Research Objectives:
We aimed to characterize the most prevalent side effect of rTMS (i.e. pain on the site of stimulation) in two different protocols: High Frequency Left (HFL) and iTBS.

Methods:
Methods: 414 patients were randomized to either HFL or iTBS in a multicenter study across three sites in Canada. Each side effect was systematically assessed after every treatment using a Likert scale. Linear mixed-effects (LME) modelling and General Estimating Equation (GEE) were used to test several variables that might be significantly associated to pain and its trajectory during rTMS, and whether there were any differences between the two treatment protocols.

Results:
The most prevalent side effect for both protocols was confirmed to be pain on the site of stimulation (97%). The severity of pain decreased over the treatment course (p=0.00), but at a slower rate over time (p=0.00). Additionally, pain severity scores were higher in patients who received iTBS (p=0.0006), patients who were less responsive to the treatment (p=0.0274), patients with higher baseline anxiety score (p=0.0007), older patients (p=0.037), female patients (p=0.0207), and those with higher dose (p=0.00).

Conclusions:
Both of the rTMS protocols were well tolerated with low dropout rates. The most common side effect (i.e. pain on the site of stimulation) showed a clear decreasing trajectory over time, and that we also saw differences in the reported pain severity scores according to several factors as outlined above.

Clinical Relevance:
The results of this study are very relevant for both patients and clinicians since they can be used as a reference in future studies and clinical application of rTMS, especially when deciding which protocol to administer, and during the informed consent process.