Review of Immunization Status of Patients Switched to Ocrelizumab: A Tertiary Care Experience

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Background

- Ocrelizumab, a newly approved B-cell depleting therapy for relapsing-remitting and progressive MS, induces prolonged immunosuppression
- On ocrelizumab, live vaccines are contraindicated and inactive vaccines while safe may not induce substantial immunization effects
- No specific recommendations to guide immunizations in this cohort exist

Objective

Review of the vaccination status of patients started on ocrelizumab in our initial clinical cohort

Methods

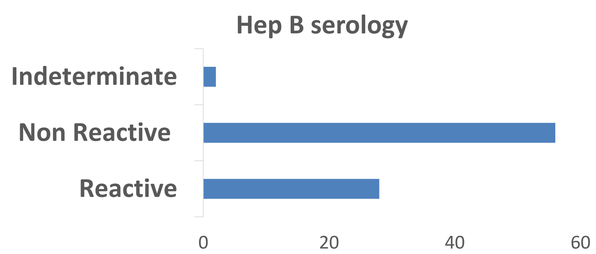
Retrospective chart review of all patients who were started on ocrelizumab from March - September 2017

Demographic data		
Sex	Female, n (%)	41 (47.6)
	Male, n (%)	45 (52.3)
Age in years, median (range)		47 (21-73)
Number of prior DMTs, median (range)		3 (0-8)
JCV positive patients, n (%)		51 (59.3)
Treatment naïve patients, n (%)		7 (0.08)
Type of MS	RRMS, n (%)	57 (66.2)
	PPMS, n (%)	29 (33.7)

Results

	Prior exposure or previously vaccinated	Subsequently vaccinated	Not vaccinated
Hepatitis B	32.5% (n=28)	33.7% (n=29)	31.3% (n=27)
Pneumonia	6.97% (n=6)	51.2% (n=44)	41.8% (n=36)
Varicella	97.6% (n=84)	2.32% (n=2)	0

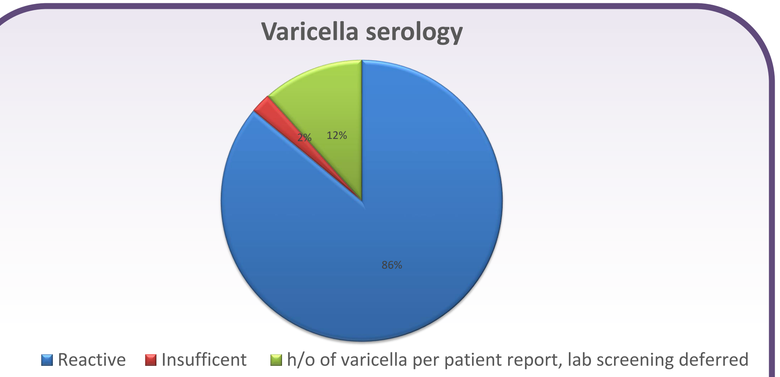
- Patients already on a B-cell depleting therapy (rituximab), very active MS disease , patient refusal and evolving clinic standards were the main factors for deferring vaccinations
- In those vaccinated, the interval between completion of immunizations and start of ocrelizumab averaged 39.7 days (range 21-91 days)



All patients with reactive Hep B antibody titers were deemed to have sufficient immunity.

50% of those with non-reactive titers were vaccinated prior to ocrelizumab.

Clinic standards have changed to ensure vaccination of all patients prior to start of ocrelizumab.



Upon screening, 2 patients nonimmune for VZV were identified and subsequently vaccinated prior to initiation of ocrelizumab given that immunosuppressed patients are at risk for developing severe VZV-related complications.

Discussion and Conclusions

- A significant number of the initial cohort of MS patients transitioning to ocrelizumab were not vaccinated or had insufficient immunity for key vaccines upon screening
- As ocrelizumab induces a profound and prolonged immunosuppression, vaccination prior to treatment initiation seems warranted as a safe and effective measure in preventing infections
- Our clinic standards have evolved to ensure screening and pneumonia, varicella and accelerated vaccination of Hepatitis B of all patients transitioning to ocrelizumab
- We now also proactively screen and vaccinate our patients in anticipation of possible future DMT escalation