

**A** Patients who are unfit for combination therapy should be offered single agent carboplatin.

**A** A third cytotoxic agent should not be added to carboplatin and paclitaxel.

**B** Carboplatin AUC 6 (day 1 q21) and paclitaxel 80 mg/m<sup>2</sup> (day 1, 8, 15 q21) may be considered for the treatment of first line ovarian cancer. The increased toxicity and frequency of visits need to be discussed with the patient.

✓ Where possible, patients receiving treatment with carboplatin AUC 6 (day 1 q21) and paclitaxel 80mg/m<sup>2</sup> (day 1, 8, 15 q21) for first line ovarian cancer should be enrolled in ongoing clinical trials in order to establish if this regime should become the standard of care.

**A** Women with stage IV ovarian cancer should be offered bevacizumab in combination with carboplatin and paclitaxel.

**A** For advanced ovarian cancer, maintenance cytotoxic chemotherapy should not be given following standard first line chemotherapy.

**B** Chemotherapy which includes an intraperitoneal element can be considered for women with a new diagnosis of epithelial ovarian cancer and residual disease of ≤1 cm after primary surgery provided a regimen of proven benefit in a clinical trial compared to intravenous therapy is used, it is delivered in a centre with appropriate expertise and the potential toxicities are fully explained.

✓ Where possible, women receiving intraperitoneal chemotherapy should be enrolled into ongoing clinical trials.

### Relapsed disease

**A** Women with platinum-sensitive relapsed ovarian cancer should be offered treatment with carboplatin combined with either paclitaxel or pegylated liposomal doxorubicin hydrochloride (depending on fitness, comorbidity and toxicity experienced with previous treatment).

**A** Women with platinum-resistant ovarian cancer should be considered for treatment with paclitaxel or single agent pegylated liposomal doxorubicin hydrochloride (depending on fitness, comorbidity and patient's wishes).

**A** Women with platinum-resistant relapsed ovarian cancer should be offered bevacizumab in combination with paclitaxel.

**A** Olaparib monotherapy should be considered for maintenance treatment after response to platinum for patients with relapsed platinum-sensitive *BRCA*-mutated ovarian cancer.

**A** Niraparib monotherapy should be considered for maintenance treatment after response to platinum for patients with relapsed platinum-sensitive non-germline *BRCA*-mutated ovarian cancer.

**D** Hormonal therapy with tamoxifen or an aromatase inhibitor can be used for women with recurrent, platinum-resistant, ovarian cancer or in those wishing to avoid or delay further chemotherapy, particularly where their original tumour is expressing the oestrogen receptor.

### Chemotherapy for low-grade serous, clear cell and mucinous histological subtypes

✓ Patients with low-grade serous, clear cell and mucinous histological subtypes should be considered for clinical trials.

### FOLLOW UP

**A** Treatment of first relapse of ovarian cancer should be guided by the development of symptoms.

**A** In the absence of symptoms, routine measurement of CA125 during follow up is not mandatory.

### MANAGEMENT OF MALIGNANT BOWEL OBSTRUCTION IN RELAPSED DISEASE

#### Surgical management

**C** Surgery for malignant bowel obstruction in patients with advanced ovarian cancer must be justified on the basis of achieving a significant benefit.

#### Non-surgical management

**C** Symptoms of bowel obstruction can be relieved by using the following drug categories either alone or in combination:

- antiemetic
- antisecretory
- analgesic
- corticosteroids.

This Quick Reference Guide provides a summary of the main recommendations in SIGN 135 Management of epithelial ovarian cancer. Recommendations are graded **A B C D** to indicate the strength of the supporting evidence.

Good practice points ✓ are provided where the guideline development group wishes to highlight specific aspects of accepted clinical practice.

Details of the evidence supporting these recommendations can be found in the full guideline, available on the SIGN website: [www.sign.ac.uk](http://www.sign.ac.uk). This Quick Reference Guide is also available as part of the SIGN Guidelines app.



## SCREENING AND THE ROLE OF PROPHYLACTIC SALPINGO-OOPHORECTOMY

### Screening for ovarian cancer in the general population

- A** Screening for ovarian cancer in the general population should not be performed outwith the research setting.

### Identifying women at high risk of developing ovarian cancer

- ✓ Women with a family history that appears to place them at high risk of developing ovarian cancer should be offered referral to a Clinical Genetics Service for assessment, confirmation of family history and consideration of genetic testing of an affected family member.
- D** All women with non-mucinous ovarian or fallopian tube cancer should be offered *BRCA1* and *BRCA2* mutation testing.
- D** Women with ovarian cancer who have a family history of breast, ovarian or colon cancer should have a genetic risk assessment.
- D** *BRCA1* and *BRCA2* mutation analysis should be considered in a family where there is a 10% or greater risk of a mutation being present.
- ✓ Close collaboration between primary care and specialist cancer genetics services is to be encouraged so that genetic cancer risk assessment in individuals who are at medium or high risk can be carried out efficiently.

### Screening in high risk groups

- D** Screening for ovarian cancer in high risk groups should only be offered in the context of a research study.

### Prophylactic salpingo-oophorectomy

- C** Women with genetic mutations of *BRCA1* or *BRCA2* genes should be offered prophylactic oophorectomy and removal of fallopian tubes at a relevant time of their life.
- ✓ Women at high risk in whom mutations have not been identified should have the opportunity to discuss the advantages and disadvantages of prophylactic salpingo-oophorectomy.
- ✓ Hormone replacement can be used after oophorectomy until the time of natural menopause without losing the benefits of breast cancer risk reduction.
- ✓ Women who decide to have prophylactic salpingo-oophorectomy should be offered counselling, support and information before and after surgery.

## DIAGNOSIS

### Primary care

- C** In women presenting in general practice with one or more symptoms of abdominal distension or bloating with or without abdominal pain, feeling full quickly, difficulty eating, or urinary symptoms, of less than 12 months duration and occurring more than 12 times per month a diagnosis of ovarian cancer should be considered.

- D** CA125 blood serum level should be measured and urgent pelvic ultrasound carried out in women with persistent abdominal distension or feeling full and/or loss of appetite or pelvic or abdominal pain or increased urinary urgency and/or frequency (particularly if occurring more than 12 times per month and especially if she is over 50).  
If symptoms persist or worsen despite normal CA125 and a negative ultrasound scan, refer to secondary care.

### Secondary care

- B** A Risk of Malignancy Index 1 score with threshold of 200 should be used to predict the likelihood of ovarian cancer. Patients with an RMI 1 score greater than 200 should be referred to a gynaecology-oncology multidisciplinary team.
- ✓ In order to allow the calculation of RMI 1, ultrasound reports should ideally list the presence or absence of the features that make up the ultrasound component of this scoring system.
- ✓ Although an RMI 1 threshold of 200 is recommended, benign conditions may cause elevation of the RMI score and early malignancy may not.
- B** Computed tomography of the abdomen and pelvis should be performed in secondary care for all patients suspected of having ovarian cancer who have a Risk of Malignancy Index score greater than 200.
- D** Magnetic resonance imaging is not recommended for routine staging of ovarian cancer.
- D** Positron emission tomography-computed tomography is not recommended in the diagnosis or initial staging of ovarian cancer.
- ✓ Magnetic resonance imaging should be considered for characterisation of indeterminate adnexal masses where an alternative diagnosis to ovarian cancer is thought more likely.
- ✓ Computed tomography of the entire thorax is not routinely recommended unless intrathoracic metastatic disease is clinically suspected. Imaging of the abdomen and pelvis should, however, include the lung bases.

### The role of the clinical nurse specialist

- D** Patients should be given their diagnosis of ovarian cancer in the presence of a clinical nurse specialist who is a fully integrated member of the gynaecological cancer team.
- D** Throughout their care pathway patients with ovarian cancer should have access to a clinical nurse specialist who should be an integral member of the gynaecological cancer team.

## SURGICAL MANAGEMENT

### Pathology

- B** To minimise the need for a second operative staging procedure, intraoperative frozen section assessment can be used to diagnose malignancy and to exclude metastatic disease.

### Management of early disease

- C** Routine systematic lymphadenectomy in early stage epithelial ovarian cancer is not recommended.
- C** Retroperitoneal lymph node sampling should be considered as part of surgical staging for apparent early stage disease.
- D** In women with stage Ia, grade 1 or grade 2 disease, fertility conserving surgery is an option as long as the contralateral ovary appears normal and there is no evidence of omental or peritoneal disease. Optimal surgical staging should be done and should include biopsies of suspicious looking peritoneal nodules, infracolic omentectomy, and iliac and peri-aortic lymph node sampling.

### Optimal surgery for advanced disease

- C** In surgery for advanced ovarian cancer, the aim should be to achieve complete cytoreduction.
- A** The use of neoadjuvant chemotherapy in women with stage IIIc or IV ovarian cancer may be considered as an alternative to primary debulking surgery.
- ✓ With regard to selecting who will benefit from neoadjuvant chemotherapy, treatment should be individualised to the patient taking into account resectability, age, histology, performance status and after ruling out the possibility of other primary tumours, and after full discussion at multidisciplinary team meetings.

### Relapsed disease

- C** In selected patients with relapsed epithelial ovarian cancer which is platinum-sensitive, secondary cytoreductive surgery may be appropriate and may improve overall survival. The aim should be complete resection of all macroscopic disease. Where possible, this should be done in the context of a clinical trial.

## CHEMOTHERAPY

### Early disease

- B** All women with high-grade early stage (Ia-Ib) ovarian cancer should be considered for adjuvant chemotherapy.
- B** For early stage disease, maintenance cytotoxic chemotherapy should not be given.

### Advanced disease

- A** First line chemotherapy treatment of epithelial ovarian cancer should include a platinum agent either in combination or as a single agent, unless specifically contraindicated.
- A** Carboplatin is the platinum drug of choice in both single and combination therapy.
- A** Paclitaxel is recommended in combination therapy with platinum in the first line post-surgery treatment of epithelial ovarian cancer where the potential benefits justify the toxicity of the therapy. In those unable to tolerate paclitaxel, pegylated liposomal doxorubicin or gemcitabine in combination with carboplatin can be used as an alternative.