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## Reasons of Referral In Obstetric Referred Women





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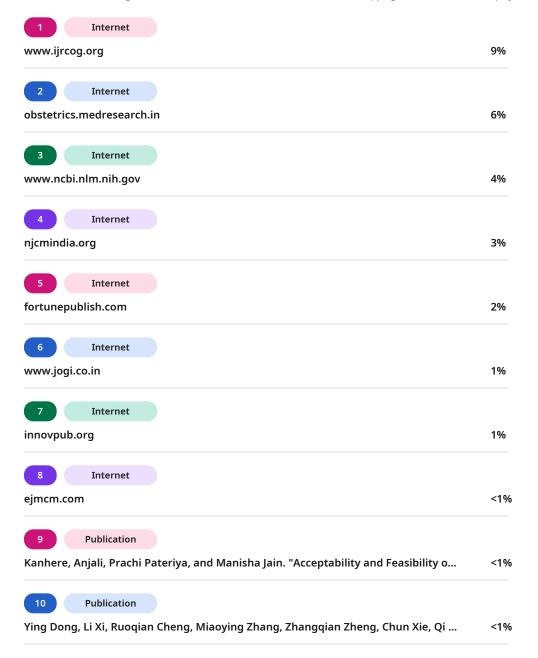
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#### Reasons of Referral In Obstetric Referred Women

#### ABSTRACT

Background: Due to lack of awareness and absence of regular antenatal care, often the

critically ill patients report late and hence referred late. Timeliness and appropriateness of

referral is an important factor in the ultimate outcome of the patients. Referral services are an

integral part of maternal and child health services.

**Method:** The study included 220 referred obstetric cases. Reasons for referral were evaluated

and data compiled.

**Result:** Medical disorders in pregnancy were the leading cause of antenatal referrals, with

anaemia and hypertensive disorders each accounting for 34.88% of cases. Labor

complications led to 81 referrals, mainly due to premature rupture of membranes (43.21%)

and abnormal presentations (23.46%). Post-delivery referrals were mostly for postpartum

hemorrhage (66.67%) and hematoma (33.33%).Blood transfusion need varied, depending on

the cause.

Conclusion: Improving antenatal care thus early diagnosis of anaemia can decrease the

referral cases. Timely referral of Hypertensive disease or other medical disorders could

prevent the disease becoming severe and improve pregnancy outcomes.

**KEYWORDS:** Anaemia, Hypertensive disease, Medical disorders.

#### Introduction

Maternal mortality is a key indicator of maternal health and is indicative of the performance

of a country's health care system. Most maternal deaths are due to direct obstetric causes and

can largely be prevented with access to appropriate health care including presence of skilled

birth attendance at delivery. It is recommended to electively refer pregnant woman with



previous caesarean section, hypertension, severe anaemia, diabetes mellitus, breech presentation, transverse lie and multiple gestation for delivery before any complication arise to a well-equipped health care centre where all possible complications can be managed well.<sup>2</sup> Due to lack of awareness and absence of regular antenatal care, the critically ill patients are referred late. Timeliness and appropriateness of referral is an important factor in the ultimate outcome of the patients.<sup>3</sup> Referral services are an major part of maternal and child health services.<sup>4</sup> This study aimed to assess the reasons of tertiary care hospital referrals. This could help decrease the number of referrals by evaluating the causes, early management at peripheral level and referrals before complications arise.<sup>5</sup>

#### Method

This observational, prospective analytical study was conducted at SMS Medical College, Jaipur, from November 2022 to October 2023. Ethical approval was obtained. The study included 220 referred obstetric cases . Women who expired before treatment could be initiated were excluded. Reasons for referral were evaluated and data compiled.

#### Results

The mean age of the referred women was 27.7 years, majority (37.27%) in the 26-30 years age group.74.09% had primary or secondary education, while only 8.64% were graduates. The majority of participants were Hindu (87.73%). 62% belonged to the lower middle socioeconomic class or below. Additionally, 64.55% of the women resided in urban or urban slum areas.

Analysing the period of referral, it was observed that 60.45% were antepartum, 36.81% intra partum, 2.7% post partum.

In the antepartum period, the most common reasons were medical disorders, previous lower segment caesarean section (26.32%) placenta previa (12.03%) and oligohydramnios (9.77%). Other reasons include twin pregnancies, polyhydramnios, Rh-negative pregnancies,





intrauterine growth restriction, and congenital anomalies, each accounting for approximately 6.67% of cases. These findings help find the prevalence of high risk pregnancies, necessitating specialized care and management. Table 1

Table 1: Reasons of Referral in Antenatal Period

High Risk Pregnancy	Number (Total=133)	%
Medical Disorders	43	32.33
Previous LSCS	35	26.32
Placenta Previa	16	12.03
Oligohydramnios	13	9.77
Twin pregnancy	6	4.51
Polyhydramnios	6	4.51
Rh Negative Pregnancy	6	4.51
Intrauterine Growth Restriction	6	4.51
Congenital Anomaly	2	1.50

Medical disorders in pregnancy, the most common reason for referral in antenatal period included anaemia and hypertensive disorders including eclampsia, accounting for 34.88% each, liver disorders in 16.28% women, while both thrombocytopenia and respiratory disorders each were seen in 6.98% women. These highlight the common medical challenges encountered during pregnancy among the referred women. Table 2

Table 2: Medical Disorders in Women Referred in Antenatal Period





Medical Disorders in Pregnancy	Number	%
Anaemia	15	34.88%
Hypertensive Disorder including Eclampsia	15	34.88%
Liver Disorders	7	16.28%
Thrombocytopenia	3	6.98%
Respiratory Disorders	3	6.98%

Complication during labour were the reason for referral in 81 women. Premature rupture of membranes was the most frequent complication, occurring in 43.21% of cases. Abnormal presentation was seen in 23.46%, with non-progression of labour, cephalopelvic disproportion, and meconium-stained liquor each accounting for between 6.17% to 8.64% women. Postdatism and obstructed labour are less common, each occurring in approximately 4.94% to 6.17% of cases. Table 3

Table 3: Reasons of Referral During Labour

Labour Complications	Number of woman	Percentage
Labour Complications	(n=81)	%
Premature rupture of membrane	35	43.21
Abnormal Presentation	19	23.46
Non progression of labour	7	8.64
Cephalo pelvic disproportion	6	7.41
Meconium stained liquor	5	6.17



Postdatism	5	6.17
Obstructed Labour	4	4.94

Referral post-delivery was in 6 women. Postpartum haemorrhage was the predominant reason, occurring in 66.67% of cases, and hematoma in 33.33% of cases. Table 4

Table 4: Reasons of Referral in Post-Partum Women

Dangan	Number	Percentage
Reason	(n =6)	%
Post-partum	4	66.67
haemorrhage		
Hematoma	2	33.33

#### **DISCUSSION**

Analysing the period of referral in the women referred it was observed that there was 60.45% antepartum, 36.81% intra partum, 2.7% post partum. Previous caesarean section was the cause of referral in 39% of women.

The patients with previous caesarean section are referred to higher centre from PHC/CHC due to non availability of gynaecologists, anaesthetist, trained staff or basic infrastructure deficits or lack of operation theatre.

Medical disorders in pregnancy were the most common reason for referral in antenatal period. These highlight the common medical challenges encountered during pregnancy among the referred women.





Ambike et al reported that the most common cause of referral was pre-eclampsia in 20%

women and 11% had eclampsia.6 In a study of Busumani and Mundagowa found that

18.4% pregnancies were hypertensive. Das et al in 2023 also assessed that most common

reasons for referral were pregnancy-induced hypertension or eclampsia in 17% cases.<sup>1</sup>

Narendra and Shree in 2019 reported that 77.34% patients had obstetric complications

and the commonest risk factor for ICU admission was hypertensive disorders of

pregnancy. These findings highlight the variety and prevalence of conditions that classify

pregnancies as high risk, necessitating specialized care and management.8

Patel HC et al, in their study found that causes of referral were preeclampsia (16%).9 In

Goswami et al study, however, anaemia (27.86%) followed by hypertensive disorders of

pregnancy (17%) were the major causes of referral to the tertiary care hospital. 10

Early management of anaemia and timely referrals of the women with these medical

disorders helps in decreasing there severity, improving both the maternal and foetal

outcome.

Complication during labour was the reason for referral in 81 women. The various

challenges and complexities that arise during the labour process, requiring appropriate

management and intervention. Patel et al in 2012 found that majority of referrals were

during the intra-natal period (64.5%), followed by antenatal cases (23.9%) and post-natal

cases (11.6%). The common reasons for referral were non progressive labour (14.8%),

severe anaemia (10.3%), preeclampsia (10.3%), malpresentation (9.7%) and postpartum

haemorrhages (9.7%).<sup>9</sup>

Study done by Kant et al in 2018 found that preterm labour (30.6%), Mahendra et al in

2019 found that premature rupture of membranes was the most common cause of referral.<sup>12</sup>

Reasons for complications and referral post-delivery was in 6 women. Sabale and

Patankar in 2015 reviewed the referred obstetric cases for reason of referral and to study



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the maternal and perinatal outcome. Major complication during immediate postpartum

period in their study was postpartum haemorrhage (PPH).<sup>12</sup> In 2022, Prakash et al

reported that PPH, septicaemia, wound gaping and puerperal pyrexia were reasons of

postpartum referral.<sup>13</sup>

Since improvement in maternal health care services, most high risk cases are referred

timely. Hence the postpartum referral cases have decreased significantly.

**CONCLUSION** 

The referral system faces challenges due to late identification and inadequate management of

complications at lower healthcare levels. Anaemia and hypertensive disorders were major

causes of antenatal referrals, while labor complications like premature rupture of membranes

and abnormal presentations were common. Post-delivery referrals were mostly due to

postpartum hemorrhage.

Strengthening antenatal care services, timely referrals, better transport, and improved

resources at primary healthcare levels can enhance maternal and neonatal outcomes.

LIMITATION OF THE STUDY

This study was conducted in a single tertiary centre, which may not be representative of

whole state community.

**DECLARATIONS** 

**FUNDING**: No funding sources

**CONFLICT OF INTEREST:** None declared

ETHICAL APPROVAL: The study was approved by the Institutional Ethics Committee

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