Objective:
To evaluate pregnancy outcomes in Multiple Sclerosis (MS) patients exposed to disease modifying therapies (DMTs).

Background: MS patients may be exposed to DMTs during the first trimester in unplanned pregnancies or while using high efficacy drugs in patients at risk of disease reactivation.

Design/Methods: Data of MS pregnant women was extracted from the national MS registry. Details of drug exposure and pregnancy outcomes were collected. The occurrence of spontaneous/ elective abortions and fetal malformation were obtained. Pregnancy outcomes in women who were exposed to DMTs were compared to women who discontinued DMTs prior to conception.

Results:
Outcomes of 142 pregnancies (120 women) were assessed; 80 (56.3%) of which were exposed to DMTs. At the time of pregnancy confirmation, mean age and mean disease duration were 20.5 ± 4.7 and 5 ± 4.2 years respectively. There were no significant differences between DMT-exposed pregnancies and the non-exposed in terms of mean age (p= 0.95), age at onset (p= 0.84), age at pregnancy confirmation (p= 0.37) or disease duration (p= 0.35). In the exposed group, the most used DMTs were beta interferons (n=50; 35.2%), natalizumab (n=28; 19.7%), fingolimod (n=24; 16.9%), and dimethyl fumarate (n=5; 3.5%). In the non-exposed group, 53.2% (n=33) of patients were not on DMTs, while 21% (n=13) were on fingolimod, 19.4% (n=12) were on beta interferons and 4.8% (n=3) were on dimethylfumarate. Most pregnancies (~85%) resulted in full term births. There were no significant differences between the exposed and non-exposed in the rate of premature birth (5% versus 3.2%) and abortions (10% versus 11.3%) [p= 0.47]. No major fetal malformations were reported.

Conclusions:
Most of the pregnancies in our cohort were exposed to disease modifying therapies. The pregnancy outcomes in patients exposed to DMTs is comparable to those who were not exposed.