test for independence of groups and Kaplan-Meier survival analysis.

Result(s)* Altogether 73% of OC patients accepted BRCAg test and were included in the study (n=1049), 83 (7.9%) had a BRCAg, of which 46 (4.4%) had mutation in BRCA1 and 37 (3.5%) in BRCA2. Assuming that the BRCAg frequency is not higher among the not tested compared to the tested and lowest 0, we estimate 5.7-7.9% BRCAg frequency in our OC population.

The patients with BRCAg were younger at diagnosis (mean age 59.9 y vs. 63.3 y p=0.005), had more often high-grade serous histology (95% vs. 67% p<0.0001), had more advanced disease (FIGO stage III -IV) at the time of diagnosis (83% vs. 71% p=0.003) and more often received neoadjuvant chemotherapy (28% vs. 15% p 0.04) compared to non-mutation carriers. Patients with FIGO stage III-IV and BRCAg had a better overall survival compared to non-mutation carriers (median OS 76.4 months vs. 42.1 months p=0.03, figure 1). However, the difference in progression free survival between the two groups was non- significant (median PFS 31.1 months vs. 30.3 months p=0.87).

Conclusion* In our study population the BRCAg frequency was 7.9% and BRCAg was found to be a significant prognostic factor.

1086 ABSTRACT WITHDRAWN

1094 MIRRORS STUDY: A PROSPECTIVE COHORT STUDY ASSESSING THE FEASIBILITY OF ROBOTIC INTERVAL DEBULking SURGERy FOR ADVANCED-STAGE OVARIAN CANCER

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Introduction/Background* MIRRORS (Minimally Invasive Robotic surgery, Role in optimal debulking Ovarian cancer, Recovery & Survival) is the largest prospective cohort study of robotic interval debulking surgery (IDS) in women with advanced-stage epithelial ovarian cancer (EOC) to date. MIRRORS has investigated the feasibility of obtaining consent from women, the acceptability and success of robotic IDS and its impact on short-term surgical outcomes and quality of life.

Methodology

Eligibility Women with FIGO IIIc-IVb EOC undergoing neo- adjuvant chemotherapy and suitable for IDS. Exclusions: pelvic mass >8cm, extensive HPB and/or extensive bowel involvement.

Surgery commenced with an initial laparoscopic assessment, for all women recruited, followed by a decision to proceed immediately to robotic or open IDS.

Result(s)* 23/24 eligible women recruited. Following initial diagnostic laparoscopy, 20 women proceeded directly to robotic IDS, 3 women received open IDS. All patients were debulked with maximal surgical effort to R<1, 39% to R=0. No robotic cases were converted to open. Median EBL for robotic IDS: 50ml, open: 2026ml, median operating time 05:58 robotic vs 05:38 open, length of stay (LOS) 1.5 days robotic vs 6 days open. Bowel resection with stapled anastomosis 15% (3/20), diaphragmatic stripping 60% (12/20), full-thickness diaphragmatic resection 5% (1/20), pelvic peritoneal stripping 70% (14/20).

Conclusion* MIRRORS has shown significantly enhanced recovery with short LOS, reduced blood loss and reduced HDU/ITU demands, enabling faster re-commencement of chemotherapy in women with FIGO IIIc-IVb EOC. This proved to be greatly beneficial during the COVID-19 pandemic.
experienced hands robotic IDS proved feasible in cases with a pelvic mass up to 8 cm. Robotic surgery is not suitable for peritoneal disease covering the anterior abdominal wall close to port sites but does facilitate pelvic and diaphragmatic stripping and arguably provides better visualisation of these peritoneal surfaces in women with high BMI. The planned multicentre MIRRORS-RCT will assess whether robotic IDS offers improved quality of life and recovery with non-inferior progression-free and overall survival. We present the evolution of our surgical technique with illustrative surgical videos and qualitative patient feedback, supported by the objective surgical outcomes for this trial.

**Trial Registration**

ClinicalTrials.gov: NCT04402333 (https://clinicaltrials.gov/ct2/show/study/NCT04402333)

ISRCTN: ISRCTN74222598 (https://www.isrctn.com/ISRCTN74222598)

### 1114

**NEOADJUVANT CHEMOTHERAPY VERSUS PRIMARY DEBULKING SURGERY IN FIGO STAGE III AND IV EPITHELIAL OVARIAN, TUBAL OR PERITONEAL CANCER**


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**Introduction/Background**

The standard of treatment for advanced epithelial ovarian cancer (EOC) is primary debulking surgery (PDS) followed by platinum-based systemic chemotherapy. Due to the presence of extensive metastatic disease in most of the cases, primary debulking surgery can be an aggressive procedure associated with high peri-operative morbidity and mortality. In this study we aim to investigate whether neoadjuvant chemotherapy (NACT) offers superior survival rates, less peri-operative morbidity and mortality and better quality of life compared to primary debulking surgery in patients with advanced epithelial ovarian cancer.

**Methodology**

We searched the electronic databases PubMed, Cochrane Central Register of Controlled trials, and Scopus from inception to March 2021. We considered randomised controlled trials (RCTs) comparing NACT with PDS for women with EOC stages III and IV. The primary outcomes were overall survival and progression-free survival. Secondary outcomes were optimal cytoreduction rates, peri-operative adverse events, and quality of life.

**Result(s)**

Six RCTs with a total of 1901 participants were included. Meta-analysis demonstrated similar overall survival (HR = 0.96, 95% CI [0.86 – 1.07]) and progression-free survival (HR = 0.98, 95% CI [0.89 – 1.08]) between NACT and PDS. Subgroup analyses did not demonstrate higher survival for stage IV patients (HR = 0.88, 95% CI [0.71 – 1.09]) nor for patients with metastatic lesions >5 cm (HR = 0.86, 95% CI [0.69 – 1.08]) treated with NACT, albeit with some uncertainty due to imprecision. Similarly, no survival benefit was observed in the subgroup of patients with metastatic lesions >10 cm (HR = 0.94, 95% CI [0.78 – 1.12]). NACT was associated with significantly higher rates of complete cytoreduction (RR = 2.34, 95% CI [1.48 – 3.71]). Severe peri-operative adverse events were less frequent in the NACT arm (RR = 0.34, 95% CI [0.16 – 0.72]). NACT was also associated with a significantly lower risk of post-operative mortality within 28 days (RR = 0.16, 95% CI [0.06 – 0.46], I² = 0%).

**Conclusion**

Patients with stage III and IV epithelial ovarian cancer undergoing NACT or PDS have similar overall survival. NACT is likely associated with higher rates of complete cytoreduction and lower risk of severe adverse events and peri-operative death.