

**Table S3** The cumulative effects of cold spells under the optimal definition using different degrees of freedom for relative humidity in the DLM model

df for relative humidity	Group	CRR (95% CI)			
		Lag0	Lag0-7	Lag0-14	Lag0-21
3 <sup>a</sup>	Total	1.042 (1.013-1.072)*	1.249 (1.136-1.374)*	1.343 (1.206-1.496)*	1.394 (1.193-1.630)*
	Male	1.042 (1.011-1.074)*	1.243 (1.123-1.375)*	1.316 (1.173-1.477)*	1.342 (1.136-1.586)*
	Female	1.041 (1.005-1.077)*	1.257 (1.119-1.411)*	1.383 (1.215-1.574)*	1.476 (1.211-1.783)*
	Age<65	1.017 (0.972-1.064)	1.120 (0.963-1.303)	1.159 (0.977-1.376)	1.107 (0.862-1.422)
	Age≥65	1.046 (1.017-1.077)*	1.275 (1.158-1.404)*	1.382 (1.240-1.540)*	1.456 (1.244-1.705)*
	Total	1.041 (1.012-1.071)*	1.248 (1.135-1.373)*	1.343 (1.205-1.495)*	1.392 (1.190-1.629)*
4	Male	1.042 (1.011-1.073)*	1.240 (1.120-1.372)*	1.314 (1.170-1.475)*	1.336 (1.130-1.580)*
	Female	1.041 (1.006-1.078)*	1.259 (1.120-1.414)*	1.385 (1.217-1.578)*	1.482 (1.225-1.792)*
	Age<65	1.017 (0.972-1.064)	1.119 (0.961-1.302)	1.158 (0.975-1.375)	1.105 (0.859-1.420)
	Age≥65	1.046 (1.017-1.076)*	1.274 (1.157-1.403)*	1.381 (1.239-1.540)*	1.455 (1.242-1.704)*
	Total	1.041 (1.012-1.071)*	1.244 (1.131-1.369)*	1.337 (1.200-1.490)*	1.383 (1.182-1.619)*
	Male	1.041 (1.010-1.073)*	1.236 (1.116-1.368)*	1.307 (1.164-1.468)*	1.327 (1.121-1.569)*
5	Female	1.040 (1.005-1.077)*	1.256 (1.117-1.411)*	1.381 (1.212-1.574)*	1.474 (1.218-1.785)*
	Age<65	1.015 (0.970-1.062)	1.111 (0.955-1.293)	1.148 (0.967-1.363)	1.089 (0.847-1.400)
	Age≥65	1.046 (1.016-1.076)*	1.271 (1.154-1.400)*	1.377 (1.234-1.536)*	1.448 (1.235-1.697)*

CI, confidence interval; df, degree of freedom; RR, relative risk.

\**P*<0.05.<sup>a</sup>Used in the study.