Appendix. *DBS Programming Protocol.*

As mentioned in the article body, the Medtronic Restore and PrimeAdvanced internal pulse generator models preclude programming in constant current mode and also precludes monopolar stimulation. Patients were programmed in constant voltage mode using bipolar configurations. Throughout the programming session, pulse width and frequency remained fixed at 90 μs and 130 Hz, respectively.

At the beginning of the session, each patient's DBS was turned off, and a baseline FTM-A rating scale was video-recorded. Next, the VIM leads were programmed. The most ventral contact (contact 0 for the left VIM lead, per convention) was designated the cathode, and the next most dorsal contact (contact 1 for the left VIM lead) was designated the anode.   In this configuration, amplitude was gradually increased until adverse effect threshold or 4.0 V. Side effects and tremor improvement were recorded by the programmers. Upon completing stimulation for that particular anode-cathode combination, the anode and cathode were switched, so that contact 0 was designated the anode and contact 1 the cathode. The same procedure was followed. Then, contact 2 was assigned as the cathode, with contact 0 remaining the anode, and the procedure was repeated a third time. Lastly, contact 3 was assigned as the cathode, again with contact 0 remaining the anode. This same series of steps was followed for the contralateral side. The cathode was varied, as opposed to the anode, because cathodal stimulation more strongly activates surrounding tissue.[13] At the completion of this sequence, each VIM lead was programmed with the optimal configuration and amplitude. The patient was then video-recorded performing the FTM-A rating scale.

Next, VIM stimulation was turned off, and the more anterior (VOA) lead was programmed using the same protocol. Left and right anterior lead contacts were designated 4-7 and 12-15, respectively. Once optimal settings, under the protocol, were ascertained, a third FTM-A rating scale was video-recorded.

Finally, confined stimulation was performed (see Figure). Throughout this portion of the programming, the cathode was assigned to the VIM lead contact, and the anode assigned to the anterior lead contact. Corresponding contacts on the ipsilateral leads were activated. For example, under the first confined stimulation configuration, contact 0 served as cathoded and contact 4 as anode. Voltages were gradually increased until adverse side effects or 4.0 V. Then, contact 1 was designated cathode and contact 5 as anode. This process was repeated for each corresponding pair of contacts. Once optimal settings were determined, a fourth and final FTM-A rating scale was video-recorded.