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Survival Outcomes for Peri-operative chemotherapy for Oesophageal and Gastro-Oesophageal Junction (GOJ) adenocarcinoma.

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Aims:
Incidence rates of gastro-oesophageal adenocarcinomas are rising and despite many tumours being detected at a locally advanced stage outcomes following surgical resection remain poor. The MRC STO2 (MAGIC) trial demonstrated a 13% improvement in 5 year survival with perioperative chemotherapy followed by surgery in resectable gastro-oesophageal adenocarcinomas. We sought to assess treatment delivery, survival outcomes and prognostic factors for oesophago-gastric adenocarcinoma patients treated with peri-operative chemotherapy at a regional tertiary referral centre.

Methods:
Planned chemotherapy comprised of 3 cycles of preoperative and 3 cycles of postoperative ECF/X (Epirubicin 50mg/m² D1, cisplatin 60mg/m² D1 and 5-fluorouracil 200mg/m²/day/Capecitabine 625mg/m²/day). Pathological response to treatment was reviewed and graded by an individual pathologist for consistency. Baseline demographics, treatment details and clinical outcomes were collected and clinical and pathological factors predicting outcome were assessed.

Results:
From January 2004 to December 2012, 183 patients with oesophageal and GOJ adenocarcinoma were treated with perioperative chemotherapy. Patients at our centre were significantly older (p=0.021) and had a poorer performance status (p<0.0001) compared to the MAGIC trial. The median age was 64 years (range 28-83) and 70% of patients were ECOG performance status 1/2. 177 (96.7%) of patients proceeded to planned surgical resection with 58.5% and 43.7% commencing and completing post-operative chemotherapy, respectively. The median overall survival (OS) was 38.8 months with a 5 year OS of 37.9%, compared to 36% in the MAGIC trial. Pathological response, clear
circumferential margin and absence of lymphovascular invasion were statistically significant predictors of both relapse free and overall survival.

**Conclusions:**
Despite an older and poorer performance status population, treatment delivery and survival outcomes for operable gastro-oesophageal adenocarcinoma at our centre were better than the published data. Predictive biomarkers are needed to individualise systemic therapy and there is renewed interest in the role of neoadjuvant chemoradiotherapy to improve complete resection rates.