

**Multimedia Appendix 4.** Effects of rest-activity rhythm (RAR) measures on risk of developing dementia/mild cognitive impairment (MCI) in nonshift workers.

<b>RAR characteristics</b>	<b>Number of participants</b>	<b>84,148</b>
	<b>Events of dementia/MCI</b>	<b>537</b>
<b>Relative Amplitude</b>	Q1	1.93 (1.50-2.50)
	Q2	1.32 (1.01-1.74)
	Q3	1.00 (0.74-1.34)
	Q4	Ref.
	Per 1-SD Decrease	1.21 (1.15-1.27)
<b>M10</b>	Q1	1.68 (1.29-2.19)
	Q2	1.09 (0.82-1.45)
	Q3	0.95 (0.71-1.29)
	Q4	Ref.
	Per 1-SD Decrease	1.30 (1.15-1.46)
<b>M10 midpoint</b>	Earlier	1.12 (0.92-1.37)
	Middle	Ref.
	Later	1.05 (0.85-1.31)
	Per 1-SD Increase	0.94 (0.85-1.04)
<b>L5</b>	Q1	Ref.
	Q2	1.28 (1.00-1.65)
	Q3	1.04 (0.80-1.34)
	Q4	1.50 (1.18-1.91)
	Per 1-SD Increase	1.14 (1.09-1.19)
<b>L5 midpoint</b>	Earlier	1.07 (0.87-1.31)
	Middle	Ref.
	Later	0.88 (0.71-1.09)
	Per 1-SD Increase	0.92 (0.85-0.99)
<b>IV</b>	Q1	Ref.
	Q2	1.70 (1.31-2.21)
	Q3	1.34 (1.02-1.76)
	Q4	1.62 (1.25-2.11)
	Per 1-SD Increase	1.15 (1.05-1.25)
<b>IS</b>	Q1	1.00 (0.78-1.28)
	Q2	0.85 (0.67-1.09)
	Q3	1.03 (0.82-1.29)
	Q4	Ref.
	Per 1-SD Decrease	0.99 (0.90-1.08)
<b>Amplitude</b>	Q1	1.91 (1.46-2.49)
	Q2	1.27 (0.95-1.69)
	Q3	1.20 (0.89-1.62)
	Q4	Ref.
	Per 1-SD Decrease	1.33 (1.18-1.51)
<b>Phase</b>	Earlier	0.97 (0.80-1.19)
	Middle	Ref.
	Later	0.89 (0.72-1.11)
	Per 1-SD Increase	0.94 (0.86-1.03)

Models are adjusted for age at the time of actigraphy, sex, education, Townsend Deprivation Index, ethnic background, obesity, sleep apnea, morbidity burdens, circulatory disorders, alcohol intake, smoking status, and polygenic risk score of for Alzheimer's disease.