

## O20

**PREOPERATIVE INTRAVENOUS IRON THERAPY AND SURVIVAL AFTER COLORECTAL CANCER SURGERY: LONG TERM RESULTS FROM THE INTRAVENOUS IRON IN COLORECTAL CANCER-ASSOCIATED ANAEMIA (IVICA) TRIAL**

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**Background:** Intravenous iron is now the standard treatment to correct pre-operative anaemia. However, iron may promote tumour growth and progression which could influence cancer recurrence and survival. We explore the long term postoperative outcomes of patients receiving oral (OI) or intravenous iron (IVI) as part of a randomised controlled trial.

**Method:** The multicentre IVICA trial randomised anaemic colorectal cancer patients in a 1:1 fashion to receive either OI or IVI prior to their elective operation. Follow up analysis of all patients was performed and Kaplan-Meier survival estimates and Cox proportional hazard models were used to compare groups. A pooled analysis comparing patients who did/did not achieve preoperative resolution of anaemia was also undertaken.

**Result,** Data were available for 106 of the 116 IVICA patients (OI n=55, IVI n=51). Median follow up was 61 months (IQR 38-68, [range 1-80]). Overall survival estimates at 3 and 5 years were 82%(95% CI 76-90) and 72%(58-83) respectively for OI and 75%(61-86) and 59%(45-72) for IVI, P=0.106. No significant difference in 5-year overall survival (HR 1.73, 95% CI 0.90-3.34 P=0.102) or disease-free survival (HR 1.50, 95% CI 0.83-2.73 P=0.182) was observed between groups. Those non-anaemic at operation demonstrated improved 5 year overall survival (HR 3.26 [1.01-10.58], P=0.05). Non-significant trends in improved disease-free survival (HR 2.29 [0.91-5.81], p=0.08) were observed for the non-anaemic group

**Conclusion:** Preoperative correction of anaemia confers a postoperative survival advantage following elective colorectal cancer surgery. Due to its superior efficacy intravenous iron is recommended as the treatment of choice for this anaemia.

**Take-home message:** Preoperative correction of anaemia, achieved most effectively with intravenous iron, may offer improved long term postoperative survival after colorectal cancer surgery.