Hormone Replacement Therapy and Long-term Mortality of UK Women

Nurunnahar Akter, Elena Kulinskaya and Nicholas Steel

University of East Anglia

{n.akter, e.kulinskaya, n.steel}@uea.ac.uk

Hormone Replacement Therapy (HRT) is used as an effective treatment of oestrogen/progesterone deficiency in postmenopausal women. The actual risks and benefits of HRT are still unsettled after sixty years of its use. Existing research on HRT shows contradictory results. The main goal of this research is



to conduct a retrospective cohort study to investigate the impact of HRT on all-cause mortality in women resident in the United Kingdom (UK). The Health Improvement Network (THIN) database has been used to extract patients information on medical, lifestyle, and socio-demographic status. Records of 112,354 HRT users were matched with 245,320 non-users by age and general practice. The length of the follow-up was up-to thirty-one years. A parametric Weibull-Cox regression model has been fitted to analyse all-cause mortality. Our results from full case analysis shows that combined HRT (combination of oestrogen and progesterone) reduces the risk of all-cause mortality.