



The IMMUMUM Study

Research to inform the impact of immunosuppressive medications taken during pregnancy on maternal and infant immune responses to vaccines

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NCIRS

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Research and
Surveillance



- Increasing numbers of infants are being exposed to bDMARDs in utero – this is an understudied group
- Current immunisation advice for these infants:
 - IMAC: If a mother was on immunosuppressive therapy during pregnancy, it is important to seek advice before a baby is given RotaTeq or Rotarix
 - AIH: Infants who received bDMARDs, particularly in the 3rd trimester, are not recommended to receive live vaccines, particularly BCG.


Infants should receive inactivated vaccines according to the recommended schedule. However, immune responses may be suboptimal.

What we are doing: Cohort study



1. Follow up of infants exposed to bDMARDs in utero
 - Clinical review
 - Bloods at 7 months of age

Drug	Tetanus	Diphtheria	Pneumococcal	Drug level
adalimumab	✓	✓	↓	undetectable at 9/12
adalimumab	✓	✓	✓	undetectable at 7/12
adalimumab	✓	✓		undetectable at 7/12
adalimumab				undetectable at 7/12
infliximab				undetectable at 7/12
infliximab				detectable until 20/12
infliximab				detectable until 22/12
natalizumab	↓	✓		
natalizumab	✓	✓		






**Autoimmune Disease in Pregnancy:
Follow up for your baby's vaccines**

Autoimmune conditions include Crohn's disease, ulcerative colitis, rheumatoid arthritis, lupus and psoriasis. Some women with autoimmune diseases need to take immune suppressing medications during pregnancy.

Sometimes this means their baby might need a different schedule of vaccines in the first year of life.

For guidance on your baby's scheduled vaccines, please contact
The New South Wales Immunisation Specialist Service
 We offer phone advice and face-to-face appointments, at no cost.

 1800 679 477
 SCHN-NSWISS@health.nsw.gov.au
 <http://www.ncirs.edu.au/vaccine-safety/clinical>



2. Prospective study assessing vaccine safety and effectiveness in 4 groups of mother-infant pairs:

- 1: exposed to biological DMARDs
- 2: exposed to non-biological DMARDs
- 3: autoimmune disease with no immunosuppression
- 4: healthy controls

Study Schedule

	Timing of bloods	Vaccines	Parameters
Mothers	Pre-vaccine	dTpa	Serology
	4-6 weeks post-vaccine	Influenza	+/- drug levels
Infants	Cord blood	Infanrix Hexa	Serology
	6 weeks	Prevenar 13	+/- drug levels
	7 months	Rotarix (except group 1)	FBC Lymphocyte subsets

**All the Mothers and Babies
who are participating in
this study.**

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