BC Women's Hospital and British Columbia COVID-19 Therapeutics Committee (CTC) Clinical Practice Guidance for

Therapy in Adult Pregnant Patients with COVID-19

Updated Sept 7, 2022

SEVERITY OF ILLNESS	ANTIVIRAL THERAPY	IMMUNOMODULATORY THERAPY	OTHER THERAPIES
Critically Ill *Hospitalized, ICU-based* Patients requiring respiratory support (high-flow oxygen, noninvasive ventilation, mechanical ventilation) and/or vasopressor/ inotropic support	**Chloroquine** or **Hydroxychloroquine** is **not** recommended **Lopinavir/ritonavir** is **not** recommended **Remdesivir** is **not** recommended outside of approved clinical trials **Interferon IV/SC** is **not** recommended **Ribavirin/Interferon (Inhaled)** is **not** recommended outside of approved clinical trials **Ivermectin** is **not** recommended outside of approved clinical trials	**Dexamethasone 6mg IV/SC/PO q24 for up to 10 days is recommended**. Alternatives include Hydrocortisone 50mg IV q6h or Methylprednisolone 32mg IV q24h for up to 10 days. The choice of steroid will depend on individual risk factors and family preference, balancing the needs of the mother against potential fetal risk. The steroid with the greatest potential for maternal benefit is Dexamethasone (RECOVERY), however as it has the highest placental transfer, families and care providers may elect an alternative regimen at bioequivalent dose. Only in cases where delivery is predicted in the next 7 days, a short-term course of higher dose Dexamethasone (6mg IV/SC q12h x 4 doses) may be given to promote fetal lung maturity in consultation with Obstetric services. **Tocilizumab* 8mg/kg IV (single dose; up to maximum 400mg) is recommended (REMAP-CAP, RECOVERY) and must be administered within 24 hours of the initiation of organ support.** Patients admitted to hospital for more than 14 days with symptoms of COVID-19 should not receive tocilizumab for this indication. * Biologic agents cross the placenta to the fetus; there is the possibility that these agents (eg. Tocilizumab) may impact neonatal immune function. As such, delay of live attenuated vaccines is sometimes recommended, and the current recommendation is for consultation with the BCCH immunization services for infants born to pregnant persons who received Tocilizumab in the third trimester of pregnancy There are very limited data on baricitinib in pregnancy and tocilizumab should be considered first. If there is no access to an IL-6 inhibitor (due to global shortage), **Baricitinib 4mg PO daily can be considered on a case-by-case basis**, if the potential for maternal benefit is deemed sufficient to outweigh the potential risk. Care must be taken to convey the experimental nature of this treatment to patients/families.	**Prophylactic-dose of LMWH (low molecular weight heparin)* is recommended,** according to weight-based protocol, is recommended. (ATTACC). The ongoing use of LMWH should be reviewed with Obstetric and Anaesthesia teams, given the implications for delivery. **Use LMWH pre-filled syringes (multi-dose vials contain benzyl alcohol) **Antimicrobials: Ceftriaxone 1-2g IV q24h x 5 days is recommended** if there is bacterial co-infection Azithromycin 500mg IV q24x 3 days is recommended if atypical bacterial infection is suspected or in the case of ceftriaxone allergy. De-escalate based on microbiology results and clinical judgement.
Severely Ill *Hospitalized, ward-based* Patients requiring supplemental oxygen therapy	**Remdesivir** has shown a small benefit in survival (14.6% vs. 16.3%; RECOVERY); however due to much lower mortality from Omicron and different standard of care, it is **NOT recommended** in pregnant women. **Chloroquine/ Hydroxycholoquine/ Lopinavir/r** and **Interferon IV/SC** are **NOT recommended** **Ribavirin/Interferon** and **Ivermectin** are **NOT recommended** outside of approved clinical trials	**Dexamethasone 6mg IV/SC/PO q24 for up to 10 days is recommended**. Alternatives include Hydrocortisone 50mg IV q6h or Methylprednisolone 32mg IV q24h for up to 10 days. The choice of steroid will depend on individual risk factors and family preference, balancing the needs of the mother against potential fetal risk. The steroid with the greatest potential for maternal benefit is Dexamethasone (RECOVERY), however as it has the highest placental transfer, families and care providers may elect an alternative regimen at bioequivalent dose. Only in cases where delivery is predicted in the next 7 days, a short-term course of higher dose Dexamethasone (6mg IV/SC q12h x 4 doses) may be given to promote fetal lung maturity in consultation with Obstetric services. **Tocilizumab/Sarilumab** is **NOT recommended** for patients receiving low-flow oxygen support. The RECOVERY trial found a survival benefit of 4% (tocilizumab 29% vs. usual care 33% in 28-day mortality) in patients who had CRP >75 mg/L AND low-flow oxygen, non-invasive respiratory support, or invasive mechanical ventilation. However, due to much lower mortality from Omicron, tocilizumab/sarilumab may not yield a clinically meaningful benefit, and therapy should be prioritized to the persons with the greatest likelihood of benefit. **Baricitinib 4mg PO daily for up to 14 days** is given to non-pregnant patients as it has shown to reduce mortality (8% vs. 13%; COV-BARRIER); however it has not been evaluated in pregnancy and its isks and benefits must be considered on a case-by-case basis. Passive immunotherapies (e.g., Convalescent Plasma, IVIG, mAbs) are **NOT recommended.**	**Therapeutic anticoagulation can be considered in patients without high-risk features for serious bleeding or, in pregnant women, predicted to be at high risk of needing delivery within 24h.** Compared to standard of care, in non-pregnant adults, the addition of therapeutic anticoagulation was associated with improved 21-day organ support-free survival (ATTACC/ACTIV-4a/REMAP-CAP). Pregnancy is a hypercoagulable state; pregnancy should not preclude this therapy in an individual who would benefit. However, given the risk if urgent delivery is needed (including need to escalate care to the ICU), the decision to initiate therapeutic anticoagulation should include Obstetric services. LMWH is preferred - in cases of imminent delivery, unfractionated heparin may be used instead. **Use LMWH pre-filled syringes (multi-dose vials contain benzyl alcohol)
Mildly Ill *Ambulatory, outpatient* Patients who do not require supplemental oxygen, intravenous fluids, or other support	**Nirmatrelvir/ ritonavir (Paxlovid) and remdesivir can be considered** for in those at high risk (3% or more) to severe COVID-19 on the basis of vaccine status, age and risk factors (e.g., immune-compromise). SEE CTC Practice Guide	**Inhaled budesonide** has not been shown to be beneficial in adults less than 50 years old and is **not recommended.** **Colchicine is not recommended** as it has not shown to be beneficial in patients less than 40 years old. It has not been evaluated in pregnant patients over 40 years of age. **Fluvoxamine is not recommended** as it has not demonstrated to reduce valid COVID-19-related endpoints such as hospitalization, length of stay or mortality. **Monoclonal antibodies** (e.g., sotrovimab) have decreased activity against Omicron BA. 4 and BA. 5 and are considered last line therapy after nirmatrelvir/ritonavir and remdesivir with unproven benefit considering current variants of concern.	