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SUMMARY

**Purpose**
To evaluate the agreement of retinal nerve fiber layer (RNFL) thickness color-coded normative data ranges among Stratus, Cirrus, and SPECTRALIS® optical coherence tomography (OCT) in patients with relapsing-remitting multiple sclerosis (RRMS).

**Methods**
Peripapillary RNFL thickness was measured using the fast RNFL program by Stratus, the optic disc cube protocol by Cirrus, and the Nsite Analytics™ by SPECTRALIS in 140 eyes from 70 patients having RRMS.

**Results**
SPECTRALIS showed a significantly higher rate of below normal limit measurement of global mean RNFL thickness while Cirrus displayed normal ranges for the temporal sector RNFL thickness in non-ON eyes (P < .001). A moderate to good agreement of RNFL thickness normative color-coded ranges was found, except for the nasal quadrant. Below normal limits temporal RNFL color-code range was significantly higher in ON eyes than non-ON eyes by Cirrus (P < .001), Stratus (P < .001), and SPECTRALIS (P = .030).

**CONCLUSION**
In non-ON eyes, SPECTRALIS yielded a significantly higher thinning for temporal quadrant than Cirrus, suggesting that Nsite Analytics could define axonal damage in RRMS patients earlier than conventional RNFL analysis.