

Ovarian cancer chemotherapy recommendations: approaches to support uptake

Forum report 2013

Ovarian cancer chemotherapy recommendations: approaches to support uptake – Forum report was prepared and produced by:

#### **Cancer Australia**

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# Developed by ZEST Health Strategies

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Cancer Australia acknowledges the input of the forum participants, as well as the individuals who participated in a pre-forum interview (see Appendix I).

The following individuals were involved in the planning, organisation and conduct of the workshop.

#### • Cancer Australia

- o Jane Francis (Manager, Gynaecological Cancers)
- o Emma Hanks (Senior Project Officer)
- Janelle Webb (Project Officer)
- o Associate Professor Christine Giles (Executive Director, Head, Policy and Strategy)
- o Professor Helen Zorbas (Chief Executive Officer)

#### • ZEST Health Strategies

- o Dr Alison Evans, Director
- o Jennifer Treacy, Project Manager

## **Executive summary**

#### Forum overview

In June 2012, Cancer Australia held a forum to discuss factors influencing the uptake of the evidence-based chemotherapy recommendations outlined in the Clinical practice guidelines for the management of women with epithelial ovarian cancer. The Ovarian cancer chemotherapy recommendations: approaches to support uptake forum was attended by health professionals from across Australia involved in the management of women with ovarian cancer, a consumer representative, a senior researcher from the Patterns of Care study, and Cancer Australia staff. A full list of participants is provided in Appendix I.

The forum included background presentations, small group work and plenary discussions to identify and prioritise factors that may influence variation in practice in relation to chemotherapy treatment compared with the guideline recommendations, as well as strategies to support guideline uptake.

#### **Background**

#### Ovarian cancer clinical practice guidelines

Clinical practice guidelines are a key component of Cancer Australia's leadership in information provision for health professionals, and contribute to improving the wellbeing of those affected by cancer. The Clinical practice guidelines for the management of women with epithelial ovarian cancer were developed by Australian Cancer Network (ACN) and National Breast Cancer Centre (NBCC)\*, and launched in July 2004. These were the first national clinical practice guidelines for ovarian cancer, providing evidence-based recommendations to guide best practice management.

A series of strategies were used by National Breast Cancer Centre and the Australian Cancer Network to promote the guidelines following their launch. These included dissemination among key stakeholders, a national seminar series, distribution via conference trade stands and accessibility of the guidelines online.

In 2012, a systematic review of literature about first-line chemotherapy treatment for women with ovarian cancer was undertaken to identify any areas in which the evidence has changed sufficiently to warrant a change in the chemotherapy guideline recommendations. Although the review findings were not finalised at the time of the forum, it was noted that some areas where guideline recommendations may be refined or revised have been identified.

#### Patterns of care for women diagnosed with epithelial ovarian cancer in Australia

A study of patterns of care for ovarian cancer conducted in 2005 highlighted variation between guideline recommendations and current practice, primarily around chemotherapy treatment.

The Australian Ovarian Cancer Study (AOCS) is a collaborative research program between clinicians, scientists, patients and advocacy groups aimed at improving the prevention, diagnosis, and treatment of ovarian cancer. The Patterns of care for women diagnosed with epithelial ovarian cancer in Australia study 2005, used data about all women diagnosed with ovarian cancer during 2005, from the AOCS and from cancer registries, to evaluate variability in management across populations, and identify variation in practice compared with guideline recommendations.

<sup>\*</sup> In February 2008, National Breast Cancer Centre incorporating the Ovarian Cancer Program (NBCC) changed its name to National Breast and Ovarian Cancer Centre (NBOCC). On June 30 2011, NBOCC amalgamated with Cancer Australia to form a single national agency, Cancer Australia.

The study identified the following variations in practice to the chemotherapy guidelines:

- administration of chemotherapy in women with early-stage, low-risk cancers for whom adjuvant chemotherapy is not recommended
- no administration of chemotherapy in women with high-grade cancers for whom adjuvant chemotherapy is recommended
- administration of non-standard chemotherapy regimens in women for whom adjuvant chemotherapy is recommended; variations included: (i) dose reduction/delay; (ii) cessation of one or both agents prior to completion of the standard six cycles of combination carboplatin and paclitaxel; (iii) use of single agent chemotherapy.

#### Forum outcomes

Participants at the Ovarian cancer chemotherapy recommendations: approaches to support uptake forum:

- provided insight into factors influencing the uptake of the chemotherapy recommendations outlined in the Clinical practice guidelines for the management of women with epithelial ovarian cancer
- assisted in the development of a set of approaches for enhancing uptake, including some prioritised suggestions.

Participants agreed that some variation in guideline uptake would be expected based on individual patient factors. The importance of reviewing outcome data to establish whether the variation in guideline uptake is associated with any variation in patient outcomes was also noted.

#### Survey results on awareness and use of the ovarian cancer guidelines

A survey distributed to forum invitees prior to the forum explored views on awareness and use of the Clinical practice guidelines for the management of women with epithelial ovarian cancer. A total of 27 responses were received; 24 from health professionals and 3 from consumers. Of the 24 health professionals who responded:

- three-quarters indicated a view that health professionals are aware of the guidelines
- around three-quarters indicated that the guidelines underpin routine practice at their service
- more than half indicated that the guidelines are either not referred to, or referred to infrequently, at their multidisciplinary team (MDT) meeting.

Reasons given in the survey for not using or referring to the guidelines included (i) concerns about the currency of the guidelines; (ii) the fact that the guidelines are already embedded into practice; (iii) the need to individualise care for patients based on demographics and comorbidities.

Responses from three consumers who completed the survey indicated that their treatment decision was influenced by the recommendation of their health professional but that health professionals did not always mention the guidelines when discussing their recommendation.

#### **Key informant interviews**

In addition to the pre-forum survey, a telephone interview was conducted with two gynaecological oncologists who were unable to attend the forum. Key findings from this interview have been incorporated into the forum outcomes.

#### Factors that influence uptake of the chemotherapy recommendations

Factors influencing the uptake of chemotherapy recommendations were identified under four main categories: (i) patient-related factors; (ii) currency of evidence; (iii) awareness of the quidelines; and (iv) other factors.

#### Patient-related factors

Participants highlighted the fact that decisions about treatment for an individual patient are made on the basis of best available evidence and individual patient characteristics.

- Patient characteristics identified as influencing decisions about whether to prescribe chemotherapy and which regimen to prescribe included: age; co-morbidities (such as obesity, other chronic health conditions); location; recent surgery; participation in a clinical trial; and other demographic factors.
- Patient preference may also influence treatment decisions. Patient preference may be influenced by; information accessed on the internet; concerns about side effects; cultural issues; and other preferences of the patient and her family.
- The availability of support services for the patient may influence treatment decisions, particularly in relation to whether the patient has support to manage side effects of chemotherapy treatment.

## **Currency of evidence**

Participants identified a need to update the evidence in the Clinical practice guidelines for the management of women with epithelial ovarian cancer.

- Other guidelines and protocols, such as eviQ or international guidelines, were viewed as
  containing more current evidence than the Clinical practice guidelines for the
  management of women with epithelial ovarian cancer. However, participants felt that,
  with a range of evidence sources, the lack of international consensus between the
  different guidelines is an ongoing challenge.
- Areas requiring review due to availability of new evidence, or a change in common clinical practice, as identified by participants included: (i) dose-dense chemotherapy; (ii) the need to acknowledge developments in relation to geriatric oncology; (iii) genetic factors in ovarian cancer development; (iv) the role of translational research.

#### Awareness of the guidelines

Participants identified that, while awareness of the Clinical practice guidelines for the management of women with epithelial ovarian cancer was good, there is a continuing need for promotion.

- A key factor identified as influencing awareness of the guidelines and management in accord with guidelines was the involvement of an MDT.
- It was acknowledged that, while referral of a woman with ovarian cancer to an MDT for treatment planning is mandatory, it is likely that not all patients are discussed at MDT meetings and that care may be managed outside the MDT once a treatment recommendation has been made. Therefore, activities to raise awareness of the guidelines should extend beyond the MDT setting.
- Participants indicated that some clinicians may not be aware of the existence of the guidelines, or may have alternative approaches when administering chemotherapy.

#### Other factors

- Other factors identified as influencing the variation of practice to guideline recommendations included:
  - o accessibility, and ease of use of the guideline
  - availability of accurate diagnostic information and accurate assessment of cancer stage to inform treatment decisions
  - availability of resources to support the implementation of chemotherapy recommendations, including staff, funds and time.

## Approaches for enhancing uptake of the chemotherapy recommendations

A number of approaches for enhancing the uptake of chemotherapy recommendations were suggested by participants. These suggestions encompassed broader awareness of the guidelines beyond the chemotherapy recommendations.

#### **Use of MDTs**

Given the identified importance of the MDT as a forum to promote awareness and uptake of the guidelines, a number of suggestions about how to enhance uptake related to the MDT. Suggestions included:

- ensuring that all health professionals managing the care of women with ovarian cancer are linked to an MDT, regardless of location
- ensuring that MDTs include representation from all health professionals involved in the
  management of women with ovarian cancer, including supportive care professionals, such
  as social workers, to ensure that treatment decisions are made with full knowledge of the
  patient's circumstances
- developing resources for health professionals, such as laminated flow charts, that summarise key guideline recommendations, to support ease of reference during MDT meetings or clinics
- incorporation of guidelines into patient databases that are used by MDTs, linking patient medical history and disease information and available clinical trials
- promotion of MDT treatment recommendations to the woman (in lay terms) and her general practitioner (in a succinct report).

## Improving currency of the guidelines

The topic-specific approach to guideline updates taken by Cancer Australia is supported. Other suggestions to improve or maintain currency of evidence included:

- distributing email alerts to health professionals when updates are made to the guidelines or when new evidence becomes available
- recognising the value of including translational research scientists in MDT meetings to advise health professionals on new treatment approaches
- more regular review of evidence in relation to the guidelines.

#### Promoting awareness and access to the guidelines

Suggested opportunities to promote the Clinical practice guidelines for the management of women with epithelial ovarian cancer may include:

- broad promotion of the guidelines through a simple email to health professionals involved in ovarian cancer care highlighting the importance of the MDT and the existence of the guidelines
- identifying specific groups within which awareness is low and targeting specific promotional activities to them. Specific groups may include health professionals in rural

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- areas, health professionals for whom the treatment of ovarian cancer is not routine, and trainees or overseas trained health professionals.
- encouraging consumer advocacy for the guidelines through consumer organisations, such as Ovarian Cancer Australia
- raising awareness of the guidelines at a patient level using non-written formats such as video or YouTube presentations
- a continued focus on referencing the guidelines in peer-reviewed journals.

Suggestions for how to improve access to the guidelines included:

- development of a mobile 'app' (acknowledging that other guideline apps are already in existence)
- cross-referencing the guidelines from other relevant resources such as eviQ
- provision of electronic guidelines through the Cancer Australia website with crossreferences across guideline sections.

## Other suggestions

A number of other suggestions were made by forum participants about how to encourage best-practice approaches to the management of ovarian cancer, including uptake of the Clinical practice guidelines for the management of women with epithelial ovarian cancer. Suggestions included:

- expansion of the guidelines to include recommendations about chemotherapy for recurrent ovarian cancer
- acknowledgement in the guidelines of newer treatment protocols that may be in development, especially those linked to tumour pathology.

#### **Prioritising suggestions**

At the close of the forum, participants were asked to nominate one key priority to improve uptake of the chemotherapy recommendations in the Clinical practice guidelines for the management of women with epithelial ovarian cancer. Prioritised suggestions included:

- optimising the influence of MDTs by promoting the need for a 'true' MDT meeting, supporting linkages with health professionals in rural and regional areas and encouraging feedback from the MDT to the patient and general practitioner
- improving awareness and access to the guidelines for both health professionals (via electronic guidelines or a mobile 'app'), and consumers (via consumer advocacy organisations)
- integration of the guidelines with other evidence-based resources, and more regular evidence reviews
- recognition of the value of clinical practice guidelines as a tool to assist health services in service development and planning related, for example, to resource requirements.

#### **Summary**

Forum participants provided insight into the findings from the Patterns of care for women diagnosed with epithelial ovarian cancer in Australia study, 2005 which highlighted areas for enhancement in the uptake of the chemotherapy recommendations contained in the Clinical practice guidelines for the management of women with epithelial ovarian cancer.

Participant insights were used to inform the development of a number of suggested approaches, outlined in this report, to enhance the promotion, accessibility and currency of the guidelines, as well as the uptake of the chemotherapy recommendations.

## Introduction

#### About cancer Australia

Cancer Australia is a statutory agency of the Australian Government within the Health and Ageing portfolio.

Cancer Australia aims to reduce the impact of cancer by:

- translating worldwide research into evidence-based information
- improving health service delivery
- strengthening national data capacity
- informing people with cancer about their diagnosis and treatment and raising community awareness about the disease
- overseeing a dedicated budget for cancer research;
- providing advice and recommendations on cancer policy and priorities to the Minister for Health and Ageing.<sup>1</sup>

Cancer Australia was established to benefit all Australians who are affected by cancer, and their families and carers. Cancer Australia works to reduce the impact of cancer and improve the wellbeing of those diagnosed by ensuring that evidence informs cancer prevention, screening, diagnosis, treatment and supportive care.

Cancer Australia provides leadership and coordinates cancer control efforts across all cancer types. In addition to a specific focus on breast cancer, gynaecological cancers and lung cancer, Cancer Australia also includes a specific program of work addressing ovarian cancer.

#### Ovarian cancer in Australia

Ovarian cancer is the leading cause of gynaecological cancer deaths in Australia.<sup>2</sup> It is the ninth most common cancer diagnosed in Australian women,<sup>3</sup> and the second most commonly diagnosed gynaecological cancer.<sup>3</sup>

The number of women diagnosed with ovarian cancer in Australia is increasing, with an estimated 1,488 women expected to be diagnosed with ovarian cancer in Australia in 2015.4 The risk of ovarian cancer increases with age. About 82% of all new cases of ovarian cancer diagnosed in 2008 were in women 50 years or older.<sup>5</sup>

Survival rates for women diagnosed with ovarian cancer are lower than for women diagnosed with many other cancers. Five-year relative survival for Australian women with ovarian cancer has increased significantly, from 33% in 1982–1987 to 40% in 2000–2006.6 A possible reason for the decrease in mortality over time is improvements in access to and quality of treatments.

#### Exploring reasons for variation in practice compared with guideline recommendations

In 2012, Cancer Australia held a forum to explore reasons for the variation in practice compared with the chemotherapy guideline recommendations.

This report provides a summary of the responses from a pre-forum survey, as well as feedback received at the Ovarian cancer chemotherapy recommendations: approaches to support uptake forum and through key informant interviews. It also outlines suggested activities that may assist in encouraging guideline uptake in future.

#### Forum overview

The Ovarian cancer chemotherapy recommendations: approaches to support uptake forum was held on 28 June 2012 at the Stamford Hotel, Sydney Airport.

The forum was attended by 25 participants, including health professionals from across Australia involved in the management of women with ovarian cancer, a consumer representative, a senior researcher from the Patterns of Care study, and Cancer Australia staff. A full list of participants is provided in Appendix I.

The **purpose of the forum** was to provide an opportunity for stakeholders to:

- discuss factors that influence the uptake of the chemotherapy recommendations outlined in the Clinical practice guidelines for the management of women with epithelial ovarian cancer
- develop a set of approaches to enhance uptake of the chemotherapy recommendations outlined in the Clinical practice guidelines for the management of women with epithelial ovarian cancer.

The forum agenda included background presentations, small group work and plenary discussions to identify and prioritise factors that may influence variation compared with the chemotherapy guideline recommendations, as well as approaches to support guideline uptake. A copy of the forum agenda is provided in Appendix II.

The forum was facilitated by ZEST Health Strategies, an independent healthcare communications agency.

#### **Pre-forum activities**

Prior to the forum, forum invitees completed an electronic survey that explored their views on awareness and use of the Clinical practice guidelines for the management of women with epithelial ovarian cancer. A total of 27 responses to the survey were received; 24 from health professionals and 3 from consumers. It should be noted that not all survey respondents attended the forum. A copy of the survey is provided in Appendix III.

Of the 24 health professionals who responded:

- three-quarters indicated a view that health professionals are aware of the guidelines
- around three-quarters indicated that the guidelines underpin routine practice at their service
- more than half indicated that the guidelines are either not referred to, or referred to infrequently, at their MDT meeting.

Reasons given for not using or referring to the guidelines included: concerns about the **currency** of the guidelines; the fact that the guidelines are **already embedded into practice**; and the need to **individualise care for patients** based on demographics and co-morbidities.

Responses from three consumers who completed the survey indicated that their treatment decision was influenced by the recommendation of their health professional but that health professionals did not always mention the guidelines when discussing their options.

In addition to the pre-forum survey, a telephone interview was conducted with two gynaecological oncologists who were unable to attend the forum. Key findings from this interview have been incorporated into the forum outcomes.

## **Background presentations**

#### Welcome and overview

Professor Helen Zorbas, CEO, Cancer Australia

Professor Helen Zorbas opened the Ovarian cancer chemotherapy recommendations: approaches to support uptake forum by thanking the participants for their continued contribution and engagement with the clinical practice guidelines process. She stressed the importance of the forum as part of an evidence loop that helps to bring new research and evidence into practice.

#### Ovarian cancer clinical practice guidelines

Jane Francis, Manager, Gynaecological Cancers, Cancer Australia

Clinical practice guidelines are a key component of Cancer Australia's leadership in information provision for health professionals, and contribute to improving the wellbeing of those affected by cancer.

The Clinical practice guidelines for the management of women with epithelial ovarian cancer were launched in July 2004. They were the first Australian clinical practice guidelines for ovarian cancer, and were approved by the National Health and Medical Research Council (NHMRC).

The guidelines were developed by Australian Cancer Network (ACN) and National Breast Cancer Centre (NBCC)† with input from a multidisciplinary working group chaired by Associate Professor Margaret Davy AM.

The guidelines aimed to:

• improve the quality of health care for women

- educate those involved in the care of women with epithelial ovarian cancer
- assist the decision-making process by women with epithelial ovarian cancer and their doctors
- facilitate optimal treatment of women with epithelial ovarian cancer.

The guidelines provide evidence-based information on risk factors, familial aspects of ovarian cancer, and biology and pathology of ovarian tumours. They outline recommendations for diagnosis and multidisciplinary management of women with epithelial ovarian cancer, including psychosocial considerations for the women, her family and the clinicians and health professionals caring for her.

A series of strategies were used by National Breast Cancer Centre and the Australian Cancer Network to promote the existence of the guidelines, including: dissemination to key stakeholders; a national seminar series; distribution via conference trade stands; and online access.

As part of an on-going review process, a number of topic-specific revisions to the guidelines were undertaken in 2009–2011. In 2012, a systematic review of the literature about first-line chemotherapy treatment for women with ovarian cancer was undertaken to identify any areas in which the evidence has changed sufficiently to warrant a change in the chemotherapy recommendations. Although, the review findings were not finalised at the time of the forum, it was noted that some areas where guideline recommendations may be refined or revised have been identified.

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<sup>&</sup>lt;sup>†</sup> In February 2008, National Breast Cancer Centre incorporating the Ovarian Cancer Program (NBCC) changed its name to National Breast and Ovarian Cancer Centre (NBOCC). On June 30 2011, NBOCC amalgamated with Cancer Australia to form a single national agency, Cancer Australia.

#### Measuring guideline uptake

Dr Susan Jordan, Research Officer, Population Health Department, Queensland Institute of Medical Research

The Patterns of care for women diagnosed with epithelial ovarian cancer in Australia, 2005 study aimed to identify areas of difference between the ovarian cancer guideline recommendations and current practice.

To identify and evaluate variation in practice compared with guideline recommendations, NBOCC, commissioned and funded the Patterns of care for women diagnosed with epithelial ovarian cancer in Australia, 2005 study using results collected in the Australian Ovarian Cancer Study (AOCS).

The study collected basic socio-demographic and treatment information for all women diagnosed with ovarian cancer in Australia during 2005. A total of 1,281 women were identified through a review of state-based cancer registries and existing AOCS data.

Medical records for each woman identified were reviewed to collect information about:

- cancer stage and histology
- cancer treatment (surgery and/or chemotherapy)
- treatment outcomes.

The Australian Ovarian Cancer Study (AOCS) is a collaborative research program between clinicians, scientists, patients and advocacy groups aimed at improving the prevention, diagnosis, and treatment of ovarian cancer.

Each woman's postcode was recorded to enable classification by socioeconomic status, and accessibility to services (using the ARIA+ classification system).

Of the records identified:

- 65 were deemed ineligible for inclusion in the study (treatment outside of the study period, incorrectly registered as having ovarian cancer)
- 24 were death certificate only (DCO) notifications (no treatment data)
- 33 contained no investigable data.

Of the remaining records, 951 contained information about cytoreductive surgery; 930 of these contained some information about chemotherapy treatment. These women formed the study population. The study population was grouped by cancer stage and grade. Initial chemotherapy treatment was compared with the chemotherapy recommendations outlined in the Clinical practice guidelines for the management of women with epithelial ovarian cancer.

#### **Key findings**

The study identified key variations between recommendations and current practice, primarily with regard to chemotherapy treatment. These variations are outlined in Table 1.

**Table 1:** Areas of variation in chemotherapy administration for women diagnosed with ovarian cancer in 2005 compared with guideline recommendations

Recommendation	Variation
Adjuvant chemotherapy is not indicated in patients with borderline tumours (unless invasive implants are confirmed histologically) or patients with stage IA or IB well or moderately differentiated tumours.	Of 60 women with low-grade stage IA/IB cancers, 30% (18) were given chemotherapy and 3.2% of women with borderline tumours were treated with chemotherapy after their cancer was diagnosed as borderline. The reasons for this were unknown, although it is possible that some of the women with borderline cancers had invasive implants.
Adjuvant chemotherapy is recommended for patients with stage IA or IB cancers of high-grade or clear cell histology.	Just over 27% (9/33) of women with clear cell or high-grade stage IA/IB cancers were not treated with chemotherapy.
It is currently recommended that standard first-line chemotherapy should be a combination of carboplatin (AUC 6) and paclitaxel (175 mg/m²) given every three weeks.	Overall 89% (784/870) of women for whom chemotherapy is recommended in the guidelines (stage IA/IB high-risk, or stage IC+) were given some form of chemotherapy.  Of these, 68% were initially treated with the standard carboplatin-paclitaxel combination. However only 78% (415/532) of women who started this treatment completed the standard six cycles and 40% (164/415) of these required a dose reduction and/or one or more cycles was delayed, usually because of toxicity.  The remaining women either stopped treatment before they completed six cycles (9%), ceased the paclitaxel and continued with carboplatin alone (12%) or, occasionally, ceased the carboplatin and continued with paclitaxel alone (1%).  • Among those for whom chemotherapy is recommended, women under the age of 70 were much more likely to be started on chemotherapy (94%) than older women (81%); and amongst those started on chemotherapy, those under 70 years were much more likely to start on combination carboplatin and paclitaxel (85%) than those over 70 (32%). Once started on standard treatment, older women were somewhat less likely to complete treatment than women younger than 70 (79% vs. 66%).  • The most common deviations from standard treatment were use of single agent carboplatin (19% of all those treated with chemotherapy), use of non-standard combinations of carboplatin and paclitaxel (3%) or use of other drugs including cisplatin, docetaxel and epirubicin (4%).  • Women aged 70 years or over were significantly more likely to be given single agent carboplatin than younger women (60% vs. 8%).

## Forum outcomes

Participants at the Ovarian cancer chemotherapy recommendations: approaches to support uptake forum:

- provided insight into factors influencing the uptake of the chemotherapy recommendations outlined in the Clinical practice guidelines for the management of women with epithelial ovarian cancer
- assisted in the development of a set of approaches for enhancing uptake, including some prioritised suggestions.

Participants agreed that some variation in guideline uptake would be expected based on individual patient factors. The importance of reviewing outcome data to establish whether the variation in guideline uptake is associated with any variation in patient outcomes was also noted.

#### Factors that influence uptake of the chemotherapy recommendations

Factors influencing the uptake of chemotherapy recommendations were identified under four main categories: (i) patient-related factors; (ii) currency of evidence; (iii) awareness of the guidelines; and (iv) other factors.

Small group discussions provided an opportunity for participants to suggest factors that influence the uptake of chemotherapy recommendations. Each group comprised a mix of health professionals and Cancer Australia staff. One group included a consumer representative. Groups were asked to consider factors from health professional, patient and service perspectives.

#### Patient-related factors

Participants highlighted the fact that decisions about treatment for an individual patient are made on the basis of best available evidence and individual patient characteristics.

Detail about the patient-related factors that may influence uptake of the chemotherapy recommendations is summarised in Table 2.

The consumer participant highlighted that awareness of the guidelines was less important to her than the fact that the recommendation was made by her medical oncologist. Trust in the healthcare team was a key factor in influencing her decision.

**Table 2:** Patient-related factors that influence the uptake of the chemotherapy recommendations

Factor	Detail
Patient characteristics and co-morbidities	Recommendations in the guidelines are population based and do not mandate a specific approach. Treatment should be individualised to the needs of the patient. Factors to consider include:
	patient age: older patients are less likely to be recommended more aggressive chemotherapy regimens (e.g. combination carboplatin and paclitaxel)
	co-morbidities: obesity and other chronic illness can influence treatment recommendations (e.g. carboplatin dosage may need to be varied for obese patients)
	outcomes of recent surgery, and patient recovery times: may influence the timing of chemotherapy implementation
	patient location and access to services: may influence what treatments are available
	inclusion of patients in clinical trials may also influence treatments.
Patient preference	It was noted that involving patients in treatment decisions can be empowering for the patient. Factors relating to patient preference that may influence guideline uptake included:
	access by patients to information about treatment options and side effects (e.g. via the internet or through families/friends)
	concerns by patients about side effects of treatment (e.g. hair loss)
	cultural factors influencing treatment decisions (it was also noted that a lack of medically experienced interpreters may affect treatment decisions for patients from culturally and linguistically diverse backgrounds).
Availability of patient support services	Access to support services may influence what treatments are recommended for individual patients. Considerations identified included:
	access to available services to assist in monitoring and managing side effects of chemotherapy (e.g. for patients living in rural or regional areas)
	availability of family or carer support.
	It was noted that MDT meetings do not always include all health professionals involved in the woman's treatment (e.g. social workers or other supportive care staff) with the result that treatment decisions may be made without full knowledge of the patient's circumstances.

## **Currency of evidence**

Participants identified a need to maintain the currency of evidence in the Clinical practice guidelines for the management of women with epithelial ovarian cancer.

Detail about factors related to currency of evidence that may influence uptake of the chemotherapy recommendations is summarised in Table 3.

**Table 3:** Factors related to currency of evidence that influence the uptake of the chemotherapy recommendations

Factor	Detail
Other guidelines and protocols are viewed as more current	<ul> <li>International guidelines, and other Australian resources, such as eviQ, may be used instead of the Australian guidelines because:</li> <li>they are updated more regularly and are therefore seen as more recent/relevant</li> <li>they can be easily accessed online.</li> <li>Paper-based guidelines are not reactive to new evidence and take too long to modify.</li> </ul>
Lack of consensus between guidelines and protocols	<ul> <li>A perceived lack of consensus between Australian guidelines, international guidelines and other protocols/evidence sources was identified that can be confusing when determining treatment options.</li> <li>Given Australia's small patient population, a need was identified to compare guidelines with international data sets to ensure accuracy and best practice.</li> </ul>
Evidence for the use of dose-dense chemotherapy regimens	A shift towards dose-dense chemotherapy regimens in clinical practice has occurred since the publication of the guidelines and may influence decisions about dosing regimens at a facility level.
Developments in geriatric oncology	<ul> <li>The role of the geriatric oncologist is increasing in importance with the ageing population.</li> <li>Moves towards recognising the importance of geriatric oncology have occurred since the development of the guidelines.</li> </ul>
Clinical trials and developments in research	<ul> <li>The importance of including information about clinical trials in the guidelines was noted. (It was highlighted that the guidelines do contain information about clinical trials but that this information is included in a different chapter to the chemotherapy guidelines; provision of the guidelines in an easy-to-access format online would allow for better linking of different sections).</li> <li>The guidelines should reflect new evidence about the role of</li> </ul>
	genetic factors in ovarian cancer development, such as BRCA1 and BRCA2 mutations.  • The guidelines should recognise the shift towards use of translational research to identify individualised/targeted treatment approaches.

## Awareness of the guidelines

Participants identified that, while awareness of the Clinical practice guidelines for the management of women with epithelial ovarian cancer is good, there is a continuing need for promotion of the guidelines, in order to raise awareness among new staff.

Detail about how awareness of the guidelines may influence the uptake of the chemotherapy recommendations are summarised in Table 4.

**Table 4:** Factors related to awareness of the guidelines that may influence the uptake of chemotherapy recommendations

Factor	Detail
Influence of the multidisciplinary team (MDT)	It was acknowledged that, while referral of a woman with ovarian cancer to an MDT for treatment planning is mandatory, it is possible that not all patients are discussed at MDT meetings.
	It was acknowledged that some treatment recommendations made during an MDT meeting are not implemented or managed by the MDT and the team may not receive feedback about what treatment is actually given (e.g. although surgery is generally performed in a tertiary setting, chemotherapy can be delivered locally).
	Health professionals in rural or regional areas may not have access to MDT meetings, or a 'true' MDT, and may not draw on an MDT for treatment decisions.
General knowledge of the clinician	Participants indicated that some clinicians may not be aware of the existence of the guidelines (e.g. newly qualified staff or overseas-trained doctors).
	Participants acknowledged that some clinicians may feel that 'more is better' when administering a chemotherapy regimen.
	Specialists may have specific treatment knowledge or preferences.

## Other factors

Participants identified other factors that may influence the uptake of the chemotherapy recommendations. These are summarised in Table 5.

**Table 5:** Other factors that may influence the uptake of chemotherapy recommendations

Factor	Detail
Accessibility of the guidelines	<ul> <li>Participants felt that the guidelines were difficult to access online.</li> <li>The complete guideline was viewed as impractical to use during an MDT meeting or with a patient.</li> <li>Some participants noted that the guidelines are long, and require a commitment of time on the clinician's part to read thoroughly.</li> </ul>
Availability of accurate diagnostic information	<ul> <li>Appropriate treatment decisions rely on accurate tumour grading and staging information; variation in recommended treatments may occur if a health professional believes that grading and staging information is incomplete or inconclusive.</li> <li>Patients are often reluctant to be reassessed or restaged.</li> </ul>
Availability of resources at a facility level	<ul> <li>The ability to support the staff and resources required to administer chemotherapy and manage side effects, if they occur, can vary between facilities.</li> <li>Time to implement chemotherapy regimens may also be a factor.</li> </ul>

#### Approaches for enhancing uptake of the chemotherapy recommendations

Suggested approaches for enhancing the uptake of chemotherapy recommendations can be classified under four main categories: (i) use of MDTs; (ii) improving currency of the guidelines; (iii) promoting awareness and access to the guidelines; and (ii) other suggestions.

Plenary discussion provided an opportunity for participants to reflect on the factors that influence the uptake of chemotherapy recommendations identified during the small group discussions.

These suggestions encompassed how to promote broader awareness of the guidelines beyond the chemotherapy recommendations.

#### Use of multidisciplinary teams

The MDT was identified as a forum to promote awareness and uptake of the guidelines (see Table 6).

**Table 6:** Suggestions for the use of MDTs to enhance uptake of the chemotherapy recommendations

Suggestion/approach	Detail
Ensure all health professionals are linked with an MDT	Ensure that all health professionals who manage the care of women with ovarian cancer are linked to an MDT, regardless of location.
	Encourage linkage between tertiary hospitals and rural/district facilities, to ensure MDT involvement throughout the treatment journey.
	Encourage greater use of telehealth to link regional health professionals with MDTs in tertiary settings.
Encourage the formation of 'true' MDTs	Ensure that MDTs include representation from all health professionals involved in the management of women with ovarian cancer, including supportive care professionals, such as social workers, to ensure that treatment decisions are made with full knowledge of the patient's circumstances.
Develop resources for use by health professionals during MDTs	Develop simple reference tools, such as a laminated flow chart summarising key guideline recommendations, to support ease of reference to the guidelines during MDT meetings or clinics.
Incorporate guidelines into existing patient databases	<ul> <li>Develop and/or increase access by teams to electronic patient databases that:</li> <li>link patient medical history and disease information with available clinical trials</li> <li>include links to guideline treatment recommendations.</li> </ul>
Promote feedback from the MDT	Ensure that treatment recommendations made during an MDT meeting are reported back to the woman (in lay terms) and her general practitioner (in a succinct report).

#### Improving currency of the guidelines

The topic-specific approach to guideline updates taken by Cancer Australia is supported. Other suggestions on how to improve or maintain currency of evidence are summarised in Table 7.

Table 7: Suggestions for improving the currency of the guidelines

Suggestion/approach	Detail
Email alerts when guideline updates are made	<ul> <li>Distribute email alerts to health professionals when updates are made to the guidelines.</li> <li>Use 'clinical update' e-alerts to raise awareness of new evidence that may influence practice.</li> </ul>
Engage translational research scientists in MDT meetings	<ul> <li>Recognise the value of translational research scientists in identifying new treatment approaches.</li> <li>Include translational researchers in MDTs to provide insight to treatment approaches for unusual cases.</li> </ul>
More regular review of guidelines	Set a routine timeline for review of evidence in relation to the guidelines     (it was acknowledged that surveillance of evidence is a core component of Cancer Australia's work but that health professionals may not be aware of the work that is occurring in this area).

#### Promoting awareness and access to the guidelines

While overall awareness of the guidelines was viewed positively, it was suggested that broad promotion and improved ease of access to the guidelines may enhance the uptake of the chemotherapy recommendations. Suggestions for promoting awareness and access to the guidelines are summarised in Table 8.

**Table 8:** Suggestions for promoting awareness and access to the guidelines

Suggestion/approach	Detail
Promotional flyer to health professionals	Distribute a promotional flyer or electronic email to health professionals involved in ovarian cancer care highlighting the importance of the MDT and the existence of the guidelines.
Targeted promotion to specific groups	Identify and target promotional activities to specific groups in which awareness of the guidelines is low. Specific groups may include health professionals in rural areas, health professionals for whom the treatment of ovarian cancer is not routine, and trainees or overseas trained health professionals.
Encourage consumer advocacy for the guidelines	Engage consumer organisations, such as Ovarian Cancer Australia, in the promotion of the guidelines to consumers.
Raise awareness and understanding of the guidelines among consumers	Raise consumer awareness of the guidelines using video or YouTube presentations (noting that promotion to consumers should only occur with patient consent).

Suggestion/approach	Detail
Promote referencing of the guidelines in peer- reviewed journals	Reference the guidelines in articles published in relevant peer-reviewed journals and conference presentations. This enables health professionals to use them as a tool to influence decisions made by chemotherapy chairs/higher management at a facility level with regard to service development and planning.
Develop a mobile 'app'	Develop a mobile 'app' of the guidelines to enable easy reference and assist in treatment decisions during MDT meetings (building on existing guideline apps produced by other organisations).
Develop electronic guidelines	Develop a readily accessible electronic version of the guidelines that is easy to navigate and includes cross-links between different sections of the guidelines.
Links to the guidelines from other relevant resources	Given that many health professionals access resources such as eviQ in preference to the guidelines, explore the option of highlighting areas within eviQ that reference or are supported by the guidelines.
	Cross-referencing the guidelines in eviQ may also help the guidelines to be viewed as relevant and up-to-date.

## Other suggestions

A number of other suggestions were made by forum participants about how to encourage best-practice approaches to the management of ovarian cancer, including uptake of the Clinical practice guidelines for the management of women with epithelial ovarian cancer. These suggestions are summarised in Table 9.

**Table 9:** Other suggestions to encourage best-practice approaches to the management of ovarian cancer

Suggestion/approach	Detail
Expand the scope of the guidelines	Expand the chemotherapy recommendations to include recommendations about chemotherapy for recurrent ovarian cancer.
	Include recommendations for management of chemotherapy- related side effects.
Acknowledge the development of new treatment protocols	Acknowledge that newer treatment protocols are available that are linked to tumour pathology.

## **Prioritising suggestions**

At the close of the forum, participants were asked to nominate the one priority they saw as being most important to enhancing uptake of the chemotherapy recommendations in the Clinical practice guidelines for the management of women with epithelial ovarian cancer. Table 10 lists these suggestions. Where a priority was supported by more than one participant, this is noted in parentheses.

Table 10: Suggested priorities for improving uptake of the chemotherapy recommendations

Theme	Suggestion
Use of MDTs	Promote the need for 'true' MDT meetings that consider all aspects of patient care when making treatment recommendations.
	Support linkages for health professionals in rural areas to MDTs in tertiary settings.
	Develop templates to assist in succinct reporting from MDT meetings to inform patients and GPs about treatment recommendations (x2).
	Promote and recognise the importance of the role of translational research scientists in advising on the management of unusual cases.
Awareness and access	Improve electronic access to the guidelines through the development of a mobile 'app' (x3).
	Involve consumer advocacy organisations, such as Ovarian Cancer Australia, in the promotion of the guidelines to women, to:
	o inform women about treatment options
	o empower women to ask questions (x2).
Currency of evidence	Implement cross-referencing of the guidelines with other protocols and sources of treatment information, such as eviQ, so guidelines are seen as current, accessible and relevant.
	Review and update the guidelines regularly, in line with international standards (x4).
	Develop guidelines in a way that allows ease of modification (4x).
Value of guidelines	Recognise the value of guidelines as a tool for influencing decisions at a facility level with regard to service development and planning.

#### Take-home messages

In addition to the key priorities identified above, some participants chose to share their 'take-home message' from the forum. These included:

- adherence to the chemotherapy recommendations is good, despite some variation
- some variation in practice compared with the guidelines should be expected as this reflects individual patient needs and context
- ongoing collaboration and engagement of clinicians involved in the management of women with epithelial cancer is valuable in developing Australian guidelines and approaches to care
- measuring patient outcomes for women with epithelial ovarian cancer will be important to

establish whether variation in chemotherapy regimens compared to the clinical practice guidelines is associated with a variation in patient outcomes (x2).					

## **Summary**

In closing the forum, Associate Professor Christine Giles, Executive Director, Head, Policy and Strategy, Cancer Australia, reinforced Cancer Australia's commitment to the review of the Clinical practice guidelines for the management of women with epithelial ovarian cancer and development of new recommendations, as appropriate.

A/Prof Giles acknowledged that the guideline development process may seem long, but stressed the importance of ensuring the recommendations are founded on a strong evidence base. She thanked the attending health professionals for their contribution to approaches for enhancing uptake of the clinical practice guidelines and noted that the outcomes of the forum will help to bridge the gap between research and practice.

Key points arising from the forum are outlined below.

- Forum participants noted that the findings from the Patterns of care for women diagnosed with epithelial ovarian cancer in Australia study, 2005 highlight variation in practice to the chemotherapy recommendations for women with epithelial ovarian cancer.
- It was acknowledged that chemotherapy recommendations outlined in the Clinical practice guidelines for the management of women with epithelial ovarian cancer reflect evidence at a population level and allow for some variation based on individual patient factors.
- It was noted that it will be important to review outcome data to establish whether the
  variation in adherence to the clinical practice guidelines is associated with variation in
  outcomes for patients.
- Factors that may influence the uptake of chemotherapy recommendations include the need to individualise patient treatment, the shift to newer dosing regimens, concerns regarding currency of evidence, and general awareness of the guidelines.
- Approaches to enhance the uptake of chemotherapy recommendations may include optimising the role of the MDT, improving the currency of the guidelines, promoting awareness of the guidelines and enabling easy access to the guidelines.
- Forum participants also suggested approaches to enhance awareness and uptake of the guidelines beyond the chemotherapy recommendations, as well as ways to encourage best practice in the management of ovarian cancer.

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- 6. Australian Institute of Health and Welfare and National Breast and Ovarian Cancer Centre. Ovarian Cancer in Australia: an overview, 2010. Canberra: AlHW, 2010. Cancer series no.52. Cat. no. 48.
- 7. The Australian Cancer Network and National Breast and Ovarian Cancer Centre. Clinical practice guidelines for the management of women with epithelial ovarian cancer. Camperdown: National Breast Cancer Centre, 2004.

# Appendix i: forum participants

Name	Occupation	
Dr Sumitra (Sumi) Ananda	Gynaecological oncologist	
Dr Vivek Arora	Gynaecological oncology Fellow	
Isobel Black	Clinical nurse practitioner	
Keith Cox OAM	Clinical nurse practitioner	
A/ Professor Margaret Davy AM	Gynaecological oncologist	
Dr Gregory Gard	Gynaecological oncologist	
Dr Amanda Goldrick	Medical oncologist	
Helen Gray	Nurse	
Dr Susan Jordan	Researcher	
Dr Ganessan Kichenadasse	Medical oncologist	
Dr Chee Lee	Oncologist	
Dr Jodi Lynch	Medical oncologist	
Jayne Maidens	Gynaecological clinical nurse consultant	
Dr Jenny McLachlan	Medical oncologist trainee	
Elisha McLaren	Clinical nurse consultant	
Miss Orla McNally	Gynaecological oncologist	
Kath Nattress	Clinical nurse consultant	
Connie Nikolovski	Consumer	
Dr Pinky Patel	Gynaecological oncologist	
A/Professor Anthony Proietto	Gynaecological oncologist	
Dr Ragu Shanmuganathan	Gynaecology oncology Fellow	
Dr Piksi Singh	Gynaecological oncologist	
Georgie Richter	Gynaecological oncology support nurse	
Cassandra Riley	Clinical nurse practitioner	
Mary Ryan	Clinical nurse consultant	

# Pre-forum interview participants

Name	Occupation
Dr Alison Brand	Gynaecological oncologist
A/Professor Peter Grant	Gynaecological oncologist

# Appendix ii: forum agenda

# Ovarian cancer chemotherapy recommendations: approaches to support uptake

## Forum program

**Date:** Thursday 28th June, 2012

10am - 2pm (AEST)

**Location:** Stamford Plaza Sydney Airport

Cnr O'Riordan & Robey Streets

Mascot, NSW 2020

Time	No	Item	Presenter	
9.30am		Registration (coffee & tea served on arrival)		
10:00 am	1	Welcome		Dr Helen Zorbas CEO, Cancer Australia
10.10am	2	Overview of workshop and introductions		Alison Evans, ZEST Health Strategies
10:20am	3	Clinical Practice Guidelines for the Management of Epithelial Ovarian Cancer: chemotherapy recommendations		Ms Jane Francis Cancer Australia
10.30 am	4	Patterns of Care for Women Diagnosed with Epithelial Ovarian Cancer in Australia study summary: evidence–practice gaps		Dr Susan Jordan Queensland Institute of Medical Research
10.45		Morning tea		
11:00 am	5	Awareness of the ovarian cancer guidelines		Alison Evans
11:20 am	6	Small group discussion: factors influencing uptake of the chemotherapy recommendations		Small groups
12.15pm		Lunch		
12.45 pm	7	Reports from small group discussion: Factors influencing uptake of the chemotherapy recommendations		Small groups to report back
1:00 pm	8	Plenary discussion: Approaches for enhancing uptake of the chemotherapy recommendations		Alison Evans
1.45pm	9	Prioritisation of potential approaches to enhance uptake of the chemotherapy recommendations		Alison Evans
1:55 pm	10	Summation of forum		A/Prof Christine Giles Cancer Australia
2.00pm		Forum close		

## Appendix iii: pre-forum survey

## Ovarian cancer chemotherapy recommendations: approaches to support uptake

Cancer Australia is holding a forum in June 2012 to explore factors that influence the uptake of evidence-based recommendations about use of chemotherapy in the Clinical Practice Guidelines for the management of women with epithelial ovarian cancer (2004). The aim of the workshop is to identify approaches that may support the implementation of the guidelines.

We are seeking feedback from key stakeholders (who may or may not be attending the forum) to help inform discussions on the day.

Please complete the following questions. We anticipate the survey will take 5–10 minutes to complete.

#### Q1. Which of the following best describes you?

- a) Gynaecological oncologist
- b) Medical oncologist
- c) Nurse
- d) Other health professional (please provide details)
- e) Health service administration
- f) Professional College representative
- g) Woman with ovarian cancer <skip logic to Q5>
- Q2. In your opinion, are health professionals involved in the care of women with ovarian cancer aware of the Clinical practice guidelines for the management of women with epithelial ovarian cancer (2004)?
  - a) Yes
  - b) No
  - c) Don't know
- Q3. Are the chemotherapy recommendations in the Clinical practice guidelines for the management of women with epithelial ovarian cancer (2004) referred to during multidisciplinary treatment planning meetings?
  - a) Yes frequently
  - b) Yes sometimes
  - c) Infrequently
  - d) No
  - e) Don't know

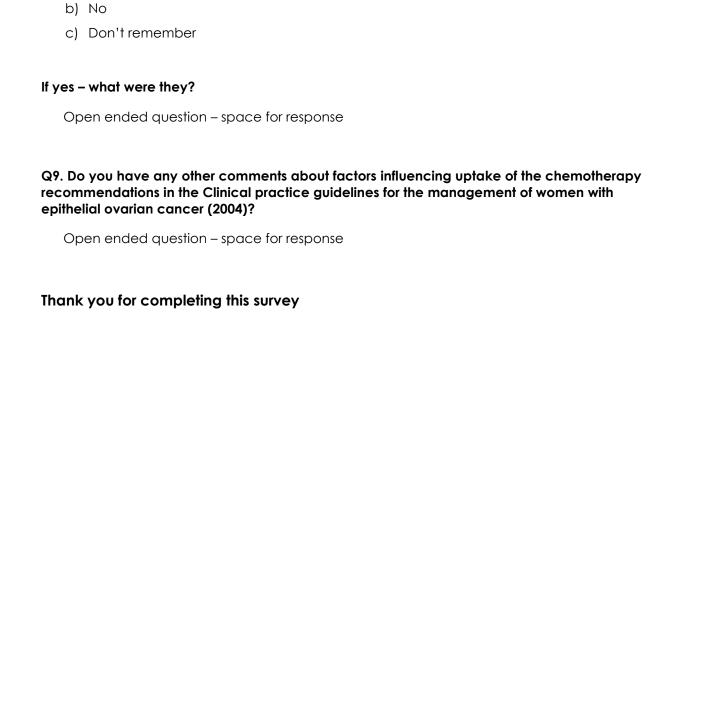
Q4. Do the chemotherapy recommendations in the Clinical practice guidelines for the management of women with epithelial ovarian cancer (2004) underpin routine practice at your service (e.g. used to inform protocols, provided to new staff)?

- a) Yes frequently
- b) Yes sometimes
- c) Infrequently
- d) No
- e) Don't know

<Health professionals skip from here to Q9>

- Q5. Did you receive chemotherapy as part of your treatment for ovarian cancer?
  - a) Yes
  - b) No
  - c) Don't know
- Q6. Did your treatment team tell you about the Clinical practice guidelines for the management of women with epithelial ovarian cancer (2004) when discussing your treatment plan with you?
  - a) Yes
  - b) No
  - c) Don't remember
- Q7. Please rate how important the following factors were in your decision to start/continue chemotherapy:

	Most important to me	Not very important to me
Evidence shows the treatment has the greatest chance of treating the disease/prolonging life	<	>
Treatment has few or manageable side effects	<del></del>	
Treatment is affordable for me	<b>←</b>	<b>→</b>
Treatment has been tested in many women before me	<del>&lt;</del>	<b>→</b>
Treatment requires the fewest number of visits to hospital	<del></del>	<b>&gt;</b>



Q8. Are there other factors that influenced your decision to start/continue chemotherapy for

ovarian cancer?

a) Yes