Suspected or Confirmed COVID-19 Infection in Pregnancy
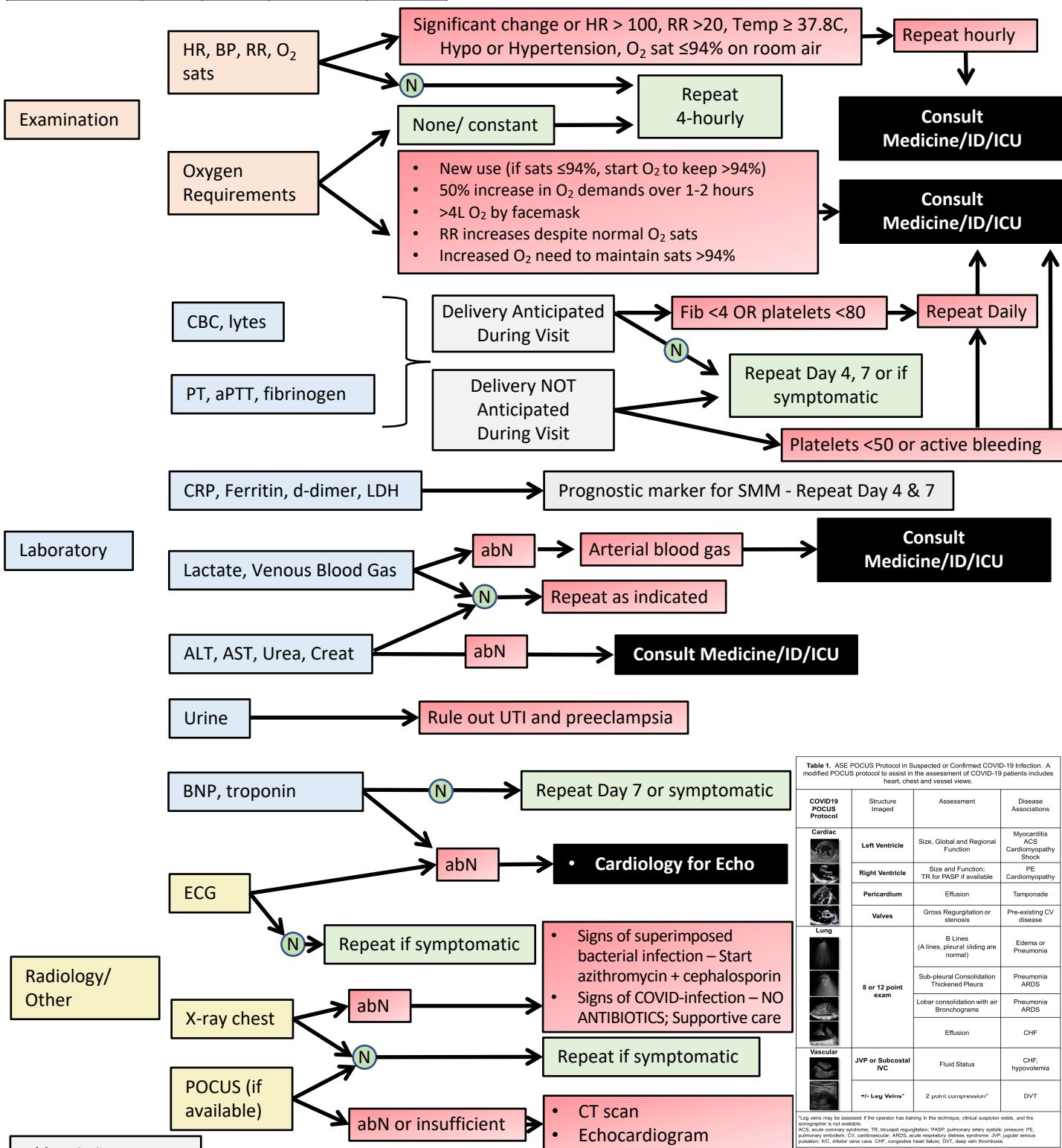## Algorithm for INPATIENT management

This algorithm is intended for COVID-positive pregnant patients who are deemed unwell enough to require INPATIENT management. The aim is to use clinical signs, laboratory markers and radiologic findings to identify those at risk for serious maternal morbidity/ ICU admission. Please adapt to your center.

Cardinal symptoms – assess daily

Symptom	No (0)	Mild (1)	Moderate (2)	Severe (3)
Fever				
Cough				
Shortness of breath				
Fatigue				
Body pain				
Diarrhoea				

General Management
Start empiric **thromboprophylaxis** (enoxaparin) for the entire duration of hospitalization
For anticipated preterm birth: administer **antenatal corticosteroids**
Judicious use of **intravenous fluids**, based on clinical presentation
Low-dose **aspirin** can be continued
Currently no restriction on **Indomethacin** for tocolysis & **NSAIDs** post-childbirth
Consider limiting **MagSulf** to a 4gm bolus over 1 hour in those with respiratory depression

Examination

HR, BP, RR, O₂ sats
- Significant change or HR > 100, RR >20, Temp ≥ 37.8C, Hypo or Hypertension, O₂ sat ≤94% on room air → **Repeat hourly** → **Consult Medicine/ID/ICU**
- N → Repeat 4-hourly

Oxygen Requirements
- None/ constant → Repeat 4-hourly
- New use (if sats ≤94%, start O₂ to keep >94%)
- 50% increase in O₂ demands over 1-2 hours
- >4L O₂ by facemask
- RR increases despite normal O₂ sats
- Increased O₂ need to maintain sats >94%
→ **Consult Medicine/ID/ICU**

Laboratory

CBC, lytes
PT, aPTT, fibrinogen
- Delivery Anticipated During Visit → Fib <4 OR platelets <80 → **Repeat Daily**
- N → Repeat Day 4, 7 or if symptomatic
- Delivery NOT Anticipated During Visit → Platelets <50 or active bleeding → **Repeat Daily** → **Consult Medicine/ID/ICU**

CRP, Ferritin, d-dimer, LDH → Prognostic marker for SMM - Repeat Day 4 & 7

Lactate, Venous Blood Gas
- abN → Arterial blood gas → **Consult Medicine/ID/ICU**
- N → Repeat as indicated

ALT, AST, Urea, Creat
- abN → **Consult Medicine/ID/ICU**

Urine → Rule out UTI and preeclampsia

Radiology/ Other

BNP, troponin
- N → Repeat Day 7 or symptomatic
- abN → **Cardiology for Echo**

ECG
- abN → **Cardiology for Echo**
- N → Repeat if symptomatic

X-ray chest
- abN
- N → Repeat if symptomatic

- Signs of superimposed bacterial infection – Start azithromycin + cephalosporin
- Signs of COVID-infection – NO ANTIBIOTICS; Supportive care

POCUS (if available)
- N → Repeat if symptomatic
- abN or insufficient → CT scan, Echocardiogram

Table 1. ASE POCUS Protocol in Suspected or Confirmed COVID-19 Infection. A modified POCUS protocol to assist in the assessment of COVID-19 patients includes heart, chest and vessel views.

COVID19 POCUS Protocol	Structure Imaged	Assessment	Disease Associations
Cardiac	Left Ventricle	Size, Global and Regional Function	Myocarditis ACS Cardiomyopathy Shock
	Right Ventricle	Size and Function; TR for PASP if available	PE Cardiomyopathy
	Pericardium	Effusion	Tamponade
	Valves	Gross Regurgitation or stenosis	Pre-existing CV disease
Lung		B Lines (A lines, pleural sliding are normal)	Edema or Pneumonia
	8 or 12 point exam	Sub-pleural Consolidation Thickened Pleura	Pneumonia ARDS
		Lobar consolidation with air Bronchograms	Pneumonia ARDS
		Effusion	CHF
Vascular	JVP or Subcostal IVC	Fluid Status	CHF, hypovolemia
	+/- Leg Veins*	2 point compression*	DVT

*Leg veins may be assessed if the operator has training in this technique, clinical suspicion exists, and the sonographer is not available.
ACS, acute coronary syndrome; TR, tricuspid regurgitation; PASP, pulmonary artery systolic pressure; PE, pulmonary embolism; CV, cardiovascular; ARDS, acute respiratory distress syndrome; JVP, jugular venous pulsation; IVC, inferior vena cava. CHF, congestive heart failure; DVT, deep vein thrombosis.

Abbreviations
BNP: B-type natriuretic peptide
MRP: Most Responsible Physician
POCUS: Point of care ultrasound

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