NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

CENTRE FOR CLINICAL PRACTICE

QUALITY STANDARDS PROGRAMME

Briefing paper

Quality standard topic: Ovarian cancer

Date of Ovarian cancer Topic Expert Group meeting: 29th September 2011

Introduction

This briefing paper presents a structured review to help determine the suitability of recommendations from the key development sources listed below, to be developed into a NICE quality standard. The draft quality statements and measures presented in this paper are based on published recommendations from these key development sources:

Ovarian cancer: the recognition and initial management of ovarian cancer. NICE clinical guideline 122 (2011; NHS Evidence accredited). Available from www.nice.org.uk/guidance/CG122

The Royal College of Radiologists (2007; NHS Evidence accredited). Making the best use of clinical radiology services: referral guidelines, sixth edition. Available from http://mbur.nhs.uk

And also:

Trabectedin for the treatment of relapsed ovarian cancer. NICE technology appraisal guidance 222 (2011; NHS Evidence accredited). Available from www.nice.org.uk/guidance/TA222

Topotecan, pegylated liposomal doxorubicin hydrochloride and paclitaxel for the treatment of advanced ovarian cancer (review of NICE technology appraisal guidance 28, 45 and 55 [for relapsed disease only]). NICE technology appraisal guidance 91 (2005). Available from www.nice.org.uk/guidance/TA91

Review of the clinical effectiveness and cost effectiveness of paclitaxel for ovarian cancer. NICE technology appraisal guidance 55 (2003). Available from www.nice.org.uk/guidance/TA55

Bevacizumab in combination with paclitaxel and carboplatin for the first-line chemotherapy treatment of ovarian cancer. NICE technology appraisal. Publication date to be confirmed. Available from http://guidance.nice.org.uk/TA/Wave25/16

Structure of the briefing paper

The body of the paper presents supporting evidence for the draft quality standard reviewed against the three dimensions of quality: clinical effectiveness, patient experience and safety. Information is also provided on available cost-effectiveness evidence and current clinical practice for the proposed standard. Where possible, evidence from the clinical guideline is presented. When this is not available, other evidence sources have been used.

1 Detection – Symptoms, signs and CA125

1.1 NICE CG122 recommendations 1.1.1.2 (KPI), 1.1.1.3, 1.1.1.5 (KPI), 1.1.2.1 (KPI) and 1.2.1.1

1.1.1 Relevant NICE recommendations and proposed quality statement

Guideline recommendations	**NICE CG122** 1.1.1.2 (KPI) Carry out tests in primary care (see section 1.1.2) if a woman (especially if 50 or over) reports having any of the following symptoms on a persistent or frequent basis – particularly more than 12 times per month[1]: - persistent abdominal distension (women often refer to this as 'bloating') - feeling full (early satiety) and/or loss of appetite - pelvic or abdominal pain - increased urinary urgency and/or frequency. 1.1.1.3 Consider carrying out tests in primary care (see section 1.1.2) if a woman reports unexplained weight loss, fatigue or changes in bowel habit. 1.1.1.5 (KPI) Carry out appropriate tests for ovarian cancer (see section 1.1.2) in any woman of 50 or over who has experienced symptoms within the last 12 months that suggest irritable bowel syndrome (IBS)[2], because IBS rarely presents for the first time in women of this age. 1.1.2.1 (KPI) Measure serum CA125 in primary care in women with symptoms that suggest ovarian cancer (see section 1.1.1). 1.2.1.1 Measure serum CA125 in secondary care in all women with suspected ovarian cancer, if this has not already been done in primary care.
Proposed quality statement	Women reporting one or more of the following symptoms are offered a serum CA125 test: persistent bloating, feeling full and/or loss of appetite, pelvic or abdominal pain, increased urinary urgency and/or frequency, unexplained weight loss, fatigue or changes in bowel habit (or other symptoms that suggest irritable bowel syndrome if they are over 50).
Draft quality measure	**Structure:** Evidence of local arrangements to ensure all women reporting one or more the following symptoms are offered a serum CA125 test: persistent bloating, feeling full and/or loss of appetite, pelvic or abdominal pain, increased urinary urgency and/or frequency, unexplained weight loss, fatigue or changes in bowel habit (or other symptoms that suggest irritable bowel syndrome if they are over 50).

[1] See also 'Referral guidelines for suspected cancer' (NICE clinical guideline 27; available at www.nice.org.uk/guidance/CG27) for recommendations about the support and information needs of people with suspected cancer.

[2] See 'Irritable bowel syndrome in adults' (NICE clinical guideline 61; available at www.nice.org.uk/guidance/CG61).

	Process: Proportion of women reporting one or more of the following symptoms who receive a serum CA125 test: persistent bloating, feeling full and/or loss of appetite, pelvic or abdominal pain, increased urinary urgency and/or frequency, unexplained weight loss, fatigue or changes in bowel habit (or other symptoms that suggest irritable bowel syndrome if they are over 50). Numerator – number of people in the denominator receiving a serum CA125 test. Denominator – number of women reporting one or more of the following symptoms, persistent bloating, feeling full and/or loss of appetite, pelvic or abdominal pain, increased urinary urgency and/or frequency, unexplained weight loss, fatigue or changes in bowel habit (or other symptoms that suggest irritable bowel syndrome if they are over 50).
Questions for TEG	• Would it be better to refer to generic 'defined symptoms' (or similar) in the overarching quality statement and list the detailed symptoms in the definition section of the quality standard? • Should the pathway for abnormal vaginal bleeding (from CG27) be included in a quality statement on symptoms and signs?

1.1.2 Clinical and cost-effectiveness evidence

Evidence about symptoms and signs of ovarian cancer came from case control studies. A systematic review estimated that 93% [95%CI: 92% to 94%] of women experienced symptoms before diagnosis. Evidence from case control studies shows that abdominal pain, abdominal distension, urinary symptoms, abdominal mass and postmenopausal/abnormal bleeding are more likely to be reported by women before a diagnosis of ovarian cancer than in women without ovarian cancer. Despite the fact that abnormal vaginal bleeding was linked with the existence of ovarian cancer, the GDG felt that the urgent clinical pathway already established for abnormal vaginal bleeding was likely to detect ovarian cancer as part of that investigation. Therefore they did not include this symptom in the recommendations.

The GDG considered that there was reasonable quality, retrospective evidence that certain symptoms and signs, when experienced frequently and persistently, are suggestive of a woman having ovarian cancer. It was agreed that identifying those symptoms and signs which should prompt healthcare professionals to consider ovarian cancer, could lead to earlier diagnosis. The GDG believed that the potential benefits of earlier diagnosis could outweigh the potentially increased demand for investigation of women, and associated anxiety. There was insufficient evidence to say whether the duration of symptoms before diagnosis affects overall survival, quality of life or disease specific survival.

The recommendation on measuring CA125 was based on evidence of test performance and a health economic evaluation that identified serum CA125 as the most cost-effective first test as opposed to ultrasound or ultrasound

and serum CA125 in combination. It is noted that the clinical evidence came from secondary care, rather than symptomatic women in primary care.

1.1.3 Patient experience

The National cancer patient experience survey reported 71% of women with gynaecological cancers saw their GP no more than twice before referral to hospital[3].

Interviews with 48 women about their experience of ovarian cancer reported that many women stressed that they did not think anything was seriously wrong because the symptoms are vague and tended to come and go or ease off after a while[4]. Some women described a 'niggle' on one side, had a dull ache or tenderness or felt 'heavy in the pelvis' while others were alerted by definite lumps, sharp pains or a cramping feeling with bowel movements. One woman said she woke up feeling 'as if a balloon had popped in my tummy', another described a strange feeling that 'the usual muscles that (move your bowel or empty your bladder) aren't doing what you want them to do'. Some said that only when looking back did they realise that minor, vague symptoms were probably connected to their cancer.

Women usually attributed their symptoms to other causes such as mid-life changes. Many noticed that their waists had got bigger but blamed mid-life weight gain and just bought larger clothing or garments with elasticated waists. However, others were aware that this was not normal weight change - one said that she was the same weight but had just changed shape around her abdomen, and several said that they had looked pregnant. Others attributed their symptoms to stress, irritable bowel syndrome, ovarian cysts or fibroids. A few thought they might have bowel cancer. GPs sometimes suspected these causes, or appendicitis, inflammation or infection of the gut, gall bladder problems or weakened pelvic floor muscles, and treated the symptoms accordingly, sometimes for long periods before investigating them.

Some women said that they 'just knew' something was seriously wrong and their doctors referred them quickly. One said she just swelled up over night and her doctor arranged a scan straight away. Others described how quickly their GP, or in some cases a practice nurse, had acted.

Some women were angry that their GPs assumed that their symptoms were hormonal and had not investigated further. However, as one reflected, the

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[3] Department of Health – National Cancer Patient Experience Survey Programme (2010) 2010 National Survey Report. Available from www.dh.gov.uk

[4] University of Oxford Health Experiences Research Group. Healthtalkonline – a database of personal and patient experiences. Available from www.healthtalkonline.org

symptoms were very vague and 'You don't go running to the doctor at the first sign of something'.

1.1.4 Patient safety

A patient safety incident is any unintended or unexpected incident which could have or did lead to harm for one or more patients receiving NHS care (see Appendix A). A comprehensive analysis of recent reported incidents (please see full accompanying report from the NPSA) identifies the following priority areas relating to patient safety.

- Methods of ensuring that mechanisms are in place for the appropriate reporting of pathology samples
- Standards for ensuring patients are aware of tests, and the appropriate way to ensure that they are informed/ aware of results.

1.1.5 Current practice

In 2009 the Department of Health published a letter on the key messages for ovarian cancer for health professionals which suggested that when women present with symptoms suggestive of ovarian cancer it is important to request a serum CA125 assay and pelvic ultrasound[5].

The Target Ovarian Cancer Pathfinder study, part of the National Awareness and Early Diagnosis Initiative published the first report in June 2009[6]. 1000 women were surveyed, reporting 44% had to wait more than 6 months for a correct diagnosis and the majority (65%) said they were not referred for a CA125 blood test and/or internal scan straight away. Of 400 GPs surveyed, 80% wrongly thought early ovarian cancer had no symptoms, 51% correctly identified 'increased abdominal size' as a symptom and less than 2% picked out 'difficulty in eating' or 'feeling full'. 69% of GPs surveyed seemed unaware that women with ovarian cancer were more likely to experience frequent, sudden and persistent symptoms than women with irritable bowel syndrome (IBS), for instance.

In June 2010 Target Ovarian Cancer launched the six simple steps campaign, one of which is to ensure all GPs have access to urgent diagnostic tests.

Healthcare Improvement Scotland (formerly Quality Improvement Scotland) has published Clinical standards: management of ovarian cancer services. Standard 2a: Investigations and Treatment recommends that once ovarian cancer is suspected, standard investigations are undertaken and results made

[5] Department of Health (2009) Key messages for ovarian cancer for health professionals. Available from www.dh.gov.uk

[6] Target Ovarian Cancer (2009) Pathfinder Study: First Results. Available from www.targetovariancancer.org.uk

available so that first treatment can be offered within a stated maximum time. Available from www.healthcareimprovementscotland.org

1.1.6 Current indicators

None identified.

2 Detection – ultrasound

2.1 NICE CG122 recommendations 1.1.2.2 (KPI) and 1.2.3.1. RCR referral guidelines CA33 diagnosis (US)

2.1.1 Relevant NICE recommendations and proposed quality statement

Guideline recommendations	**NICE CG122** 1.1.2.2 (KPI) If serum CA125 is 35 IU/ml or greater, arrange an ultrasound scan of the abdomen and pelvis. 1.2.3.1 Perform an ultrasound of the abdomen and pelvis as the first imaging test in secondary care for women with suspected ovarian cancer, if this has not already been done in primary care. **RCR referral guidelines** CA33 diagnosis (US) Indicated - most ovarian lesions are identified initially on clinical examination or US. A combination of transabdominal US and transvaginal US, supplemented by colour Doppler, is recommended.
Proposed quality statement	Women with a serum CA125 of 35 IU/ml or greater are offered an ultrasound scan of their abdomen and pelvis.
Draft quality measure	**Structure:** Evidence of local arrangements to ensure all women with a serum CA125 of 35 IU/ml or greater are offered an ultrasound scan of their abdomen and pelvis. **Process:** Proportion of women with a serum CA125 of 35 IU/ml or greater who receive an ultrasound scan of their abdomen and pelvis. Numerator – number of people in the denominator receiving an ultrasound scan of their abdomen and pelvis. Denominator – number of women with a serum CA125 of 35 IU/ml or greater.

2.1.2 Clinical and cost-effectiveness evidence

The GDG agreed that the sensitivity and specificity of ultrasound and CT for establishing a diagnosis, were shown to be broadly equivalent, but that the evidence did not specify which of these imaging modalities was the most effective. Given that ultrasound and CT had been shown to have equivalent sensitivity and specificity, and that ultrasound is more readily available, less costly and involves no radiation unlike CT, the GDG felt it was appropriate to recommend ultrasound as the initial imaging test for women with suspected ovarian cancer.

The RCR recommendation on use of ultrasound for diagnosis of ovarian cancer is graded B according to the level of evidence and relevant/applicability of evidence to the clinical problem (out of possible A, B

or C where A is the highest level and most relevant/applicable). The supporting evidence base included level I (the highest level) evidence.

2.1.3 Patient experience

The National cancer patient experience survey reported 90% of all cancer patients had a diagnostic test in the last 12 months. This is not specific to ovarian cancer[7].

2.1.4 Patient safety

A patient safety incident is any unintended or unexpected incident which could have or did lead to harm for one or more patients receiving NHS care (see Appendix A). A comprehensive analysis of recent reported incidents (please see full accompanying report from the NPSA) identifies the following priority areas relating to patient safety.

- Methods of ensuring that mechanisms are in place for the appropriate reporting of pathology samples
- Standards for ensuring patients are aware of tests, and the appropriate way to ensure that they are informed/ aware of results.

2.1.5 Current practice

In 2009 the Department of Health published a letter on the key messages for ovarian cancer for health professionals which suggested that when women present with symptoms of ovarian cancer it is important to request a serum CA125 assay and pelvic ultrasound[8].

The Department of Health documents Improving outcomes: A strategy for cancer[9] and the 2011/12 Operating framework for the NHS in England[10] highlight the need for GPs to be able to directly access non-obstetric ultrasound to support the earlier diagnosis of ovarian cancer.

Healthcare Improvement Scotland (formerly Quality Improvement Scotland) has published Clinical standards: management of ovarian cancer services. Standard 2a: Investigations and Treatment recommends that once ovarian cancer is suspected, standard investigations are undertaken and results made

[7] Department of Health – National Cancer Patient Experience Survey Programme (2010) 2010 National Survey Report. Available from www.dh.gov.uk

[8] Department of Health (2009) Key messages for ovarian cancer for health professionals. Available from www.dh.gov.uk

[9] Department of Health (2011) Improving outcomes: a strategy for cancer. Available from www.dh.gov.uk

[10] Department of Health (2010) The Operating Framework for the NHS in England 2011/12. Available from www.dh.gov.uk

available so that first treatment can be offered within a stated maximum time. Available from www.healthcareimprovementscotland.org

2.1.6 Current indicators

None identified.

3 Detection – Specialist referral

3.1 NICE CG122 recommendation 1.1.2.3

3.1.1 Relevant NICE recommendations and proposed quality statement

Guideline recommendations	**NICE CG122** 1.1.2.3 If the ultrasound suggests ovarian cancer, refer the woman urgently[11] for further investigation[12].
Proposed quality statement	Women with a serum CA125 of 35 IU/ml or greater and whose ultrasound suggests ovarian cancer, are referred urgently for further investigation.
Draft quality measure	**Structure:** Evidence of local arrangements to ensure women with a serum CA125 of 35 IU/ml or greater and whose ultrasound suggests ovarian cancer, are referred urgently for further investigation. **Process:** Proportion of women with a serum CA125 of 35 IU/ml or greater and whose ultrasound suggests ovarian cancer, who are referred urgently for further investigation. Numerator – number of people in the denominator referred urgently for further investigation. Denominator – number of women with a serum CA125 of 35 IU/ml or greater and whose ultrasound suggests ovarian cancer.
Question for TEG	• Can 'suggests' be defined here? • Should a timeframe for referral/being seen be specified here (e.g. 2 weeks)? • At the scoping workshop, the TEG discussed the RCR referral guidelines here and appropriate management of 'indeterminate mass' – how might this be incorporated and which RCR recommendations should be used?

3.1.2 Clinical and cost-effectiveness evidence

The clinical evidence demonstrated that no single test on its own adequately selected a manageable number of women for referral to secondary care. The combination of raised serum CA125 and sequential ultrasound of the abdomen and pelvis reduced significantly the number of women who would be referred, though a greater proportion of symptomatic women would be directed to the right pathway in a more timely fashion. Although the trade off in adopting a sequential strategy as recommended means that some women with ovarian cancer would be missed in the first instance, the view of the GDG

[11] An urgent referral means that the woman is referred to a gynaecological cancer service within the national target in England and Wales for referral for suspected cancer, which is currently 2 weeks

[12] See also 'Referral guidelines for suspected cancer' (NICE clinical guideline 27; available at www.nice.org.uk/guidance/CG27) for recommendations about the support and information needs of people with suspected cancer.

was that this was a sensible and pragmatic decision as those women whose symptoms persist would subsequently re-attend and be referred. In order to ensure symptomatic women were placed along the correct pathway as soon as possible it could only be achieved using such a sequential testing strategy.

3.1.3 Patient experience

Interviews with 48 women about their experience of ovarian cancer reported that GPs sometimes suspected other causes of symptoms and treated the symptoms accordingly, sometimes for long periods before investigating them[13].

Some women said that they 'just knew' something was seriously wrong and their doctors referred them quickly. One said she just swelled up over night and her doctor arranged a scan straight away. Others described how quickly their GP, or in some cases a practice nurse, had acted.

3.1.4 Patient safety

A patient safety incident is any unintended or unexpected incident which could have or did lead to harm for one or more patients receiving NHS care (see Appendix A). A comprehensive analysis of recent reported incidents (please see full accompanying report from the NPSA) identifies the following priority areas relating to patient safety.

- Methods of ensuring that mechanisms are in place for the appropriate communication and action on abnormal test results
- Methods of ensuring that failsafe / safety nets are in place for action on abnormal test results
- Methods of ensuring that mechanisms are in place for the support of patients between medical disciplines and care setting, especially with regard to ‘handover’ to palliative and end of life care.

3.1.5 Current practice

In 2010 the National Cancer Director was commissioned to review the cancer waiting time standards[14]. The outcome of the review confirmed that overall, cancer waiting time standards should be retained, as shorter waiting times can help to ease patient anxiety and at best lead to earlier diagnosis, quicker treatment, a lower risk of complications, an enhanced patient experience and improved cancer outcomes.

[13] University of Oxford Health Experiences Research Group. Healthtalkonline – a database of personal and patient experiences. Available from www.healthtalkonline.org

[14] Department of Health (2011) Improving outcomes: a strategy for cancer. Available from www.dh.gov.uk

The National Cancer Intelligence Network has produced a data briefing on the route of diagnosis for 5,012 patients with ovarian cancer. 26% were diagnosed via the 2 week wait while 22% were via a GP referral[15].

There is a dataset field on cancer two week wait, source of referral and priority type in the proposed Cancer Outcomes and Services Dataset (Draft). Available from www.ncin.org.uk Due to go to the final Information Standards Board during March 2012. If approved, the COSD will become an information standard from 1st October 2012.

3.1.6 Current indicators

Department of Health (2011) The operating framework for the NHS in England 2011/12. Integrated performance measures (IPMs) for national oversight:

HQU14 - Cancer 2 week (aggregate measure)

- Part A: All cancer two week wait

HQU15 - Cancer 62 day waits (aggregate)

- Part A: All cancer two month urgent referral to treatment wait

IPMs available from www.dh.gov.uk

Quality and Outcomes Framework (QOF) EDUCATION 7 - The practice has undertaken a minimum of 12 significant event reviews in the preceding 3 years which could include:

- Any death occurring in the practice premises
- New cancer diagnoses
- Deaths where terminal care has taken place at home
- Any suicides
- Admissions under the Mental Health Act
- Child protection cases
- Medication errors A significant event occurring when a patient may have been subjected to harm, had the circumstance/outcome been different (near miss)

[15] NCIN (2010) Routes to diagnosis – NCIN data briefing. Available at www.ncin.org.uk

4 Detection - advice

4.1 NICE CG122 recommendations 1.1.1.4 and 1.1.2.4 (KPI)

4.1.1 Relevant NICE recommendations and proposed quality statement

Guideline recommendations	**NICE CG122** 1.1.1.4 Advise any woman who is not suspected of having ovarian cancer to return to her GP if her symptoms become more frequent and/or persistent. 1.1.2.4 (KPI) For any woman who has normal serum CA125 (less than 35 IU/ml), or CA125 of 35 IU/ml or greater but a normal ultrasound: - assess her carefully for other clinical causes of her symptoms and investigate if appropriate - if no other clinical cause is apparent, advise her to return to her GP if her symptoms become more frequent and/or persistent.
Proposed quality statement	Women with a normal serum CA125 (less than 35 IU/ml), or CA125 of 35 IU/ml or greater but a normal ultrasound, with no other apparent clinical cause for their symptoms, receive advice to return to their GP if the symptoms become more frequent and/or persistent.
Draft quality measure	**Structure:** a) Evidence of local arrangements to ensure women with a normal serum CA125 (less than 35 IU/ml), or CA125 of 35 IU/ml or greater but a normal ultrasound, with no other apparent clinical cause for their symptoms, receive advice to return to their GP if the symptoms become more frequent and/or persistent. **Process:** a) Proportion of women with a normal serum CA125 (less than 35 IU/ml) with no other apparent clinical cause for their symptoms, who receive advice to return to their GP if the symptoms become more frequent and/or persistent. Numerator - number of people in the denominator receiving advice to return to their GP if symptoms become more frequent and/or persistent. Denominator – number of women with a normal serum CA125 (less than 35 IU/ml) with no other apparent clinical cause for their symptoms. b) Proportion of women with a serum CA125 of 35 IU/ml or greater but a normal ultrasound and no other apparent clinical cause for their symptoms, who receive advice to return to their GP if the symptoms become more frequent and/or persistent Numerator – number of people in the denominator receiving advice to return to their GP if symptoms become more frequent and/or persistent Denominator – number of women with a serum CA125 of 35 IU/ml or greater but a normal ultrasound and no other apparent

	clinical cause for their symptoms
Question for TEG	• Can 'no other apparent clinical cause' be clearly defined for measurement purposes?

4.1.2 Clinical and cost-effectiveness evidence

The GDG considered increasing patient and primary care awareness of the symptoms of ovarian cancer to be important.

4.1.3 Patient experience

See section 1.1.3. No further patient experience data identified.

4.1.4 Patient safety

A patient safety incident is any unintended or unexpected incident which could have or did lead to harm for one or more patients receiving NHS care (see Appendix A). A comprehensive analysis of recent reported incidents (please see full accompanying report from the NPSA) identifies the following priority areas relating to patient safety.

- Methods of ensuring that mechanisms are in place for the appropriate reporting of pathology samples
- Methods of ensuring that mechanisms are in place for the appropriate communication and action on abnormal test results
- Methods of ensuring that failsafe / safety nets are in place for action on abnormal test results
- Standards for ensuring patients are aware of tests, and the appropriate way to ensure that they are informed/ aware of results.

4.1.5 Current practice

No current practice data identified.

4.1.6 Current indicators

None identified

5 Diagnosis – other imaging

5.1 NICE CG122 recommendations 1.2.3.2 and 1.2.3.3. RCR CA33 diagnosis (MRI), CA34 staging (CT, MRI and PET-CT)

5.1.1 Relevant NICE recommendations and proposed quality statement

Guideline recommendations	**NICE CG122** 1.2.3.2 If the ultrasound, serum CA125 and clinical status suggest ovarian cancer, perform a CT scan of the pelvis and abdomen to establish the extent of disease. Include the thorax if clinically indicated. 1.2.3.3 Do not use MRI routinely for assessing women with suspected ovarian cancer. **RCR referral guidelines** CA33 diagnosis (MRI) Specialised investigation - MRI of the abdomen and pelvis is useful for problem solving since it is more accurate than US in establishing the presence of benign features in complex masses. CA34 staging (CT) Indicated - CT of the abdomen and pelvis has a role in identifying patients that may benefit from chemotherapy or are being considered for cytoreductive surgery. CA34 staging (MRI) Specialised investigation - MRI of the abdomen and pelvis is useful when enhanced CT is contraindicated, when the patient is pregnant, or for problem solving. CA34 staging (PET-CT) Specialised investigation - PET- CT is indicated in difficult management situations, and in the assessment of distant and local spread.
Proposed quality statement	Women with suspected ovarian cancer have access to other imaging techniques (in addition to ultrasound) in accordance with current national guidance.
Draft quality measure	**Structure:** Evidence of local arrangements to ensure women with suspected ovarian cancer have access to other imaging techniques (in addition to ultrasound) in accordance with current national guidance. **Process:** Proportion of women with suspected ovarian cancer who receive other imaging (in addition to ultrasound) in accordance with current national guidance. Numerator – number of people in the denominator receiving other imaging (in addition to ultrasound) in accordance with current national guidance. Denominator – number of women with suspected ovarian cancer.
Questions for TEG	• 'In accordance with current national guidance' rightly allows for clinical judgment which is difficult to measure. Are there specific

	directives in the guidance that could be prioritised? • If not, which priorities should be outlined in the definitions section? • Can the target population in the denominator be defined more specifically – are these women who have been seen by specialist services for suspected ovarian cancer? • Is there a danger that, as written, the process measure could encourage excessive tests?

5.1.2 Clinical and cost-effectiveness evidence

The GDG noted that the evidence for the staging of ovarian cancer was sparse. The GDG recognised that ultrasound is subjective and operator dependent and has limitations in detecting peritoneal disease, whereas multi-slice CT has high spatial resolution and is more sensitive for assessment of omental and peritoneal disease, and abdominal and pelvic lymph nodes. CT is the investigation of choice for staging thoracic disease. For these reasons the GDG chose CT to be the investigation of choice for staging.

MRI is less specific for establishing the extent of disease, it is less available and takes longer than CT or ultrasound. For these reasons the GDG were unable to recommend MRI for routine use.

The RCR recommendation on use of MRI for diagnosis of ovarian cancer is graded B according to the level of evidence and relevant/applicability of evidence to the clinical problem (out of possible A, B or C where A is the highest level and most relevant/applicable). The supporting evidence base included level I (the highest level) evidence.

The RCR recommendations on use of CT and MRI for staging were also graded B, and the recommendation on use of PET-CT for staging was graded C. The supporting evidence base for staging included level I evidence.

5.1.3 Patient experience

No patient experience data identified.

5.1.4 Patient safety

A patient safety incident is any unintended or unexpected incident which could have or did lead to harm for one or more patients receiving NHS care (see Appendix A). A comprehensive analysis of recent reported incidents (please see full accompanying report from the NPSA) identifies the following priority areas relating to patient safety.

- Methods of ensuring that mechanisms are in place for the appropriate communication and action on abnormal test results

- Methods of ensuring that failsafe / safety nets are in place for action on abnormal test results
- Standards for ensuring patients are aware of tests, and the appropriate way to ensure that they are informed/ aware of results.

5.1.5 Current practice

There is a dataset field on cancer imaging modality in the proposed Cancer Outcomes and Services Dataset (Draft). Available from www.ncin.org.uk Due to go to the final Information Standards Board during March 2012. If approved, the COSD will become an information standard from 1st October 2012.

5.1.6 Current indicators

None identified.

6 Diagnosis – malignancy indices

6.1 NICE CG122 recommendation 1.2.2.1 (KPI)

6.1.1 Relevant NICE recommendations and proposed quality statement

Guideline recommendations	**NICE CG122** 1.2.2.1 (KPI) Calculate a risk of malignancy index I (RMI I) score (after performing an ultrasound; see recommendation 1.2.3.1) and refer all women with an RMI I score of 250 or greater to a specialist multidisciplinary team.
Proposed quality statement	Women with suspected ovarian cancer have their risk of malignancy index I (RMI I) score calculated and those with an RMI I score of 250 or greater are referred to a specialist multidisciplinary team.
Draft quality measure	**Structure:** a) Evidence of local arrangements to ensure women with suspected ovarian cancer have an RIM I score calculated. b) Evidence of local arrangements to ensure women with an RMI I score of 250 or greater are referred to a specialist multidisciplinary team. **Process:** a) Proportion of women with suspected ovarian cancer who have a risk of malignancy index I (RMI I) score calculated. Numerator – number of people in the denominator with a calculated risk of malignancy index I (RMI I) score. Denominator – number of women with suspected ovarian cancer. b) Proportion of women with an RMI I score of 250 or greater who are referred to a specialist multidisciplinary team. Numerator – number of people in the denominator who are referred to a specialist multidisciplinary team. Denominator – number of women with an RMI I score of 250 or greater.
Question for TEG	• As with 5, can the denominator of process a) be more specific e.g. women who have been seen by specialist services for suspected ovarian cancer.

6.1.2 Clinical and cost-effectiveness evidence

The evidence for this recommendation comprised one good quality systematic review of diagnostic studies in which the reviewers appraised 109 studies of eighty-three validated risk of malignancy models. By pooling data appropriately the authors concluded that an RMI I with a cut-off score of 200 was superior in terms of sensitivity and specificity to the other comparators.

The GDG noted that there was high-quality evidence that RMI I was the most useful index at identifying women with ovarian cancer compared to other malignancy indices, but only in the secondary care setting. However the GDG recognised that although the evidence showed RMI I to be the more useful index, it did not indicate the optimum cut-off score to use for guiding management.

The GDG felt that an RMI I cut-off of 250 should be used because this would ensure access to specialist centres whilst not overburdening them with benign disease (and the additional costs associated with this).

It was also noted that the value of the cut-off score used, affected the sensitivity of RMI I relative to the specificity. For example, a low cut-off score could mean that some women who did not have ovarian cancer would be wrongly identified as positive and referred for specialist treatment. Conversely, a high cut-off score could mean that some women who did have ovarian cancer would not be identified or referred for specialist treatment.

6.1.3 Patient experience

No patient experience data identified.

6.1.4 Patient safety

A patient safety incident is any unintended or unexpected incident which could have or did lead to harm for one or more patients receiving NHS care (see Appendix A). A comprehensive analysis of recent reported incidents (please see full accompanying report from the NPSA) identifies the following priority areas relating to patient safety.

- Methods of ensuring that mechanisms are in place for the appropriate reporting of pathology samples
- Methods of ensuring that mechanisms are in place for the appropriate communication and action on abnormal test results
- Methods of ensuring that failsafe / safety nets are in place for action on abnormal test results
- Standards for ensuring patients are aware of tests, and the appropriate way to ensure that they are informed/ aware of results
- Methods of ensuring that mechanisms are in place for the support of patients between medical disciplines and care setting, especially with regard to ‘handover’ to palliative and end of life care.

6.1.5 Current practice

Healthcare Improvement Scotland (formerly Quality Improvement Scotland) has published Clinical standards: management of ovarian cancer services. Standard 2a: Investigations and Treatment recommends that once ovarian cancer is suspected, standard investigations are undertaken and results made available so that first treatment can be offered within a stated maximum time. Standard 3a: Multidisciplinary working recommends that the management of patients with ovarian cancer is multidisciplinary. Available from www.healthcareimprovementscotland.org

6.1.6 Current indicators

Department of Health (2011) The operating framework for the NHS in England 2011/12. Integrated performance measures (IPMs) for national oversight:

HQU15 - Cancer 62 day waits (aggregate)

- Part A: All cancer two month urgent referral to treatment wait
- Part C: 62-day wait for first treatment for cancer following a consultants decision to upgrade the patient priority

SQU05 (and HQU14-15) - Cancer waits (all 9 measures)

- Part A: Percentage of patients receiving first definitive treatment within one month of a cancer diagnosis (measured from 'date of decision to treat')
- Part B: 31-day standard for subsequent cancer treatments-surgery
- Part C: 31-day standard for subsequent cancer treatments-anti cancer drug regimens
- Part D: 31-day standard for subsequent cancer treatments-radiotherapy

IPMs available from www.dh.gov.uk

National Cancer Action Team (2008, updated 2011) Manual for Cancer Services: gynaecology measures – MDT structure, Lead Clinician and Core Team Membership. Available from www.cquins.nhs.uk

7 Support needs - information

7.1 NICE CG122 recommendations 1.5.1.1 (KPI) and 1.5.1.2

7.1.1 Relevant NICE recommendations and proposed quality statement

Guideline recommendations	**NICE CG122** 1.5.1.1 (KPI) Offer all women with newly diagnosed ovarian cancer information about their disease, including psychosocial and psychosexual issues, that: - is available at the time they want it - includes the amount of detail that they want and are able to deal with - is in a suitable format, including written information. 1.5.1.2 Ensure that information is available about: - the stage of the disease, treatment options and prognosis - how to manage the side effects of both the disease and its treatments in order to maximise wellbeing - sexuality and sexual activity - fertility and hormone treatment - symptoms and signs of disease recurrence - genetics, including the chances of family members developing ovarian cancer - self-help strategies to optimise independence and coping - where to go for support, including support groups - how to deal with emotions such as sadness, depression, anxiety and a feeling of a lack of control over the outcome of the disease and treatment.
Proposed quality statement	Women with ovarian cancer are offered information about the disease, including psychosocial and psychosexual issues.
Draft quality measure	**Structure:** Evidence of local arrangements to ensure women with ovarian cancer are offered information about the disease, including psychosocial and psychosexual issues. **Process:** Proportion of women with ovarian cancer who receive information about the disease, including psychosocial and psychosexual issues if welcome. Numerator – number of people in the denominator receiving information about the disease, including psychosocial and psychosexual issues if welcome. Denominator – number of women with ovarian cancer.
Questions for TEG	• How important is timing here - should information be offered at specific points on the pathway? Are there any points where it should be happening but in many cases it isn't – at diagnosis, for example? • How should 'if welcome' be handled in the process measure? If included, the denominator should only be those women wishing to receive information but this then restricts the measure to women who have already been offered information and hence

	wouldn't measure the delivery of information. Would measuring that women have been offered information be good enough?

7.1.2 Clinical and cost-effectiveness evidence

Evidence from qualitative studies suggests that most women with ovarian cancer need emotional support. The GDG placed a high value on patient support but recognised there were continuing variation and gaps in service support and delivery. The GDG felt this variation led to unmet needs which need to be overcome.

There was good quality evidence highlighting the need for the relevant information, tailored to the needs of the individual women, to be offered to women at the time that most suits their individual practical and psychological needs. The GDG noted that immediately after diagnosis, a woman's most pressing information needs related to treatment, its side effects, the disease and her prognosis. Other information including psychosocial and psychosexual issues, although important was not ranked as highly at this time. The GDG therefore felt it was important to make recommendations on both of these areas.

7.1.3 Patient experience

The National cancer patient experience survey reported the results of a number of indicators about explanations and written information received by patients with gynaecological cancers[16]. 61% of patients received written information about the type of cancer they had, 75% received an explanation and 83% received written information on the possible side effects of treatment and 71% received written information about their operation

The survey also reported 83% of patients with gynaecological cancers said they received clear written information about what they should and should not do after leaving hospital and 79% were given written information about support or self-help groups for people with cancer.

Finally 88% of patients with any type of cancer said they received enough information about their condition and treatment.

7.1.4 Patient safety

No relevant patient safety data identified.

[16] Department of Health – National Cancer Patient Experience Survey Programme (2010) 2010 National Survey Report. Available from www.dh.gov.uk

7.1.5 Current practice

The Department of Health makes it clear that all patients with cancer must have the information they need to make the right choices about their health and treatment[17].

NICE clinical guideline 122 notes that clinical nurse specialists play an important role in emotional support for women with ovarian cancer, but there is evidence that there is variation in the workloads of nurse specialists and the resources available to them. In the Pathfinder study, only 55% of the women who responded were given contact details for a clinical nurse specialist at the time of diagnosis[18]. Over a third of the women who responded (36%) were not given any contact details at all and 25% of women who responded stated that support needs go unmet. Most women who responded (84%) had access to a clinical nurse specialist at some point during their cancer journey.

The Welsh Assembly Government published National Standards for Gynaecological Cancer Services in 2005. This recommends that written information in a language and format appropriate to the patient should be offered to each new cancer patient. Available from www.wales.gov.uk

7.1.6 Current indicators

National Cancer Action Team (2008, updated 2011) Manual for Cancer Services: gynaecology measures – Provision of written patient information. Available from www.cquins.nhs.uk

[17] Department of Health (2011) Improving outcomes: a strategy for cancer. Available from www.dh.gov.uk

[18] Target Ovarian Cancer (2009) Pathfinder Study: First Results. Available from www.targetovariancancer.org.uk

8 Primary management of suspected stage I – systematic retroperitoneal lymphadenectomy (SRL)

8.1 NICE CG122 recommendations 1.3.1.1, 1.3.1.2 (KPI) and 1.3.2.1 (KPI)

8.1.1 Relevant NICE recommendations and proposed quality statement

Guideline recommendations	**NICE CG122** 1.3.1.1 Perform retroperitoneal lymph node assessment[19] as part of optimal surgical staging[20] in women with suspected ovarian cancer whose disease appears to be confined to the ovaries (that is, who appear to have stage I disease). 1.3.1.2 (KPI) Do not include systematic retroperitoneal lymphadenectomy (block dissection of lymph nodes from the pelvic side walls to the level of the renal veins) as part of standard surgical treatment in women with suspected ovarian cancer whose disease appears to be confined to the ovaries (that is, who appear to have stage I disease). 1.3.2.1 (KPI) Do not offer adjuvant chemotherapy to women who have had optimal surgical staging[13] and have low-risk stage I disease (grade 1 or 2, stage Ia or Ib).
Proposed quality statement	Women with suspected stage I ovarian cancer undergo retroperitoneal lymph node assessment as part of optimal surgical staging but do not receive systematic retroperitoneal lymphadenectomy or adjuvant chemotherapy if the assessment confirms that disease is confined to the ovaries.
Draft quality measure	**Structure:** a) Evidence of local arrangements to ensure women with suspected stage I ovarian cancer undergo retroperiotoneal lymph node assessment as part of optimal surgical staging. b) Evidence of local arrangements to ensure women whose retroperitoneal lymph node assessment confirms that the disease is confined to the ovaries do not routinely receive systematic retroperitoneal lymphadenectomy or adjuvant chemotherapy.

[19] Lymph node assessment involves sampling of retroperitoneal lymphatic tissue from the para-aortic area and pelvic side walls if there is a palpable abnormality, or random sampling if there is no palpable abnormality

[20] Optimal surgical staging constitutes: midline laparotomy to allow thorough assessment of the abdomen and pelvis; a total abdominal hysterectomy, bilateral salpingo-oophorectomy and infracolic omentectomy; biopsies of any peritoneal deposits; random biopsies of the pelvic and abdominal peritoneum; and retroperitoneal lymph node assessment [Winter Roach BA, Kitchener HC, Dickinson HO (2009) Adjuvant (post-surgery) chemotherapy for early stage epithelial ovarian cancer. Cochrane Database of Systematic Reviews issue 3: CD004706].

	Process: a) Proportion of women with suspected stage I ovarian cancer who undergo retroperitoneal lymph node assessment as part of optimal surgical staging. Numerator – number of people in the denominator undergoing retroperitoneal lymph node assessment as part of optimal surgical staging. Denominator – number of women with suspected stage I ovarian cancer. b) Proportion of women with suspected stage I ovarian cancer whose retroperitoneal lymph node assessment confirms the disease is confined to the ovaries, who do not receive systematic retroperitoneal lymphadenectomy or adjuvant chemotherapy. Numerator – number of people in the denominator not receiving systematic retroperitoneal lymphadenectomy or adjuvant chemotherapy. Denominator – number of women with suspected stage I ovarian cancer whose retroperitoneal lymph node assessment confirms the disease is confined to the ovaries.

8.1.2 Clinical and cost-effectiveness evidence

The evidence for this topic was generally of low quality, comprising two retrospective observational studies, one non-randomised comparative study and a small randomised controlled trial (RCT). Across all studies, the majority of women had stage I ovarian cancer. Only the RCT reported the incidence of post-surgical morbidity and none of the papers reported on patient quality of life. The results of survival outcomes were inconsistent between studies.

The GDG acknowledged that evidence on the basis of study quality assessed according to GRADE was limited and of poor quality. There was no demonstrable survival benefit from systematic retroperitoneal lymphadenectomy compared to lymph node sampling. They also noted that no studies reported on quality of life.

The GDG reaffirm the need for accurate staging, particularly in women with suspected early ovarian cancer, but were not convinced that the greater risks and costs of systematic retroperitoneal lymphadenectomy compared to conventional lymph node sampling were justifiable. Therefore they were unable to recommend its use in women whose disease appears to be confined to the ovaries.

8.1.3 Patient experience

No patient experience data identified.

8.1.4 Patient safety

A patient safety incident is any unintended or unexpected incident which could have or did lead to harm for one or more patients receiving NHS care (see Appendix A). A comprehensive analysis of recent reported incidents (please see full accompanying report from the NPSA) identifies the following priority areas relating to patient safety.

- Standards for ensuring patients are aware of tests, and the appropriate way to ensure that they are informed/ aware of results.

8.1.5 Current practice

There are dataset fields on number of nodes examined and number of positive nodes and fallopian, myometrium, peritoneal and surface involvement in the proposed Cancer Outcomes and Services Dataset (Draft). Available from www.ncin.org.uk Due to go to the final Information Standards Board during March 2012. If approved, the COSD will become an information standard from 1st October 2012.

8.1.6 Current indicators

None identified.

9 Primary management of suspected stage I - adjuvant systemic chemotherapy

9.1 NICE CG122 recommendations 1.3.2.2 and 1.3.2.3

9.1.1 Relevant NICE recommendations and proposed quality statement

Guideline recommendations	**NICE CG122** 1.3.2.2 Offer women with high-risk stage I disease (grade 3 or stage Ic) adjuvant chemotherapy consisting of six cycles of carboplatin. 1.3.2.3 Discuss the possible benefits and side effects of adjuvant chemotherapy with women who have had suboptimal surgical staging[21] and appear to have stage I disease.
Proposed quality statement	Women with high-risk stage I disease (grade 3 or stage Ic) are offered adjuvant chemotherapy consisting of six cycles of carboplatin and women with suspected stage I ovarian cancer and suboptimal surgical staging have the opportunity to discuss the possible benefits and side effects of adjuvant chemotherapy.
Draft quality measure	**Structure:** a) Evidence of local arrangements to ensure women with high risk stage I disease (grade 3 or stage Ic) are offered adjuvant chemotherapy consisting of six cycles of carboplatin. b) Evidence of local arrangements to ensure women with suspected stage I ovarian cancer and suboptimal surgical staging have the opportunity to discuss the possible benefits and side effects of adjuvant chemotherapy. **Process:** a) Proportion of women with high risk stage I disease (grade 3 or stage Ic) who receive adjuvant chemotherapy consisting of six cycles of carboplatin. Numerator – number of people in the denominator who receive adjuvant chemotherapy consisting of six cycles of carboplatin. Denominator – number of women with high risk stage I disease (grade 3 or stage Ic). b) Proportion of women with suspected stage I ovarian cancer and suboptimal surgical staging who participate in a discussion about the possible benefits and side effects of adjuvant chemotherapy. Numerator – number of people in the denominator participating in a discussion about the possible benefits and side effects of adjuvant chemotherapy.

[21] Optimal surgical staging constitutes: midline laparotomy to allow thorough assessment of the abdomen and pelvis; a total abdominal hysterectomy, bilateral salpingo-oophorectomy and infracolic omentectomy; biopsies of any peritoneal deposits; random biopsies of the pelvic and abdominal peritoneum; and retroperitoneal lymph node assessment [Winter Roach BA, Kitchener HC, Dickinson HO (2009) Adjuvant (post-surgery) chemotherapy for early stage epithelial ovarian cancer. Cochrane Database of Systematic Reviews issue 3: CD004706].

	Denominator – number of women with suspected stage I ovarian cancer and suboptimal surgical staging.
Question for TEG	• Can 'suboptimal surgical staging' be defined for measurement purposes?

9.1.2 Clinical and cost-effectiveness evidence

The GDG noted that there was some evidence suggesting adjuvant chemotherapy in stage I disease could reduce the risk of relapse and death from ovarian cancer. This evidence was limited and of varying quality on the basis of study quality assessed according to GRADE. The GDG was aware that there was a lack of data on both the toxicity associated with adjuvant chemotherapy and on how this affected quality of life.

In women whose risk of relapse was small the GDG felt the adverse effects and costs of adjuvant treatment would significantly outweigh any benefit from treatment and therefore did not recommend adjuvant chemotherapy.

The GDG was also aware that different women might place different personal value on the short-term adverse effects of treatment as well as on the possible long-term benefits. Therefore discussion of treatment options, as well as the option of no treatment was important.

In assessing the most effective first line chemotherapy, the GDG considered one high quality Cochrane review and a lower quality RCT. Across these studies, women had undergone primary surgery and had stage I or II ovarian cancer. The GDG noted that single agent platinum-based therapy, using 6 cycles of carboplatin, had demonstrated a survival benefit in women with early stage ovarian cancer. They were also aware that combination therapy had been shown to be more toxic than monotherapy and has not been evaluated in this setting. The GDG therefore decided to recommend 6 cycles of adjuvant carboplatin for most women.

9.1.3 Patient experience

Interviews with 48 women about their experience of ovarian cancer reported that some women were anxious because they didn't know what chemotherapy would involve[22]. A few felt discouraged because other people being treated looked very ill.

The National cancer patient experience survey reported that of those patients saying they needed an explanation, 72% said possible side effects of treatment were definitely explained to them in a way they could understand; a

[22] University of Oxford Health Experiences Research Group. Healthtalkonline – a database of personal and patient experiences. Available from www.healthtalkonline.org

further 23% said the explanation was understandable to some extent[23]. 5% said side effects were not explained to them.

9.1.4 Patient safety

No relevant patient safety data identified.

9.1.5 Current practice

There is a dataset field on chemotherapy in the proposed Cancer Outcomes and Services Dataset (Draft). Available from www.ncin.org.uk Due to go to the final Information Standards Board during March 2012. If approved, the COSD will become an information standard from 1st October 2012.

There is a dataset field on the number of cycles planned, cycle number and drug name in the proposed Systemic Anti Cancer Therapy Dataset (Draft). Available from www.ncin.org.uk SACT standard has been submitted to the Information Standards Board for full stage approval. Expectation is the standard will be mandated from April 2012 with full implementation by April 2014.

9.1.6 Current indicators

None identified.

[23] Department of Health – National Cancer Patient Experience Survey Programme (2010) 2010 National Survey Report. Available from www.dh.gov.uk

10 Diagnosis – tissue diagnosis

10.1 NICE CG122 recommendation 1.2.4.1 (KPI)

10.1.1 Relevant NICE recommendations and proposed quality statement

Guideline recommendations	**NICE CG122** 1.2.4.1 (KPI) If offering cytotoxic chemotherapy to women with suspected advanced ovarian cancer, first obtain a confirmed tissue diagnosis by histology (or by cytology if histology is not appropriate) in all but exceptional cases.
Proposed quality statement	Women offered cytotoxic chemotherapy have a confirmed tissue diagnosis by histology (or by cytology if histology is not appropriate).
Draft quality measure	**Structure:** Evidence of local arrangements to ensure women offered cytotoxic chemotherapy have a confirmed tissue diagnosis by histology (or by cytology if histology is not appropriate). **Process:** Proportion of women starting cytotoxic chemotherapy who have a confirmed tissue diagnosis by histology (or by cytology if histology is not appropriate). Numerator – number of people in the denominator with a confirmed tissue diagnosis by histology (or cytology if histology is not appropriate). Denominator – number of women starting cytotoxic chemotherapy.
Question for TEG	• Can scenarios when histology is not appropriate be clearly defined for measurement purposes?

10.1.2 Clinical and cost-effectiveness evidence

There were no studies comparing the outcomes of women with suspected versus confirmed advanced ovarian cancer treated with chemotherapy. The GDG noted that other relevant evidence consisted of small retrospective studies of moderate quality.

Evidence from case series suggests a minority of women (4–5%) with presumed advanced ovarian cancer on the basis of clinical and imaging findings will not have ovarian cancer. Thus if tissue diagnosis were omitted some women might receive inappropriate treatment.

Cytomorphology combined with immunocytochemistry had a rate of definitive diagnosis of primary tumour site in malignant effusions ranging from 57% to 87%. In comparison histopathology plus immunohistochemistry had a diagnostic rate between 93% and 97%.

The GDG felt that having a tissue diagnosis was essential to guiding future treatment, but recognised that on occasions the risks of obtaining a histological diagnosis might not be justified. In these circumstances, the use of cytological diagnosis alone will suffice but the risk of giving chemotherapy when the diagnosis might be uncertain has to be weighed against the potential risks of obtaining histological confirmation.

10.1.3 Patient experience

No patient experience data identified.

10.1.4 Patient safety

A patient safety incident is any unintended or unexpected incident which could have or did lead to harm for one or more patients receiving NHS care (see Appendix A). A comprehensive analysis of recent reported incidents (please see full accompanying report from the NPSA) identifies the following priority areas relating to patient safety.

- Methods of ensuring that mechanisms are in place for the appropriate reporting of pathology samples
- Methods of ensuring that mechanisms are in place for the appropriate communication and action on abnormal test results
- Methods of ensuring that failsafe / safety nets are in place for action on abnormal test results
- Standards for ensuring patients are aware of tests, and the appropriate way to ensure that they are informed/ aware of results.

10.1.5 Current practice

There is a dataset field on the basis of diagnosis in the proposed Cancer Outcomes and Services Dataset (Draft). Available from www.ncin.org.uk Due to go to the final Information Standards Board during March 2012. If approved, the COSD will become an information standard from 1st October 2012.

10.1.6 Current indicators

None identified.

11 Primary management of stage II-IV – primary surgery

11.1 NICE CG122 recommendation 1.4.1.1

11.1.1 Relevant NICE recommendations and proposed quality statement

Guideline recommendations	NICE CG122 1.4.1.1 If performing surgery for women with ovarian cancer, whether before chemotherapy or after neoadjuvant chemotherapy, the objective should be complete resection of all macroscopic disease
Proposed quality statement	Women with ovarian cancer undergoing surgery have all macroscopic disease resected.
Draft quality measure	**Structure:** Evidence of local arrangements to ensure women with ovarian cancer undergoing surgery have all macroscopic disease resected. **Process:** Proportion of women with ovarian cancer undergoing surgery, who have all macroscopic disease resected. Numerator – number of women in the denominator receiving complete resection of all macroscopic disease Denominator – number of women with ovarian cancer undergoing surgery
Questions for TEG	• Considering the desire to measure surgical effectiveness, and the possibility of selection bias, should the process denominator: i. be restricted to women undergoing surgery OR ii. be expanded to all women with ovarian cancer? If ii, would we need to define exclusions in some way? • How will 'complete resection of all macroscopic disease' be defined for measurement purposes?

11.1.2 Clinical and cost-effectiveness evidence

The evidence for this topic was limited and consisted of two Cochrane systematic reviews and two small RCTs which dealt with different aspects of surgery. The total number of women across studies was 1,206 and all but stage I disease was represented. None of the studies addressed patient quality of life.

The GDG noted that the evidence, using the GRADE quality assessment tool, concerning surgery was limited, of poor quality, contradictory and open to interpretation. Therefore the GDG made recommendations for further research into the effectiveness of surgery.

The GDG noted that in one RCT, the primary surgery had been performed by gynaecological oncologists, and interval debulking surgery conferred no significant overall survival benefit. In the two other RCTs the primary operations were predominantly performed by general surgeons or gynaecologists in various hospitals and the sub-group met-analysis interval debulking surgery performed in this group of patients appeared to confer a survival benefit.

This might suggest a value for cytoreductive surgery when done properly but the authors of the analysis emphasised that these results have to be interpreted with caution.

11.1.3 Patient experience

Interviews with 48 women about their experience of ovarian cancer reported women saying that before surgery they had been worried about pain, the side effects of anaesthetic and what the scar would be like, but most had been impressed with the pain control and the speed of healing[24]. Sometimes the cancer had spread too much to enable all the affected tissues to be removed.

11.1.4 Patient safety

No relevant patient safety data identified.

11.1.5 Current practice

The Department of Health highlights the recording of major resection rates as a key area for future analysis[25].

There is a dataset field on excision margins in the proposed Cancer Outcomes and Services Dataset (Draft). Available from www.ncin.org.uk Due to go to the final Information Standards Board during March 2012. If approved, the COSD will become an information standard from 1st October 2012.

11.1.6 Current indicators

None identified.

[24] University of Oxford Health Experiences Research Group. Healthtalkonline – a database of personal and patient experiences. Available from www.healthtalkonline.org

[25] Department of Health (2011) Improving outcomes: a strategy for cancer. Available from www.dh.gov.uk

12 Primary management of stage II-IV – clinical trials

12.1 NICE CG122 recommendation 1.4.2.1

12.1.1 Relevant NICE recommendations and proposed quality statement

Guideline recommendations	**NICE CG122** 1.4.2.1 Do not offer intraperitoneal chemotherapy to women with ovarian cancer, except as part of a clinical trial.
Proposed quality statement	Women with advanced ovarian cancer have access to appropriate clinical trials.
Draft quality measure	**Structure:** Evidence of local arrangements to ensure women with advanced ovarian cancer have access to appropriate clinical trials. **Process:** Proportion of eligible women with advanced ovarian cancer who participate in appropriate clinical trial(s). Numerator – number of people in the denominator participating in appropriate clinical trial. Denominator – number of women with advanced ovarian cancer eligible for clinical trials.
Questions for TEG	• This principle was discussed at the scoping meeting. The intent of the quality statement is different to that of the source recommendation. What is the evidence base for this quality statement? • There is a lot related to trial activity as part of both NCRN and Peer review processes. Does this quality statement duplicate what already exists?

12.1.2 Clinical and cost-effectiveness evidence

The evidence for this topic comprises two high quality systematic reviews and one RCT. The two systematic reviews included meta-analyses of data from the same RCTs but both reviews were appraised because the authors reported different survival outcomes. The majority of data compared the use of standard intravenous chemotherapy with chemotherapy regimens incorporating a component of intra-peritoneal drug delivery for the first line adjuvant treatment of primary ovarian cancer.

High quality evidence from pooled data from up to eight trials suggested that chemotherapy given directly into the peritoneal cavity as part of adjuvant treatment, may significantly reduce the risk of death and disease recurrence, an effect also seen after five years of follow-up. However, incidences of pain, fever, fatigue, hearing loss, infection and gastrointestinal and metabolic

effects occurred up to eight times more frequently in women receiving intra-peritoneal chemotherapy. The one exception to this observation was the incidence of cardiovascular effects which were not significantly different between study arms. Health-related quality of life was measured in one trial and found to be significantly worse for women receiving intra-peritoneal chemotherapy in the early days of treatment and shortly (3 to 6 weeks) after all study treatment, but a difference between study arms was not apparent after one year of follow-up.

The GDG placed a high value on improving the outcomes of disease-free and overall survival, both of which were shown to benefit from the use of intra-peritoneal chemotherapy compared to standard intravenous chemotherapy. However, the GDG recognised that intra-peritoneal chemotherapy was associated with more toxicity/adverse events than standard intravenous chemotherapy and that one study had shown health-related quality of life to be adversely affected by intraperitoneal chemotherapy in the short term. The GDG also recognised that the administration of intra-peritoneal chemotherapy was more complex and more expensive than that for standard intravenous chemotherapy.

Although there was high-quality evidence (assessed according to GRADE analysis) on the use of intra-peritoneal chemotherapy, the GDG noted that the studies did not investigate intra-peritoneal administration of drugs given intravenously in current standard UK regimens. There was also a lot of heterogeneity in the studies making it difficult to draw robust conclusions from the evidence. In addition, only one study presented quality of life data and so it was difficult to know if these data were representative. Based on this the GDG did not feel able to recommend the use of intra-peritoneal chemotherapy outside of clinical trials.

12.1.3 Patient experience

No patient experience data identified.

12.1.4 Patient safety

No relevant patient safety data identified.

12.1.5 Current practice

The Target Ovarian Cancer pathfinder study reported 61% of women were not offered access to a clinical trial[26]. As a result this issue was highlighted in the

[26] Target Ovarian Cancer (2009) Pathfinder Study: First Results. Available from www.targetovariancancer.org.uk

six simple steps campaign as one of the steps to ensure women have equitable access to clinical trials.

Access to clinical trials was highlighted in the 2003 SIGN clinical guideline which reported recruitment to clinical trials is often limited with only a small proportion of ovarian cancer patients receiving treatment as part of a clinical trial[27].

There is a dataset field on clinical trial status in the proposed Cancer Outcomes and Services Dataset (Draft). It offers two values: EE – eligible, consented and entered; ED – eligible, declined trial. The NHS data dictionary does not specify whether declined means the patient declined to be entered or the patient was declined entry. If it is the former, this measure will be a measure of patient choice but not access. Available from www.ncin.org.uk Due to go to the final Information Standards Board during March 2012. If approved, the COSD will become an information standard from 1st October 2012.

In 2005, the Welsh Assembly Government published National Standards for Gynaecological Cancer Services. These recommend that patients should be given the opportunity to enter approved clinical trials for which they fulfil the criteria. Available from www.wales.gov.uk

12.1.6 Current indicators

National Cancer Action Team (2008, updated 2011) Manual for Cancer Services: gynaecology measures – Annual discussion of clinical trials and Agreed list of approved trials. Available from www.cquins.nhs.uk

[27] Scottish Intercollegiate Guidelines Network (SIGN) (2003) 75: Epithelial ovarian cancer: a national clinical guideline – update expected Winter 2012 to incorporate new evidence on intraperitoneal chemotherapy, the role of platinum agents in first-line therapy, second-line therapy or relapsed disease.

13 Access to NICE-approved drugs

13.1 NICE TA222, 91, 55 and guidance pending

13.1.1 Relevant NICE recommendations and proposed quality statement

Guideline recommendations	(See source documents - full technology appraisals not reproduced here as TEG agreed not to consider specific recommendations).
Proposed quality statement	Women with ovarian cancer have access to appropriate NICE-approved treatments.
Draft quality measure	**Structure:** Evidence of local arrangements to ensure women with ovarian cancer have access to appropriate NICE-approved treatments. **Process:** Proportion of women with ovarian cancer who receive appropriate NICE-approved treatments. Numerator – number of people in the denominator receiving appropriate NICE-approved treatments. Denominator – number of women with ovarian cancer.
Question for TEG	• As access to drug treatment is being managed through networks (access to NICE approved drugs and cancer drugs fund). Should the process/structure measures reflect this activity, and how might this be presented?

13.1.2 Clinical and cost-effectiveness evidence

Various clinical and cost-effectiveness evidence published and ongoing from NICE Technology Appraisals programme. See introduction for current list.

NICE Technology Appraisal recommendations are based on a review of clinical evidence (how well the medicine or treatment works) and economic evidence (how well the medicine or treatment works in relation to how much it costs the NHS - does it represent value for money?).

13.1.3 Patient experience

No patient experience data identified.

13.1.4 Patient safety

No relevant patient safety data identified.

13.1.5 Current practice

The Target Ovarian Cancer, six simple steps campaign includes one step to ensure women have equitable access to new treatments.

There is a dataset field on chemotherapy in the proposed Cancer Outcomes and Services Dataset (Draft). Available from www.ncin.org.uk Due to go to the final Information Standards Board during March 2012. If approved, the COSD will become an information standard from 1st October 2012.

There is a dataset field on drug name in the proposed Systemic Anti Cancer Therapy Dataset (Draft). Available from www.ncin.org.uk SACT standard has been submitted to the Information Standards Board for full stage approval. Expectation is the standard will be mandated from April 2012 with full implementation by April 2014.

13.1.6 Current indicators

None identified.

Appendix A: Definition of patient safety

The National Patient Safety Agency (NPSA) defines patient safety in the following terms:

Every day more than a million people are treated safely and successfully in the NHS, but the evidence tells us that in complex healthcare systems things will and do go wrong, no matter how dedicated and professional the staff. When things go wrong, patients are at risk of harm, and the effects are widespread and often devastating for patients, their families and the staff involved. Safety incidents also incur costs through litigation and extra treatment, and in 2009/10 the NHSLA paid out approximately £827, 000,000 in litigation costs and damages. These incidents are often caused by poor system design rather than the error of individuals i.e. 'they are an accident waiting to happen'.

In short patient safety could be summarised as 'The identification and reduction of risk and harm associated with the care provided to patients 'or 'Preventing patients from being harmed by their treatment'. Examples of this might be 'operating on or removing the wrong organ, ten times the dose of an opioid, giving a colonoscopy to the wrong patient with the same name as someone else in the waiting room etc.' These risks are unlikely to be identified through clinical trials or traditional evidence bases and so other evidence sources, such as the National Reporting and Learning System, need to be analysed to highlight the risks and improve system development. This does not however give an accurate picture of prevalence in that way that methods such as casenote review may do.