



## Have We Been Overestimating Fall Rates in Parkinson's Disease?

We read with interest the article by Lord and colleagues titled "Predicting First Fall in Newly Diagnosed Parkinson's Disease: Insights From a Fall-Naïve Cohort,"<sup>1</sup> which provides unique insights in fall risk in fall-naïve, mild-to-moderate Parkinson's disease (PD) patients and may provide a clinical tool for preventing falls in these patients. We noted that the authors found a 3-year fall rate of 61% in this cohort. This is particularly interesting because this rate is much lower than previously reported fall rates in PD<sup>2,3</sup> and that in fact it is comparable to that of older adults (>65 years old) without PD.<sup>4,5</sup> Based on previously reported annual fall rates of 68% in PD<sup>3</sup> and 33% in normal older adults,<sup>4</sup> 3-year predicted fall rates can be as high as 97% and 70% for PD patients and normal older adults, respectively (Table 1). Both predicted rates exceed the 3-year fall rate in PD reported in this study. It is also noteworthy that Lord and colleagues excluded a group of 26 (22%) participants from their cohort because they reported at least 1 fall in the year prior to the start of the study, and thus were not fall naïve. This shows that in the cohort of consecutively recruited patients with mild-to-moderate PD, their 1-year baseline fall rate of 22% is much lower than that reported in PD, and even somewhat lower than that reported in older adults (Table 1). Fall rates in PD may need to be reexamined because currently reported rates may be overestimates, especially in a population with mild-to-moderate PD. Rates in this population may actually be comparable with that in older adults without PD. We suggest that it is only during later and more severe stages of PD that fall frequency significantly increases above that of the normal fall rate of older adults. ■

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**TABLE 1.** Actual<sup>†</sup> and predicted<sup>‡</sup> fall rates in older adults (OA) and individuals with Parkinson's disease (PD)

Literature	1-year fall rate, %		3-year fall rate, %	
	OA	PD	OA	PD
Allan et al <sup>4</sup>	33 <sup>†a</sup>	NA	70 <sup>†b</sup>	NA
Wood et al <sup>3</sup>	NA	68 <sup>†</sup>	NA	97 <sup>†b</sup>
Lord et al <sup>1</sup>	NA	33 <sup>†c</sup> -45 <sup>†d</sup>	NA	61 <sup>†</sup>

NA, not applicable.

<sup>a</sup>Fall rate for nondemented control participants without PD.

<sup>b</sup>Calculated from 1-year fall rate ( $1Y_{FR}$ ) ( $100 \cdot 1Y_{FR} + Y2_{NF} \cdot 1Y_{FR} + Y3_{NF} \cdot 1Y_{FR}$ );  $Y2_{NF}$ : number of nonfallers at start of year 2 [ $100 - 100 \cdot 1Y_{FR}$ ];  $Y3_{NF}$ : number of nonfallers at start of year 3 [ $Y2_{NF} - Y2_{NF} \cdot 1Y_{FR}$ ].

<sup>c</sup>Calculated from fall-naïve data (n = 77) if fall-naïve participants with recurrent falls in the 3-year period (n = 29) had 2 falls during this period:  $(18/3 + 29 \cdot 2/3)/77 \cdot 100 = 33\%$ .

<sup>d</sup>Calculated from fall-naïve data (n = 77) if fall-naïve participants with recurrent falls in the 3-year period (n = 29) had at least 3 falls during this period:  $(18/3 + 29)/77 \cdot 100 = 45\%$ .

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Relevant conflicts of interests/financial disclosures: Nothing to report.

Received: 25 January 2017; Accepted: 16 February 2017

Published online 21 April 2017 in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/mds.26994