

## Supplementary data:

Supplementary Table 1: Drug levels in mothers and their offspring.										
Drug	First author	Year	Number	Maternal drug level	Cord drug level	Placental transfer	Days from last dose	Breastmilk drug level	Drug level in child	Comments / Observations
Infliximab (IFX)	Mahadevan (abstract)	2007	5	9.88 µg/mL	10.9 µg/mL	1.03	30.4			IFX detectable up to 6 months from delivery. Low maternal IFX levels were associated with shorter IFX exposure times in the newborn.
	Zelinkova	2011	4	3.08 µg/mL	8.05 µg/mL	2.62	87.5	-		IFX was not detected in one mother (and infant) who had her last infusion at 21w. FU for 3-6/12 showed normal infant dev w no problems with childhood infections or vaccinations.
	Zelinkova	2013	12 samples of cord blood		6.4 µg/mL		NA			IFX was lower in those who stopped > 10w prior to delivery 2.8 µg/mL vs. 10 µg/mL in those who stopped closer to delivery. * Exact gestation of last dose not available in individual cases.
	Mahadevan	2013	11	11.52 µg/mL	14.44 µg/mL	1.25	41.2	-	-	* Cord levels only available for 9/11
	Julsgaard	2016	18 *stopped <30 weeks	0.6 µg/mL	2.2 µg/mL	3.67	NA	-		* Median values provided (unusually those stopped <30 weeks had higher ratios than those stopped ≥ 30weeks). Exact gestation of last dose not available.
			26 *continued ≥ 30 weeks	4 µg/mL	10 µg/mL	2.5	NA	-		
	Kanis (abstract)	2016	18 *stopped < 25 weeks	-	1.9 µg/mL		NA			Cord IFX levels were significantly higher than ADA. Exact gestation last dose given not available.
19 *continued ≥ 25 weeks			-	13.4 µg/mL		NA				
Matro	2018	29	-	-	-	-	-	0.74 µg/mL		IFX was detectable only in 66% of breastmilk samples.

Supplementary Table 1: Drug levels in mothers and their offspring.										
Drug	First author	Year	Number	Maternal drug level	Cord drug level	Placental transfer	Days from last dose	Breastmilk drug level	Drug level in child	Comments / Observations
Etanercept (ETN)	Murashima	2009	1	2239ng/ml	81 ng/ml	0.04	NA	3.5ng/ml	Undetectable	ETN administered 25mg twice a week. ETN cleared from neonate < 12w of delivery despite regular breastfeeding.
	Keeling	2010	1	-	-	-	NA	4.48-7.0 ng/ml	-	ETN levels in breastmilk peaked about 72 hours post dose but remained therapeutically insignificant levels.
	Berthelsen	2011	1	540ng/ml	40ng/ml	0.07	7	2-5	<2	Receiving ETN 25mg weekly.
	Ostensen	2011	1	-	-	-	-	25-75.4 ng/ml	-	ETN administered 30 days post-partum; peak levels in breastmilk were 36 hours after administration.
Adalimumab (ADA)	Julsgaard	2013	1	300ng/ml	150ng/ml	0.5	150.5	-	Undetectable at 3 months.	ADA stopped at 16w, delivered at 37.5 weeks. Infant cleared ADA by 3 months.
	Mahadevan	2011	5	2.78 µg/mL	4.72 µg/mL	1.69	28.8	-	-	One mother had undetectable ADA levels after 42 days, but another had 1.84µg/mL 56 days after the last dose.
	Zelinkova	2013	6 cord samples	-	1.7 µg/mL	-	NA	-	-	One child whose mother stopped ADA at 22w had undetectable drug levels. * Exact gestation of last dose not available in individual cases.
	Mahadevan	2013	10	4.73 µg/mL	7.02 µg/mL	1.48	28.8	-	-	
	Julsgaard	2016	7 * stopped < 30 weeks	0.3µg/mL	0.2 µg/mL	0.67	NA	-	* Median values provided. Those who stopped ADA < 30 w had lower ratios than those who stopped ADA ≥ 30w. Exact gestation of last dose not available.	
			29 * continued ≥ 30weeks	2.1 µg/mL	2.5 µg/mL	1.19	NA	-		
	Kanis (abstract)	2016	19 * stopped <24weeks	-	0.9 µg/mL	NA	Cord IFX levels are significantly higher than ADA			
10 * continued ≥ 24weeks			-	4.1 µg/mL	NA					
Matro	2018	21	-	-	-	-	0.71 µg/mL	-	ADA was detected in only 9.5% of breastmilk samples.	

Supplementary Table 1: Drug levels in mothers and their offspring.										
Drug	First author	Year	Number	Maternal drug level	Cord drug level	Placental transfer	Days from last dose	Breastmilk drug level	Drug level in child	Comments / Observations
Certolizumab (CTZ)	Mahadevan (abstract)	2009	1	18.83 µg/mL	1.65 µg/mL	0.09	14	-	-	CTZ 400mg every 4w from 2nd trimester. 37w 2700g infant without congenital anomalies.
	Mahadevan	2013	10	24.43 µg/mL	0.75 µg/mL	0.03	19.2	n=5 undetectable	-	* n=10 women with 12 deliveries (2 sets of twins); 4 cord blood samples undetectable
	Mariette (CRIB)	2018	16	23.69 µg/mL	0.008µg/mL	0.0003	11.1			* Only 15 cord samples, only n=3 had quantifiable CTZ levels
	Matro	2018	13	-	-	-	-	0.29 µg/mL		TCZ detected in only 23% of breastmilk samples.
Golimumab	Matro	2018	1	-	-	-	-	NA		GLM not detected in any breast milk (0%)
Canakinumab (CKM)	Egawa	2017	1	7.16 µg/mL	15.1 µg/mL	2.1	35	-	-	150mg CKM every 4-5w.
Tocilizumab (TCZ)	Saito	2018	2	-	-	-	-	<2 - 68.2 ng/ml	-	Peak TCZ in breastmilk was 3 days after administration. Breast milk levels of tocilizumab ranged from 1/500 to 1/1000 of those in serum.
Ustekinumab (UTK)	Matro	2018	6	-	-	-	-	1.57 µg/mL		UTK detected in 66.7% of breastmilk samples.
	Rowan	2018	1	4.3µg/ml	8.0 µg/ml	1.86	28	-	-	Delivered at 37w, of a 2948g male with no anomalies.
Rituximab (RTX)	Friedrichs	2006	1	9750 µg/mL	32095 µg/mL	3.29	147			RTX commenced at 16w with 4x weekly cycles of 375mg/m <sup>2</sup> till remission for Burkitt's lymphoma. Delivered at 41w of a female.
	Decker	2006	1	200 mg/L (0.2g/L)	300 mg/L	1.5	35	-		RTX administered on week 16 and 28; delivered at 33weeks.
	Klink	2008	1	24 mg/L	6.7mg/ml	0.28	28	-		RTX administered week 30 and 34; delivered at 38 weeks.