

Impact of Introducing PROMPT on Eclampsia Incidence in a single Emirati Centre

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Objective	<p>Retrospective assessment of impact of PROMPT on the standard of managing severe preeclampsia and incidence of eclampsia.</p> <p>Our obstetric emergencies are managed or triaged by the emergency department (ED). ED management of severe preeclampsia often deviates from that of obstetric department, potentially contributing to substandard institutional care and increased risk of preventable maternal deaths.</p> <p>To standardise management, PROMPT annual mandatory training was introduced in 2015 for all clinicians in maternity and Emergency Departments.</p> <p>Preeclampsia teaching comprises a 30-minute lecture and departmental guideline review with a 30-minute hands-on drill.</p>
Design	<p>Retrospective cohort study. Pre-PROMPT group (2013 and 2014) included 62 severe preeclampsia patients plus 5 with eclampsia.</p> <p>Post-PROMPT group (Jan’2019 – Dec’2020) included 73 severe preeclampsia patients plus 7 with eclampsia.</p>
Materials and Methods	<p>Management of severe preeclampsia and eclampsia incidence before (Jan’2013 – Dec’2014) were compared with after (Jan’2019 – Dec’2020) implementing PROMPT. Review of antepartum/intrapartum and postpartum records of eligible pregnancies included presenting symptoms and signs, labs, confirmation of diagnosis, choice and timing of antihypertensive therapy and timing of MgSO4 for seizure prevention. Severe preeclampsia was defined as 2 blood pressure readings (160 &/or 110 mmHg), 15-30minutes apart or one reading with symptoms, heavy proteinuria or severe fetal growth restriction.</p> <p>During pre-training and post-training periods, we identified 62 and 73 cases respectively, out of which 27 and 23 cases were excluded respectively for coding error. During pre-training, 5 women developed eclamptic seizures while post-training, 7 women had seizures, out of whom, 4 were excluded (1 epilepsy, 1 intracranial tumour, 1 seizure at home and 1 retrospective diagnosis of eclampsia because all parameters were normal on admission).</p>
Results	<p>Post-training, we observed improved compliance with preeclampsia guidelines regarding choice and timely initiation of antihypertensive therapy and MgSO4. In pre-training group, 40 of 50 patients received the recommended antihypertensives and MgSO4. Three women did not receive MgSo4 (1 left against medical advice, 1 had anuria and 1 delivered before MgSo4).</p> <p>In post-training group, 14 of 25 women received MgSO4, while 6 did not.</p> <p>The incidence of eclamptic seizures post-training (3 of 50 cases, 6%) was less than that in pre-training (5 of 25, 20%), indicating a relative risk reduction of 14%.</p>
Conclusion	<p>Mandatory obstetric training such as PROMPT can be associated with improved, more systematic management of severe preeclampsia and reduced incidence of eclampsia.</p> <p>To the best of our knowledge, this is the first report demonstrating the impact of implementing PROMPT on managing severe preeclampsia.</p>