TARGET POPULATION AND AUDIENCE

Target Population

Patients with newly diagnosed stage III or stage IV epithelial ovarian, fallopian tube, or primary peritoneal cancer (EOC).

Target Audience

Gynecologic and medical oncologists, and others involved in gynecologic cancer care, patients with advanced ovarian cancer and caregivers.

INTRODUCTION

The identification and treatment of patients with ovarian cancer remains a critical challenge within gynecologic oncology because of a lack of effective screening tools and diagnosis at advanced stages. Patients with advanced ovarian cancer, classified as International Federation of Gynecology and Obstetrics (FIGO) stage III or IV, require a sophisticated, multimodal treatment strategy to improve patient outcomes. Historically, primary cytoreductive surgery (PCS) has been the cornerstone of treatment, aiming for maximal tumor debulking followed by chemotherapy. However, the emergence of neoadjuvant chemotherapy (NACT) offers an alternative approach, potentially optimizing surgical outcomes and reducing perioperative morbidity.

PCS involves extensive surgical effort to achieve optimal debulking, defined as no residual tumor or minimal residual disease. This approach has been associated with improved survival rates when complete cytoreduction is achieved.[1] However, PCS can be associated with substantial surgical morbidity such as pleural effusion, anastomotic leakage, wound opening, and intra-abdominal abscess, especially in patients with high tumor burden or poor performance status, and this may lead to delays or omission of postoperative chemotherapy.[2]

NACT aims to reduce tumor volume and enhance the feasibility of achieving optimal cytoreduction during subsequent surgery. This approach can decrease surgical complexity and morbidity, potentially improving overall patient outcomes. Several randomized controlled trials (RCTs) and meta-analyses have demonstrated the noninferiority of NACT followed by interval cytoreductive surgery (ICS) compared with PCS in terms of survival outcomes and a reduction in perioperative complications.[3-7] In the years since these trials were first published, there has been a major shift in the upfront treatment practices in the United States, with a substantial decline in PCS and significant rise in NACT and ICS.[8] NACT followed by ICS has now become the most common upfront treatment approach for advanced epithelial ovarian cancer (EOC).[8]

The decision between NACT and PCS must be individualized, considering factors such as tumor biology, patient performance status, comorbidities, and the potential for achieving optimal cytoreduction. This underscores the importance of a multidisciplinary approach, involving surgical gynecologic oncologists, medical oncologists, radiologists, and pathologists, to tailor the treatment plan to the patient's specific clinical context.

This guideline provides updated evidence-based recommendations on the use of NACT and interval cytoreduction versus primary cytoreduction and chemotherapy among patients with stage III or IV epithelial ovarian, fallopian tube, or primary peritoneal cancer (hereafter referred to as ovarian cancer). ASCO previously published a prior guideline in 2016 in collaboration with the Society of Gynecologic Oncology (SGO).[9] New evidence published since the last iteration includes initial assessment to guide treatment, selection criteria for NACT versus PCS, preferred chemotherapy regimens, timing of surgical intervention, role of hyperthermic intraperitoneal chemotherapy (HIPEC), role of maintenance therapy after completion of primary chemotherapy, and management for patients who do not have a clinical response to NACT. This update has been endorsed by the SGO.

GUIDELINE QUESTIONS

This clinical practice guideline addresses 10 overarching clinical questions: (1) In patients with newly diagnosed pelvic masses and/or upper abdominal or peritoneal disease, what initial assessment should be performed to guide treatment? (2) In which patients with newly diagnosed advanced EOC is PCS recommended? (3) In which patients with newly diagnosed advanced EOC is NACT recommended? (4) For patients with newly diagnosed stage III or IV EOC who will receive NACT, what tests or procedures should be performed before NACT is delivered, in order to ensure accurate diagnosis? (5) What is the preferred chemotherapy regimen for patients with stage III or IV EOC who will receive NACT? (6) Among patients treated with NACT, does the timing of ICS, the number of chemotherapy cycles before ICS, or timing in between chemotherapy and ICS affect the safety or efficacy of treatment? (7) Is there a role for HIPEC at ICS? (8) Among patients treated with NACT, what is the recommended number of chemotherapy cycles after ICS? (9) Is there a role for maintenance therapy after completion of primary chemotherapy? (10) What is the management approach for patients who do not have a clinical response to NACT?

METHODS

Guideline Development Process

This systematic review-based guideline product was developed by a multidisciplinary Expert Panel of ASCO