

# A Clinical Study of Maternal Mortality.

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## ABSTRACT

**Background:** Maternal mortality is death of any women while being pregnant or within 42 completed days of pregnancy. It is very common in developing countries like sub-Saharan Africa, South Asia. Aim of the study: To assess the material mortality ratio at a rural medical college in Telangana. **Methods:** We have conducted this study on 50 maternal deaths over the periods of 1 ½ Years. **Result:** There were 50 maternal deaths among 8160live births. Most commonly occurs in prim gravida maximum age group in which maternal mortality occurs is 18-22years. Most of them were not having antenatal checkups. Most deaths were occurring first 24hours of admission. **Conclusion:** The maternal mortality is much higher than the national mortality. So government and NGO's has take preventive measures to decrease the maternal mortality in India especially in rural and agency areas.

**Keywords:** Maternal mortality, complications, eclampsia, India, Rural area.

## INTRODUCTION

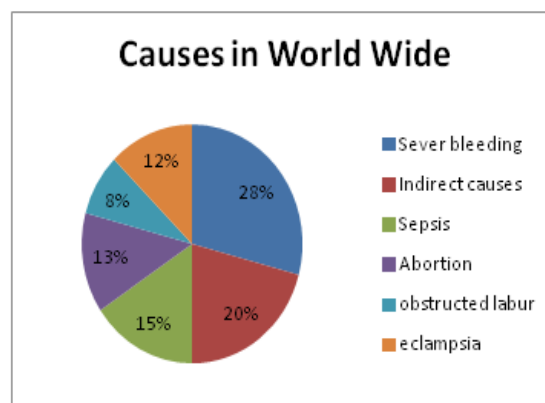
Maternal mortality accounts for the greatest proposition of deaths among women of reproductive age in most of developing countries like sub-Saharan Africa, South Asian countries like Bangladesh, India. Maternal mortality is defined by WHO as "The death of women while pregnant, irrespective of duration and site of pregnancy from any cause related to aggravated by pregnancy or its management but not from accidental or incidental causes."<sup>[1]</sup>

Complications of pregnancy of child birth can also lead to deaths beyond the six weeks postpartum period. But these deaths do not count as maternal deaths in routine civil registration system.<sup>[2]</sup>

Maternal mortality ratio is defined as no. of maternal deaths during given time period per 100,000 women of reproductive age during the same time period. Globally an estimated 289,000 maternal death occurred in 2013. A decline of 47% from levels in 1990. Sub-Saharan Africa (62%) and south Asia(24%) accounted for 86% 249,000 maternal deaths of global burden in 2013.<sup>[3]</sup>

A woman is most vulnerable at the postpartum period. About 50-70% maternal deaths occur in the postpartum period of which 45% deaths occurs in first 24hours. After delivery and more than 2/3 during the first week. Maternal mortality ratio

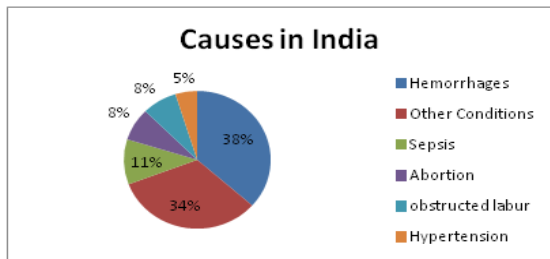
strongly reflects the overall effectiveness of health system. This in many low income developing countries suffers from weak administrative technical and logistical capacity, inadequate financial investment and lack of skilled health personal. In India the maternal mortality ratio is 178per 100,000 liver births-2013yr. MMR in 2012 is 195 Per 1, 00,000 live birth In 2015 it is 160/100,000 live births In India maternal mortality commonly due to hemorrhages, Sepsis, Abortion, obstructed labor and hypertensive disorders. World Wide causes are sever bleeding 28%, Indirect causes 20%, Sepsis 15%, Abortion 13%, eclampsia 12%, Obstructed labor 8%.



Causes in World Wide	No. %
Sever bleeding	28%
Indirect causes	20%
Sepsis	15%
Abortion	13%
obstructed labor	8%
eclampsia	12%

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Causes in India	No. %
Hemorrhages	38%
Other Conditions	34%
Sepsis	11%
Abortion	8%
obstructed labor	8%
Hypertension	5%

Direct causes include embolism, ectopic pregnancies indirect causes includes cardiovascular diseases. Hepatitis, endocrinal disorders, malaria, HIV etc. Preventive and social measures includes early registration of pregnancy at least 4 activated checkups, Dietary supplementation, including correction of anemia, preventions of complications like eclampsia, ruptured uterus. Treatment of medical to disorders like hypertension, Diabetes, tuberculosis, safe abortion services.<sup>[4,5]</sup>

## MATERIALS AND METHODS

In our study 50cases of maternal deaths were analyzed with special emphasis an age of the patients, parity, cause of the death time interval from admission to death, trimester of pregnancy at the time of death. Results were analyzed.

## RESULTS

50 maternal deaths occurred amongst -8160 live births.

**Table 1: Parity and maternal deaths.**

Parity	No. of maternal deaths (%)
P0	21(42%)
P1	6(12%)
P2	13(26%)
P3	5(10%)
>P4	5(10%)

**Table 2: Admission to death intervals table.**

Time Intervals Hrs	No. Of Maternal Deaths(%)
0-5	6(12%)
5-10	10(20%)
10-24	12(24%)
24-48	12(24%)
>48	10(20%)

**Table 3: Age distribution**

Age(yrs)	No. of Maternal death(%)
18-22yr	23(46%)
23-29yr	15(30%)
30-35yr	8(16%)
36-40yr	11(22%)

In our study deaths in privy gravida were 21(42%) followed by 2nd para 13(26%) and least multipara women.

Maximum deaths occurred during 1st 24 hours 36(52%) followed by next 24hours 12(24%). In our study maximum deaths occurred during the age of 18years and 22years, 23 deaths(46%) minimum no. of deaths occurred after 35years.

Causes of death	NO.(%)
Eclampsia	18(36%)
Anemia	13(26%)
Sepsis	6(12%)
Septic abortion	6(12%)
Others including Hemorrhage	7(14%)

Majority of deaths were occurred in third trimester (49.5%) followed by 23.56% in first trimester maximum maternal deaths are due to eclampsia and anemia 18(36%) and 13(26%) respectively others including Hemorrhage are 7(14%).

## DISCUSSION

In our study for 8160 deliveries there were 50 maternal deaths MMR is 620.18 which is higher than national average one important causes may be all complicated and terminally ill cases may be referred to our hospital.<sup>[6-9]</sup> In our study the maximum no. of deaths 23(46%) occurred between 18-22 years followed by 5 cases (10%) in the age group of 23-29years. Occurred during 1st 12hours. Ratandas et al reposted that 30.85% of women died within 6hours of admission. 24.21% women died between 13-24 hours of admission and 14.84%. Women died after 24hours of admission.<sup>[10,11]</sup> The study conducted by Bangal et al shows that one women died within one hour of admission 6(15.79%) died between 2-12hours of admission & 8(21.05%) died between 13-24 hours of admission the study conducted by Agarwal shows that 44% died within 24hours of admission and 22% within 12hours of hospital stay.<sup>[12,13]</sup> According to estimates the MMR has reduced from 212 per 1lac live births in 2007-09 to 178per 1 lac over a period of 3years. Assam state is an the top 328; Uther Pradesh 292; Madhya Pradesh 250; Andhra Pradesh 110, Tamil Nadu 90.<sup>[14]</sup> In our study according to parity 21 maternal deaths have occurred (%) Followed by second para 13(%) maternal deaths. According to study in multipara 43%; than prim gravida 25%. As per causes Eclampsia in major causes of death in our study, which is similar to the study conducted by Roy.<sup>[15]</sup> According to study conducted by Bhashar Khan in Pakistan eclampsia is responsible for 28.76% deaths. In our study the deaths due to anemia are 13(%) which is nears to the observations by Manalankar et al.<sup>[16]</sup> High maternal mortality reflects not only in inadequacy of health care services for mothers but also a low standard of living and socio economic status of the community. The

measures to attempt to lower MMR are early registration of pregnancy; 4 antenatal checkups; Dietary supplementation (for anemia also); Prevention of infections & hemorrhage, treatment of medical conditions, Institutional deliveries; safe abortion services.<sup>[17]</sup>

## CONCLUSION

The Maternal mortality in India is still higher especially in rural areas than urban areas. Govt. agencies and NGO's has to take initiation; even medical college established in rural areas has to provide periodical ANC's, treating the systemic diseases like, Diabetes, Malaria, Tubesution and to provide transportation facilities to reach the tertiary care hospitals.

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