Introduction: Neoadjuvant chemotherapy (neoCTx) improves the prognosis of patients (pts) with locally advanced esophagogastric adenocarcinoma (EGC), but its value is unknown in elderly patients (pts).

Methods: Pts from 4 institutions who received neoCTx followed by surgery for EGC between 2000 and 2012 were analyzed. We compared the feasibility and outcome of neoCTx in pts aged ≥70 (cohort I) and their younger counterparts (cohort II).

Results: Data were available for 460 pts among which 173 (37.6%) were ≥70 years. The median age in cohort 1 and 2 was 59 and 73 years, respectively. Older age was associated with an increased rate of comorbidities (66.0% vs. 42.1%, p < 0.001). As compared to the younger, elderly pts were more likely to receive doublet instead of triplet neoCTx (64% vs 38%, p < 0.001) and oxaliplatin- instead of cisplatin-based regimens (60% vs 32%, p < 0.001). Of the 460 pts who started neoCTx, 83% and 90% in cohort I and II completed neoCTx without major alterations. Dose reductions to < 80% were necessary in 27% and 20% in cohort I and II (p = 0.129). No significant difference was observed in the rate of ≥ grade 3 toxicities for cohort I and II (47% vs. 41%) and postoperative morbidity was also not different (24% vs. 28%). 60 day mortality for cohort I and II was 1.8% and 3.5%. After a median follow up of 30.4 months, median DFS in cohort I and II was 30 and 31 months, with a 3-year DFS of 48% and 46%, respectively. Median OS was 78 and 81 months, with a 3-year OS of 69% and 65%, respectively.

Conclusion: Despite slightly more adverse events and dose reductions, neoCTx is feasible in elderly pts with EGC. Elderly pts achieve comparable survival outcomes compared with their younger counterparts.