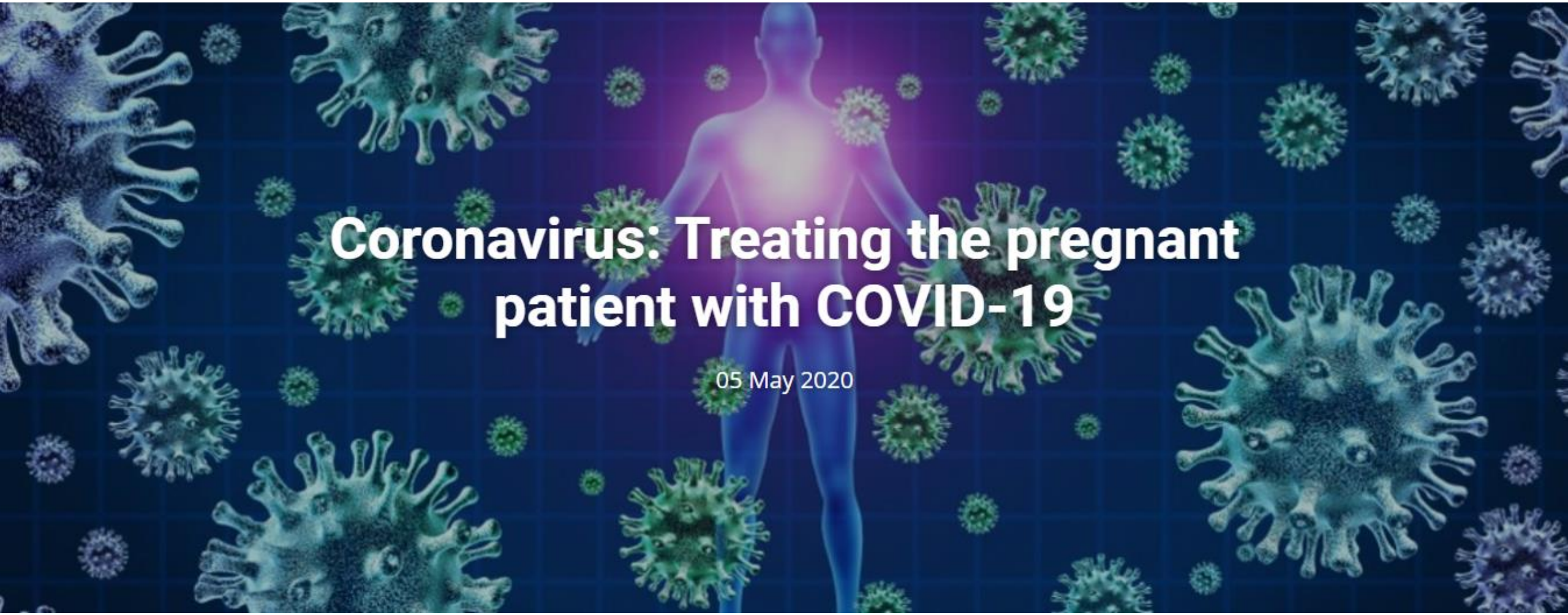

Lessons learned from the ISUOG Webinar on 5th May 2020

Summary by A. Dall'Asta, M. Sanz Cortes

Coronavirus: Treating the pregnant patient with COVID-19 – Lessons learned

Critical Care in adults with COVID-19 – Dr Barrett (United Kingdom)

- ***ICU and pregnancy: pregnant women with COVID-19 are roughly half as likely to require ICU compared to other causes of viral pneumonia in pregnancy. Available data suggests that the most deprived patients are more likely to require ICU, as it occurs in other viral pneumonias.***
- ***COVID-19 is not the same as Acute Respiratory Distress Syndrome (ARDS) as it combines a perfusion-related (Pulmonary Embolism-like) and an oedema-related (ARDS-like) issue. If respiratory insufficiency occurs: oxygen>> prone trial. If not enough: ICU admission for intubation (volume-controlled ventilation, low PEEP) + organ support including dialysis. ECMO in selected cases.***
- ***Hyperinflammation complicating COVID-19 is similar to Hemophagocytic Lymphohistiocytosis (HLH) or Cytokine Release Syndrome. Features: fever >38.5°C, raised CO2, raised O2 demand, signs of organ insult (mainly Acute Kidney Insufficiency) and metabolic changes. Corticosteroids, IL-1Ra blockers (i.e. Anakinra) and IL-6R blockers (i.e. Tocilizumab) may represent treatment options.***

Impact of COVID-19 on pregnancy care in LMIC (Low-Middle Income Countries) – Dr Divarkar (India)

- ***Issues in LMIC: 1) people overcrowding facilitates the spread of the infection and limits the possibility of quarantine → need for temporary facilities (i.e. converted hotels/hostels/stadiums) close to COVID-19 hospitals; 2) limited resources and training: big staff drop off, running water may be an issue, small rural and private hospitals may collapse before they get prepared for the emergency; 3) lack of PPE: rationalization of their use, options include plastic curtains or rain umbrella materials to protect triaging personnel, healthcare workers and examination tables; 4) rationalization of the antenatal care appointments & use of video calls.***
- ***People from the rural areas may not be able to reach the testing places → kiosks/buses can be adhibited as testing centres.***

Thrombosis in COVID-19 & implications in pregnancy – Prof Hunt (United Kingdom)

- ***COVID-19 characterized by inflammatory-based lung microthrombosis (segmental and subsegmental PE) and a general pro-thrombotic state secondary to the high levels of fibrinogen, hypoxia and immobility in the most severe cases; VTE reported to be uncommon. Anticoagulation associated with better survival. Available (limited) data supports increased thromboprophylaxis, the use of pneumatic compression in ICU and the extended thromboprophylaxis in discharged patients.***
- ***Recommendations in the case of COVID-19 in pregnancy: keep hydrated, continue to take thromboprophylaxis if already ongoing; while inpatient, all women need to be on thromboprophylaxis; following delivery, thromboprophylaxis recommended for 10 days unless additional risk factors.***

Pharmacology & Therapeutics in pregnancy with COVID-19 – Prof Williams (United Kingdom)

- ***Natural history of COVID-19: phase 1 or "immune protection phase" and phase 2 or "inflammatory phase". Ideally, drugs in the phase 1 should be different from those of the phase 2. No evidence-based treatment but several drugs evaluated in the context of clinical trials. Vaccine: not earlier than 12-18 months.***
- ***Promising drugs: Nafamostat inhibits the binding of SARS-CoV-2 to ACE2; Remdesivir inhibits the RNA replicase, associated with faster recovery and improved mortality. Other drugs under investigation: 1) Lopinavir+Ritonavir), 2) low-dose dexamethasone, 3) hydroxychloroquine, 4) Azithromycin and 5) Tocilizumab.***
- ***Convalescent plasma therapy: passive immunization therapy, ongoing studies on critically ill patients (no controls), limited by the need of plasma donors.***
- ***Treatment of COVID-19 in pregnancy: supportive measures such as oxygen, IV fluids, thromboprophylaxis, antibiotics; all the drugs currently under investigation can be used in pregnancy; low-dose Aspirin to be continued. Other NSAIDs: to date no evidence of harm, can be safely used before 32 weeks.***