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Introduction & Objectives: The impact of curative treatment on survival in senior adults (aged ≥ 70) with high-risk PCa is unclear. The primary objective of this study was to document temporal trends in treatment and prostate cancer-specific mortality (PCSM) in senior adults with high-risk PCa in Norway, and secondarily to investigate the association between primary treatment and PCSM.

Materials & Methods: Observational study of men aged ≥ 70 years with Eastern Cooperative Oncology group status ≤ 2 diagnosed with high-risk PCa (European Association of Urology risk grouping) in 2005-16 as registered in the Cancer Registry of Norway. Patients were stratified according to diagnosis period (2005-08, 2009-12, 2013-16), age at diagnosis (70-74, 75-79, ≥ 80 years) and primary treatment (radical prostatectomy (RP), radiotherapy (RAD), no curative treatment (NoCurTrt)). Competing risk methods estimated PCSM (Figure 1). Cox regressions evaluated hazard ratios (HR) for PCSM.

Results: 10 228 patients were included in the study. Median follow-up time was five years (range 0-13 years). The use of curative treatment increased across diagnosis periods in all age groups (Table 1). RP increased 4-fold in patients aged 70-74 years and RAD 7-fold in patients aged 75-79 years (Table 1). At the end of follow-up 4216 (41%) and 1672 (16%) patients had died from any cause and PCa, respectively. PCSM decreased across time periods in all age groups ($p < 0.001$) (Figure 1). Receiving NoCurTrt increased the risk of PCSM (HR 2.3 95% CI 1.6-3.3, $p < 0.001$). The major limitations of this study were restricted information on patient comorbidity, use of hormonal therapy and subsequent treatments for PCa. Preliminary results, slight adjustments will occur.

Conclusions: The use of curative treatment increased with time and was associated with decreased PCSM in senior adults, however, after five years follow-up, only two out of five deaths were caused by prostate cancer.