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Abstract

This statement follows the mission of the World Association of Perinatal Medicine (WAPM) in collaboration with the Perinatal Medicine Foundation (PMF), bringing together groups and individuals throughout the world with the goal of improving the use of antenatal corticosteroids (ACS) for fetal maturation in Coronavirus Disease 2019 (COVID-19). Pregnant women with COVID-19 are at increased risk of hospitalization, admission to intensive care unit and mechanical ventilation compared to non-pregnant patients. Thus, obstetricians may face the dilemma of initiating maternal corticosteroid therapy for maternal indication while weighing its potential adverse effects on the fetus. As there is no evidence on the effect of betamethasone in pregnant women with COVID-19, dexamethasone should be preferably used for fetal maturation, if available. As a recommendation, for pregnant women with COVID-19 who are oxygen dependent or under mechanical ventilation and meet the criteria for ACS, the usual doses of dexamethasone should be administered, followed by oral prednisolone 40 mg OD or intravenous hydrocortisone 80 mg BD for up to 10 days.

Keywords: Corticosteroids, fetal maturation, COVID-19.

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How to cite this article: Dagklis T, Şen C, Tsakiridis I, Villalain C, Allegaert K, Wellmann S, Kusuda S, Serra B, Luna MS, Huertas E, Volpe N, Ayala R, Jekova N, Grunebaum A, Stanojevic M. The use of antenatal corticosteroids for fetal maturation in COVID-19: clinical practice statement by the WAPM-World Association of Perinatal Medicine and the PMF-Perinatal Medicine Foundation. *Perinat J* 2022;30(1):12–13. doi:10.2399/prn.22.0301005

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Pregnant women with Coronavirus Disease 2019 (COVID-19) are at increased risk of hospitalization, admission to intensive care unit and mechanical ventilation compared to non-pregnant patients. Thus, obstetricians may face the dilemma of initiating maternal corticosteroid therapy for maternal indication while weighing its potential adverse effects on the fetus.^[1] On the other hand, the neonatal benefits of antenatal corticosteroids (ACS) in women at high risk of preterm birth within the next 7 days have been well established.^[2]

The use of glucocorticoids as a means of immunomodulatory therapy in oxygen dependent COVID-19 patients is supported by the results of the Randomized Evaluation of COVID-19 Therapy (RECOVERY) trial;^[3] the use of dexamethasone for up to 10 days significantly reduced 28-day mortality in COVID-19 patients receiving invasive mechanical ventilation or oxygen without invasive mechanical ventilation (29.3% vs. 41.4%; RR: 0.64; 95% CI: 0.51–0.81) and in those receiving oxygen without invasive mechanical ventilation (23.3% vs. 26.2%; RR: 0.82; 95% CI: 0.72–0.94). Conversely, there was a trend towards increased mortality in those patients receiving no respiratory support at randomization (17.8% vs 14.0%; RR: 1.19; 95% CI: 0.91–1.55).^[3] It is worthy of note that only six pregnant women were included in the RECOVERY trial and, as per protocol for pregnant women, they received either oral prednisolone or intravenous hydrocortisone instead of dexamethasone, as these, contrary to dexamethasone, do not cross the placenta in significant quantity.^[4] Based on this safety signal of possibly increased mortality among patients with mild COVID-19 receiving dexamethasone, the indications for ACS should be limited to obstetrical indications with expected preterm delivery within the next 7 days.^[5] As there is no evidence on the effect of betamethasone in pregnant

women with COVID-19, dexamethasone should be preferably used for fetal maturation, if available.

Recommendation

- For pregnant women with COVID-19 who are oxygen dependent or under mechanical ventilation and meet the criteria for ACS, the usual doses of dexamethasone (4 doses of 6 mg IM at 12 h intervals) should be administered, followed by oral prednisolone 40 mg OD or intravenous hydrocortisone 80 mg BD for up to 10 days.

Research funding: None declared.

Author contributions: All authors have accepted responsibility for the entire content of this manuscript and approved its submission.

Conflicts of interest: Authors state no conflict of interest.

Informed consent: Not applicable.

Ethical approval: Not applicable.

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