OBJECTIVES
The aim of our study was to investigate cause-specific mortality in rheumatoid arthritis (RA) subjects living in Italy.

METHODS
We identified in the electronic archive of the Veneto Region patients aged 20-89 years who were exempt from co-payment for RA in January 2010, and linked them with the archive of causes of deaths of the period 2010-2015. Causes of death were coded according to the International Classification of Diseases, 10th Edition. Standardised mortality ratios (SMRs) with 95% confidence intervals were computed as the ratios between deaths observed in the cohort, and those expected according to age- and gender-specific regional mortality rates.

RESULTS
Overall, 16,098 residents diagnosed with RA and aged 20-89 years were enrolled in the cohort. The overall follow-up amounted to 88,599 person-years, with 2,142 registered decedents. The most common causes of death were circulatory diseases (36.6%), neoplasms (24.2%), and respiratory diseases (8.3%). Overall mortality was increased in RA subjects (SMR=1.42, confidence interval 1.36-1.48). Mortality was significantly increased from circulatory (SMR=1.56, 1.45-1.67), respiratory (SMR=1.83, 1.57-2.12), digestive (SMR=1.93, 1.60-2.32), infectious (SMR=2.34, 1.88-2.89), haematological diseases (SMR=3.22, 2.04-4.83), and falls (SMR=1.95, 1.19-3.01). RA was the underlying cause of death in 6.1% of all deaths in the cohort and was mentioned in 25.4% of death certificates.

CONCLUSIONS
In our study, a 42% excess risk of death was observed among subjects with RA compared with the general population. Cardiovascular disease is the primary cause of premature death in RA. Adverse effects of therapy and comorbidities should be adequately monitored in RA subjects.