**Audit to assess treatment outcomes in patients with high grade serous ovarian cancer undergoing neoadjuvant chemotherapy who are deemed inoperable on imaging after 3 cycles of chemotherapy**

Audit to be conducted by Dr Sola Adeleke & Dr Sopozme Toghey in West Kent and Dr Waters’ team in East Kent

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**Background:**

Multiple studies have assessed the timing of surgery in patients with high grade serous ovarian cancer (HGSOC). There is evidence from some of these studies that neoadjuvant chemotherapy followed by interval debulking surgery is non-inferior to primary cytoreductive surgery. The results of the ICON 8b trial are awaited to evaluate the addition of neoadjuvant Bevacizumab from cycle 1 onwards in these patients. However, there is currently little evidence to support a change of systemic therapy in patients whose disease remains inoperable on CT evaluation after 3 cycles of neoadjuvant chemotherapy.

**Aims:**

1. To audit treatment outcomes of patients who were planned for interval debulking surgery but who had inoperable disease after 3 cycles of neoadjuvant chemotherapy for HGSOC treated at the Kent Oncology Centre between January 2014 and December 2019.

2. To evaluate clinical and imaging factors diagnosis which may help to predict this outcome and to help plan neoadjuvant systemic therapy, in particular the early addition of Bevacizumab to chemotherapy.

**Methods:**

A retrospective multi-centre analysis will be carried out of case records, imaging reports, multidisciplinary team meeting minutes and other relevant records. Collection of data from these records will include patient demographics, clinicopathological and radiological features at diagnosis, details of systemic anti-cancer therapy, follow up imaging and outcome data to evaluate treatment outcomes in this group of patients.

**Research questions:**

1. What proportion of patients whose cancer was deemed inoperable after three cycles of neoadjuvant chemotherapy remained inoperable after six cycles? Rates/ratio
2. Were there any changes made to the chemo regimen (from cycles 4 to 6) for the patients whose cancer was inoperable after three cycles? Descriptive
3. What were the clinical, radiological and pathological factors at diagnosis and treatment factors potentially influencing the eventual lack of operability in this group of patients? Descriptive
4. What was the BRCA status of patients and did this have an impact on response? Operable-BRCA, Inoperable-BRCA. T-test/Mann-Whitney
5. What maintenance therapy options were offered to the post-cycle 6 sub-group? Descriptive
6. What was the disease-free survival and subsequent disease course for patients who had delayed primary surgery after cycle 6 and for those who didn’t have surgery?- Kaplan Meier analyses/Cox proportional hazard

**References:**

1. [Primary chemotherapy versus primary surgery for newly diagnosed advanced ovarian cancer (CHORUS): an open-label, randomised, controlled, non-inferiority trial](https://www.sciencedirect.com/science/article/pii/S0140673614622236) [S Kehoe](https://scholar.google.co.uk/citations?user=mqwOYVsAAAAJ&hl=en&oi=sra), J Hook, M Nankivell, GC Jayson, H Kitchener et al The Lancet, 2015
2. [Survival analyses from a randomized trial of primary debulking surgery versus neoadjuvant chemotherapy for advanced epithelial ovarian cancer with high tumor load (SCORPION trial).](https://ascopubs.org/doi/abs/10.1200/JCO.2018.36.15_suppl.5516)

Anna Fagotti, Giuseppe Vizzielli, Gabriella Ferrandina, et al Journal of Clinical Oncology 2018 36:15\_suppl, 5516-5516

1. [Role of Neoadjuvant Chemotherapy in Advanced Epithelial Ovarian Cancer](https://ascopubs.org/doi/abs/10.1200/JCO.19.00022)

Andreas du Bois, Thaïs Baert, and Ignace Vergote

Journal of Clinical Oncology 2019 37:27, 2398-2405

1. Vergote I, Trope CG, Amant F, et al: Neoadjuvant chemotherapy or primary surgery in stage IIIc-IV ovarian cancer. N Engl J Med 363:943-953, 2010