# Current State of Management of Severe Pre-Eclampsia and Eclampsia using Magnesium Sulphate in Different Health Facilities of Mid Western Development Region

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**Background**

According to the Nepal Maternal Mortality and Morbidity Study (2009), pre-eclampsia/eclampsia is the second leading cause of maternal mortality in Nepal—accounting for 21% of all maternal deaths. For management of severe pre-eclampsia and eclampsia (SPE/E), WHO has identified magnesium sulphate as the most effective and low cost medication. This global evidence-based practice is also the national medical standard in Nepal. Despite this, many health facilities in Nepal are not using this drug for the management of severe pre-eclampsia and eclampsia. This study helps to explore in detail the current situation of severe pre-eclampsia and eclampsia management using magnesium sulphate in selected health facilities of Mid Western Development Region (MWDR).

**Methods**

The study was carried out in 10 different health facilities from Mid Western Development Region. These health facilities were 5 hospitals—regional hospital, zonal hospital and district hospitals and 5 PHCCs, one PHCC from five districts. From Poush to Phalgun 2066, the records of FY 2065/66 BS were reviewed from these 10 health facilities. Maternity ward and store were observed to identify the availability and stock outs of emergency drugs and equipment needed for management of severe pre-eclampsia and eclampsia and maternity ward in-charge was interviewed to figure out the availability of Basic Emergency Obstetric Care and Comprehensive Emergency Obstetric Care services. In pre-test, the current knowledge and skills of maternity ward staffs in diagnosing, managing and monitoring severe pre-eclampsia and eclampsia was assessed. Immediately after pre-test, clinical update was done by using in-service education package. At the same time, on-site coaching was conducted to support maternity ward staffs. After 10 days of this intervention, post test of those staffs using the same tool used in pre-test was conducted. In both assessments, each provider’s performance was scored 0–3 (0–100%), and then these were averaged to create the facility score.

**Results**

In most of the hospitals, these cases were managed with the national standard drug i.e., magnesium sulphate. Among these 10 health facilities, no facilities were using other treatment modalities for severe pre-eclampsia and eclampsia management. In Dang Sub Regional Hospital and Pyuthan District Hospital, only 50% and 25% cases were managed with magnesium sulphate. Except one PHCC from Surkhet district, other 4 PHCC were not using this drug for SPE/E case management. The maternal and neonatal outcome of SPE/E cases was found good; only one maternal mortality was recorded due to severe pre-eclampsia and eclampsia in Bheri Zonal Hospital. Most of the health facilities had this life saving drug and related supplies there. Some of the Basic Emergency Obstetric Care and Comprehensive Emergency Obstetric Care sites were not providing standard services due to lack of human resources. After clinical updates, on-site coaching and dissemination of job aids, health facilities had made significant improvements. Because of this, 50% health facilities were performing at 80% or higher during post-test.

**Conclusions**

Making national standard and providing training is not sufficient to improve maternal and neonatal health. Regular follow up with on-site coaching and competency based training is essential to implement these standards.

**Keywords:** eclampsia; health facilities; magnesium sulphate; management; pre-eclampsia.