Table S1 Available evidence on use of experimental medications in pregnancy and breastfeeding

MEDICATION	Pregnancy Risk[1]		Breastfeeding[1–3]	
	Teratogenicity (congenital malformations)	Other toxicity (e.g. fetal/neonatal loss, prematurity, growth-and-developmental concerns)	RID	Comment
ANTIMALARIALS				
Chloroquine	Cohort studies and systematic reviews suggest low risk for congenital malformations.	Limited human data on non-teratogenic toxicity.	0.68-7.71%	Compatible based on limited data.
Hydroxychloroquine	Systematic review suggests no increased risk of malformations[4].	Systematic review suggests no increased risk of stillbirth or preterm birth[4].	2.9%	Compatible with lactation.
ANTIVIRALS				
Lopinavir/Ritonavir (protease inhibitors/ booster drug)	Registry data suggests no increased risk of congenital malformations[5].	Systematic review suggests no increased risk of stillbirth or preterm birth[6].	Lopinavir: 0.08-0.24% Ritonavir: 0.42%	Compatible with lactation.
Tenofovir (Nucleoside reverse transcriptase inhibitor)	Registry data and systematic review[7] suggest low risk for congenital malformations.	Limited human data on fetal loss. Cohort studies indicate no concerns regarding fetal growth, but lower adjusted mean length and head circumference at age 1-year, of uncertain significance.	NA	Compatible with lactation. One study estimated infants would receive about 0.03% of an infant dose in milk.
Remdesivir (Adenosine nucleotide analogue)	Limited data from six pregnant patients in an Ebola RCT suggest no increased risk[8].	Limited data from six pregnant patients in an Ebola RCT suggest no increased risk[8].	NA	No human data in lactation. Probably compatible based on poor oral bioavailability.
Ribavirin (Guanosine nucleotide analogue and inhibits RNA polymerase)	Registry data indicates 7 birth defects in 85 exposed women and 4 in 95 women whose partners were exposed[9].	Animal studies shows embryo lethality at doses well below the recommended human dose in all species tested. No data on other toxicity.	NA	No human data in lactation. Medication is not recommended in lactation based on long half-life.
Emtricitabine (Nucleoside reverse transcriptase inhibitor)	Registry data suggests no increased risk of congenital malformations[10], in keeping with animal studies.	Registry data suggests no increase in stillbirth or preterm birth[11].	0.93-3.57%	Limited data- probably compatible based on RID; no infant safety data in lactation at this time.
Favipiravir (RNA polymerase inhibitor)	Animal studies suggest increased risk. No human data. Manufacturer suggests contraindicated in pregnancy for countries where it is available for the treatment of influenza.	No information on non-teratogenic toxicity.	NA	No human data in lactation.
Nitazoxanide (First-in-class broad spectrum antiviral)	Animal data suggest low risk. No human data. Manufacturer suggests caution in the first trimester.	No information on non-teratogenic toxicity.	NA	Limited data- probably compatible based on one case report with low levels in milk; no infant safety data in lactation at this time.

BIOLOGICS (Monoclonal antibodies)				
Tocilizumab (Humanized monoclonal anti-IL-6 antibody)	Case series and registry data suggest no increased rate of congenital abnormalities[12–15].	Case series and registry data suggests no increased rate of spontaneous abortions[12–15].	NA	Compatible based on limited data.
Eculizumab (Humanized monoclonal anti-C5 (terminal complement) antibody)	Case series suggest low risk of congenital malformations.	Case series suggest no increased risk of fetal or neonatal loss.	NA	Compatible based on limited data[16].
Sarilumab (Humanized monoclonal anti-IL-6 antibody)	Limited human data. A trial is ongoing.	No information on non-teratogenic toxicity.	NA	Although there may be some theoretical concerns with VEGF inhibitors in milk, monoclonal antibodies in general, are likely to be compatible with lactation on account of their large molecular size (often > 145,000 Daltons), making them unlikely to pass into breast milk at appreciable concentrations. Besides, neonatal systemic absorption is expected to be low as most antibodies, if ingested, will be degraded by enzymes/ proteases, in the infant's gastrointestinal tract.
Bevacizumab (Humanized monoclonal anti-VEGF-A antibody)	Animal data and human post-marketing surveillance, although limited, demonstrate potential embryo/fetal toxicity[17].	Case reports involving intravitreal injections during pregnancy reported seven healthy term infants and two spontaneous miscarriages.	NA	
Emapalumab (Humanized monoclonal anti-interferon-ɣ antibody)	Animal studies suggest no increased risk of congenital malformations[18].	Animal studies suggests no increased non-teratogenic risk[18].	NA	
Siltuximab (Chimeric monoclonal anti-IL-6 antibody)	Animal studies suggest low risk. No human data available.	No information on non-teratogenic toxicity.	NA	
Nivolumab (Humanized monoclonal anti-IgG4 antibody against PD-1 receptor)	Animal studies suggest no increased risk of malformation in survivors and one human case report showed no adverse neonatal outcome[19].	Animal studies suggest a non–dose-related increase in spontaneous miscarriages and neonatal death[19].	NA	
IMMUNOMODULATORS				
Anakinra	Animal studies and human case reports suggest no increased risk of structural defects[20–22].	Case series suggests no increased risk of fetal loss or preterm birth.	NA	No human data in lactation. Probably compatible based on large molecular weight.
Tacrolimus (Calcineurin inhibitor)	Human studies suggest low risk for congenital malformations, although animal studies indicated dose-related teratogenicity.	Animal studies indicated abortifacient properties in three species, but this has not been seen in human studies. Human studies however, suggest association with neonatal hypertension, hyperkalemia, and possibly prematurity[23–25].	0.1-0.53%	Compatible based on limited data.
Sirolimus (Inhibitor of mTORC1)	Animal studies suggest no increased risk for malformations. Limited human data.	Animal studies suggest increased risk of fetal loss, lower birth weights and delays in skeletal ossification and growth of the fetal and neonatal heart.	NA	No human data in lactation
Thalidomide	Thalidomide is a potent human teratogen. The severe malformations induced by thalidomide may involve defects of the limbs, axial skeleton, head and face,	No information on non-teratogenic toxicity.	NA	No human data in lactation. Manufacturer recommends against breastfeeding.

	eyes, ears, tongue, teeth, central nervous, respiratory, cardiovascular, and genitourinary systems, and the gastrointestinal tract. The neurological complications may include severe mental retardation secondary to sensory deprivation.			
Fingolimod (Sphingosine-1-phosphate receptor modulator)	Animal studies indicate developmental toxicity in two species, and human reports suggest increase in congenital malformations[26,27].	Human studies indicate increased fetal loss[26,27].	NA	No human data in lactation. Due to potential adverse effects in breastfed infants, breastfeeding is not recommended.
Baricitinib (Janus Kinase inhibitor)	Animal studies suggest increased risk of congenital malformations. Insufficient human data[28].	Product monograph suggests adverse effect on bone development in utero at higher dosages.	NA	No human data in lactation. Due to potential adverse effects in breastfed infants, breastfeeding is not recommended.
Tofacitinib (Janus Kinase inhibitor)	Animal reproduction data suggest low risk. Human data although was mostly encouraging, it is insufficient to comment on safety[29].	Animal studies suggest increased risk in miscarriages, postnatal survival and decreased fetal weight.	NA	No human data in lactation. Due to potential adverse effects in breastfed infants, breastfeeding is not recommended.
Ruxolitinib (Janus Kinase inhibitor)	Animal data suggests it has no teratogenic effects, however, limited human data.	Animal studies suggest increased risk of fetal loss and reduced fetal weight in two species, but these effects occurred with doses that were maternally toxic. No human data[30].	NA	No human data in lactation. Due to potential adverse effects in breastfed infants, breastfeeding is not recommended.
OTHER DRUGS				
Recombinant human interferon α1b and α2b	Animal studies and limited human data suggest no increased risk of congenital malformations.	Animal studies suggest abortifacient effect at high doses. Registry data suggests good safety and efficacy for pregnant women with myeloproliferative and other conditions[31]. No effects on growth has been observed in limited human data.	NA	Both Interferon alfa and beta-1a have low levels in milk. Based on the large molecular weight of interferons they are not expected to readily transfer into milk.
ACE inhibitors/ARB	Human data suggests teratogenicity especially if used in the second and third trimesters. Anuria-associated oligohydramnios may produce fetal limb contractures, craniofacial deformation, hypocalvaria and pulmonary hypoplasia. ACE-inhibitors are considered contraindicated in pregnancy.	Human data suggests increased risk for stillbirth and neonatal death. Severe neonatal anuria and hypotension, resistant to both pressor agents and volume expansion, may occur following in utero exposure. Their use in pregnancy is associated with fetal growth restriction, prematurity and persistent patent ductus arteriosus.	ACE-I e.g. ramipril-undetectable in milk, enalapril 0.07-0.2%, quinapril 1.6%	Compatible with lactation.

			ARB e.g. candesartan 0.8-1%	
Camostat Mesylate and Nafamostat (Inhibits serine protease TMPRSS2 involved in viral entry through ACE-2 receptor)	No human or animal data.		NA	No human data in lactation.
Bromhexine hydrochloride (Inhibits serine protease TMPRSS2)	Considered compatible with pregnancy[32].		NA	Compatible with lactation[32].
Convalescent Plasma/ hyperimmunoglobulin prepared from convalescent plasma	Although transfusion reactions are possible with blood products, they are compatible with pregnancy[33–35].		NA	Compatible with lactation.
Corticosteroids	Human data suggests no increased risk of congenital malformations including orofacial clefts[36,37].	Human data suggest no increased risk of fetal loss, but a possible association with preterm birth and low birth weight.	Prednisone/ Prednisolone 1.8-5.3%	Compatible with lactation, especially with short term use.
Colchicine (Anti-mitotic drug - Non-selective inhibition of NLRP3 inflammasome)	Animal studies suggest teratogenicity. However, human studies suggest no increased risk for congenital malformations[38].	Animal and human studies suggest no increased risk of fetal loss of effect on fetal growth.	2.1-31.5%	Compatible with lactation. As highest drug levels occur 2-4 hours after ingestion, recommend taking after nursing to reduce infant exposure.
Azithromycin (Macrolide antibiotic)	Human studies suggest no increased risk.		5.9%	Compatible with lactation.
Atovaquone (Antiprotozoal agent)	Human studies suggest no increased risk for congenital malformations.	Animal and human studies suggest no increased risk of fetal loss or other fetal toxicity.	NA	No human data in lactation.

Compatible; Benefits>Risk	Limited data; probably compatible	Weigh risks vs benefits	Limited data; potential risk	Contraindicated	No human data

ACE, Angiotensin converting enzyme; ARB, angiotensin receptor blockers; CYP3A4, cytochrome P450 3A4; FDA, United States Food and Drug Administration; HIV, human immunodeficiency virus; IgG, immunoglobulin G; IL, interleukin; MERS, Middle East respiratory syndrome; MTOR-C1, mechanistic target of rapamycin complex 1; NA, not available; NLRP3, NOD-like receptor protein 3; PD-1, programmed cell death 1; QTc, corrected QT interval; RID, relative infant dose; RNA, ribonucleic acid; RSV, respiratory syncytial virus; SARS-CoV, severe acute respiratory syndrome coronavirus 2; TMPRSS2, transmembrane protease, serine 2; VEGF-A, vascular endothelial growth factor A.

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