U et al. in 2024, conducted a study on life-time risk of maternal mortality is a critical indicator used widely in advocacy and international comparisons of maternal health, representing the probability that a 15-year-old girl will die from maternal causes during her reproductive years. However, as maternal mortality rates decline, there is growing recognition of the importance of tracking non-fatal severe outcomes, specifically maternal near-miss events, which are serious complications that result in death. To address this, a new measure has been proposed: the MNM life-time risk, which estimates overall risk in which a fifteen year old girl will encounter MNM by the age of 49 or not, considering both fertility rates and mortality risks within this age range. In a 2019 study focusing on Namibia, using data from the UN world population prospects and national reports on MNM ratios, it was found that the life-time risk of MNM ranged from 1 in 40 to 1 in 35, depending on the granularity of age-specific data, compared to the life-time risk of maternal mortality of 1 in 142. This resulted in combined severe maternal risk (either MNM or mortality) of 1 in 30

patients. These findings underscore the need for lifetime risk of MNM as an indicator, as existing measures, such as the MNM ratio, fail to fully capture the comprehensive risk across a woman's reproductive lifespan, highlighting a critical area for public health focus and resource allocation. [24]

Geleto A et al. in 2020, conducted a comprehensive study using national data from the Ethiopian Public Health Institute analysed maternal near miss incidence and associated mortality indices among women admitted with obstetric complications to hospitals across Ethiopia. This study not only assessed the frequency of such incidents, recording a maternal near-miss incidence ratio of 20.8% and a mortality index of 0.64% among women facing direct causes of maternal mortality, but also evaluated the capacity of hospitals to deliver essential emergency obstetric care, which varied significantly across different regions. The investigation highlighted that, while parenteral antibiotics administration was the most consistently provided emergency service, blood transfusion, a critical function, was the least available. This substantial regional disparity underscores the pressing need for the Ethiopian government to enhance resource allocation and quality improvement measures to ensure equitable and effective maternal healthcare services. The results suggest an alarmingly high rate of maternal near-misses in 67,567 subjects from 68,002 women affected by direct obstetric complications, indicating an urgent need for strategic health interventions focused on capacity building and resource distribution among regional hospitals to ameliorate the observed variations in care provision. [25]

Chaudhuri S et al. in 2019, conducted a study to assess clinical definition for life threatening complications during pregnancy as well as to understand the prevalence of maternal near miss and mortality. Modified version of Mantel's criteria was used. of the 4400 screened women, 177 subjects with near miss as well as 23

deaths were noted, resulting near miss incidence of 4.02%. Hypertensive disorders emerged as the major factor for maternal mortality, accounting for 43% of the subjects, followed by renal failure (21%). Similarly, hypertensive disorders constituted the main cause of near-misses in 55% of subjects, with ectopic pregnancy trailing in 19%. Notably, the ratio of near miss mortality stood at 7.7:1. The research uncovered a pattern whereby a substantial number of women who experienced life threatening complications, including died patients, were referred from peripheral healthcare facilities. This underscores the potential failures within the referral system concerning maternal care, necessitating further investigation into the underlying issues. [26]

Gazeley U et al. in 2024, conducted significant global and regional disparities, with LTR-MNM rates ranging from 1 in 1436 in China (2014) to as high as 1 in 6 in Guatemala (2016). Additionally, the study calculated the lifetime risk of severe maternal outcomes (LTR-SMO), which combines the MNM risks as well as maternal morbidity, with findings showing this risk as high as 1 in 20 in 11 countries, predominantly in sub-Saharan Africa. The LTR-MNM proportion contributing to LTR-SMO varies widely, from 42% in Angola to 99% in Japan, indicating stark inequities in the burden of severe maternal morbidity across different regions and stages of obstetric transition. These findings underscore the critical need for increased global commitment to address and prevent maternal morbidity, highlighting LTR-MNM as a pivotal indicator for advocacy and policymaking to enhance maternal health globally. [24]

Storeng KT et al. in 2012, in Burkina Faso, conducted a study investigating the women's mortality rates in the four years following their discharge from hospital showed a substantial increased death risk among those who had encountered near-

miss obstetric complications than uncomplicated pregnancies. Of the 1014 women studied, 337 had near-miss complications, with 15 (5.3%) deaths recorded, whereas only 5(0.9%) of the 677 women with uncomplicated pregnancies died within the same period, indicating a significant difference (P<0.001). Notably, the majority of deaths in the near-miss group were pregnancy-related, whereas none were in the uncomplicated group, with indirect factors such as HIV infection playing a substantial role. Additionally, interviews with relatives of the deceased suggested that high healthcare costs, poor quality of care, inadequate follow-up, and unmet contraception needs contributed to higher mortality in the near-miss group. The findings highlight a crucial need for comprehensive post-emergency obstetric care in Burkina Faso that extends beyond immediate intrapartum interventions to include continuous care, addressing both direct and indirect health challenges to improve long-term survival rates among these high-risk women. [27]

Heitkamp et al. in 2021, conducted a systematic review to analyse near-miss incidents in middle income nations from 2009 to 2020 by employing WHO's criteria, incorporating a total of sixty nine studies from twenty six nations, including both lower middle as well as upper middle income settings. The studies encompassed 50,552 near miss cases from live births of 10,450,482, revealing a median incidence of 15.9 near misses/1000 live births in lower middle income nations whereas 7.8 in upper middle income nations. There was significant variation in the incidence between as well as within the nations. The predominant factors for near-misses were haemorrhage in lower middle income nations whereas hypertensive disorders in upper middle income nations. This review also highlighted that approximately half of the studies called for modifications to the WHO lab as well as management criteria to prevent false estimation and clearer guidelines to ensure consistent application across

settings. These adaptations, while potentially complicating international comparisons, are crucial in enabling locally relevant audits and facilitating effective interventions tailored to specific regional health challenges. These findings underscore the need for context-specific adjustments to the WHO near-miss criteria to enhance its relevance and effectiveness in enhancing maternal health outcomes in diverse settings. [28]

Heemelaar S et al. in 2019, conducted a cross-sectional study between March and May 2018 in four hospitals in Namibia, a middle-income country in sub-Saharan Africa, the applicability of the WHO maternal near miss criteria was evaluated alongside adaptations previously proposed for low-income settings within the region (SSA MNM criteria). The study included women who were pregnant or those within forty two days of pregnancy who met one of the criteria. Among 194 women who came under any of the MNM criteria, 61 were detected by the WHO criteria and 184 by the SSA criteria. Specifically, the SSA criteria identified additional subjects, such as 18 with eclampsia, one with uterine rupture, and five requiring laparotomies. This study noted that the WHO criteria might be underestimated, whereas the SSA criteria might overestimate MNM subjects in Namibia, suggesting the need for intermediate criteria. Namibia is considering a modified approach that incorporates a lower blood transfusion threshold of 4 units to define MNM due to severe haemorrhage, including eclampsia, uterine rupture, and laparotomy. This study recommends that other middle-income nations verify these criteria to better assess and manage maternal morbidity in specific contexts. [29]

Based on the retrieved information, very limited published data were available for this region. Hence this study was conducted to study the potential life threatening complications in pregnancy, near miss as well as mortality in KAHER'S Dr. Prabhakar Kore Hospital, Belagavi

MATERIALS AND METHODS

Study design: This was a prospective cross-sectional Study conducted at KAHER'S Dr. Prabhakar Kore Hospital and Medical Research Centre, Nehru Nagar, Belagavi-10

Source of data: A prospective observational study was conducted in the Department of Obstetrics and Gynaecology at KAHER's Dr. Prabhakar Kore Hospital and Medical Research Centre, Belagavi, a tertiary care hospital, affiliated with Jawaharlal Nehru Medical College (JNMC).

For this study, the research subjects comprised all pregnant women who developed potentially life threatening conditions during the period of pregnancy, labour, and postpartum period. (According to operational definitions suggested by WHO) admitted to KAHER'S Dr. Prabhakar Kore Hospital and Medical Research Centre, Belagavi. The study was commenced following approval from institutional ethical committee of J.N medical college, KLE and permission from Medical Director of KLE, head of the department of Obstetrics and Gynaecology, Dean of KLE for period of 1 year from February 2023 to January 2024 .

TABLE C : Operational definitions	
Parameter	**Description**
Potentially Life Threatening Complications in Pregnancy **PLTC**	Potentially life threatening complications in pregnancy refer to a wide range of clinical conditions that can pose a risk to a woman's life during pregnancy, childbirth, or up to forty two days after the end of the pregnancy, and result in a near miss or mortality. [6]
Maternal Near Miss **MNM**	Maternal near miss is a woman who nearly died but survived the complication that occurred during pregnancy, childbirth or within 42 days of termination of pregnancy. [7]
Maternal Mortality **MM**	Maternal mortality refers to the death of a woman during pregnancy or within 42 days of giving birth, regardless of the duration or location of the pregnancy, caused by any factor related to or exacerbated by the pregnancy or its management. [5]
Maternal Mortality Index (**MMI**)	-Maternal Mortality Index is a risk assessment of maternal death among women who experience maternal complications (near misses) during pregnancy or childbirth.
Survived	All PLTC who did not fulfill MNM WHO criteria and survived.

The inclusion and exclusion criteria were stated as follows for the selection of patients for the study: -

Inclusion criteria: All women during the period of pregnancy, labour or in puerperium till forty-two days admitted in this hospital with complications or who developed complications after admission, as per the WHO criteria for PLTC[6], were included in the study.

Exclusion Criteria:

- Women who have pre-existing, severe chronic conditions that could potentially result in life-threatening consequences during pregnancy.

- Women who experienced life-threatening complications due to accidental and incidental causes such as suicide or burn injuries.

Written Informed Consent was obtained from all the study patients (or their attenders) who met the inclusion criteria and were provided with a detailed explanation of the purpose of the study.

Sample size calculations

The sample size was calculated using the formula: -

$$n = \frac{z_\alpha{}^2 P(1-P)}{d^2}$$

Where, P is the percentage of prevalence

d is the percentage likely difference in .

z_α is linked with the level of significance.

At the 5% significance level, $z_\alpha = 1.96$.

(With P = 49% and d = 10 % of P = 49%)

The value of P was determined through a reference study which included the data from two medical institutions of North Karnataka.

The sample size was calculated to be 377, but since the study was to estimate the incidence, all the cases for a period of one year were included in the study**.**

Methodology

Following the fulfilment of the inclusion criteria, 239 patients were enrolled in this study. Data for the Period of Gestation, Parity, and other details such as Mode of Delivery, Duration of Labour, Complications during or within 42 days of delivery, and outcomes such as Sepsis, Shock , ARDS, pulmonary oedema, Oliguria/Anuria, or Mortality was collected.

The following indicators were calculated

- Maternal mortality ratio (MMR = MM per 100,000 live births)
- MNM ratio (MNMR = MNM per 1000 Live births)
- Maternal near-miss: mortality ratio (MNM: 1MD)
- Mortality index [MI = MD/ (MNM + MD)]

Collection of Data

During the data collection period, from February 2023 to January 2024, daily visits were made to the labour room/ wards where patients with severe morbidity due to pregnancy, whether antepartum, intrapartum, or postpartum, were admitted and treated. During these visits, attending nursing staff and doctors were contacted, and the medical charts of hospitalized women were screened for study inclusion criteria. All the essential information was obtained from the patients' medical records and duly recorded in the study proforma. The subjects were followed up until they were inpatients in the hospital to study complications and outcomes. Identity of the patients, such as name, medical registration number, was not disclosed, and confidentiality was maintained during the data collection process. Collected individual patients data were subsequently analysed.

The data captured by discussing with the patient or their attenders, as well as from the case records, was recorded using a pre-structured proforma specially designed for the study which includes clinical presentation, socioeconomic data, obstetric history, antenatal care, medical management, maternal as well as foetal outcomes. Those who met the WHO criteria for PLTC and maternal near miss were categorized respectively.

Tools for Data Collection

Structured Performa for assessing risk factors during pregnancy or within 42 days of delivery were used for data collection. The Structured Performa were developed in two sections.

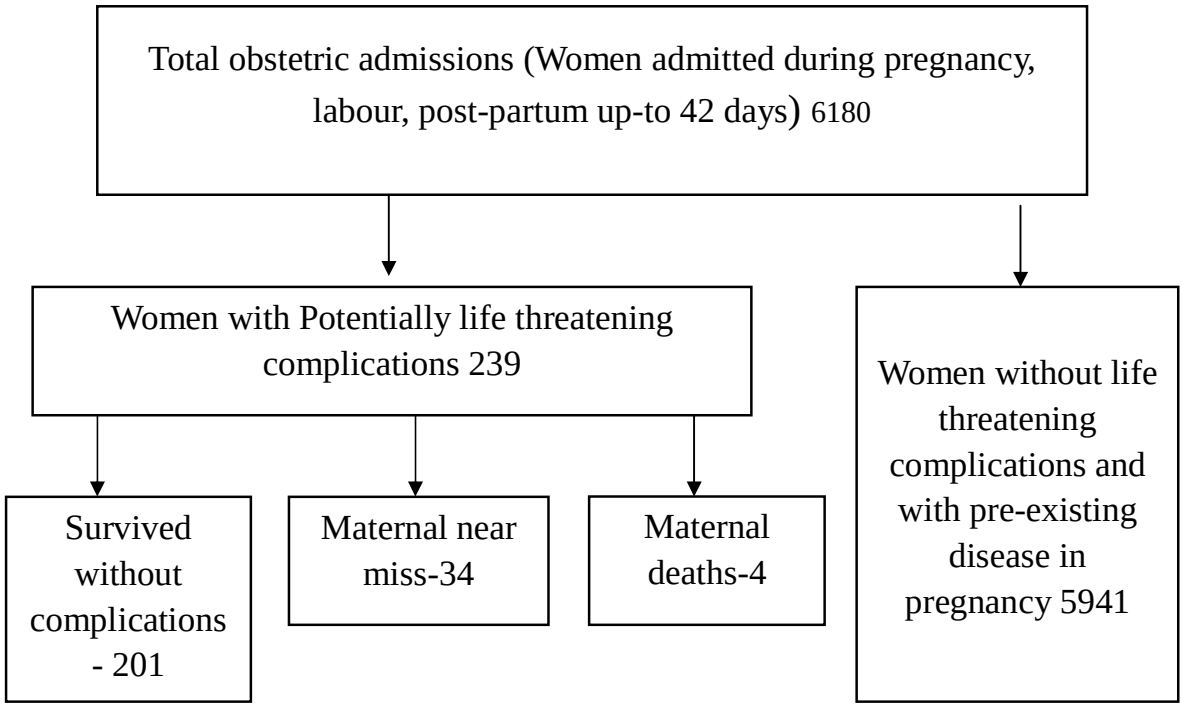
Section I: Demographic variables

Section II: Risk factors and examination findings/investigations, complications, management, and outcomes.

Data analysis

Analysis was done by entering the collected data into the excel sheet and master chart was prepared. coding system was used for some options in the questionnaire. For the purpose of comparison, data was divided into four groups (PLTC, maternal near miss, survived and maternal mortality). Data was analysed using SPSS software windows (version 24). the study population were characterized using descriptive statistics and expressed as mean and percentages for quantitative variables. frequency and proportion were used for categorical variables. Chi square test was used to know the association between two categorical variables and p value <0.05 was considered as statistically significant. univariate and multivariate logistic regression models were applied to find the association between maternal outcome and delays. Indices are expressed in terms of rates, ratios, and percentages.

RESULTS



Total live births during study period (1 year) = 4183

Figure: Flow chart showing obstetric events and outcomes during study period.

SOCIO DEMOGRAPHIC CHARACTERS

TABLE 1: DISTRIBUTION OF THE SUBJECTS BASED ON AGE GROUPS

Age Groups (years)	Final outcome			Total /PLTC N=239
	Mortality N=4	Near miss N=34	Survived N=201	
≤20	0 0.0%	2 5.9%	11 5.5%	13 5.4%
>20 to 25	0 0.0%	6 17.6%	75 37.3%	81 33.9%
>25 to 30	4 100.0%	17 50.0%	75 37.3%	96 40.2%
>30 to 35	0 0.0%	8 23.5%	30 14.9%	38 15.9%
> 35	0 0.0%	1 2.9%	10 5.0%	11 4.6%
Chi-square value- 12.16				
p value- 0.144				

Table 1 demonstrates the distribution of outcomes (mortality, near miss, as well as survived) across the different age groups for 239 individuals. The age group of 26 to 30 years had the highest number of PLTC, with a total of 96 individuals, representing 40.2% of the total. This group also showed the highest mortality count of 4, which was 100% of the total mortality cases. The age group of 21–25 years had the highest survival rate with 75 individuals, accounting for 37.3% of survivors. Near misses were the most prevalent in the 26–30 years group (50%), followed by the 21–25 years group (17.6%). The chi-square value of 12.16, with a p-value of 0.144, suggests there was no association between age groups and outcome categories.

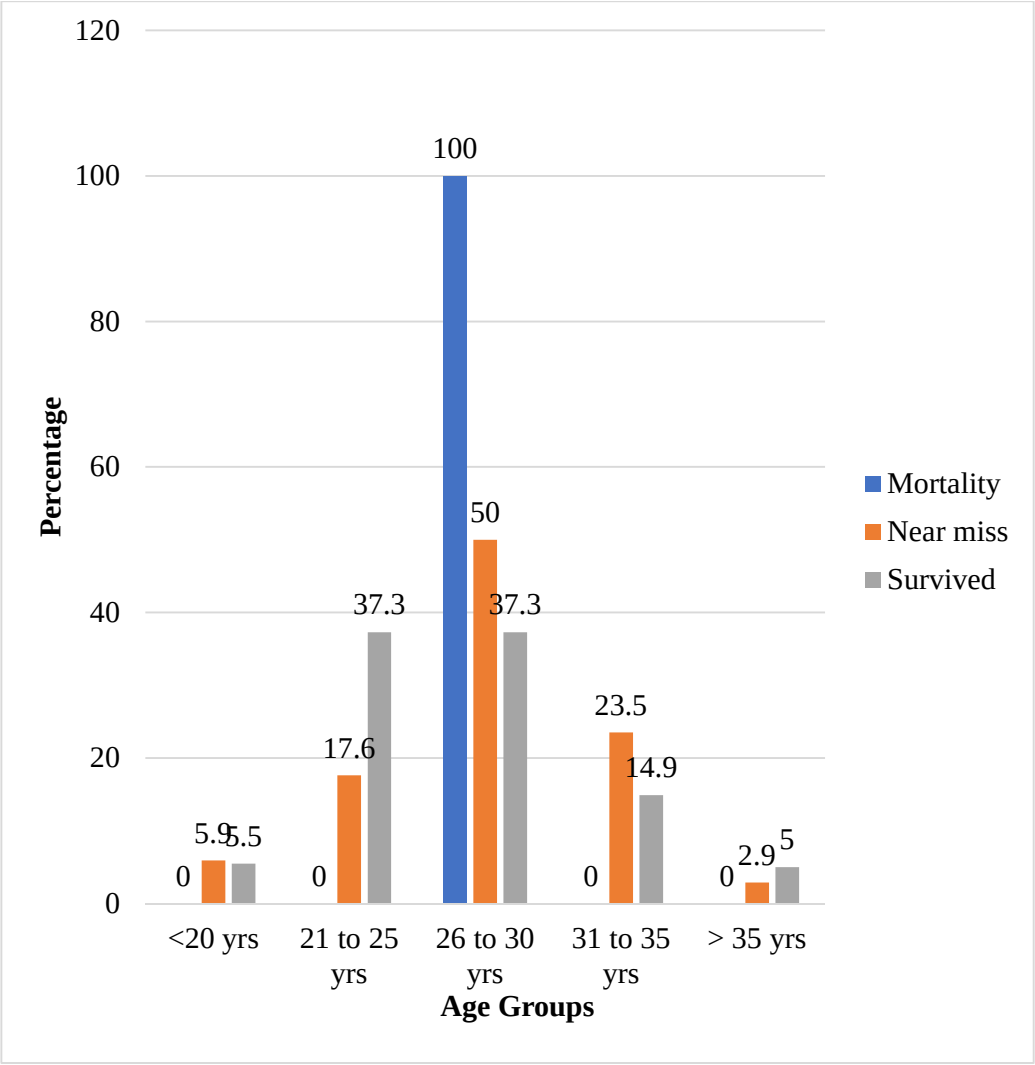


FIGURE 1: DISTRIBUTION OF THE SUBJECTS BASED ON AGE GROUPS

TABLE 2: DISTRIBUTION OF THE SUBJECTS BASED ON SOCIO-ECONOMIC STATUS

SES	Final outcome			Total /PLTC N=239
	Mortality N=4	Near miss N=34	Survived N=201	
Upper middle class (2)	0 0.0%	11 32.4%	34 16.9%	45 18.8%
Lower middle class(3)	4 100.0%	23 67.6%	160 79.6%	187 78.2%
Upper lower class(4)	0 0.0%	0 0.0%	6 3.0%	6 2.5%
Lower class(5)	0 0.0%	0 0.0%	1 0.5%	1 0.4%
Chi-square value- 6.54				
p value- 0.365				

Table 2 shows the distribution of outcomes (mortality, near miss, and survived) across different socioeconomic status (SES) scores for 239 individuals for which Kuppuswami scale was used. The majority of individuals belonged to lower middle class, comprising 78.2% of the total sample. This group also accounted for all mortality cases (4 deaths, 100%), 67.6% of near misses, and 79.6% of survivors. Upper middle class represents 18.8% of the total sample, with 32.4% of near misses and 16.9% of survivors. SES of upper lower and lower class were 2.5 and 0.4%, respectively and none of the study subjects belonged to upper class. The chi-square value of 6.54, with a p-value of 0.365, indicated no association between SES scores and outcome categories.

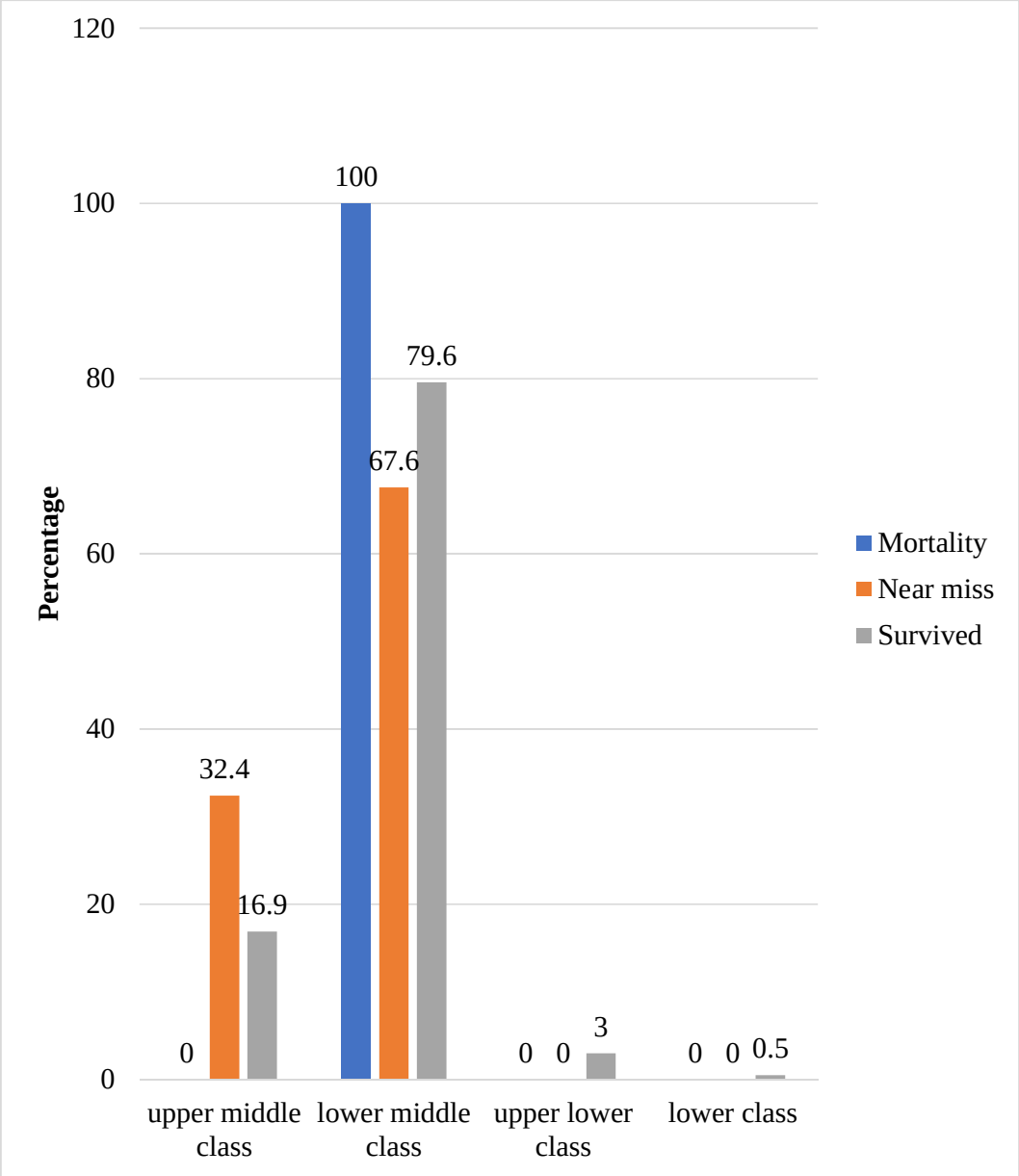


FIGURE 2: DISTRIBUTION SUBJECTS BASED ON SOCIO-ECONOMIC STATUS

TABLE 3: DISTRIBUTION OF OBSTETRIC SCORE AT ADMISSION

Obstetric score	Final outcome			Total/PLTC N=239
	Mortality N=4	Near miss N=34	Survived N=201	
G1	0 0.0%	11 32.4%	77 38.3%	88 36.8%
G2	0 0.0%	6 17.6%	54 26.9%	60 25.1%
G3	3 75%	12 35.3%	55 27.4%	70 29.28%
G4	0 0.0%	2 5.9%	13 6.5%	15 6.27%
P1	0 0.0%	2 5.9%	0 0.0%	2 .83%
P5	0 0.0%	0 0.0%	1 .5%	1 .41%
Post-Abortion	1 25%	1 2.8%	1 0.5%	3 1.2%
Chi-square value- 29.77				
p value- 0.003*				

*Significant

Table 3 shows the Obstetric score distribution of outcomes (mortality, near miss, and survived) based on the obstetric scores for 239 individuals. Here “G” represents gravidity, “P” represents parity or post-natal and others are post-abortal. The largest group was G1, comprising 37.2% of the total, with 32.4% of near misses and 38.8% of survivors, but no mortality. G2 accounted for 25.1% of the total, with 17.6% of

near misses and 26.9% of survivors without mortality. G3 represented 29.7% of the total, but significantly included all mortality cases (100%) and 35.3% of near misses, with 27.4% of survivors. The chi-square value of 29.77, with a p-value of 0.003, indicated an association between obstetric scores and outcomes which was statistically significant.

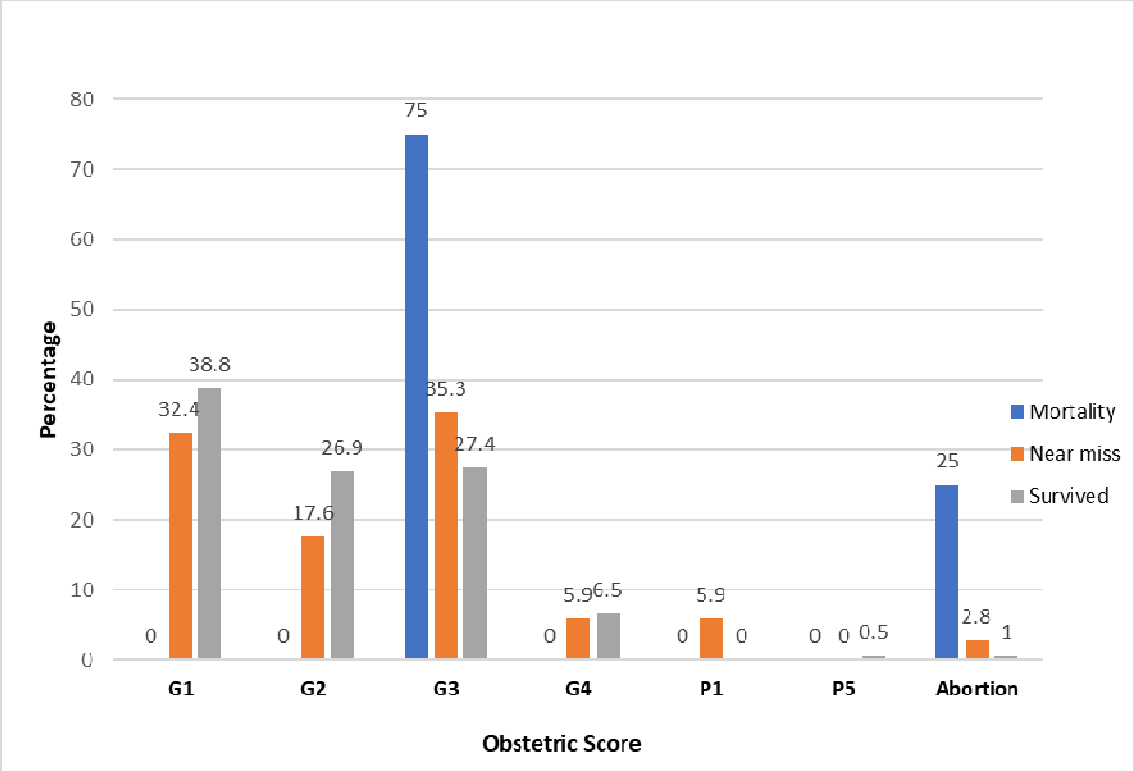


FIGURE 3: DISTRIBUTION OF THE SUBJECTS BASED ON OBSTETRIC SCORE

TABLE 4: DISTRIBUTION OF THE SUBJECTS BASED ON ANC REGISTRATION

ANC registration		Final outcome			Total/PLTC N=239
		Mortality N=4	Near miss N=34	Survived N=201	
No		1 25.0%	8 23.5%	0 0.0%	9 3.8%
Registered	Yes	0 0.0%	12 35.3%	104 51.7%	116 48.5%
	Yes-Outside	3 75.0%	14 41.2%	97 48.3%	114 47.7%
Chi-square value- 12.16					
p value- 0.144					

Table 4 presents the distribution of outcomes (mortality, near miss, and survived) based on antenatal care (ANC) registration status(based on WHO 4 visit model 2016) for 239 individuals. Those registered in this hospital (Yes) comprised 48.5% of the total, accounting for 35.3% of near misses and 51.7% of survivors, with no mortality cases. Individuals registered outside or other hospital (Yes-Outside) comprised 47.7% of the total, including 75.0% of the mortality cases, 41.2% of near misses, and 48.3% of survivors. The group with no ANC registration was the smallest, comprising 3.8% of the total, but included 25.0% of mortality cases and 23.5% of near misses, with no survivors which emphasises the importance of ANC care.

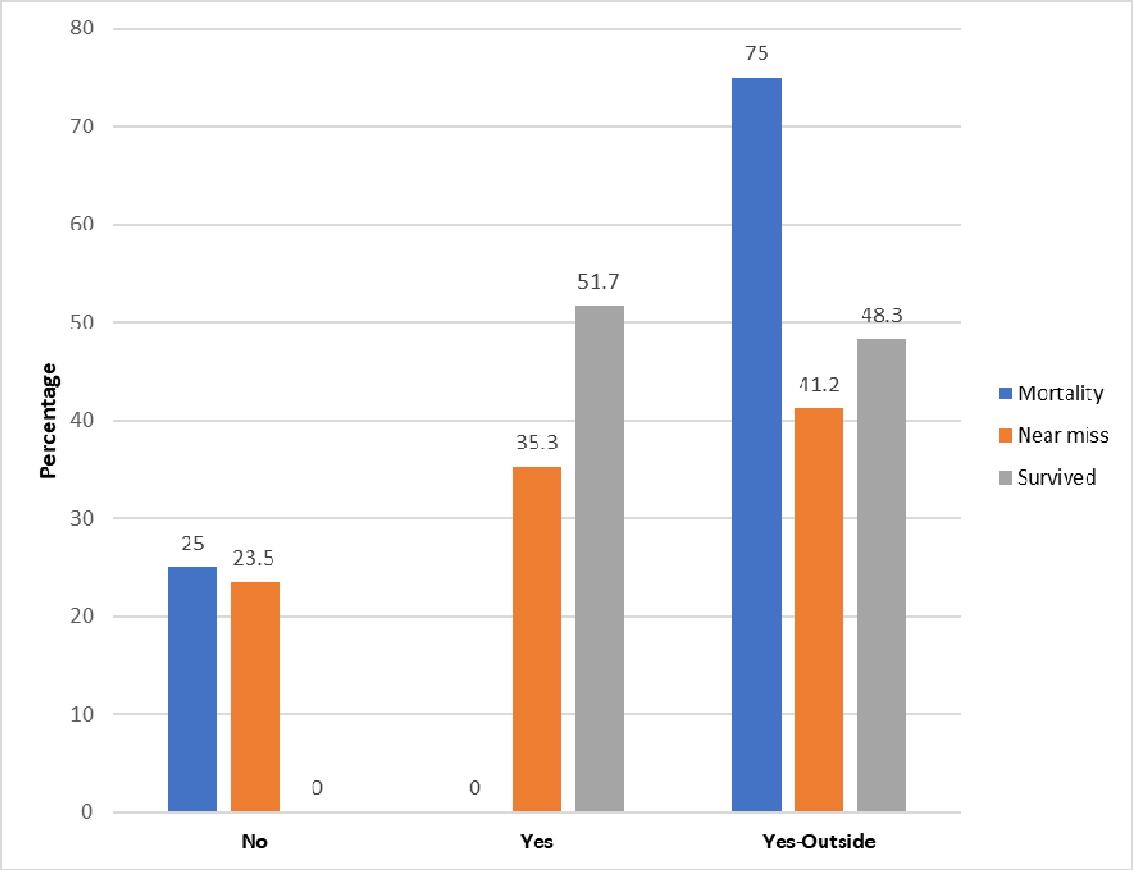


FIGURE 4: DISTRIBUTION OF THE SUBJECTS BASED ON ANC REGISTRATION

TABLE 5: DISTRIBUTION OF THE SUBJECTS BASED ON GESTATIONAL AGE

GA	Final outcome			Total/PLTC N=239 100%
	Mortality N=4 100%	Near miss N=34 100%	Survived N=201 100%	
<20	0 0.0%	9 23.5%	1 0.49%	10 3.8%
20-27	1 25.0%	1 2.9%	0 0.0%	2 0.8%
27 to 34	1 25.0%	1 2.9%	58 28.9%	60 25.1%
34-37	0 0.0%	10 29.4%	38 18.9%	48 20.0%
37 to 42	0 0.0%	10 29.4%	102 50.7%	112 46.8%
Post-Abortion/ectopic	2 50.0%	1 2.9%	1 0.5%	4 1.2%
Post partum	0 0.0%	2 5.8%	1 0.5%	3 1.25%
Chi-square value- 218.15				
p value- 0.001				

Table 5 shows the distribution of outcomes (mortality, near miss, and survived) across the different gestational age groups for 239 individuals. The most represented group was 37–42 weeks gestational age, comprising 47.3% of the total, with 29.4% of near misses and 50.7% of survivors, but no mortality cases. The 27–34 weeks group

accounted for 25.1% of the total, with 25.0% of mortality cases, 2.9% of near misses, and 28.9% of survivors. The 34-37 weeks group included 20.5% of the total, with no mortality cases, 32.4% of near misses, and 18.9% of survivors. Gestational age less than 20 weeks accounted for 3.8% of the total, with no mortality cases, 23.5% of near misses, and 0.5% of survivors. A chi-square value of 218.15, with a p-value of 0.001, indicates an association between gestational age and outcomes which was statistically significant.

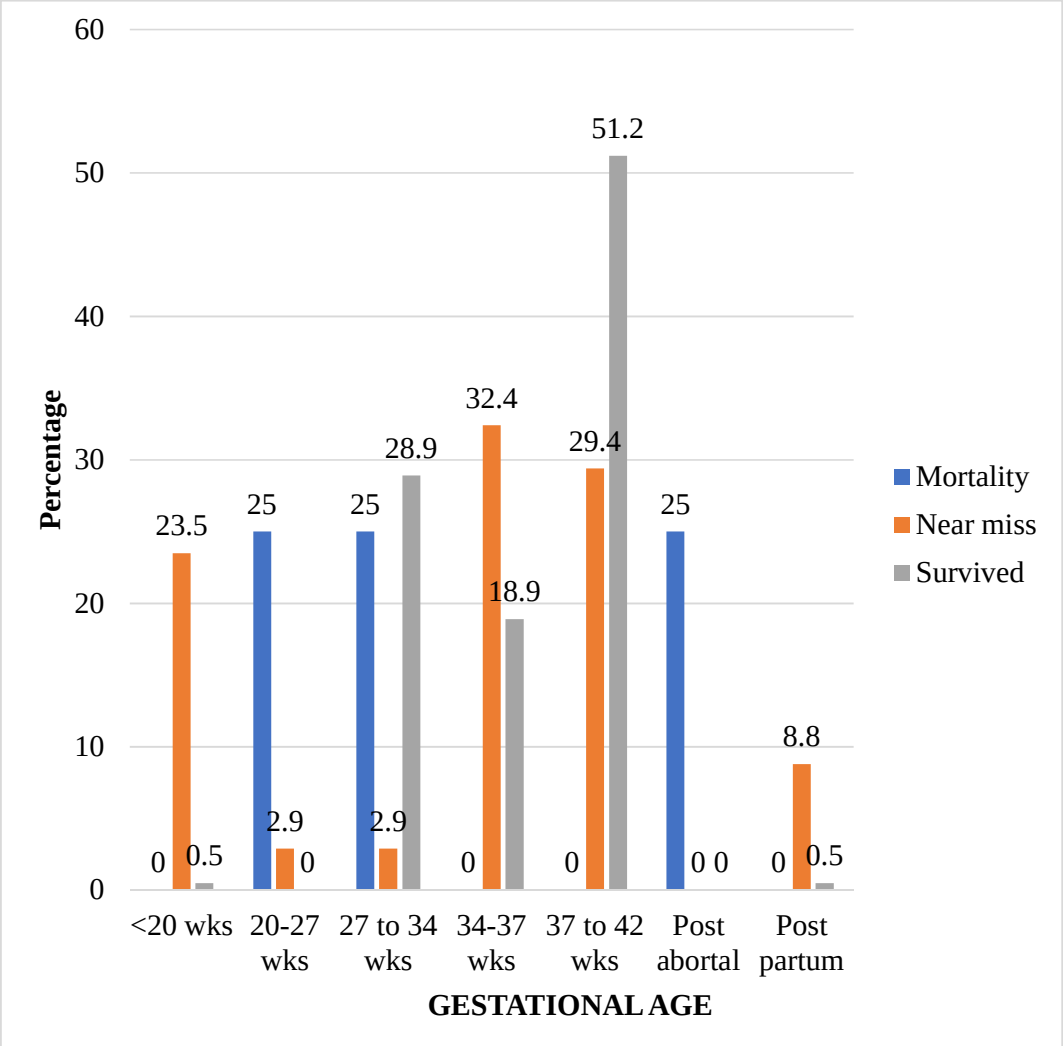


FIGURE 5: DISTRIBUTION OF THE SUBJECTS BASED ON GESTATIONAL AGE AT PRESENTATION

TABLE 6: DISTRIBUTION OF THE SUBJECTS BASED ON MODE OF DELIVERY/TERMINATION OF PREGNANCY

Mode of delivery/termination	Final outcome			Total N=239
	Mortality N=4	Near miss N=34	Survived N=201	
Elective Caesarean Section	0 0.0%	9 26.47%	24 11.9%	33 13.8%
Emergency Caesarean Section	0 0.0%	13 38.23%	137 68.2%	150 62.7%
Laparotomy	1 25.0%	9 26.5%	0 0.0%	10 4.2%
Surgical or medical method of abortion	1 25.0%	1 2.9%	1 0.5%	3 1.2%
Vaginal delivery	1 25.0%	2 5.9%	39 19.4%	42 17.6%
Not- delivered/Antenatal mortality	1 25.0%	0 0.0%	0 0.0%	1 0.4%
Chi-square value- 218.15				
p value- 0.001				

6 Peripartum hysterectomy

(5 classical caesarean sections for Placenta accreta spectrum + 1 following LSCS for PPH)

Table 6 shows the distribution of outcomes (mortality, near miss, and survived) based on the mode of delivery or termination in 239 individuals. The most common mode was emergency LSCS, accounting for 62.3% of the total, with 35.3% of near misses and 68.2% of survivors, but no mortality cases. Elective LSCS represented 11.7% of the total, with 11.8% of near misses and 11.9% of survivors without mortality. Vaginal delivery comprised 17.6% of the total, with 5.9% of near misses, 19.4% of survivors, and one mortality case (25.0% of mortality cases). Laparotomy (9 for ectopic pregnancy and 1 for ruptured uterus) and peripartum hysterectomy included significant near misses (26.5% and 17.6%, respectively) and one mortality case each. A chi-square value of 218.15 with a p-value of 0.001, indicates an association between the mode of delivery/termination and outcomes which was statistically significant.

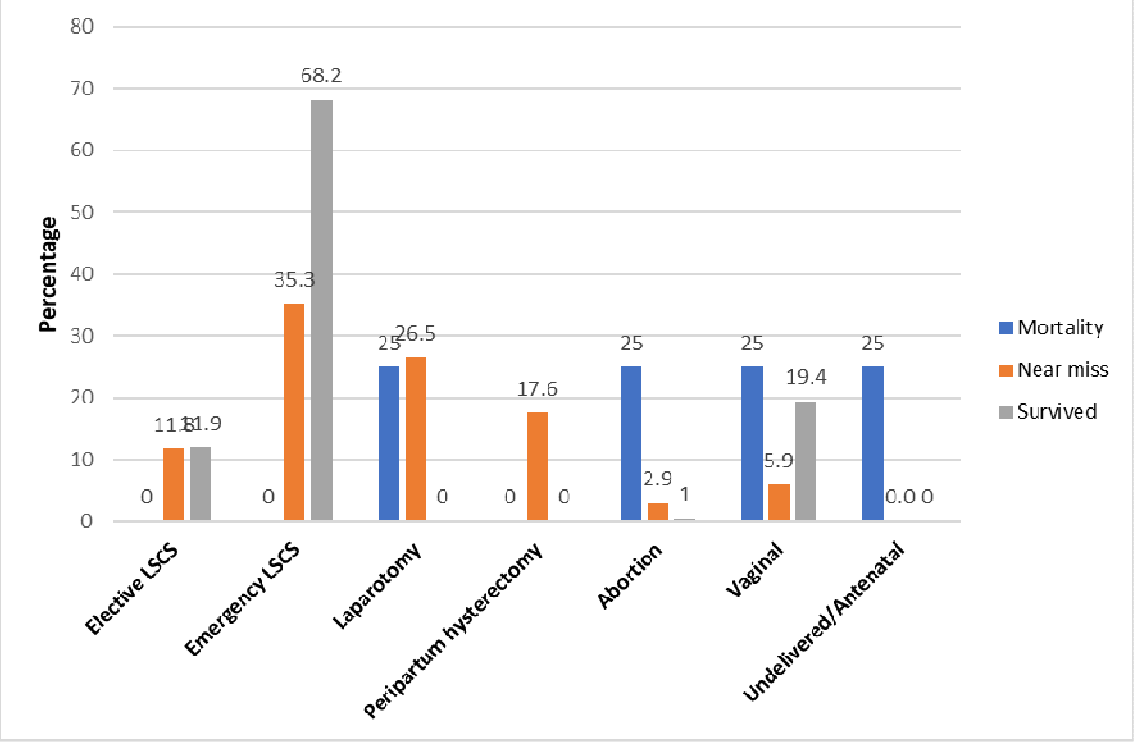


FIGURE 6: DISTRIBUTION OF THE SUBJECTS BASED ON MODE OF DELIVERY/TERMINATION OF PREGNANCY

TABLE 7: DISTRIBUTION OF THE SUBJECTS BASED ON CONDITION AT ADMISSION AND FINAL OUTCOME

Condition on admission N=239		**Final outcome**		
		Mortality N=4 100%	**Near miss N=34 100%**	**Survived N=201 100%**
Admitted as PLTC	165 69.03%	0 0.0%	24 70.5%	141 70.14%
Admitted with no complications became near miss or PLTC	65 27.19%	0 0.0%	5 14.7%	60 29.85%
Admitted as near miss	9 3.7%	4 100%	5 14.7%	--

Table 7 shows the distribution of the outcomes (mortality, near miss, and survived) based on the condition at admission for 239 individuals. The vast majority of individuals fall into the condition categories admitted as PLTC and near miss, comprising 72.7% of the total. “Admitted as near miss” group included all mortality cases (100%). The category admitted with no disorder became near miss/PLTC, accounting for 27.1% of the total, with 14.7% of near misses, but no mortality. The chi-square value of 6.73, with a p-value of 0.034, indicated an association between the condition at admission and outcomes which was statistically significant.

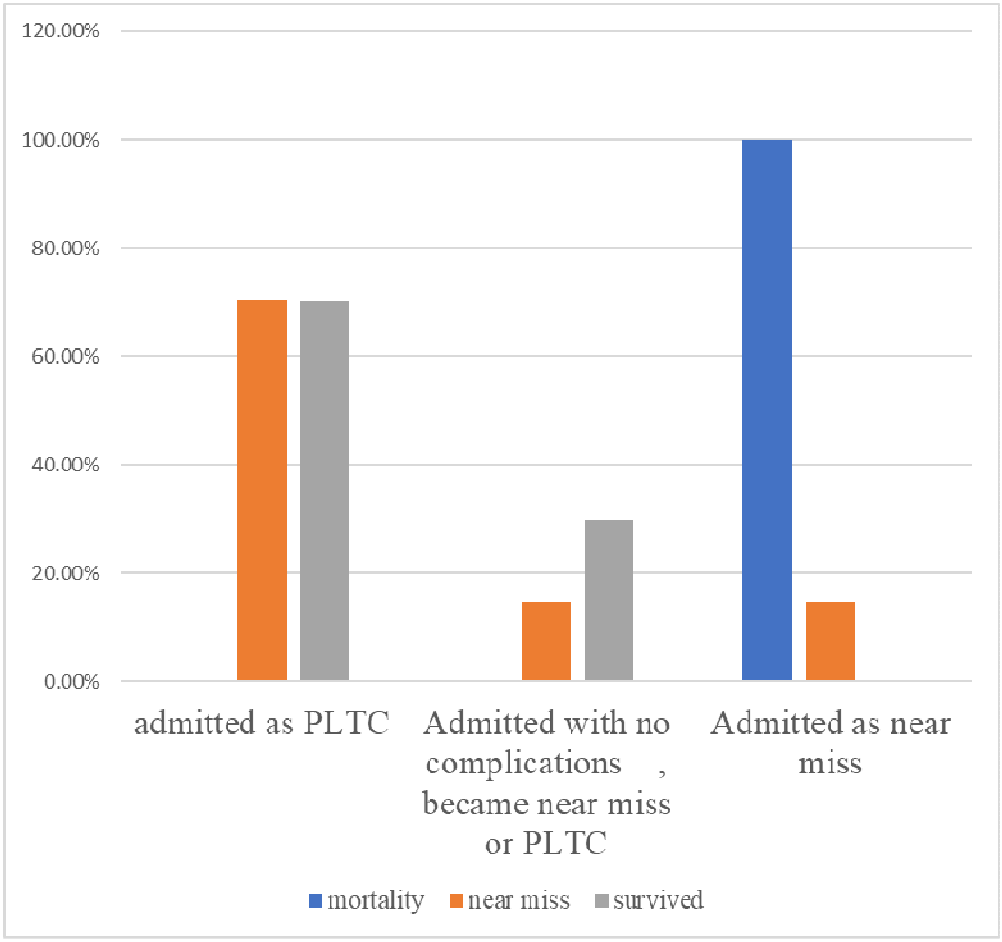


FIGURE 7: DISTRIBUTION OF THE SUBJECTS BASED ON CONDITION AT ADMISSION AND FINAL OUTCOME

TABLE 8: DISTRIBUTION OF PLTC BASED ON WHO CRITERIA

CAUSES OF PLTC			Final outcome			Total/PLTC N=239 100%
			Mortality n=4 100%	Near miss N=34 100%	Survived N=201 100%	
OBSTETRIC HEMORRHAGE			1 25.0%	11 32.3%	89 44.4%	101 42.2%
HYPERTENSIVE DISORDERS			0 0.0%	10 29.4%	115 57.2%	125 52.3%
OTHER SYSTEMIC DISORDERS	Ectopic pregnancy		1 25%	8 23.5%	-	9 3.76%
	Haematological disorder		2 50%	19 78.7%	15 7.16%	36 15.06%
	Acute renal failure		1 25%	0 0.0%	0 0.0%	1 0.41%
	Morbidly adherent placenta		0 0.0%	5 14.7%	-	5 2.09%
	Sepsis		3 75%	6 17.6%	4 1.99%	13 5.43%
	ARDS		1 25%	0 0.0%	0 0.0%	1 0.41%
SEVERE MANAGE-MENT CRITERIA	ICU admission		3 75.0%	8 23.5%	1 .5%	12 5.0%
	Mechanical ventilation		3 75.0%	4 11.8%	2 1.0%	9 3.8%
	Central venous access		2 50.0%	14 41.8%	8 3.98 %	24 10.7%
	Peri-partum hysterectomy		0 0.0%	6 17.6%	0 0.0%	6 2.5%
	Surgical interventions	Uterine artery ligation	0 0.0%	3 8.8%	25 12.4%	28 11.7%
		B/L Internal artery ligation	0 0.0%	11 32.4%	0 0%	11 4.6%

		Laparotomy	0 0.0%	8 23.5%	0 0.0%	8 3.3%
		manual removal of placenta	0 0.0%	0 0.0%	1 .5%	1 .4%
		genital injury/perineal tear	0 0.0%	1 2.9%	1 .5%	2 .8%
		Hayman/B-lynch sutures	0 0.0%	5 14.7%	5 2.5%	10 4.2%

Table 8 discusses the clinical, laboratory based and management based distribution of PLTC and near miss, total doesn't correspond to 239 as one subject can fulfil more than one criteria (clinical/lab/management based) to be diagnosed as PLTC/near miss. The most common cause was identified to be Hypertensive disorders, while no mortality was noted and second most common cause was obstetric haemorrhage with one mortality. Among other systemic disorders 15.6 % were haematological disorders (including DIC and severe thrombocytopenia).

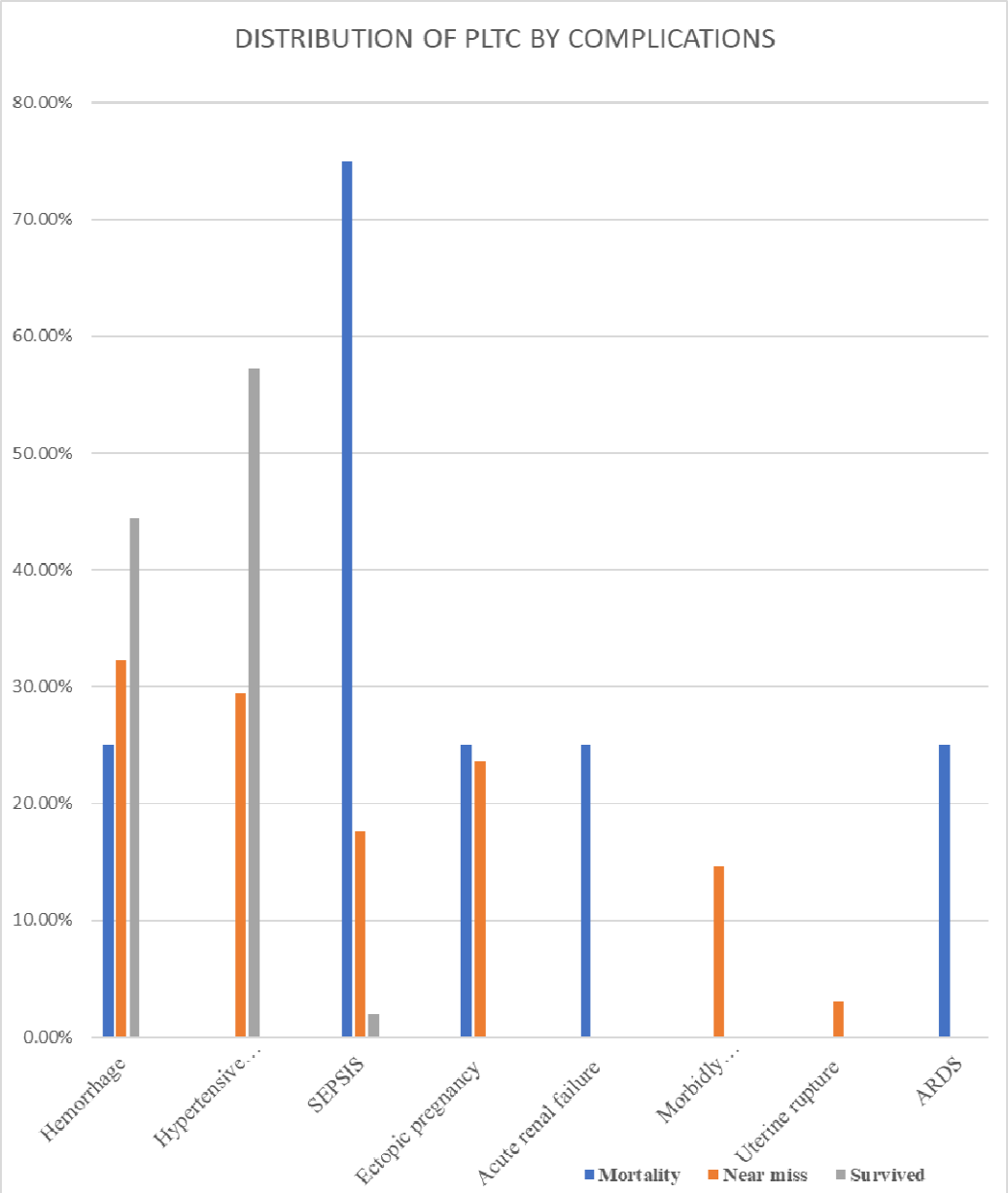


FIGURE 8: DISTRIBUTION OF PLTC BY CAUSES

TABLE 8.1: DISTRIBUTION OF TYPE OF OBSTETRIC HAEMORRHAGE

Type of haemorrhage		Final outcome			Total/PLTC N=239 100%	Chi-square value	p value
		Mortality n=4 100%	Near miss N=34 100%	Survived N=201 100%			
Post-partum haemorrhage		1 25.0%	7 20.6%	56 27.9%	64 26.77%	0.79	0.67
Antepartum haemorrhage	Abruption	0 0.0%	1 2.9%	18 9.0%	19 7.94%	1.78	0.409
	Placenta previa	0 0.0%	3 8.8%	15 7.5%	18 7.53%	0.409	0.815
	Total %	1 25%	11 32.3%	89 44.4%	101 42.2%		

Table 8.1 shows the relationship between specific obstetric conditions (Postpartum Haemorrhage (PPH), abruption, and placenta previa and outcomes (mortality, near miss, and survived) among 239 individuals. Those with PPH accounted for 26.8%, 25.0 %, 20.6 %, and 27.9% of the total mortality, near mortality, and survivors, respectively. Abruption affected 7.9% of the total patients, with no mortality cases, 2.9% of near misses, and 9.0% of survivors. Placenta previa accounted for 7.5% of the total, with no mortality cases, 8.8% of near misses, and 7.5% of survivors.

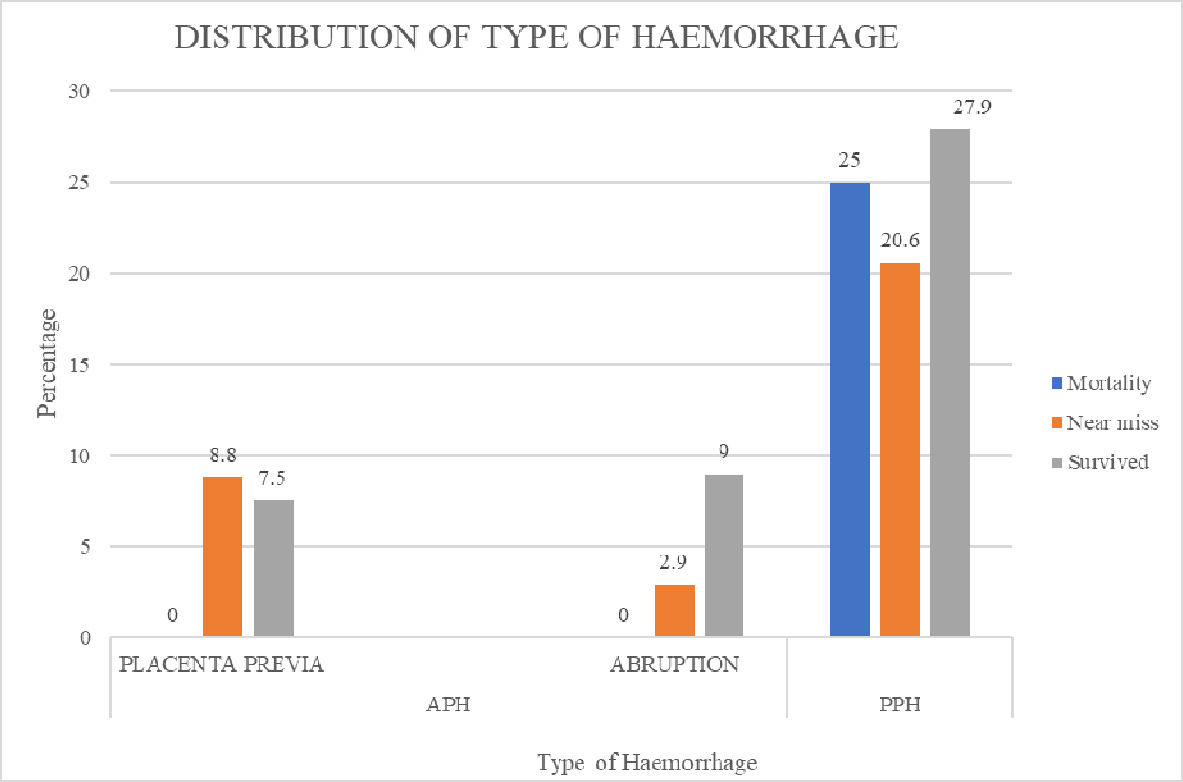


FIGURE 8.1: DISTRIBUTION OF TYPE OF HAEMORRHAGE

TABLE 8.2: DISTRIBUTION HYPERTENSIVE DISORDER

	Final outcome			Total/PLTC N=239
	Mortality N=4	Near miss N=34	Survived N=201	
Severe PE Count %	0 0.0%	7 20.6%	103 51.2%	110 46.0%
Eclampsia Count %	0 0.0%	3 8.8%	12 6.0%	15 6.3%
Total Count %	0 0.0%	10 29.4%	115 57.2%	125 52.3%

Table 8.2 shows the relationship between severe preeclampsia (PE) and eclampsia and outcomes (mortality, near miss, and survived) among 239 individuals. For severe PE, 46.0% had severe PE, with no mortality cases, 20.6% near misses, and 51.2% survivors. Those with eclampsia represented 6.3%, with no mortality, 8.8% of near-misses, and 6.0% of survivors.

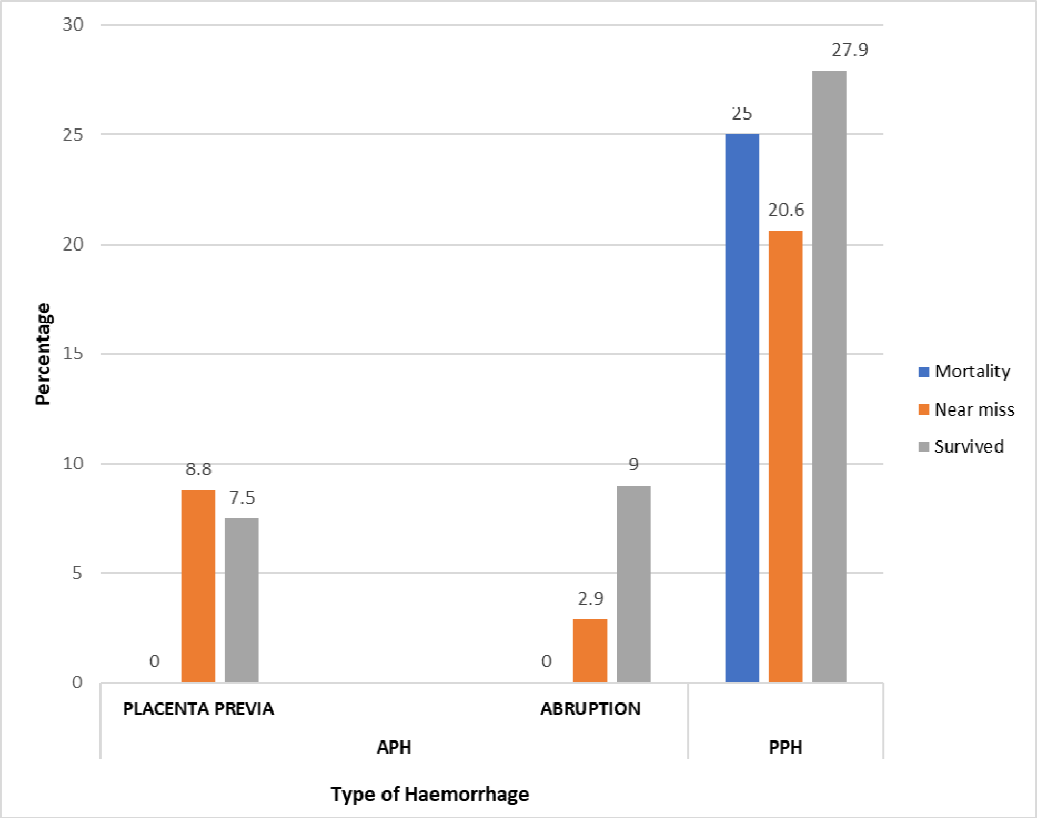


FIGURE 8.2: DISTRIBUTION BASED ON HYPERTENSIVE DISORDER

TABLE 9: DISTRIBUTION BASED ON BLOOD/BLOOD PRODUCTS TRANSFUSION

Intra-op /Post op BT	Final outcome			Total N=239
	Mortality N=4	Near miss N=34	Survived N=201	
Received	1 25.0%	6 17.6%	127 63.2%	134 56.1%
Not received	3 75.0%	28 82.4%	74 36.8%	105 43.9%
Chi-square value- 26.07				
p value- 0.001*				

Table 9 shows the relationship between intraoperative or postoperative blood transfusion (BT) and outcomes (mortality, near miss, and survived) among 239 individuals. All PLTC who received any blood/blood products were included here. The majority (56.1 %) received BT, with 25.0% of mortality cases, 17.6% of near misses, and 63.2% of survivors falling into this category. Conversely, 43.9% did not receive BT, accounting for 75.0% of mortality cases, 82.4% of near-misses, and 36.8% of survivors. The chi-square value of 26.07, with a p-value of 0.001, indicated an association between receiving BT and outcomes which was statistically significant.

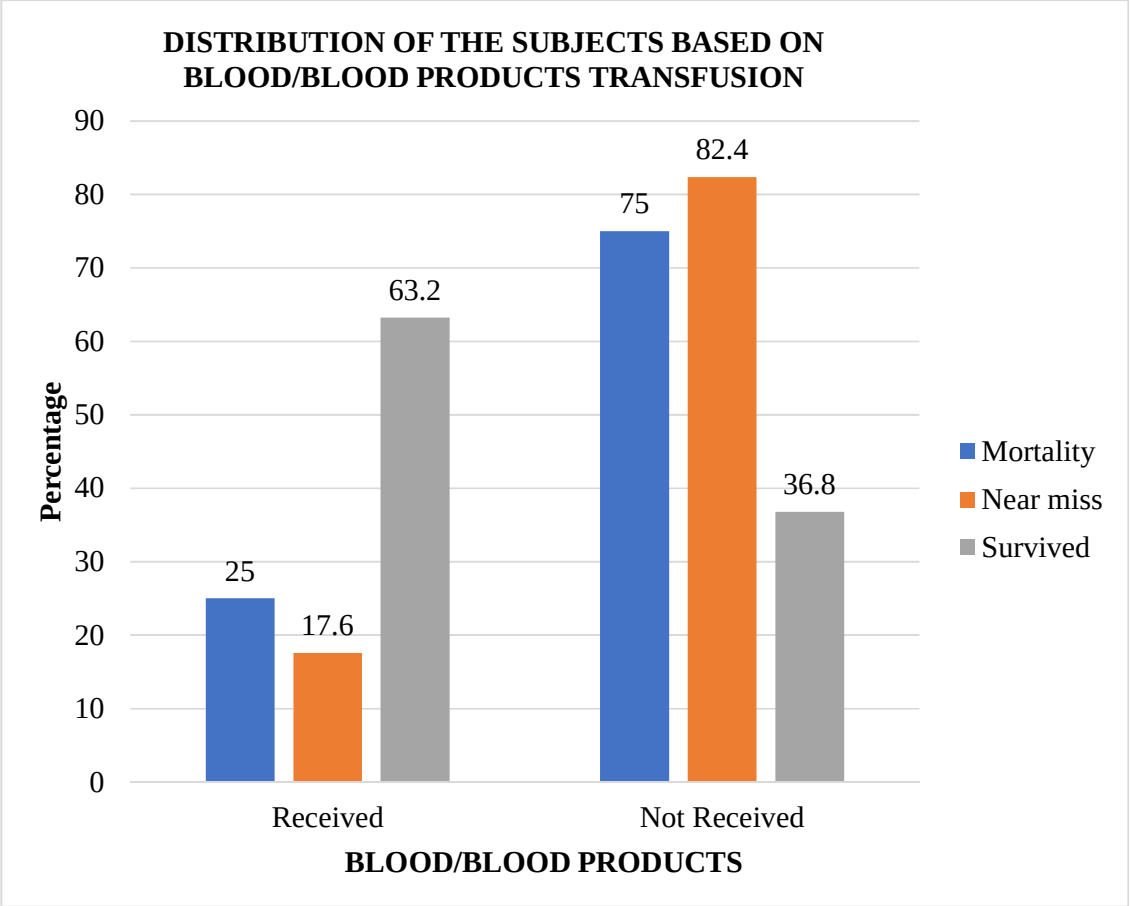


FIGURE 9: DISTRIBUTION OF THE SUBJECTS BASED ON BLOOD/BLOOD PRODUCTS TRANSFUSION

TABLE 10: DISTIBUTION BASED ON TYPE OF ADDITIONAL MEDICAL INTERVENTIONS DONE

Medical Interventions	Final outcome			Total/PLTC N=240	Chi-square value	p value
	Mortality N=4	Near miss N=34	Survived without complications N=201			
ICU admission	3 75.0%	8 23.5%	1 .5%	12 5.0%	74.12	0.001*
Mechanical ventilation	3 75.0%	4 11.8%	2 1.0%	9 3.8%	66.27	0.001*
Central venous access	2 50.0%	14 41.8%	8 3.98 %	24 10.7%	24.52	0.001*

Table 10 shows the various interventions on outcomes (mortality, near miss, and survived) among the 239 individuals. Several interventions showed significant associations with the outcomes. Those who did not receive these additional interventions were associated with higher mortality rates (75.0%). A chi-square value of 66.27, with a p-value of 0.001, indicates an association between additional interventions and outcomes which statistical significant.

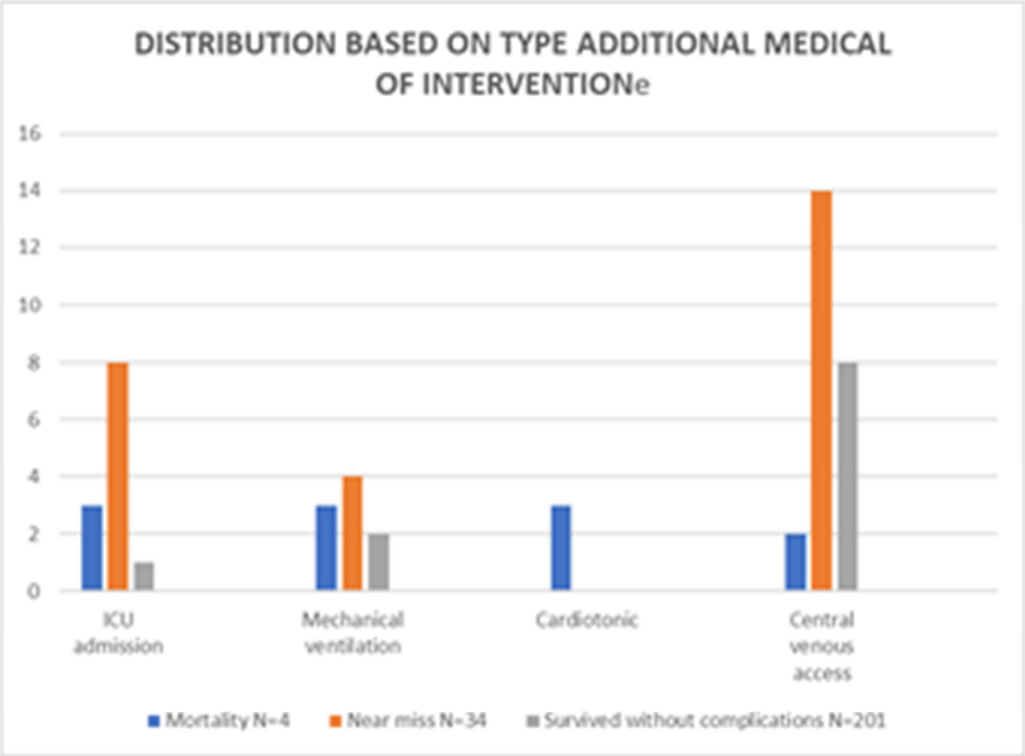


FIGURE 10: DISTRIBUTION BASED ON TYPE ADDITIONAL MEDICAL OF INTERVENTION

TABLE 11: SUBJECTS DISTRIBUTION BASED ON TYPE OF ADDITIONAL SURGICAL INTERVENTIONS DONE

Surgical interventions	Final outcome			Total	Chi-square	p-value
	Mortality	Near miss	Survived without complications			
Peri-partum hysterectomy	0 0.0%	6 17.6%	0 0.0%	6 2.5%	37.1	0.001*
Uterine artery ligation	0 0.0%	3 8.8%	25 12.4%	28 11.7%	0.907	0.635
B/L Internal iliac artery ligation	0 0.0%	11 32.4%	0 0.0%	11 4.6%	23.7	0.001*
Laparotomy	0 0.0%	8 23.5%	0 0.0%	8 3.3%	49.9	0.001*
manual removal of placenta	0 0.0%	0 0.0%	1 .5%	1 .4%	0.19	0.909
genital injury/perineal tear	0 0.0%	1 2.9%	1 .5%	2 .8%	2.12	0.345
Hayman/B-lynch sutures	0 0.0%	5 14.7%	5 2.5%	10 4.2%	11.007	0.004*

Table 11 shows the various additional surgical interventions on outcomes (mortality, near miss, and survived) among the 239 individuals. Individuals who could not timely receive these additional surgical interventions had significantly higher mortality rates than those who did. All of these interventions had chi-square values greater than 24 and p-values less than 0.001.

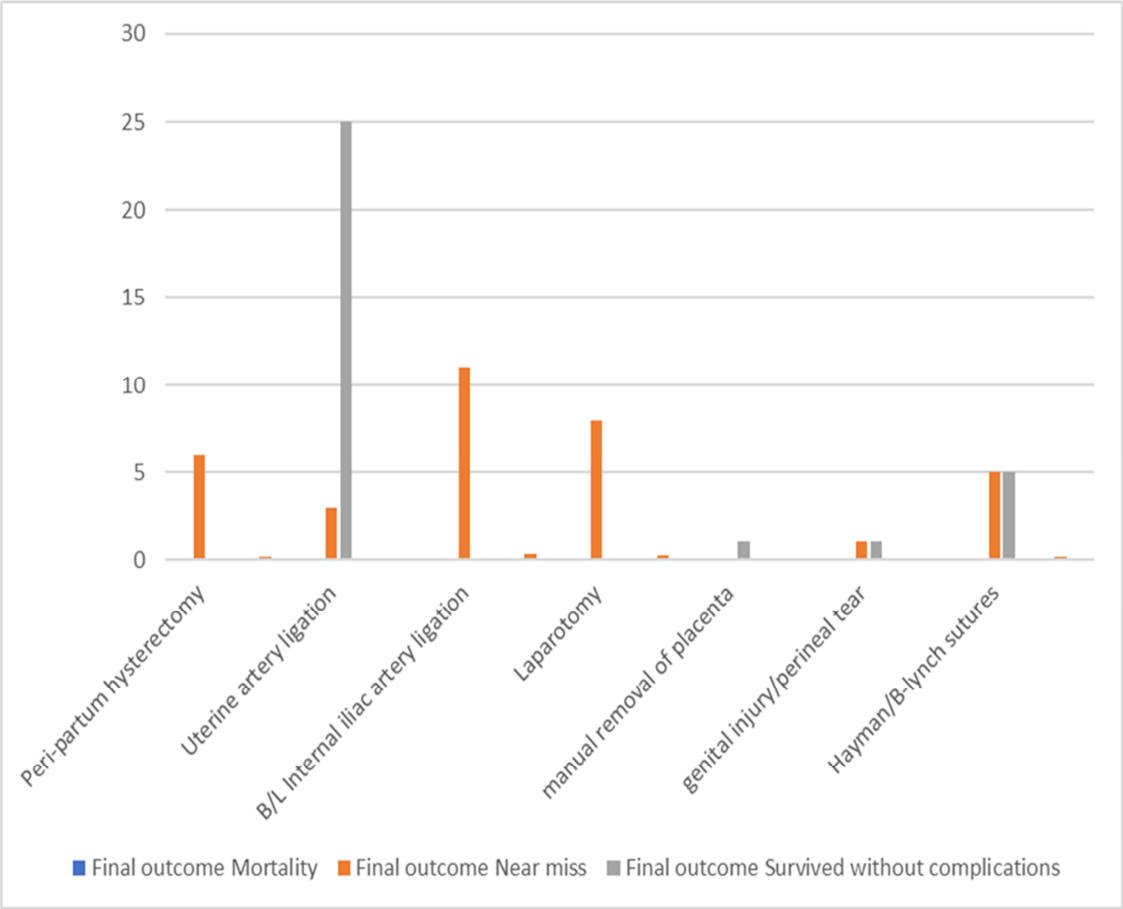


FIGURE 11: DISTRIBUTION BASED ON ADDITIONAL SURGICAL INTERVENTION

TABLE 12: DISTRIBUTION BASED ON PERI-NATAL OUTCOME

Peri-natal outcome	FINAL OUTCOME			Total/PLTC N=239	Chi-square value	p value
	Mortality N= 4	Near miss N=34	Survived N=201			
Live birth	0 0.0%	22 64.7%	183 91.1%	205 85.8%*	82.12	0.001
Peri-natal mortality	1 25.0%	2 5.9%	17 8.5%	20 8.4%*		
NICU admission	0 0.0%	7 20.6%	58 28.9%	65 27.2%*		

*Not applicable – 14

Table 12 shows the relationship between foetal outcomes and maternal conditions among the 239 individuals. For live births, 85.8% of the cases resulted in live births, with 64.7% of near-misses and 91.1 % of survivors. Perinatal mortality accounted for 8.4% of cases, with 5.9% of near-misses. NICU admission was required in 27.2% of the cases, with 20.6% of near-misses. A chi-square value of 82.12 with a p-value of 0.001, indicates a statistically significant association. However total will not come equal 239 as for some it is not applicable for 14 subjects, including 9 ectopic, 3 post abortion, 1 ruptured uterus and 1 undelivered patient (mortality) and some had twin gestation.

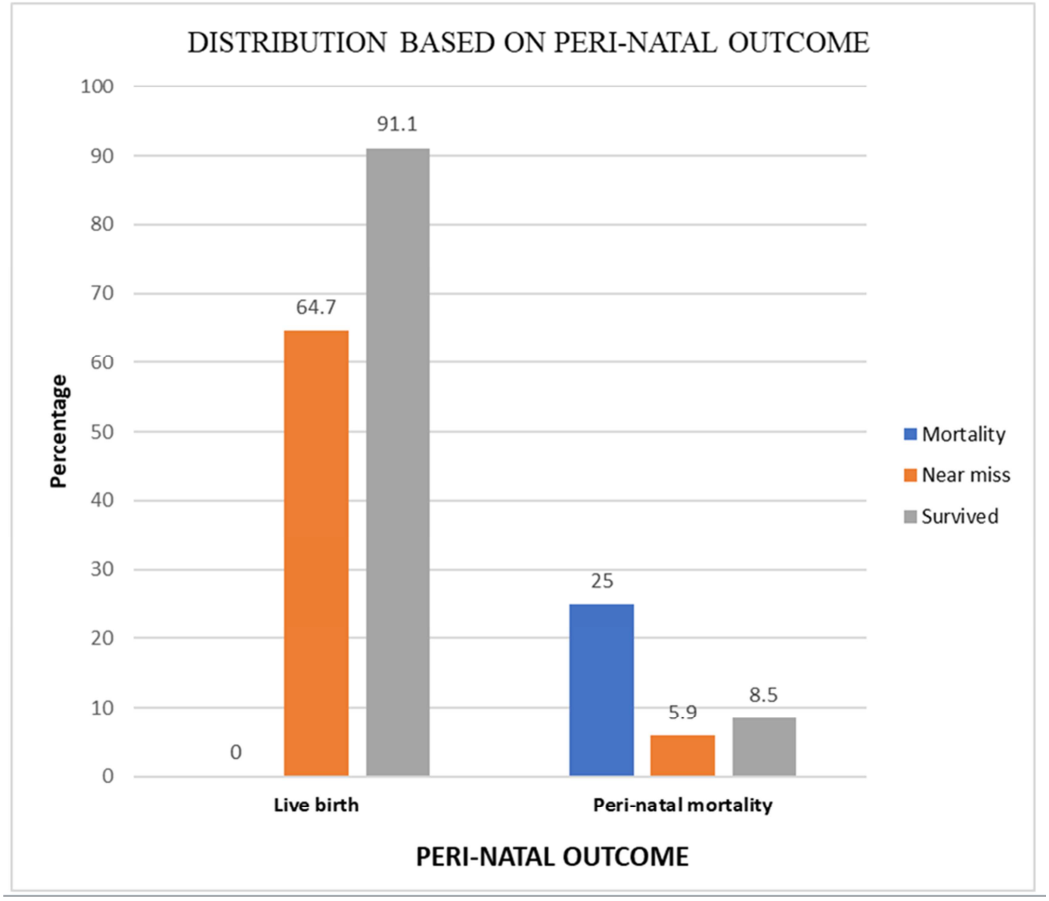


FIGURE 12: DISTRIBUTION BASED ON PERI-NATAL OUTCOME (%)

TABLE 13.1: DISTRIBUTION BASED ON DURATION OF HOSPITAL STAY (DAYS)

Duration of hospital stay(days)	Final outcome			Total/PLTC N=239
	Mortality N=4 100%	Near miss N=34 100%	Survived N=201 100%	
< 7 days	4 100.0%	5 14.7%	49 24.4%	58 24.3%
7 to 14 days	0 0.0%	27 79.4%	136 67.7%	163 68.2%
15 to 21 days	0 0.0%	2 5.9%	11 5.5%	13 5.4%
> 21 days	0 0.0%	0 0.0%	5 2.5%	5 2.1%
Chi-square value- 15.27				
p value- 0.018*				

TABLE 13.2 MEAN DURATION OF HOSPITAL STAY FOR PLTC

	N	Minimum	Maximum	Mean	S.D
Mean Duration of hospital Stay	239	1	23	8.55	3.830

Table 13.1 shows the relationship between the duration of hospital stay and outcomes (mortality, near miss, and survived) in 239 individuals. The majority of individuals (68.2 %) had a hospital stay duration of 7–14 days, with 79.4% of near misses and 67.7% of survivors falling into this category. Individuals with a hospital stay duration of less than 7 days constituted 24.3% of the total, with all cases resulting in mortality. For durations of 15–21 days and over 21 days, a smaller proportion of individuals were observed, with 5.4% and 2.1% of the total, respectively, and no mortality cases were recorded. The chi-square value of 15.27, with a p-value of 0.018, indicated an association between the duration of hospital stay and outcomes which statistically significant. Table 14.2 represents mean duration of stay in PLTC.

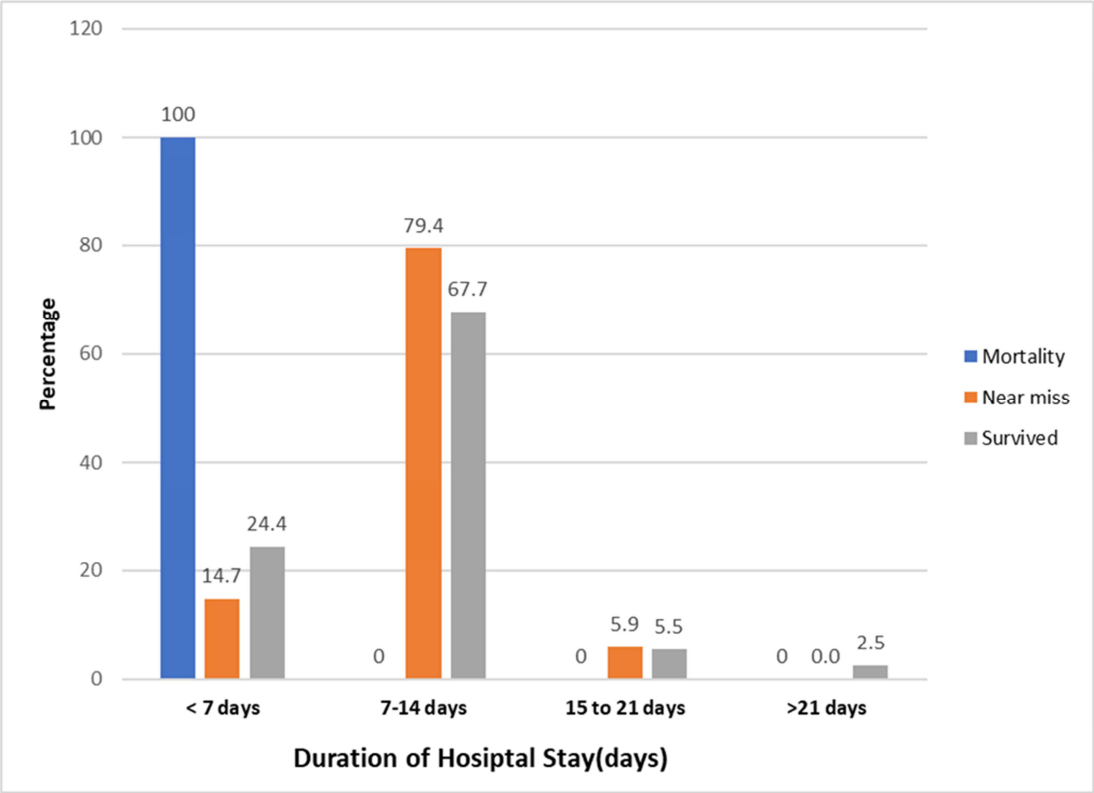


FIGURE 13: DISTRIBUTION BASED ON DURATION OF HOSPITAL STAY (DAYS) FOR PLTC

TABLE 14- DISTRIBUTION BASED ON REFERRAL

Referral	Final outcome			Total/PLTC N=239
	Mortality N=4	Near miss N=34	Survived N=201	
Yes	3 75.0%	23 67.64%	87 33.89%	126 52.7%
No	1 25%	11 32.35%	114 43.2%	113 42.28%

Table 14 discusses the proportion of PLTC that were referred to this hospital. it was noted that75 % of total mortalities were referred here. 67 % of total near miss and 52. 7 % of all PLTC were also referred, indicating the severity of high-risk cases received. Positive association was noted between mortality and referral.

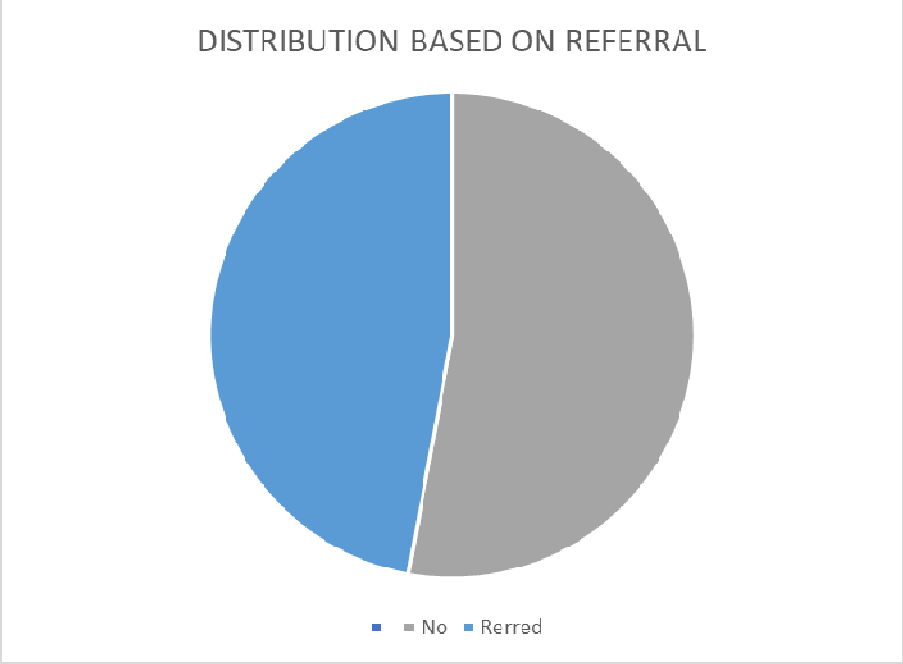


FIGURE 14: - DISTRIBUTION BASED ON REFERRAL STATUS

TABLE 15: DISTRIBUTION OF THE SUBJECTS BASED ON DELAYS

Delay		Final outcome			Total/PLTC N=239	Chi-square value	p value
		Mortality N=4	Near miss N=34	Survived N=201			
yes	Personal/family delay /lack of awareness Count %	4 100.0%	23 67.6%	109 54.2%	136 56.9%	5.21	0.074
	Referral centre delay Count %	3 75.0%	17 50.0%	41 20.4%	61 25.5%	18.64	0.001*
No		0	10 29.4%	87 43%	97 40%		

*Significant

Table 15 discusses regarding personal/family delay or lack of awareness, 56.9% of individuals experienced this delay, with 67.6% experiencing near misses and 54.2% survivors. Conversely, 43.1% did not experience this delay, with 32.4% experiencing near misses and 45.8% survivors. However, all mortality cases (100%) were associated with personal/family delay or lack of awareness. The chi-square value of 5.21 suggests a potential association.

Regarding referral centre delay, 25.5% of individuals experienced this delay, with 50.0% of near misses and 20.4% of survivors. In contrast, 74.5% did not experience this delay, with 50.0% experiencing near misses and 79.6% survivors. Here, 75.0% of mortality cases were associated with referral centre delay. The chi-square value of 18.64 with a p-value of 0.001, indicates an association between referral centre delay and outcomes which was statistically significant.

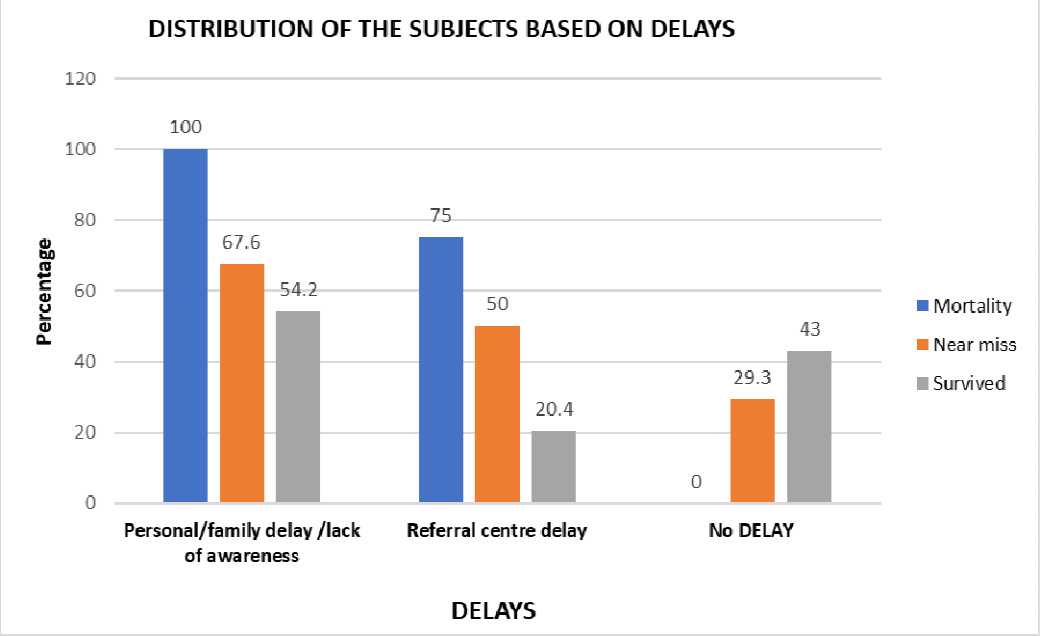


FIGURE 14: DISTRIBUTION OF THE SUBJECTS BASED ON DELAYS

FIGURE 15: DISTRIBUTION OF THE SUBJECTS BASED ON TYPES OF DELAYS

TABLE 16: MATERNAL MORBIDITY MORTALITY INDICATORS

Indicator	Formula	Value
Total Deliveries in Study Period	N/A	4083
Total Live Births in Study Period	N/A	4183
Severe maternal outcomes		
Maternal Mortality	N/A	4
Maternal Near Miss	N/A	34
PLTC	N/A	239
Incidence of PLTC per 1000 Live Births	PLTC/ Total Live Births * 1000	57.13
Incidence of Near Miss per 1000 Deliveries	Near Misses / Total Deliveries * 1000	8.32
Incidence of Near Miss per 1000 Live Births	Near Misses / Total Live Births * 1000	8.12
Maternal Near Miss to Mortality Ratio	Near Misses / Maternal Deaths	8.5: 1
PLTC to Mortality ratio	PLTC/Maternal Deaths	59.75:1
Maternal Mortality Ratio (**per lakh live births per year**)	(Maternal Deaths / Total Live Births) * 100,000	95.62
Morbidity mortality index (MMI)	Maternal deaths/maternal death + near miss x 100	10.52%
Hospital access indicators		
PLTC at arrival	-	165
Proportion of PLTC at Arrival among	(Proportion of PLTC at Arrival	69%

PLTC	among PLTC	
Proportion of PLTC that were Referred	(Number of Referred PLTCs / Total Number of PLTCs) * 100	47.2%
PLTC at Arrival Mortality Index	(PLTC Died within 24 Hours / PLTC at Arrival=3/165)	1.8%
Intra-hospital care indicators		
Intra-Hospital PLTC	Registered/Total = 116/239x100	48.53%
Intra-Hospital PLTC Rate per 1000 Live Births	(Intra-Hospital PLTC / Total Live Births) * 1000	27.49
Intra-Hospital Mortality Index	(Mortality among PLTC registered in this hospital)	0%

DISCUSSION

This study is conducted in a tertiary care hospital situated in centre of north Karnataka and receive a good case load from Karnataka as well as Maharashtra states of India. The study period encompassed a total of 4083 deliveries, resulting in 4183 live births. During this period, severe maternal outcomes (PLTC and MNM) were recorded, including 4 maternal deaths and 34 maternal near-miss cases, with 239 potentially life threatening conditions. The incidence of near miss events was calculated to be 8.32 per 1000 deliveries and 8.12 per 1000 live births. The NMMR was observed to be 8.5, indicating that for every maternal death, there were 8.5 instances of near-miss events. The MMR was 95.62 per 100,000 live births per year and MMI was noted to be 10.5%. The maternal near misses to mortality ratios as well as the morbidity mortality index offer insights into the quality of healthcare provided at a centre. The higher ratio of maternal near-miss to mortality suggests good obstetric care and hospital facilities.

Comparing these findings with other studies, the near-miss incidence in our study is relatively similar to that reported in the United States (6.9 per 1000 deliveries) and Malaysia (7.6 per 1000 deliveries). However, it is lower than the incidence reported in Brazil (15.2 per 1000 deliveries), Uganda (12.4 per 1000 deliveries), and several regions in India, such as Delhi (18.6 per 1000 deliveries).

A retrospective study over a period of five years was conducted on 194 near miss cases focused only on the laboratory as well as treatment criteria. The results showed that the most frequently occurring criteria were related to treatment, with nearly half of the patients requiring mechanical ventilation (49.6%).[31] In present study, patients who did not timely receive mechanical ventilation, **ICU admission,**

vasopressors, additional surgical interventions like internal artery ligation, peripartum hysterectomy, , laparotomy, etc because of delay in referral or other factors had significant mortality compared to those who received these additional medical and surgical interventions. This shows that although this hospital is equipped well with ICU, ventilators, surgical facilities with skilled gynaecologists/ surgeons, OT, interventional radiologists, blood products etc all facilities available 24x7, delay in seeking treatment and referral can still cause significant mortality.

Further Hospital access indicators showed that of the 239 PLTC cases, 165 (69%) were identified upon arrival. Additionally, nearly half of the PLTC cases (47.2%) were referred from other centres. The PLTC at arrival mortality index was 1.8%, (i.e. 3 out of 165 PLTC cases resulted in death within 24 hours of arrival) reflecting the critical condition in which many referred patients arrived. This also indicates a significant reliance on our hospital for advanced obstetric care from surrounding regions.

In terms of intra-hospital care indicators, 48.53% of the PLTC cases (116 out of 239) were registered within the hospital. The intra-hospital PLTC rate per 1000 live births was calculated to be 27.49 (Notably, there were no recorded deaths among the PLTC cases registered within the hospital, resulting in an intra-hospital mortality index of 0%) This zero mortality rate among registered PLTCs demonstrates the effectiveness of our hospital's in-house maternal care services.

Compared to US, which has a rate of 1 PLTC per 1000 live births [37], the PLTC and MNM incidence in India is significantly higher, ranging from 3.9 to 379.5 per 1000 live births and 7.6 to 60.4 per 1000 deliveries.[38] In countries with limited resources and a high prevalence of superstition, a lack of education and financial constraints can lead to the failure to identify warning signs and to seek vital medical

attention in a timely manner. The success of safe motherhood initiatives depends greatly on the importance of preparedness for delivery and readiness for complications.[39] In present study, there was a significant association between the condition at admission as PLTC/ near miss and outcomes.

The leading causes of life-threatening complications in our study were hypertensive disorders of pregnancy (52.5%), particularly eclampsia, followed by ectopic pregnancies (17.5%), and postpartum haemorrhage (7.5%). These findings are consistent with other studies indicating that hypertensive disorders of pregnancy are a predominant cause of severe maternal outcomes. Notably, our study had no maternal deaths from hypertensive disorders of pregnancy and no direct mortality from PPH, a leading cause of maternal mortality globally, likely due to the effective interventions and protocol-based management followed in our tertiary care setup.

In a systematic review conducted by the World Health Organization, it was found that haemorrhage was the primary factor for maternal mortality in both Africa as well as Asia.[40] Despite the substantial risk of experiencing a maternal near miss due to haemorrhage, the likelihood of mortality was not elevated in the present study. Haemorrhage being one of the factors that necessitate surgical intervention, abnormal placentation, which encompasses placenta previa, accreta, as well as percreta, is associated with a relatively lower mortality rate which can be attributed to preparedness for complications like arranging adequate blood products, senior surgeon availability etc. Other researchers observed a similar phenomenon [41-43]. According to previous reports, PPH due to uterine atony as well as ruptured uterus resulted in higher morbidity and in this setting, resulted in a mortality.[44,45] Despite the implementation of a protocol for managing obstetric haemorrhage on a large scale, along with the use of intraoperative uterotonics and access to blood products, delays

in referring patients or a lack of awareness could still result in fatalities. Like in one of the mortality cases noted in this study, patient had been advised against conceiving by cardiologist in view of severe mitral valve prolapse but presented at 34 weeks with stuck mitral valve needing emergency thrombolysis, following which landed up in labour within 12 hours and ended up with PPH. PPH was managed with uterotonics and adequate blood products but due to >1400 ml blood loss, patient went into irreversible shock and collapsed next day. Such lack of awareness and personal / family delay in seeking healthcare can prove fatal and hence shows that there is so much that can be done to promote healthcare but until awareness is spread to avoid delays, all is in vain. Previous researchers have highlighted similar observations.[46]

In the present study it was observed that those with PPH accounted for 26.8%, 20.6 % and 25.0 %, of the total PLTC, near miss and mortality respectively.

In this study, the MNM incidence was 34 out if 239 patients and MNM to MMR was found to be 8.5:1. This is comparable to other Indian studies (2:1-21.8:1)[47-49] as well as LMICs (4.6:1-26:1).[50,51] A study conducted in Odisha State found that the MNM to MMR was 1.7:1.[52] Nevertheless, the highest ratio reported in Indian studies was 21.8:1.[53] The WHO criteria were utilized in both research;[53,54] however, the significant discrepancy was likely attributed to the differing number of MNM cases in these two research. In this study, the World Health Organization's guidelines were followed to determine MNM cases. According to these guidelines, at least one criterion must be met from each category, namely clinical findings (symptoms or signs), investigations, interventions, or a single criterion indicating cardiorespiratory collapse must be present where this approach is quite strict. Different studies utilized a range of criteria, including those proposed by the World Health Organization (WHO),[55] Filippi,[56] a five-point scoring system,[57] and modified versions of Mantel's

criteria.[58] As per Filippi's criteria, only disease-specific criteria are provided for identifying MNM [56], while the modified Mantel's criteria resemble the WHO criteria, with some minor modifications.

A systematic review encompassing 14 MNM reviews across Africa disclosed prevalence of MNM from 0.05% to 15.00% and highlighted the influence of facilities (e.g., referral/tertiary hospitals vs. smaller facilities), or criteria and definitions used.[60] Importantly the mortality index (8%) as well as MNMMR (12.3:1.0) were reported in this study. The relatively low mortality index of 8% might imply that the healthcare facilities included in the study performed exceptionally well in the management of patients, which is in line with the findings of the current study.

Severe preeclampsia as well as eclampsia are two conditions that are frequently linked to high near miss rates, making them a leading concern. The main affected organ systems were haematologic, neurological, and respiratory. In another review conducted in low-resource settings on MNM, reported severe haemorrhage as well as sepsis which were frequently observed to be highly prevalent.[61,62] Similarly, another study showed that 46.0% of patients had severe PE, with no mortality cases, 20.6% of near misses, and 51.2% of survivors which is comparable to the present study. Low mortality in Eclampsia cases, as also seen in present study, with time shows our preparedness and efficacy of the current treatment protocols.

According to the World Health Organization, three primary methods exist for determining the criteria of MNM: clinical criteria linked to a specific illness, management, as well as organ system dysfunction.[55] However in WHO criteria, there may be a difference in reporting due to the variation in physical as well as human resources available and admission to ICU criteria used in these facilities, which may include or exclude obstetric labour room ICUs.[55]

The review of MNM cases is a technique implemented in several affluent settings. The UK has a solid programme of confidential inquiries into maternal fatalities and a national framework for research on MNM such as the UK Obstetric Surveillance System (UKOSS). UKOSS investigates the occurrence, risk factors involved, care as well as outcomes of the severe pregnancy complications, enabling lessons to be learned for enhancing future care.[64] This causes the swift incorporation of suggestions in the country's recommendations. The vast majority of improvement suggestions that assessors from Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries Across the UK (MBRRACE-UK) have pinpointed are derived primarily from already available guidance or reports, and these suggestions serve to emphasise the need for increased implementation of already available guidance in certain areas.[65]

The maternal mortality ratio in our study (95.62 per 100,000 live births) is comparable to that in developed nations like Canada (100 per 100,000 live births) and the Netherlands (70 per 100,000 live births), but significantly lower than in countries like Pakistan (400 per 100,000 live births) and Nigeria (300 per 100,000 live births).

India, a country with limited resources, experiences a disproportionate burden on women, particularly in the management of obstetric emergencies at different levels. In Doreswamy et al ’s study the mean duration of hospital stay was 7.4 days in NMM cases.[33] In the present study, the majority of individuals (68.2 %) had a hospital stay duration of 7 to 14 days, with 79.4% of near misses which is consistent with Doreswamy et al. ’s study and other studies which poses a financial burden directly and indirectly as well.[33-36]

Three common delays are regarded as one of the primary reasons for the inadequate emergency care provided to women during childbirth in India. The initial delay arises from a lack of awareness, leading to a delay in seeking healthcare services. The second delay results from a lack of accessibility to healthcare facilities due to factors such as transportation, cost, as well as sometimes socioeconomic issues. The third delay occurs due to a lack of proper care at healthcare facilities, including delays in diagnosis, decision-making, lack of resources, or trained professionals, or referrals. This study revealed that 56.9% of cases experienced personal or family delays due to lack of awareness, with these delays resulting in 67.6% of near misses and 54.2% of survivors. Alarmingly, every mortality case (100%) was linked to such delays, underscoring a critical area for intervention. The chi-square value of 5.21 indicates a significant potential association.Referral center delays were reported in 25.5% of cases, contributing to 50.0% of near misses and 20.4% of survivors. Strikingly, 75.0% of mortality cases were associated with referral delays. With a chi-square value of 18.64 and a p-value of 0.001, this association was statistically significant, highlighting an urgent need for systemic improvements in the referral process.

In this study, it emerged that a substantial number of maternal mortality cases[4], as well as significant number of near miss events [34], exhibited the presence of dysfunction in more than one organ. The findings further revealed that the first and third delays were the primary reasons for the high mortality as well as morbidity rates observed. A study conducted by Visi and Akoijam also revealed that a significant number of near miss incidents were caused by delays in seeking healthcare. According to their findings, a lack of understanding of the warning signs of pregnancy was a major factor contributing to these delays in management. The majority of these

individuals were illiterate as well as hailed from lower socio-economic backgrounds.[66]According to Sarma and Kalita, one in every four women who survived life threatening complications lost their lives. They emphasized that the initial evaluation and prompt referral from primary health centres were crucial to safe guard both the mother and the baby.[67] Verma et al. found that the lack of personal/family along with referral delays, were the primary reasons for high morbidity as well as mortality rates [79]. They also demonstrated that early assessment and subsequent early referral from primary health centres were the most critical steps in saving both the mother and the baby.[80] Our study is in accordance with the above-mentioned studies.

Majority (96.2%) of the women in our study received Antenatal care which is almost comparable to the study of Kulkarni et al., where majority (87.8%) of the women also received ANC. 3.8 % of these cases were not registered anywhere and constituted 23.5% of total near miss and 25% of total mortality. Even though 96.2 % were registered cases, there were MNM events (76.5%) among registered cases and 67.6 % of MNM were referred showing that this hospital receives more high-risk cases.[68] Therefore, enhancing the quality of antenatal care primary centres is crucial, which involves monitoring the vital signs and blood pressure, as well as assessing the levels of haemoglobin and albumin in their urine to reduce the risk of PPH as well as hypertensive disorders during pregnancy.

In this study, both morbidity and mortality were maximum in the age group 26-30 years followed by 21-25 years which can be attributed to high fertility rate in these age groups, similarly according to Verma et al., the highest morbidity (28%) as well as mortality (37%) were observed in 20-24 years of age group, while maternal near-miss was more prevalent (76.92%) in multigravida women. The highest rates of

maternal near-miss (53.84) and mortality (51.85) were observed between 32-34 weeks of gestational age in that study.[21]

In our study, caesarean section was performed in 47.1 % of the near-miss cases. Nevertheless, it is possible that confounding factors have influenced this relationship. It is not clear whether Caesarean section is the cause for near-miss events or if it is simply a result of this condition.[72] In the study conducted by Talluparedddy et al., caesarean section was performed in 66.67% of cases where maternal death occurred, and in 37.5% of cases where a near-miss was recorded.[73]

Oliveira and colleagues revealed a comparable proportion of severe complications cases in both the early and late reproductive stages, amounting to approximately 17%. As anticipated, the research also identified distinct characteristics between these two age extremes. In adolescents aged 14 and younger, the extremely low mortality ratio has received considerable attention.[74] Given that adolescent pregnancy is already considered a significant issue, the problem is further exacerbated in the 10 to 14 age group.[75] Unfavourable circumstances, including physical, social, economic, or violent events, tend to worsen. Although the percentage of cases identified in this particular age group was relatively small (around 1.2% of the total cases examined), further analysis was not feasible. Nonetheless, a heightened risk was evident, emphasizing the importance of continued efforts to prevent pregnancies in this age range.[76] For women aged 35 or more, the risk of unfavourable outcomes was substantially greater than the <35 years. Furthermore, in the extreme age group of over 40 years, this effect was even more pronounced. Previous research has also revealed these results.[77,78] In present study, cases in the extreme age groups were very less, which can be attributed to less fertility rate in > 35 years of age group and also to the fact that most of adolescent pregnancy cases are received in nearby government medical college of

BIMS in same locality. Among >35 years age group, in this study 4.9 % PLTC and 2.6% of near miss events belonged to this group.

The auditing of near-miss cases presents us with a chance to examine cases that were almost identical to those where maternal mortality occurred, and by reviewing them, we can gather solid evidence of the reasons and inadequacies in healthcare facilities that result in severe complications. Near-miss audits facilitate the assessment of critically ill women's care, the recognition of care provision deficiencies, and the comparison of both within the institutions as well as between the institutions. This process ultimately aims to enhance the quality of obstetric care, leading to a further reduction in maternal morbidity as well as mortality. Maternal near miss has been recognized as an adjuvant tool for investigating maternal mortalities since they both share comparable pathological and situational elements that contribute to severe outcomes. With a higher incidence of near-miss cases than maternal mortalities, the survived patients can offer valuable insights into the obstacles and challenges encountered during the healthcare process. Consequently, these cases provide crucial information on the quality of healthcare services at all levels. Therefore, it is essential to utilize the maternal near miss concept for evaluating maternal health as well as the quality of care.

Maternal deaths in healthcare facilities are an uncommon occurrence, resulting in a small number of fatalities. To help healthcare systems assess and enhance the quality of obstetric care, WHO has created a concept of maternal near miss. Despite facing similar pathological and situational factors, some women die, while others barely survive.[69] Mothers who have overcome the complications acts as a surrogate, allowing us to gain insight into the avoidable elements that contribute to maternal mortality.[70] Women may sometimes survive complications due to either chance or the

quality of care they receive. Hence, analysing maternal near-misses provides an overall assessment of the quality of healthcare facilities,[71] and the maternal near-miss to mortality ratio serving as a superior indicator of the quality of obstetric care in a tertiary care centre.

This research takes it a step further and emphasises the necessity of promptly detecting and addressing potentially life threatening complications that may arise during pregnancy and may result in maternal near miss or mortality. The high proportion of PLTC at arrival i.e. patients received as PLTC (69%) and the considerable load of referred PLTC (47.2%) highlight the need for effective communication and transportation networks between healthcare facilities. The low mortality index among PLTC at arrival (1.8%) and the absence of intra-hospital deaths (i.e. deaths among registered PLTC) among PLTC indicate effective hospital management and care. These findings contribute valuable insights into maternal health outcomes in this tertiary care centre and emphasize the critical role of hospital-based interventions in improving maternal survival rates.

STRENGTH OF THE STUDY

- This research emphasises the necessity of promptly detecting and addressing potentially life threatening complications that may arise during pregnancy.
- The high proportion of PLTC at arrival i.e. patients received as PLTC (69%) and the considerable load of referred PLTC (47.2%) highlight the need for effective communication and transportation networks between healthcare facilities.
- The low mortality index among PLTC at arrival (1.8%) and the absence of intra-hospital deaths (i.e. deaths among registered PLTC) among PLTC indicate effective hospital management and care.
- These findings contribute valuable insights into maternal health outcomes and emphasize the critical role of hospital-based interventions in improving maternal survival rates.

LIMITATIONS OF THE STUDY

- Despite using a universal WHO-criteria to identify the PLTC, inter-observer bias cannot be avoided.
- Different criteria available for PLTC and MNM could not be used and compared for their usefulness and user efficacy, accessibility and feasibility.
- Despite criteria for PLTC and MNM being crisp, some cases can't fit in any of the criteria (like poisoning, accidental injuries etc) and though they make lesser proportion of maternal near miss and mortality, burden can't be ignored in low income and low resource countries.

CONCLUSION

Based on the study findings, the following conclusions were drawn.

- It was noted that while maternal mortality ratio was noted to be high (95.62 per 100,000 live births), a detailed study of near miss to mortality ratio (8.5:1) showed that this hospital receives and manages a high number of maternal near miss cases per mortality.
- This detailed study of PLTC showed that most of the mortalities were referred to this centre as near miss and died within 24 hours suggesting that maternal mortality ratio alone is not a good indicator of the quality of obstetric care in a hospital.
- Our findings indicate that despite the challenging cases received as a tertiary care/ referral centre, effective clinical protocols and prompt interventions can significantly reduce maternal mortality and morbidity. However, the high incidence of PLTCs and the substantial proportion of referred cases arriving in critical condition underscore the need for strengthened referral systems and enhanced prenatal care to detect and manage complications early.
- Future studies should focus on identifying barriers to timely access to care and developing strategies to address these challenges. Additionally, there is a need for continuous training and capacity building for healthcare providers to ensure adherence to clinical guidelines and improve maternal health outcomes.

SUMMARY

A prospective cross-sectional Study was conducted at KAHER'S Dr. Prabhakar Kore Hospital and Medical Research Centre, Nehru Nagar, Belagavi, to investigate the incidence of potentially life threatening complications during pregnancy, maternal near miss as well as mortality with in our hospital setting. The study included 239 pregnant women who had a potentially life-threatening complication during the pregnancy period, labour as well as the postpartum period (according to operational definitions suggested by WHO severe morbidity criteria) over a period of 1 year from February 2023 to January 2024. This study aimed to identify potentially life threatening complications during pregnancy, maternal near miss, as well as mortality in our hospital setting. The study findings area as follows-

- The age group 26-30 years had the highest number of cases and mortality, accounting for 40.2% of the total cases. The age group 21-25 years has the highest survival rate, with near misses prevalent in both age groups. However, no statistically significant associations were observed.
- The majority of individuals in study had a socioeconomic status of lower middle class, accounting for 78.2% of the total sample, including all mortality cases, near misses, and survivors.
- The study revealed a significant association between obstetric scores and outcomes, with G1 comprising 37.2% of the total, G2 comprising 25.1%, and G3 comprising 100% of mortality cases, 35.3% of near misses, and 27.4% of survivors.
- The study revealed that among all PLTC, ANC registrations in this hospital setting make up 48.5% of the total, with no mortality cases. Those registered in the outside made up

47.7%, with no ANC registration accounting for 3.8%. It was observed that all mortalities and majority of near miss (64.7%) belonged to either unregistered group or those who took ante-natal care in some other centre and were referred here, indicating good quality of antenatal care in this hospital.

- The majority of gestational age groups in one study were 37-42 weeks, with 47.3% of cases and 51.2% of survivors. The remaining groups were 27-34 weeks, with 25.1% of cases and 18.9% of survivors. A statistically significant association was noted between the gestational age and patient outcomes.
- Emergency LSCS was the most common mode, accounting for 62.3% of cases, with 35.3% near misses and 68.2% survivors. Elective LSCS was 11.7%, with 11.8% near misses, and 11.9% survivors. Vaginal delivery was 17.6%, with significant near misses and mortality cases.
- The majority of individuals admitted with PLTC and near miss accounted for 94.6% of the total, including all mortality cases, 85.3% of near misses, and 96.0% of survivors, with a significant association between condition at admission and outcomes.
- PPH affected 26.8% of cases, 25.0% of mortality, 20.6% of near-misses, and 27.9% of survivors, with no significant association between PPH and mortality outcomes.
- The study found that 7.5% of cases, near misses, and survivors had placenta previa. There was no significant association between placenta previa and adverse outcomes, as indicated by a chi-square value of 0.409 and p-value of 0.815, which indicate timely diagnosis and preparedness for PAS.
- The study found a significant association between severe PE and outcomes, 20% of near misses were severe PE.

- The study found that 6.3% of all PLTC had the Eclampsia, with no significant association between eclampsia and the mortality.
- The study found a significant association between receiving Blood/blood products and outcomes, with 56.1% of all PLTC receiving Blood/blood products, while 43.9% did not. This indicates a significant difference in the outcomes between those who received BT and those who did not.
- Individuals who did not receive additional surgical interventions (i.e. were referred in critical condition or irreversible shock /organ dysfunction) had significantly higher mortality rates (100%) than those who did (0%).
- The study found that 75 % of all mortalities needed mechanical ventilator and 25% died before they could receive mechanical ventilation and ICU care.
- The study found that individuals who did not receive certain additional medical / surgical interventions mentioned had significantly higher mortality rates, with chi-squared values greater than 24 and p-values less than 0.001.
- Live births occurred in 91.1% of the cases, with 64.1% of near misses. The perinatal mortality rate was 8.4%, with 5.9% in near miss. NICU admission occurred in 27.2% of the cases.
- The majority of hospital stays were 7-14 days, with 79.4% of near-misses and 67.7% of survivors. Of these, 24.3% were mortality-related. A duration of stays of 15-21 days and over 21 days was less common, with 5.4% and 2.1% of cases, respectively. A statistically significant correlation was found between the duration of hospital stay and outcomes.
- The study found that 56.9% of individuals experienced personal/family delay or lack of awareness, with 67.6% experiencing near misses. However, all

mortality cases were associated with this delay, with a chi-square value of 5.21, suggesting a potential association.

- The study found a significant association between referral centre delay and mortality cases, with 25.5% experiencing delays, 50.0% of near misses, and 20.4% of survivors, indicating a significant impact.

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ANEXURE: I– INFORMED CONSENT FORM

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH TRIAL

"A ONE YEAR OBSERVATIONAL STUDY OF POTENTIALLY LIFE THREATENING CONDITIONS (PLTC) AND MATERNAL NEAR MISS (MNM) AND MATERNAL MORTALITY (MM) IN KLE'S DR PRABHAKAR KORE HOSPITAL, BELAGAVI".

Ms./Mrs. _____ voluntarily agree for the participation of as a subject of study. By signing this consent form I am not giving up any of my legal rights, I may withdraw from the study anytime. I am signing the consent form after having read or been read for me in vernacular language, including the risks and the benefits and having all my questions answered.

Is the participant eligible? Yes ☐ No ☐

Subject Name : _____

Signature or the Left Thumb Print of Subject/Guardian: _____

Date:

Witness Name: _____ Signature: _____

Investigators Name: _____ Signature: _____

Date:

Place : _____.

ANNEXURE: II - PROFORMA

1. GENERAL INFORMATION

Enrolment number_____

a. Full Name_____

b. Age _____ (in years)

c. Inpatient No_____

d. Contact No patient. _____ Husband _____

e. Complete address_____

f. Education: Illiterate

literate Up-to 5th class☐

6th to 12th class ☐

Beyond 12th class☐

g. Socioeconomic status_____

h. Date of admission: ______. Time: ☐Hours ☐

i. Date of discharge: ______ Time: ☐Hours ☐ Min

j. Duration of hospital stay Day. _____ Days _____ Hours

h. Duration between time of admission and diagnosis of near miss: __ Days ___Hours

i. Duration of ICU stay: _____ Days _____ Hours

j. Provisional Diagnosis at Admission_____

k. Final Diagnosis at Discharge_____

2. CONDITION AT TIME OF ADMISSION

a. Patient admitted in Hospital with severe illness ☐

b. Admitted with no disorder, became Near Miss ☐

c. Admitted with disorder, became Near Miss ☐

3. REFFERAL

a. Referred patient. Yes ☐ no ☐

b. ANC registration. Yes ☐ no ☐

c. Transportation provided from the referring facility Yes ☐ no ☐

4. STATUS AT ADMISSION

a. Gravida ___. Parity. ____ Abortion. ____ Living.____ Death. ____

b. Antenatal < 22 weeks. ☐

> 22 & < 34 weeks. ☐

> 34 & < 37 weeks. ☐

> 37 & < 42 weeks. ☐

Ob > 42 weeks. ☐

c. Intra-natal. ☐

Postnatal Abortion. ☐

Post abortion. ☐

Other. ☐

d. Days since delivery/abortion:

Within 24 hrs. ☐

>24 hrs.- 1week. ☐

>1 week - 6 weeks. ☐

not applicable. ☐

5. POTENTIALLY LIFE THREATENING COMPLICATIONS IN PREGNANCY

A. Severe post-partum haemorrhage. Yes. ☐ No ☐

If yes

Atonic PPH. ☐

Traumatic PPH ☐

Mixed PPH ☐

B. Severe pre-eclampsia. Yes ☐ No. ☐

If yes

Severe uncontrolled hypertension ☐

Deranged LFTs. ☐

HELLP syndrome. ☐

Deranged RFTs. ☐

Abruptio placenta. ☐

DIC. ☐

Eclampsia. ☐

C. Placental disorders. Yes ☐ No ☐

a) Placenta previa. ☐

Placenta increta. ☐

Placenta percreta ☐

No increta/percreta. ☐

b) Abruptio placenta. ☐

D. Sepsis. Yes ☐ No ☐

E. severe systemic infection. Yes ☐ No ☐

F. Ruptured uterus. Yes ☐ No ☐

G. Shock Yes ☐ No ☐

H. Severe complications of abortion. Yes ☐ No ☐

I. Gestational trophoblastic disease. Yes ☐ No ☐

J. Ruptured ectopic pregnancy Yes ☐ No ☐

K. Systemic disorders. Yes ☐ No ☐

If yes

a) Endometritis. ☐

b) Respiratory failure. ☐

c) Puerperal sepsis. ☐

d)thrombocytopenia <1 lakh ☐

e) Laparotomy. ☐

(includes hysterectomy and excludes C-section, laparotomy with procedures like B-lynch sutures, step-wise de-vascularisation, uterine artery ligation, internal iliac artery ligation)

L. Central venous access. Yes ☐ No☐

M. Non-anaesthetic intubation Yes ☐ No☐

N. Prolonged hospitalization (>7 days) Yes ☐ No☐

References: Chabbra etal, Alberto Madeiro etal , MNM review operational guidelines 2014)

6. PRESENTING COMPLAINTS (Please tick all the presenting complaints)

	Yes	No		Yes	No
Vaginal bleeding			Convulsion		
Vaginal discharge			Unconscious state		
High grade fever			Syncope		
Swelling of feet / body			Breathlessness		
Right upper quadrant pain			Palpitations		
Passing of scanty amount of urine			Chest pain		
Severe headache			Orthopnoea		
Blurring of vision			Vomiting		
Pain abdomen					

7. EXAMINATION FINDINGS

Date and time of examination

Examination	at admission	at the time of Near Miss	Examination	At admission	at time of Near Miss
Date and time of examination			Abdominal distension		
Febrile/afebrile			Abdominal scars		
Pulse			Soft /guarding		
Respiratory rate			Tenderness+/-		
BP			Organomegaly		
Pallor			Mass Per Abdomen		
Icterus			Bowel sounds		
Cyanosis			Cervix		
Oedema(face/feet)			Vagina		
Conscious			Others		
Orientation			Uterine size		
Any CVS anomaly detected			Uterus position		
Any. RS anomaly detected			Uterine tenderness		
Fundal height			Fornices		
Uterine contractions +/-			Others		
Presentation/position			Foetal heart rate		

8. INVESTIGATIONS

Sample collected	At admission	At time of near miss	Sample collected	At admission	At time of near miss
Hb			Creatinine		
TLC/DLC			Urea		
Platelets			Na+		
Bleeding time Clotting time			K+		
Blood group Rh			HIV		
Urine albumin			HBsAg		
Urine sugar			VDRL		
Urine ketone			Rapid dengue		
Urine microscopy			Rapid malaria		
BS (F)			Widal		
BS(PP)			Blood C/S		
BS (RBS)					
Alkaline phosphate			Urine C/S		
SGOT			Cervical swab		
SGPT			Ophthalmoscopy		
Bilirubin total			USG		
Bilirubin direct			Doppler		
X-ray			X ray chest		
CT scan			MRI		

9. DELIVERY DETAILS:

a. Place of Delivery :

Public Hospital. ☐

Private Hospital. ☐

Home ☐

Other. ☐

b. Did she have labour pains? Yes ☐ No ☐

If Yes

Spontaneous. ☐

Induced. ☐

was a partograph used? Yes ☐ No. ☐ Don't know ☐

c. Indication for Induction: _____

d. Duration of labour: Hours____ Minutes ____

e. Vaginal.

Normal.

Assisted.

Episiotomy

Breech

Multiple pregnancy

Caesarean section.

Elective.

Emergency

Laparotomy.

Ruptured uterus.

Ectopic

Other indications

f. Anaesthesia

i. General. ☐

ii. Spinal/epidural. ☐

iii. Regional ☐

g. In which phase of labour did she develop complications

i. First stage. ☐

ii. Second stage. ☐

iii. Third stage. ☐

iv. Post Birth ☐

v. Within < 6 hrs. of birth ☐

vi. > 6 - < 24 hrs of birth. ☐

vii. % 24 hrs after birth ☐

h. Specify the complication

i. Atonic PPH. ☐

ii. Traumatic Vaginal /Cervical tear ☐

iii. Broad Ligament Haematoma ☐

iv. Rupture Uterus. ☐

v. Intra-partum Eclampsia. ☐

vi. Retained placenta/ Inversion ☐

vii. Others. ☐

10.PUERPERIUM / POST ABORTAL / POST LAPROTOMY

If Eventful.

PPH. ☐

Sepsis. ☐

Post-partum eclampsia ☐

Others. ☐

11.BLOOD TRANSFUSION

a. Received. Yes. ☐ No ☐l

b. In which period:

Antenatal ☐

Intra natal ☐

Post natal. ☐

Post abortal ☐

Other. ☐

Details of blood complications

S.no	Components		
1	Whole blood		
2	Packed cells		
3	FFP		
4	Platelets		

12.DETAILS

Outcome

☐ Stillborn

☐ Live birth. Discharged Neonatal death

☐ Admitted in NICU. Discharged Died

13. SYSTEM INVOLVEMENT. Single Multiple

Cardiovascular. Respiratory system

Hepato-biliary system. Urinary system

Genital system. Haematological system

Central nervous system. Gastrointestinal system

Immune system. Musculoskeletal system

14. CONDITION AT DISCHARGE

Completely recovered. Yes. ☐ No☐

If no, details of residual morbidity

Mortality. Yes.☐ No☐

Cause of death

15. INTERVENYIONS DETAILS -AT PLACES FROM WHERE REFERRED AND AT THIS INSTITUTION

Interventions	Yes	No	Specify
ICU admission			
Resuscitative Procedure / intubation			
Mechanical Ventilation			
Use of Vaso pressors			
Digitalization			
Evacuation			
Laparotomy with procedures -B lynch, stepwise Devascularization etc			
Hysterectomy			
Internal iliac ligation			
Manual removal of placenta			
Reposition of inverted uterus			
Repair of genital injuries			
Repair of bladder/bowel			
Dialysis			
Management of Ketoacidosis			
Drugs to reduce cerebral oedema (mannitol)			
Anticoagulant			
Others			

20. IN YOUR OPINION WERE ANY OF THESE FACTORS PRESENT

SYSTEM	EXAMPLE	Y	N	Specify
Personal/family	Delay in woman seeking help (If yes why) -Lack of Awareness -Lack of Resources -Past adverse effects Refusal of treatment or admission			
Logistics	Lack of transport from home to healthcare facility Lack of transport between health facilities Lack of communication network			
Referral facility/facilities	Infrastructural issues Lack of medications, instructions, equipment's or consumable Non utilisation of available medications, instruments and equipment Lack of blood or blood products			
Present facilities/facility	Infrastructural issues Lack of medications, instruments, equipment's or consumables Lack of blood/blood products			

ANNEXURE: IV

MASTERCHART

S No	Group	Age	Age Groups(years)	socioeconomic status	Duration of hospital stay(days)	Condition at admission (A/B/C)	Referred	ANC registration	Obstetric score	Parity	POG - weeks	Ruptured uterus	Shock	Central venous access	Non-anesthetic intubation	Prolonged hospitalization	presenting complaint	Place of delivery /termination	Mode of delivery/terminati on	Intraop/Post op BT - component	NICU Admission	Perinatal Mortality	condition at discharge	Hayman/B-lynch sutures	Mechanical ventilation	Uterine artery ligation	B/L Internal artery ligation	Peri-partum hysterectomy	ICU admission	cardiotonics	Laparotomy	central venous access	manual removal of placenta	diagnostic laparoscopy	genital injury/perneal tear	Personal/family delay /lack of awareness	Referral centre delay	infrastructural / lack of med/blood in our facility	Final outcome	Diagnosis	SEVERE PE	ECLAPSIA	PPH	ABRUPTON	PLACENTA PREVIA	PAS	Organ dysfunction	Ruptured ectopic	Peri partum cardiomyopathy	Sepsis	Others
1	Survived	20	<20	3	6	A	Yes	yes	G1	Primigravida	37 to 42	No	No	No	No	Yes	Edema	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
2	Survived	28	31 to 35	3	7	A	Yes	yes	G3	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
3	Near miss	31	31 to 35	3	8	B	Yes	yes	G1	Primigravida	34-37	No	No	Yes	No	Yes	Pain abdomen	KLE	Emergency LSCS	2 PRBC	Yes	No	Recovered	Yes	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Near miss	PPH	yes	no	Yes	no	no	no	no	no	no	no	no
4	Survived	27	26 to 30	3	7	A	Yes	Yes-O	G1	Primigravida	34-37	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	2 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
5	Survived	32	31 to 35	3	11	B	Yes	Yes-O	G2	Multigravida	34-37	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	3PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
6	Survived	28	26 to 30	4	7	A	Yes	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen, Headache,blurry vision	KLE	Emergency LSCS	3PRBC 2FFP	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
7	Survived	27	26 to 30	4	5	B	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen , PV Leak	KLE	Emergency LSCS	1 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
8	Survived	25	21 to 25	3	6	B	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Vaginal	2 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
9	Survived	23	21 to 25	3	7	B	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Vaginal Bleeding	KLE	Emergency LSCS	1PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
10	Survived	25	21 to 25	3	7	A	Yes	Yes-O	G1	Primigravida	34-37	No	No	No	No	No	Edema, Pain abdomen	KLE	Emergency LSCS	5 FFP 1PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	Survived	HELLP syndrome	yes	no	no	no	no	no	no	no	no	no	no
11	Survived	28	26 to 30	3	7	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Emergency LSCS	2PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Atoniv PPH	no	no	Yes	no	no	no	no	no	no	no	no
12	Survived	29	26 to 30	3	8	A	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Pain abdomen	KLE	Vaginal	None	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Svere PE with FSB	yes	no	no	Yes	no	no	no	no	no	no	no
13	Near miss	22	21 to 25	3	10	A	Yes	yes	G1	Multigravida	37 to 42	No	No	No	No	No	Convulsions	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	Yes	No	No	No	Yes	No	No	No	No	No	No	Yes	Yes	No	Near miss	APE	no	yes	no	no	no	no	no	no	no	no	no
14	Survived	26	26 to 30	3	9	A	Yes	yes	G1	Primigravida	27 to 34	No	No	No	No	No	Edema	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
15	Near miss	22	21 to 25	3	13	A	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	1 PRBC 3 SDP 8 RDP	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	Yes	Near miss	Gestational thrombocyt openia	no	no	no	no	no	no	no	no	no	no	no
16	Near miss	28	26 to 30	3	6	C	Yes	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Peripartum hysterectomy	4PRBC 2 FFP 2 CRYO	Live birth	No	Recovered	No	No	No	Yes	Yes	No	No	No	No	No	No	No	Yes	Yes	No	Near miss	Plcenta accreta	no	no	no	no	no	Yes	no	no	no	no	no
17	Survived	21	21 to 25	3	3	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	yes	no	Yes	no	no	no	no	no	no	no	no
18	Survived	30	26 to 30	5	3	B	No	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	1PRBC	Live birth	No	Recovered	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
19	Survived	26	26 to 30	3	9	A	Yes	Yes-O	G1	Primigravida	34-37	No	No	No	No	No	Edema, Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
20	Survived	28	26 to 30	3	7	A	No	Yes-O	G2	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen, Convulsions	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Eclampsia	no	yes	no	no	no	no	no	no	no	no	no
21	Survived	30	26 to 30	3	19	A	Yes	Yes-O	G2	Multigravida	27 to 34	No	No	No	No	No	Vaginal Bleeding	KLE	Emergency LSCS	1 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
22	Mortality	30	26 to 30	3	1	A	Yes	Yes-O	G3	Multigravida	ectopic	No	Yes	Yes	Yes	No	Renal failure	Outside	Laprotomy	4PRBC	NA	No	Mortality	No	Yes	No	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	Mortality	Renal failure	no	no	no	no	no	no	enal fa	no	no	no	no
23	Survived	26	26 to 30	3	13	A	No	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Plcenta accreta	no	no	no	no	no	Yes	no	no	no	no	no
24	Survived	21	21 to 25	3	6	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
25	Survived	19	<20	3	8	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	1PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	yes	no	Yes	no	no	no	no	no	no	no	no
26	Survived	22	21 to 25	3	7	A	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Edema, Convulsions	KLE	Vaginal	None	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Eclampsia	no	yes	no	no	no	no	no	no	no	no	no
27	Survived	28	26 to 30	4	12	B	No	yes	G2	Multigravida	34-37	No	No	No	No	No	None	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no

28	Survived	34	31 to 35	3	8	B	Yes	Yes-O	G3	Multigravida	27 to 34	No	No	No	No	No	None	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Abruption	yes	no	no	Yes	no	no	no	no	no	no	no
29	Survived	21	21 to 25	3	8	A	No	yes	G1	Primigravida	37 to 42	No	No	No	No	Yes	None	KLE	Vaginal	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Gestational thrombocytopenia	yes	no	no	no	no	no	no	no	no	no	no
30	Survived	19	<20	3	5	A	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Gestational thrombocytopenia	yes	no	no	no	no	no	no	no	no	no	no
31	Survived	27	26 to 30	3	3	A	No	yes	G2	Multigravida	37 to 42	No	No	No	No	No	Edema, Pain abdomen	KLE	Vaginal	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
32	Survived	25	21 to 25	3	6	A	No	yes	G3	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Gestational thrombocytopenia	yes	no	no	no	no	no	no	no	no	no	no
33	Survived	25	21 to 25	3	5	B	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	2 PRBC	Live birth	No	Recovered	No	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
34	Survived	26	26 to 30	2	22	A	Yes	Yes-O	G2	Multigravida	27 to 34	No	No	No	No	No	PV bleed	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Plcenta accreta	no	no	no	no	no	Yes	no	no	no	no	no
35	Survived	27	26 to 30	3	8	B	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	1 PRBC	Live birth	No	Recovered	No	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
36	Survived	26	26 to 30	3	5	A	No	yes	G2	Multigravida	37 to 42	No	No	No	No	No	PV bleed	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
37	Survived	26	26 to 30	3	5	A	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	PV bleed	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Abruption	no	no	no	Yes	no	no	no	no	no	no	no
38	Survived	23	21 to 25	3	4	A	No	yes	G4	Multigravida	37 to 42	No	No	No	No	No	Convulsions	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Eclampsia	no	yes	no	no	no	no	no	no	no	no	no
39	Survived	22	21 to 25	3	9	A	No	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Emergency LSCS	None	Live birth	No	Recovered	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
40	Near miss	29	26 to 30	2	8	A	Yes	No	G3	Multigravida	<20	No	No	No	No	No	pain abdomen	KLE	Laprotomy	PRBC 2 FF	NA	No	Recovered	No	No	No	No	No	No	No	Yes	No	No	No	No	Yes	Yes	No	Near miss	Ruptured ectopic	no	no	no	no	no	no	no	yes	no	no	no
41	Survived	22	21 to 25	3	6	A	No	yes	G2	Multigravida	27 to 34	No	No	No	No	No	Convulsions	KLE	Emergency LSCS	2 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Eclampsia	no	yes	no	no	no	no	no	no	no	no	no
42	Survived	23	21 to 25	3	4	A	No	yes	G2	Multigravida	37 to 42	No	No	No	No	No	Edema	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
43	Survived	30	26 to 30	3	18	A	No	Yes-O	G2	Multigravida	27 to 34	No	No	No	No	No	PV bleed	KLE	Emergency LSCS	1 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
44	Survived	26	26 to 30	3	13	A	No	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Convulsions	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Eclampsia	no	yes	no	no	no	no	no	no	no	no	no
45	Survived	28	26 to 30	3	12	A	No	Yes-O	G3	Multigravida	34-37	No	No	No	No	No	Edema	KLE	Emergency LSCS	1 PRBC 3 RDP 2 CRYO	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	HELLP syndrome	yes	no	no	no	no	no	no	no	no	no	no
46	Survived	29	26 to 30	3	8	A	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Edema	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
47	Survived	24	21 to 25	3	4	A	No	yes	G4	Multigravida	27 to 34	No	No	No	No	No	PV bleed	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Abruption	no	no	no	Yes	no	no	no	no	no	no	no
48	Survived	39	> 35 yrs	3	23	A	Yes	Yes-O	G4	Multigravida	27 to 34	No	No	No	No	No	None	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
49	Survived	40	> 35 yrs	3	6	A	No	Yes-O	G1	Primigravida	34-37	No	No	No	No	No	Edema , imminent signs	KLE	Vaginal	None	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
50	Survived	29	26 to 30	3	11	A	Yes	Yes-O	G2	Multigravida	27 to 34	No	No	No	No	Yes	None	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
51	Survived	26	26 to 30	4	7	A	Yes	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Edema	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
52	Survived	25	21 to 25	3	12	A	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Edema, headache , blurry vision	KLE	Vaginal	None	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	HELLP syndrome	yes	no	no	no	no	no	no	no	no	no	no
53	Survived	33	31 to 35	3	9	A	No	yes	G2	Multigravida	37 to 42	No	No	No	No	No	Edema, Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	severe PE	yes	no	no	no	no	no	no	no	no	no	no
54	Survived	33	31 to 35	3	15	A	No	yes	G2	Multigravida	27 to 34	No	No	No	No	No	Edema Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
55	Survived	28	26 to 30	3	7	A	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Gestational thrombocytopenia	yes	no	no	no	no	no	no	no	no	no	no
56	Survived	32	31 to 35	3	8	A	No	yes	G3	Multigravida	34-37	No	No	No	No	No	None	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	Yes	Yes	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no

57	Survived	29	26 to 30	3	11	A	No	yes	G4	Multigravida	34-37	No	No	No	No	No	Edema	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
58	Survived	42	> 35 yrs	3	6	A	Yes	yes	G2	Multigravida	27 to 34	No	No	No	No	No	Pain abdomen	KLE	Vaginal	None	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
59	Survived	25	21 to 25	3	20	A	No	yes	G1	Primigravida	34-37	No	No	No	No	No	None	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Gestational thrombocytopenia	yes	no	no	no	no	no	no	no	no	no	no
60	Near miss	31	31 to 35	3	14	C	No	yes	G1	Primigravida	34-37	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	6PRBC 2 FFP 4RDP	Yes	No	Recovered	No	No	Yes	Yes	No	No	No	No	No	No	No	No	Yes	No	No	Near miss	Abruption	yes	no	no	Yes	no	no	no	no	no	no	no
61	Survived	28	26 to 30	3	10	A	No	yes	G2	Multigravida	34-37	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
62	Survived	20	<20	3	8	A	No	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
63	Survived	30	26 to 30	3	4	C	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	1 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
64	Near miss	28	26 to 30	3	1	A	No	yes	G3	Multigravida	34-37	No	No	No	No	No	Breathlessness	KLE	Emergency LSCS	None	Live birth	No	Recovered	Yes	No	No	Yes	No	Yes	No	No	No	No	No	No	Yes	No	No	Near miss	Peri-partum cardiomyopathy	no	no	no	no	no	no	um car	no	yes	no	no
65	Survived	22	21 to 25	3	5	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	1 PRBC 4 RDP	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
66	Survived	25	21 to 25	3	8	C	No	yes	G1	Primigravida	34-37	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
67	Survived	31	31 to 35	3	10	B	No	yes	G1	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	1PRBC	Live birth	No	Recovered	Yes	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
68	Survived	23	21 to 25	2	11	A	Yes	Yes-O	G2	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Pre-eclampsia	yes	no	no	no	no	no	no	no	no	no	no
69	Survived	33	31 to 35	3	8	B	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	1 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
70	Survived	24	21 to 25	3	10	A	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	1PRBC 4 RDP 4 FFP	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	HELLP syndrome	yes	no	no	no	no	no	no	no	no	no	no
71	Survived	23	21 to 25	2	8	A	Yes	Yes-O	G1	Multigravida	27 to 34	No	No	No	No	No	Pain abdomen	KLE	Vaginal	3 PRBC 4 RDP 4 FFP	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Abruption	yes	no	no	Yes	no	no	no	no	no	no	no
72	Survived	20	<20	3	8	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	2 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
73	Survived	29	26 to 30	2	8	A	Yes	Yes-O	G4	Multigravida	34-37	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
74	Near miss	25	21 to 25	3	7	A	Yes	Yes-O	G2	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	Yes	No	No	No	No	No	No	Yes	No	No	Near miss	severe PE	yes	no	no	no	no	no	no	no	no	no	no
75	Survived	28	26 to 30	3	6	B	Yes	Yes-O	G2	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	Yes	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
76	Near miss	24	21 to 25	3	10	A	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	3 prbc 2 ffp	Live birth	No	Recovered	No	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	Near miss	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
77	Survived	27	26 to 30	2	7	B	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
78	Near miss	30	26 to 30	2	8	B	Yes	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	4 PRBC 4 FFP	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Near miss	PPH	yes	no	Yes	no	no	no	no	no	no	no	no
79	Survived	27	26 to 30	3	9	A	Yes	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	8 RDP 4 FFP 2 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	HELLP syndrome	yes	no	no	no	no	no	no	no	no	no	no
80	Survived	30	26 to 30	2	5	A	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
81	Survived	23	21 to 25	3	10	A	No	yes	G2	Multigravida	27 to 34	No	No	No	No	No	None	KLE	Elective LSCS	1PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
82	Near miss	30	26 to 30	3	8	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	4 PRBC 2 RDP 2 FFP	Live birth	No	Recovered	Yes	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	Near miss	PPH	no	no	Yes	no	no	no	no	no	no	no	no
83	Survived	30	26 to 30	3	10	A	No	yes	G2	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Emergency LSCS	2 PRBC	Live birth	No	Recovered	No	No	No	Yes	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Placenta percreta	no	no	no	no	no	Yes	no	no	no	no	no
84	Survived	29	26 to 30	2	7	A	Yes	Yes-O	G2	Multigravida	27 to 34	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	1 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Abruptio placenta	no	no	no	Yes	no	no	no	no	no	no	no
85	Survived	26	26 to 30	3	8	A	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Placenta percreta	no	no	no	no	no	Yes	no	no	no	no	no

86	Survived	21	21 to 25	3	7	A	Yes	Yes-O	G3	Multigravida	27 to 34	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	2 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
87	Survived	33	31 to 35	2	8	B	No	yes	G2	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
88	Survived	25	21 to 25	3	7	A	YES	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
89	Survived	30	26 to 30	3	8	A	Yes	Yes-O	G1	Primigravida	34-37	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
90	Survived	43	> 35 yrs	2	10	A	No	yes	G1	Primigravida	27 to 34	No	No	No	No	No	Edema, Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	HELLP syndrome	yes	no	no	no	no	no	no	no	no	no	no
91	Survived	31	31 to 35	3	9	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Survived	Manual removal of placenta	no	no	no	no	no	no	no	no	no	no	ed pl
92	Survived	37	> 35 yrs	3	10	A	No	yes	G2	Multigravida	37 to 42	No	No	No	No	No	Edema, Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
93	Survived	23	21 to 25	3	16	B	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Abruption	no	no	no	Yes	no	no	no	no	no	no	no
94	Survived	39	> 35 yrs	3	7	B	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
95	Survived	30	26 to 30	2	8	A	No	yes	G3	Multigravida	27 to 34	No	No	No	No	No	None	KLE	Emergency LSCS	None	Peri-natal mortality	Yes	Recovered	Yes	No	Yes	Yes	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Placenta previa	yes	no	no	no	Yes	no	no	no	no	no	no
96	Survived	23	21 to 25	3	8	B	No	yes	G3	Multigravida	34-37	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
97	Survived	24	21 to 25	3	10	A	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
98	Survived	29	26 to 30	2	17	A	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
99	Survived	32	31 to 35	3	7	A	Yes	Yes-O	G2	Multigravida	27 to 34	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
100	Survived	22	21 to 25	2	8	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Emergency LSCS	1 PRBC	Live birth	No	Recovered	No	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
101	Survived	22	21 to 25	3	8	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
102	Near miss	21	21 to 25	3	7	A	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Vaginal	4 PRBC 4 RDP 4 FFP	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Near miss	Severe PE with PPH	yes	no	Yes	no	no	no	no	no	no	no	no
103	Survived	22	21 to 25	3	7	A	No	yes	G3	Multigravida	27 to 34	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Abruption	no	no	no	Yes	no	no	no	no	no	no	no
104	Mortality	30	26 to 30	3	1	A	Yes	No	G3	Multigravida	27 to 34	No	Yes	No	No	No	Shock	KLE	Vaginal	2 PRBC	Peri-natal mortality	Yes	Mortality	No	No	No	No	No	Yes	Yes	no	No	No	No	No	Yes	No	No	Mortality	Stuck MVR with PPH	no	no	Yes	no	no	no	ck mit	no	no	yes	no
105	Survived	28	26 to 30	2	6	A	Yes	Yes-O	G3	Multigravida	27 to 34	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	4 RDP 4 FFP	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
106	Near miss	24	21 to 25	2	8	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	2 PRBC	Live birth	No	Recovered	Yes	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	Near miss	PPH	no	no	Yes	no	no	no	no	no	no	no	no
107	Survived	29	26 to 30	2	9	A	No	yes	G1	Primigravida	34-37	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	1 PRBC 2 FFP	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
108	Survived	32	31 to 35	2	14	C	No	yes	G2	Multigravida	27 to 34	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
109	Near miss	20	<20	3	8	A	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Convulsions	KLE	Emergency LSCS	2 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Near miss	Eclampsia	no	yes	no	no	no	no	no	no	no	no	no
110	Survived	28	26 to 30	3	8	A	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Pain abdomen , PV Leak	KLE	Emergency LSCS	2 PRBC	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Severe PE , Abruption	yes	no	no	Yes	no	no	no	no	no	no	no
111	Survived	20	<20	3	6	B	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Vaginal	1 PRBC 4 RDP	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
112	Survived	35	31 to 35	2	17	A	No	yes	G2	Multigravida	27 to 34	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
113	Survived	22	21 to 25	2	5	B	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	1 PRBC	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
114	Near miss	32	31 to 35	2	7	C	No	yes	G2	Multigravida	34-37	No	No	No	No	No	None	KLE	Peripartum hysterectomy	3 PRBC	Live birth	No	Recovered	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	Near miss	Placenta increta	no	no	no	no	no	Yes	no	no	no	no	no

115	Survived	28	26 to 30	2	8	B	Yes	Yes-O	G1	Primigravida	34-37	No	No	No	No	No	Pain abdomen , PV bleed	KLE	Emergency LSCS	1 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
116	Survived	30	26 to 30	3	6	B	Yes	Yes-O	G2	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
117	Survived	21	21 to 25	2	12	B	No	yes	G2	Multigravida	27 to 34	No	No	No	No	No	Edema Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
118	Survived	26	26 to 30	2	8	A	Yes	Yes-O	G3	Multigravida	34-37	No	No	No	No	No	Edema Headache	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
119	Survived	30	26 to 30	3	6	A	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	Edema Headache	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
120	Survived	27	26 to 30	2	7	B	No	yes	G2	Multigravida	34-37	No	No	No	No	No	None	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
121	Survived	30	26 to 30	3	7	A	No	yes	G2	Primigravida	34-37	No	No	No	No	No	None	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
122	Survived	30	26 to 30	3	7	A	No	yes	G3	Multigravida	27 to 34	No	No	No	No	No	Edema Headache	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Chronic HTN with superimpos	yes	no	no	no	no	no	no	no	no	no	no
123	Near miss	28	26 to 30	3	11	A	Yes	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Convulsions	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	Yes	No	No	No	Yes	No	No	No	No	No	No	No	No	No	Near miss	Eclampsia	no	yes	no	no	no	no	no	no	no	no	no
124	Survived	21	21 to 25	3	8	A	Yes	Yes-O	G1	Primigravida	34-37	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
125	Survived	21	21 to 25	3	8	A	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	Edema Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
126	Survived	21	21 to 25	3	8	A	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
127	Survived	21	21 to 25	3	8	A	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	Edema Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
128	Survived	21	21 to 25	3	8	A	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
129	Survived	21	21 to 25	3	8	A	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	Convulsions	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Eclampsia	no	yes	no	no	no	no	no	no	no	no	no
130	Survived	24	21 to 25	3	7	B	Yes	yes	G2	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	1 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
131	Survived	21	21 to 25	3	8	A	Yes	Yes-O	G1	Primigravida	34-37	No	No	No	No	No	Edema Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
132	Survived	31	31 to 35	2	9	A	Yes	Yes-O	G2	Multigravida	37 to 42	No	No	No	No	No	Edema Headache	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
133	Survived	33	31 to 35	2	9	A	Yes	yes	G3	Multigravida	27 to 34	No	No	No	No	No	None	KLE	Emergency LSCS	4 RDP	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	HELLP syndrome	yes	no	no	no	no	no	no	no	no	no	no
134	Survived	28	26 to 30	3	7	A	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	Edema Headache	KLE	Vaginal	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
135	Survived	24	21 to 25	2	9	B	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	1 PRBC	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
136	Near miss	29	26 to 30	2	15	A	No	yes	G3	Multigravida	34-37	No	No	No	No	No	Pain abdomen , PV Leak	KLE	Peripartum hysterectomy	3 PRBC 4RDP 4 FFP	Yes	No	Recovered	No	No	No	Yes	Yes	No	No	No	No	No	No	No	Yes	Yes	No	Near miss	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
137	Survived	23	21 to 25	2	10	A	No	yes	G4	Multigravida	27 to 34	No	No	No	No	No	PV bleed	KLE	Emergency LSCS	2 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	HELLP syndrome	yes	no	no	no	no	no	no	no	no	no	no
138	Survived	32	31 to 35	3	9	A	Yes	Yes-O	G2	Multigravida	34-37	No	No	No	No	No	Convulsions	KLE	Emergency LSCS	None	Yes	No	Recovered	No	Yes	No	No	No	Yes	No	No	No	No	No	No	Yes	Yes	No	Survived	Eclampsia	no	yes	no	no	no	no	no	no	no	no	no
139	Survived	33	31 to 35	3	9	B	Yes	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	2 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
140	Near miss	32	31 to 35	2	8	A	Yes	No	G2	Multigravida	<20	No	No	No	No	No	pain abdomen	KLE	Laprotomy	PRBC 2 FF	NA	No	Recovered	No	No	No	No	No	No	No	Yes	No	No	No	No	Yes	Yes	No	Near miss	Ruptured ectopic	no	no	no	no	no	no	no	yes	no	no	no
141	Near miss	30	26 to 30	3	8	B	Yes	Yes-O	P1	Post Natal	Post partum	No	No	No	No	No	PV bleed	Outside	Vaginal	BC 4 RDP	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	Near miss	Retained placenta with mixed	no	no	Yes	no	no	no	no	no	no	yes	ed pl
142	Survived	30	26 to 30	2	7	B	Yes	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	1PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
143	Near miss	19	<20	3	9	A	Yes	No	G2	Multigravida	<20	No	No	No	No	No	Pain abdomen	KLE	Laprotomy	3 PRBC	NA	No	Recovered	No	No	No	No	No	No	No	Yes	No	No	No	No	NY	Yes	No	Near miss	Ruptured Ectopic	no	no	no	no	no	no	no	yes	no	no	no

144	Near miss	32	31 to 35	3	9	A	Yes	No	G3	Multigravida	<20	No	No	No	No	No	shock	KLE	Laprotomy	3 PRBC	NA	No	Recovered	No	No	No	No	No	No	No	Yes	No	No	No	No	Yes	Yes	No	Near miss	Ruptured ectopic	no	no	no	no	no	no	no	yes	no	no	no
145	Survived	40	> 35 yrs	3	14	A	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
146	Survived	25	21 to 25	3	6	B	No	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	1 PRBC	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
147	Survived	31	31 to 35	3	4	A	Yes	Yes-O	G2	Multigravida	27 to 34	No	No	No	No	No	PV Bleed	KLE	Emergency LSCS	3 PRBC	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Survived	Abruptio placenta	yes	no	no	Yes	no	no	no	no	no	no	no
148	Survived	22	21 to 25	3	5	A	Yes	Yes-O	G3	Multigravida	27 to 34	No	No	No	No	No	PV Bleed	KLE	Emergency LSCS	2 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Abruptio placenta	no	no	no	Yes	no	no	no	no	no	no	no
150	Survived	24	21 to 25	3	10	A	Yes	Yes-O	G1	Primigravida	34-37	No	No	No	No	No	Edema Headache	KLE	Emergency LSCS	3 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
151	Survived	22	21 to 25	3	6	B	No	Yes-O	G1	Primigravida	34-37	No	No	No	No	No	None	KLE	Emergency LSCS	2 PRBC	Yes	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
152	Near miss	33	31 to 35	3	10	A	Yes	Yes-O	G3	Multigravida	20-27	Yes	yes	No	No	No	Shock	KLE	Laprotomy	RBC 4 F	NA	No	Recovered	No	No	No	No	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	Near miss	Ruptured uterus	no	no	no	no	no	no	no	no	no	no	ured u
153	Survived	22	21 to 25	3	7	C	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Emergency LSCS	2 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
154	Survived	32	31 to 35	3	9	A	Yes	Yes-O	P5	Post Natal	post partum	No	yes	No	No	No	PV Bleed	outside	Vaginal	2PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
155	Survived	29	26 to 30	3	11	A	Yes	Yes-O	G2	Multigravida	27 to 34	No	No	No	No	Yes	None	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
156	Mortality	30	26 to 30	3	2	A	No	Yes-O	bortio	Multigravida	Post abortal	No	Yes	Yes	Yes	No	PV bleed	NA	Post abortal	8 PRBC 5 CRYO 8 RDP	NA	No	Mortality	No	Yes	No	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes	No	Mortality	septic shock with DIC	no	no	no	no	no	no	no	no	no	yes	orrh
157	Survived	26	26 to 30	4	7	A	Yes	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Edema	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
158	Survived	25	21 to 25	3	12	A	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Edema, headache , blurry vision	KLE	Vaginal	None	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE , HELLP	yes	no	no	no	no	no	no	no	no	no	no
159	Survived	33	31 to 35	3	9	A	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	Edema, Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	severe PE	yes	no	no	no	no	no	no	no	no	no	no
160	Survived	33	31 to 35	3	15	A	No	yes	G3	Multigravida	27 to 34	No	No	No	No	No	Edema Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
161	Survived	28	26 to 30	3	7	A	No	yes	G2	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	4 RDP 1 SDP	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	thrombocyt openia	no	no	no	no	no	no	no	no	no	no	no
162	Survived	32	31 to 35	3	8	A	No	yes	G2	Multigravida	34-37	No	No	No	No	No	None	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	Yes	Yes	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
163	Survived	29	26 to 30	3	11	A	No	yes	G3	Multigravida	34-37	No	No	No	No	No	Edema	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE with uncontrolle	yes	no	no	no	no	no	no	no	no	no	no
164	Survived	42	> 35 yrs	3	6	A	Yes	yes	G3	Multigravida	27 to 34	No	No	No	No	No	Pain abdomen	KLE	Vaginal	None	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Svere PE with FSB	yes	no	no	Yes	no	no	no	no	no	no	no
165	Survived	25	21 to 25	3	20	A	No	yes	G1	Primigravida	34-37	No	No	No	No	No	None	KLE	Elective LSCS	4 RDP 1 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	thrombocyt openia	no	no	no	no	no	no	no	no	no	no	no
166	Near miss	31	31 to 35	3	14	C	No	yes	G1	Primigravida	34-37	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	4PRBC 2 FFP	Yes	No	Recovered	No	No	Yes	Yes	No	No	No	No	No	No	No	No	Yes	No	No	Near miss	G HTN with abruption	yes	no	no	no	no	no	no	no	no	no	no
167	Survived	28	26 to 30	3	10	A	No	yes	G2	Multigravida	34-37	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
168	Survived	20	<20	3	8	A	No	Yes-O	G2	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
169	Survived	30	26 to 30	3	4	C	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	1 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
170	Near miss	28	26 to 30	3	1	A	No	yes	G3	Multigravida	34-37	No	No	No	No	No	None	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	No	No	No	Yes	No	No	Yes	No	No	No	Yes	No	No	Near miss	Peri-partum cardiomyop athy	no	no	no	no	no	no	um car	no	yes	no	no
171	Survived	22	21 to 25	3	5	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	1 PRBC 4 RDP	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
172	Survived	25	21 to 25	3	8	C	No	yes	G1	Primigravida	34-37	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
173	Survived	31	31 to 35	3	10	B	No	yes	G2	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	1PRBC	Live birth	No	Recovered	No	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no

174	Survived	23	21 to 25	2	11	A	Yes	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Pre-eclampsia	yes	no	no	no	no	no	no	no	no	no	no
175	Survived	33	31 to 35	3	8	B	No	yes	G4	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	1 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
176	Survived	24	21 to 25	3	10	A	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	1PRBC 4 RDP 4 FFP	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE , HELLP	yes	no	no	no	no	no	no	no	no	no	no
177	Survived	23	21 to 25	2	8	A	Yes	Yes-O	G4	Multigravida	27 to 34	No	No	No	No	No	Pain abdomen	KLE	Vaginal	3 PRBC 4 RDP 4 FFP	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Abruption with MSB	no	no	no	Yes	no	no	no	no	no	no	no
178	Survived	20	<20	3	8	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	2 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
179	Survived	29	26 to 30	2	8	A	Yes	Yes-O	G3	Multigravida	34-37	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
180	Mortality	26	26 to 30	3	3	A	Yes	Yes-O	G3	Multigravida	20-27	No	No	No	Yes	No	Breathlessness	No	Antenatal mortality	None	NA	No	Mortality	No	Yes	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Mortality	ARDS - Community acquired	no	no	no	no	no	no	s-ARI	no	no	no	no
181	Survived	25	21 to 25	3	5	B	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	2 PRBC	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
182	Survived	26	26 to 30	2	22	A	Yes	Yes-O	G2	Multigravida	27 to 34	No	No	No	No	No	PV bleed	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Plcenta accreta	no	no	no	no	no	Yes	no	no	no	no	no
183	Survived	27	26 to 30	3	8	B	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	1 PRBC	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
184	Survived	26	26 to 30	3	5	A	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	PV bleed	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
185	Survived	26	26 to 30	3	5	A	No	yes	G4	Multigravida	37 to 42	No	No	No	No	No	PV bleed	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Abruption	yes	no	no	Yes	no	no	no	no	no	no	no
186	Survived	23	21 to 25	3	4	A	No	yes	G4	Multigravida	37 to 42	No	No	No	No	No	Convulsions	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	APE	no	yes	no	no	no	no	no	no	no	no	no
187	Survived	22	21 to 25	3	9	A	No	Yes-O	G2	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	yes	Yes	no	no	no	no	no	no	no	no
188	Survived	27	26 to 30	3	9	A	Yes	Yes-O	G2	Multigravida	34-37	No	No	No	No	No	Pain abdomen , pv bleed	KLE	Emergency LSCS	2 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Abruption , PE	yes	no	no	Yes	no	no	no	no	no	no	no
189	Survived	22	21 to 25	3	6	A	No	yes	G3	Multigravida	27 to 34	No	No	No	No	No	Convulsions	KLE	Emergency LSCS	2 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	APE	no	yes	no	no	no	no	no	no	no	no	no
190	Survived	23	21 to 25	3	4	A	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	Edema	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
191	Survived	30	26 to 30	3	18	A	No	Yes-O	G3	Multigravida	27 to 34	No	No	No	No	No	PV bleed	KLE	Emergency LSCS	1 PRBC	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
192	Survived	26	26 to 30	3	13	A	No	Yes-O	G4	Multigravida	37 to 42	No	No	No	No	No	Convulsions	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	APE	no	yes	no	no	no	no	no	no	no	no	no
193	Near miss	29	26 to 30	2	8	A	Yes	No	G4	Multigravida	<20	No	No	No	No	No	pain abdomen	KLE	Laprotomy	PRBC 2 FF	NA	No	Recovered	No	No	No	No	No	No	No	Yes	No	No	No	No	Yes	Yes	No	Near miss	Ruptured ectopic	no	no	no	no	no	no	no	yes	no	no	no
194	Survived	28	26 to 30	3	12	A	No	Yes-O	G2	Multigravida	34-37	No	No	No	No	No	Edema	KLE	Emergency LSCS	1 PRBC 3 RDP 2 CRYO	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE , HELLP	yes	no	no	no	no	no	no	no	no	no	no
195	Survived	29	26 to 30	3	8	A	Yes	Yes-O	G2	Primigravida	27 to 34	No	No	No	No	No	Edema	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
196	Survived	24	21 to 25	3	4	A	No	yes	G2	Multigravida	27 to 34	No	No	No	No	No	PV bleed	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Abruption	yes	no	no	Yes	no	no	no	no	no	no	no
197	Survived	39	> 35 yrs	3	23	A	Yes	Yes-O	G2	Multigravida	27 to 34	No	No	No	No	No	None	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
198	Survived	40	> 35 yrs	3	6	A	No	Yes-O	G1	Primigravida	34-37	No	No	No	No	No	Edema , imminent signs	KLE	Vaginal	None	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE , MSB	yes	no	no	no	no	no	no	no	no	no	no
199	Survived	29	26 to 30	3	11	A	Yes	Yes-O	G2	Multigravida	27 to 34	No	No	No	No	Yes	None	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
200	Survived	26	26 to 30	4	7	A	Yes	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Edema	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
201	Survived	25	21 to 25	3	12	A	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Edema, headache , blurry vision	KLE	Vaginal	None	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE , HELLP	yes	no	no	no	no	no	no	no	no	no	no
202	Survived	33	31 to 35	3	9	A	No	yes	G2	Multigravida	37 to 42	No	No	No	No	No	Edema, Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	severe PE	yes	no	no	no	no	no	no	no	no	no	no

203	Survived	33	31 to 35	3	15	A	No	yes	G3	Multigravida	27 to 34	No	No	No	No	No	Edema Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
204	Survived	30	26 to 30	3	4	C	No	yes	G4	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	1 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
205	Near miss	28	26 to 30	3	1	A	No	yes	G3	Multigravida	34-37	No	No	No	No	No	None	KLE	Elective LSCS	None	Live birth	No	Recovered	No	Yes	No	No	No	No	No	No	Yes	No	No	No	Yes	No	No	Near miss	Peri-partum cardiomyopathy	no	no	no	no	no	no	um car	no	yes	no	no
206	Survived	22	21 to 25	3	5	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	1 PRBC 4 RDP	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
207	Survived	25	21 to 25	3	8	C	No	yes	G1	Primigravida	34-37	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
208	Survived	31	31 to 35	3	10	B	No	yes	G2	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	1PRBC	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	yes	no	Yes	no	no	no	no	no	no	no	no
209	Survived	23	21 to 25	2	11	A	Yes	Yes-O	G2	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Pre-eclampsia	yes	no	no	no	no	no	no	no	no	no	no
210	Survived	33	31 to 35	3	8	B	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	1 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	PPH	yes	no	Yes	no	no	no	no	no	no	no	no
211	Survived	24	21 to 25	3	10	A	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	1PRBC 4 RDP 4 FFP	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Severe PE , HELLP	yes	no	no	no	no	no	no	no	no	no	no
212	Survived	23	21 to 25	2	8	A	Yes	Yes-O	G4	Multigravida	27 to 34	No	No	No	No	No	Pain abdomen	KLE	Vaginal	3 PRBC 4 RDP 4 FFP	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	Abruption with MSB	yes	no	no	Yes	no	no	no	no	no	no	no
213	Survived	20	<20	3	8	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	2 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
214	Survived	29	26 to 30	2	8	A	Yes	Yes-O	G2	Multigravida	34-37	No	No	No	No	No	Pain abdomen , Edema , Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
215	Survived	26	26 to 30	3	13	A	No	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Plcenta accreta	no	no	no	no	no	Yes	no	no	no	no	no
216	Survived	21	21 to 25	3	6	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
217	Survived	19	<20	3	8	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	1PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
218	Survived	22	21 to 25	3	7	A	Yes	Yes-O	G1	Primigravida	27 to 34	No	No	No	No	No	Edema, Convulsions	KLE	Vaginal	None	Peri-natal mortality	Yes	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	APE with MSB	no	yes	no	no	no	no	no	no	no	no	no
219	Near miss	29	26 to 30	2	8	A	Yes	No	G2	Multigravida	<20	No	No	No	No	No	pain abdomen	KLE	Laprotomy	PRBC 2 FF	NA	No	Recovered	No	No	No	No	No	No	No	No	Yes	No	No	No	Yes	Yes	No	Near miss	Ruptured ectopic	no	no	no	no	no	no	no	yes	no	no	no
220	Survived	34	31 to 35	3	8	B	Yes	Yes-O	G3	Multigravida	27 to 34	No	No	No	No	No	None	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Abruption	no	no	no	Yes	no	no	no	no	no	no	no
221	Survived	21	21 to 25	3	8	A	No	yes	G1	Primigravida	37 to 42	No	No	No	No	Yes	None	KLE	Vaginal	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Gestational thrombocytopenia	no	no	no	no	no	no	no	no	no	no	no
222	Survived	19	<20	3	5	A	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Gestational thrombocytopenia	yes	no	no	no	no	no	no	no	no	no	no
223	Survived	27	26 to 30	3	3	A	No	yes	G2	Multigravida	37 to 42	No	No	No	No	No	Edema, Pain abdomen	KLE	Vaginal	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
224	Survived	25	21 to 25	3	6	A	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Vaginal	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Gestational thrombocytopenia	no	no	no	no	no	no	no	no	no	no	no
225	Survived	25	21 to 25	3	5	B	No	yes	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	2 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
226	Survived	26	26 to 30	2	22	A	Yes	Yes-O	G3	Multigravida	27 to 34	No	No	No	No	No	PV bleed	KLE	Emergency LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Plcenta accreta	no	no	no	no	no	Yes	no	no	no	no	no
227	Survived	27	26 to 30	3	8	B	Yes	Yes-O	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	1 PRBC	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
228	Near miss	29	26 to 30	2	15	A	No	yes	G4	Multigravida	34-37	No	No	No	No	No	Pain abdomen , PV Leak	KLE	Peripartum hysterectomy	3 PRBC 4RDP 4 FFP	Yes	No	Recovered	No	No	No	Yes	Yes	No	No	No	No	No	No	No	Yes	Yes	No	Near miss	Placenta previa	no	no	no	no	Yes	no	no	no	no	no	no
229	Survived	23	21 to 25	3	9	B	No	yes	G1	Primigravida	37 to 42	No	No	No	No	No	None	KLE	Emergency LSCS	1 PRBC	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
230	Survived	23	21 to 25	3	8	A	No	yes	bortio	Primigravida	<20	No	No	No	No	No	PV bleed	KLE	Suction evacuation	3 PRBC	NA	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	GTD	no	no	no	no	no	no	no	no	no	no	GTD
231	Survived	22	21 to 25	3	10	B	Yes	Yes-O	G3	Multigravida	37 to 42	No	No	No	No	No	Pain abdomen	KLE	Emergency LSCS	1 PRBC	Live birth	No	Recovered	No	No	Yes	No	No	No	No	No	No	No	No	No	Yes	Yes	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no

232	Near miss	30	26 to 30	3	7	A	Yes	Yes-O	P1	Post Natal	Post partum	No	No	No	No	No	Breathlessness, Fever	Outside	Elective LSCS	1 PRBC	Live birth	No	Recovered	No	Yes	No	No	No	Yes	No	No	No	No	No	No	Yes	Yes	No	Near miss	Peri-partum cardiomyop athy	yes	no	no	no	no	no	um car	no	yes	no	no
234	Near miss	36	> 35 yrs	3	4	A	Yes	No	G3	Multigravida	<20	No	No	No	No	No	Pain abdomen	NA	Laprotomy	1 PRBC	NA	No	Recovered	No	No	No	No	No	No	No	Yes	No	No	No	No	No	No	No	Near miss	Ruptured Ectopic	no	no	no	no	no	no	no	yes	no	no	no
235	Near miss	26	26 to 30	3	12	C	Yes	Yes-O	G3	Multigravida	34-37	No	yes	No	No	No	Pain abdomen , PV Leak	KLE	Peripartum hysterectomy	4 FFP	Peri-natal mortality	Yes	Recovered	Yes	No	No	Yes	Yes	No	No	No	No	No	No	No	Yes	Yes	No	Near miss	Peri-partum hysterectom y	no	no	Yes	no	no	no	no	no	no	no	no
236	Survived	31	31 to 35	3	9	A	Yes	Yes-O	G2	Multigravida	34-37	No	No	No	No	No	Edema Headache	KLE	Emergency LSCS	none	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	Chronic HTN with superimpos	yes	no	no	no	no	no	no	no	no	no	no
237	Survived	21	21 to 25	3	8	A	Yes	Yes-O	G1	Primigravida	34-37	No	No	No	No	No	Edema Headache	KLE	Emergency LSCS	None	Yes	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Survived	Severe PE	yes	no	no	no	no	no	no	no	no	no	no
238	Survived	27	26 to 30	3	8	B	No	yes	G2	Multigravida	37 to 42	No	No	No	No	No	None	KLE	Elective LSCS	None	Live birth	No	Recovered	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Survived	PPH	no	no	Yes	no	no	no	no	no	no	no	no
239	Near miss	27	26 to 30	3	11	A	No	Yes-O	G1	Primigravida	34-37	No	No	No	No	No	None	KLE	Peripartum hysterectomy	3 PRBC	Yes	No	Recovered	No	No	No	No	Yes	No	No	No	No	No	No	Yes	No	No	No	Near miss	placenta percreta	no	no	no	no	no	Yes	no	no	no	no	no
240	Near miss	32	31 to 35	2	9	A	Yes	Yes-O	bortio	Post Natal	Post partum	No	No	No	No	No	Pain abdomen , fever	Outside	Post abortal	PRBC 2 FF	NA	No	Recovered	No	No	No	No	No	No	No	No	No	No	Yes	No	Yes	Yes	No	Near miss	Puerperal sepsis	no	no	no	no	no	no	no	yes	no	no	no
241	Near miss	29	26 to 30	2	8	A	Yes	No	G2	Multigravida	<20	No	No	No	No	No	pain abdomen	KLE	Laprotomy	PRBC 2 FF	NA	No	Recovered	No	No	No	No	No	No	No	No	Yes	No	No	No	Yes	Yes	No	Near miss	Ruptured ectopic	no	no	no	no	no	no	no	yes	no	no	no