[O24:02] Medication in the Last Years of Life: A Population-based Comparison of Two Danish Birth Cohorts Ten Years Apart

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Background: With a growing population of old and oldest old in many populations and an increase in treatment in this population in later years, there is a growing concern of over-treatment in the last years of life

Objective: We aimed at assessing the extent of age-specific medication in the last years of life among the oldest old and how it has changed over a 10 year period.

Methods: In a register-based, historical cohort study, the entire 1905 and 1915 Danish birth cohorts were followed 1995-2012 with respect to redeemed prescription from the Danish National Prescription Register. Number of different drugs used was assessed at times 0-10 years before death, together with polypharmacy (use of at least 5 drugs) and super-polypharmacy (use of at least 10 drugs) prevalence. Age at death ranged from 79 to 98 years in the 1915 cohort and from ranged from 89 to 100 years in the 1905 cohort with further restrictions depending on the time before death at which medication was assessed.

Results: A total of 36,561 individuals from the Danish 1905 and 1915 cohorts were alive and living in Denmark on or after January 1, 1995, of whom 35,342 (96.7%) were deceased with known date of death. The average number of drugs used varied from below 3 to above 9 depending on age at death, time before death and birth cohort. For both cohorts, medication use increased with time to death and age at death. Medication use in the 1915 cohort was higher than in the 1905 cohort for each age at death and at any time to death, with a difference in average drugs of about 2 at most ages, though decreasing slightly for age at death after 90 as medication in this population leveled off in the 1915 cohort but continued to increase in the 1905 cohort. These results were reflected in similar marked differences when comparing polypharmacy and polypharmacy prevalence in the two cohorts.

Conclusions: The observed patterns are compatible with a marked increase in treatment in more recent years irrespectively of time to death and age at death, and with an accelerated treatment as time to death decreases.