Introduction
The optimal interval between completion of neoadjuvant chemoradiation (NCRT) and resection for rectal carcinoma is unknown.

Aims/Background
This retrospective study investigated the impact of interval to surgery on perioperative and pathological outcomes following NCRT for rectal cancer.

Method
Patients with rectal carcinoma who underwent NCRT followed by rectal resection (September 2008–January 2013) were identified and divided into 2 groups according to their NCRT-surgery interval: Group A<9 weeks (n=36), Group B>9 weeks (n=44). Twelve complete clinical responders who were managed non-operatively were excluded. Demographic, perioperative morbidity, mortality, pathological and survival data were reviewed.

Results
Eighty patients (42 male, median age 64.5 years) were included. Overall median interval to surgery was 9.4 weeks (range 5.3–23.6 weeks). Group A median interval was 7.1 weeks, Group B 12.6 weeks. Length of surgery, perioperative complication and mortality rates were not influenced by interval length. Median length of stay was increased with longer interval (A: 8 days v B: 10 days, p=0.039). The overall complete pathological response rate was 18.8% (A: 27.8% v B: 11.4%). 2-year survival rates were similar (A: 83.3% v B: 89.9%) after a median overall follow-up of 35 months.

Conclusion
A longer interval to surgery may be associated with an increased length of stay and in this cohort did not appear to confer a surgical or pathological benefit. A lower complete pathological response rate after a longer interval may be influenced by the selective non-operative management of complete clinical responders to NCRT.