

## The Use of Rotigotine to Improve Hemispatial Neglect in Stroke Patients at the Charing Cross Neurorehabilitation Unit

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**Abstract :** Hemispatial Neglect is a common disorder primarily associated with right hemispheric stroke, in the acute phase of which it can occur up to 82% of the time. Such individuals fail to acknowledge or respond to people and objects in their left field of vision due to deficits in attention and awareness. Persistent hemispatial neglect significantly impedes post-stroke recovery, leading to longer hospital stays post-stroke, increased functional dependency, longer-term disability in ADLs and increased risk of falls. Recently, evidence has emerged for the use of dopamine agonist Rotigotine in neglect. The aim of our Quality Improvement Project (QIP) is to evaluate and better the current protocols and practice in assessment, documentation and management of neglect and rotigotine use at the Neurorehabilitation unit at Charing Cross Hospital (CNRU). In addition, it brings light to rotigotine use in the management of hemispatial neglect and paves the way for future research in the field. Our QIP was based in the CNRU. All patients admitted to the CNRU suffering from a right-sided stroke from 2nd of February 2018 to the 2nd of February 2021 were included in the project. Each patient's multidisciplinary team report and hospital notes were searched for information, including bio-data, fulfilment of the inclusion criteria (having hemispatial neglect) and data related to rotigotine use. This includes whether or not the drug was administered, any contraindications to drug in patients that did not receive it, and any therapeutic benefits (subjective or objective improvement in neglect) in those that did receive the rotigotine. Data was simultaneously entered into excel sheet and further statistical analysis was done on SPSS 20.0. Out of 80 patients suffering from right sided strokes, 72.5% were infarcts and 27.5% were hemorrhagic strokes, with vast majority of both types of strokes were in the middle cerebral artery territory (MCA). A total of 31 (38.8%) of our patients were noted to have hemispatial neglect, with the highest number of cases being associated with MCA strokes. Almost half of our patients with MCA strokes suffered from neglect. Neglect was more common in male patients. Out of the 31 patients suffering from visuospatial neglect, only 16% actually received rotigotine and 80% of them were noted to have an objective improvement in their neglect tests and 20% revealed subjective improvement. After thoroughly going through neglect-associated documentation, the following recommendations/plans were put in place for the future. We plan to liaise with the occupational therapy team at our rehab unit to set a battery of tests that would be done on all patients presenting with neglect and recommend clear documentation of outcomes of each neglect screen under it. Also to create two proformas; one for the therapy team to aid in systematic documentation of neglect screens done prior to and after rotigotine administration and a second proforma for the medical team with clear documentation of rotigotine use, its benefits and any contraindications if not administered.

**Keywords :** hemispatial Neglect, right hemispheric stroke, rotigotine, neglect, dopamine agonist

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