

**Supplementary table 4** Association between the dose or running and the risk of all-cause mortality: meta-regression estimates for the linear trend

Type of dose	$\beta_0$ (95% CI)	$\beta_1$ (95% CI)	$p$
Weekly frequency (days)	0.56 (0.36, 0.76)	0.03 (-0.02, 0.08)	0.202
Weekly duration (minutes)	0.66 (0.52, 0.80)	0.00 (0.00, 0.00)	0.923
Pace (mph)	1.03 (0.13, 1.93)	-0.05 (-0.19, 0.08)	0.448
Total volume (MET-minutes/week)	0.64 (0.44, 0.84)	0.00 (0.00, 0.00)*	0.634

$\beta_0$ =intercept; 95% CI=95 percent confidence interval;  $\beta_1$ =unstandardised regression coefficient;  $p$ = $p$ -value for the linear trend; \*Given that MET-minutes/week is a very small unit size to express the total volume of running, the following, precise  $\beta_1$  (95% CI) should be used to calculate the estimated pooled HR: 5.57e-05 (95% CI: -6.50e-05, 1.77e-04)